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

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2022
Or
☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to
Commission File Number 001-34278

BROADWIND

BROADWIND, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**88-0409160**
(State of or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
3240 S. Central Avenue Cicero, Illinois	**60804**
(Address of principal executive offices)	(Zip code)

Securities registered pursuant to Section 12 (b) of the Exchange Act: Registrant's telephone number, including area code: **(708) 780-4800**

Title of Class	Trading Symbol	Name of Exchange on which Registered
Common Stock, $0.001 par value	BWEN	The Nasdaq Capital Market

Indicate by check mark whether 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 15(d) of the Exchange 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 Exchange Act 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 to comply 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. ☐

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

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). ☐

As of June 30, 2022 the aggregate market value of the Registrant's voting common stock held by non-affiliates of the Registrant was approximately $29,365,000, based upon the $1.64 per share closing sale price of the Registrant's common stock as reported on the NASDAQ Capital Market. For purposes of this calculation, the Registrant's directors and executive officers and holders of 5% or more of the Registrant's outstanding shares of voting common stock have been assumed to be affiliates, with such affiliates holding an aggregate of 2,565,000 shares of the Registrant's voting common stock on June 30, 2022.

The number of shares of the Registrant's common stock, par value $0.001, outstanding as of March 6, 2023, was 20,853,193.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement for the Registrant's 2023 Annual Meeting of Stockholders are incorporated by reference in Part III of this Form 10-K.

BROADWIND, INC.

FORM 10-K

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PART I

Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K ("Annual Report") contains "forward looking statements"— that is, statements related to future, not past, events— as defined in Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that reflect our current expectations regarding our future growth, results of operations, financial condition, cash flows, performance, business prospects and opportunities, as well as assumptions made by, and information currently available to, our management. We have tried to identify forward looking statements by using words such as "anticipate," "believe," "expect," "intend," "will," "should," "may," "plan" and similar expressions, but these words are not the exclusive means of identifying forward looking statements. Forward looking statements include any statement that does not directly relate to a current or historical fact. Our forward-looking statements may include or relate to our beliefs, expectations, plans and/or assumptions with respect to the following, many of which are, and will be, amplified by the COVID-19 pandemic: (i) the impact of global health concerns, including the impact of the current COVID-19 pandemic on the economies and financial markets and the demand for our products; (ii) state, local and federal regulatory frameworks affecting the industries in which we compete, including the wind energy industry, and the related extension, continuation or renewal of federal tax incentives and grants and state renewable portfolio standards as well as new or continuing tariffs on steel or other products imported into the United States; (iii) our customer relationships and our substantial dependency on a few significant customers and our efforts to diversify our customer base and sector focus and leverage relationships across business units; (iv) the economic and operational stability of our significant customers and suppliers, including their respective supply chains, and the ability to source alternative suppliers as necessary, in light of the COVID-19 pandemic; (v) our ability to continue to grow our business organically and through acquisitions, and the impairment thereto by the impact of the COVID-19 pandemic; (vi) the production, sales, collections, customer deposits and revenues generated by new customer orders and our ability to realize the resulting cash flows; (vii) information technology failures, network disruptions, cybersecurity attacks or breaches in data security, including with respect to any remote work arrangements implemented in response to the COVID-19 pandemic; (viii) the sufficiency of our liquidity and alternate sources of funding, if necessary; (ix) our ability to realize revenue from customer orders and backlog; (x) our ability to operate our business efficiently, comply with our debt obligations, manage capital expenditures and costs effectively, and generate cash flow; (xi) the economy, including its stability in light of the COVID-19 pandemic, and the potential impact it may have on our business, including our customers; (xii) the state of the wind energy market and other energy and industrial markets generally and the impact of competition and economic volatility in those markets; (xiii) the effects of market disruptions and regular market volatility, including fluctuations in the price of oil, gas and other commodities; (xiv) competition from new or existing industry participants including, in particular, increased competition from foreign tower manufacturers; (xv) the effects of the change of administrations in the U.S. federal government; (xvi) our ability to successfully integrate and operate acquired companies and to identify, negotiate and execute future acquisitions; (xvii) the potential loss of tax benefits if we experience an "ownership change" under Section 382 of the Internal Revenue Code of 1986, as amended; (xviii) our ability to utilize various relief options enabled by the CARES Act; (xix) the limited trading market for our securities and the volatility of market price for our securities; and (xx) the impact of future sales of our common stock or securities convertible into our common stock on our stock price. These statements are based on information currently available to us and are subject to various risks, uncertainties and other factors that could cause our actual growth, results of operations, financial condition, cash flows, performance, business prospects and opportunities to differ materially from those expressed in, or implied by, these statements. We are under no duty to update any of these statements. You should not consider any list of such factors to be an exhaustive statement of all of the risks, uncertainties or other factors that could cause our current beliefs, expectations, plans and/or assumptions to change. Accordingly, forward-looking statements should not be relied upon as a predictor of actual results.

(Dollar amounts are presented in thousands, except per share data and unless otherwise stated)

ITEM 1. BUSINESS

As used in this Annual Report, the terms "we," "us," "our," "Broadwind" and the "Company" refer to Broadwind, Inc., a Delaware corporation headquartered in Cicero, Illinois, and its wholly-owned subsidiaries (the "Subsidiaries"). Dollars are presented in thousands unless otherwise stated.

Business Overview

Broadwind is a precision manufacturer of structures, equipment and components for clean technology and other specialized applications. We provide technologically advanced high value products to customers with complex systems and stringent quality standards that operate in energy, mining and infrastructure sectors, primarily in the United States of America (the "U.S."). Our capabilities include but are not limited to the following: heavy fabrications, welding, metal rolling, coatings, gear cutting and shaping, gearbox manufacturing and repair, heat treat, assembly, engineering and packaging solutions.

We were incorporated in 1996 in Nevada as Blackfoot Enterprises, Inc., and through a series of subsequent transactions, became Broadwind Energy, Inc., a Delaware corporation, in 2008. Through acquisitions in 2007 and 2008, we focused on expanding upon our core platform as a wind tower manufacturer, established our Gearing segment, and developed and broadened our industrial fabrications capabilities. In early 2017, we acquired Red Wolf Company, LLC, a kitter and assembler of industrial components primarily supporting the global gas turbine market. In 2020, we rebranded to Broadwind, Inc., a reflection of our diversification progress to date and our continued strategy to expand our product and customer diversification outside of wind energy. Effective with our 2020 rebranding, we renamed certain segments. Our Towers and Heavy Fabrications segment was renamed to Heavy Fabrications and our Process Systems segment was renamed to Industrial Solutions. Our Gearing segment name remained the same.

Heavy Fabrications

We provide large, complex and precision fabrications to customers in a broad range of industrial markets. Our most significant presence is within the U.S. wind energy industry, although we have diversified into other industrial markets in order to improve our capacity utilization, reduce our customer concentration, and reduce our exposure to uncertainty related to governmental policies currently impacting the U.S. wind energy industry. Within the U.S. wind energy industry, we provide steel towers and repowering adapters primarily to wind turbine manufacturers. Our production facilities, located in Manitowoc, Wisconsin and Abilene, Texas, are situated in close proximity to the primary U.S. domestic wind energy and equipment manufacturing hubs. The two facilities have a combined annual tower production capacity of up to approximately 550 towers (1650 tower sections), sufficient to support turbines generating more than 1,100 MW of power. We have expanded our production capabilities and leveraged our manufacturing competencies, including welding, lifting capacity and stringent quality practices, into aftermarket and original equipment manufacturer ("OEM") components utilized in surface and underground mining, construction, material handling, oil and gas ("O&G") and other infrastructure markets. We manufacture components for buckets, shovels, car bodies, drill masts and other products that support mining and construction markets. In other industrial markets, we provide crane components, pressure vessels, frames and other structures.

Gearing

We provide gearing and gearboxes to a broad set of customers in diverse markets including; onshore and offshore O&G fracking and drilling, surface and underground mining, wind energy, steel, material handling, infrastructure, marine and other industrial markets. We provide gearbox repair services and have manufactured loose gearing, gearboxes and systems, and provided heat treat services for aftermarket and OEM applications for nearly a century. While a significant portion of our business is manufactured to our customer's specifications, we employ design and metallurgical engineers to meet our customer's stringent quality requirements, to improve product performance, and reliability and to develop custom products that are integrated into our customer's product offerings.

Industrial Solutions

We provide supply chain solutions, light fabrication, inventory management, kitting and assembly services, primarily serving the combined cycle natural gas turbine market. We have recently expanded our market reach into the solar power generation market by leveraging our existing core competencies. We leverage a global supply chain to provide instrumentation & controls, valve assemblies, sensor devices, fuel system components, electrical junction boxes & wiring, energy storage services and electromechanical devices. We also provide packaging solutions and fabricate panels and sub-assemblies to reduce our customers' costs, improve manufacturing velocity and reliability.

The following table summarizes the key markets served and product offering of our three segments:

Segment	Heavy Fabrications	Gearing	Industrial Solutions
Key Markets Served	-Wind Power Generation	-Onshore & Offshore	-Combined Cycle Natural
	-Surface and Underground Mining	Oil and Gas Fracking/Drilling	Gas Power Generation
	-Material Handling	-Surface and Underground Mining	-Solar Power Generation
	-Oil and Gas	-Steel Production	-Wind Power Generation
	-Construction	-Infrastructure	
	-Infrastructure	-Wind Power Generation	
		-Pulp and Paper	
		-Material Handling	
		-Marine	
		-Waste Processing	

Products	-Wind Towers	-Loose Gearing	-Supply Chain Solutions
	-Industrial Fabrications:	-Custom Gearboxes	-Inventory Management
	Mining Components	-Gearbox Repair	-Kitting and Assembly
	Crane Components	-Heat Treat Services	-Solar Inverter Racks
	Pressure Reducing Systems		-Solar Powered Shelters/Charging Stations
	Other Frames/Structures		
	Pressure Vessels		

Business and Operating Strategy

We intend to capitalize on the markets for wind energy, gas turbines, O&G, mining, and other industrial verticals in North America by leveraging our core competencies in welding, manufacturing, assembling and kitting. Our strategic objectives include the following, many of which are subject to risks and uncertainties that are, and have been, exacerbated by the COVID-19 pandemic and any worsening of the global business and economic environment as a result:

- ***Diversify our customer and product line concentrations***. In 2022, sales derived from our top five customers represented 69% of total sales and sales into the wind energy industry represented 48% of total sales. This is an improvement as compared to 2017, when our top five customers comprised 85% of total sales and sales in the wind energy industry represented 72% of total sales. To reduce the concentration of our sales, we have focused our product development activities and our sales force on expanding and diversifying our customer base and product lines. We are leveraging existing customer relationships within each of our segments to cross sell our broad portfolio of capabilities. We utilize a stage gate model for new product development, which provides a framework for evaluating opportunities and commercialization. Additionally, we continue to use new customer and product revenues as metrics within our variable executive compensation programs. Our diversification efforts are impacted in part by the end-market demand outlook.

- ***Improve capacity utilization and broaden our manufacturing capabilities***. Subject to labor availability, we have manufacturing capacity available that could support a significant increase in our annual revenues for heavy fabrications, gearing and industrial solutions. We are working to improve our capacity utilization and financial results by leveraging our existing manufacturing capacity and adjusting capacity where we can, in response to changing market conditions. In our Heavy Fabrications segment, we have expanded production capabilities and leveraged our fabrication competencies to support growth in mining, material handling, and other industrial markets.

- ***Pursue opportunistic acquisitions as well as organic investments.*** In addition to existing business and operating strategies, we are endeavoring to identify, and opportunistically execute on, accretive acquisitions and organic investments that will allow us to achieve further growth. Our investment criteria for opportunistic acquisitions as well as organic investments include, among other things, our ability to: improve manufacturing competencies, support our existing capacity utilization strategy, enhance our diversification strategy and/or augment our penetration into renewable markets. Additionally, we are developing new variations of our Pressure Reducing Systems ("PRS") unit which supplies compressed natural gas to regions without established infrastructure as part of the virtual pipeline. We believe that execution of our investment strategy provides significant opportunity to generate stockholder value, through profitable growth and leveraging a significant unrealized economic asset, over $288 million of net operating losses ("NOLs") as of December 31, 2022 which can be used to cover future prospective tax liabilities.

- ***Streamline front-end processes to operational efficiency***. We believe that the proper coordination and integration of the supply chain, consistent use of systems to manage our production activities and "Continuous Improvement" initiatives are key factors that enable high operating efficiencies, increased reliability, better delivery and lower costs. We utilize robust Advanced Product Quality Processes (APQP) to support the introduction of new products. We have developed better supply chain expertise, worked with lean enterprise resources, upgraded and improved systems utilization and invested capital to enhance our operational efficiency and flexibility. We have implemented scheduling software and have expanded our engineering organization to support the growing complexity of our expanded customer base and product lines. We have staffed our operations with Continuous Improvement experts in order to optimize our production processes to increase output, leverage our scale and lower our costs while maintaining product quality. During 2022 and 2021, supply chain and staffing constraints caused by the COVID-19 pandemic resulted in increased manufacturing inefficiencies.

SALES AND MARKETING

We market our heavy fabrications, gearing, and industrial solutions through a direct sales force, supplemented with independent sales agents in certain markets. Our sales and marketing strategy is to develop and maintain long-term relationships with our existing customers, and seek opportunities to expand these relationships across our business units. Our business development team uses market data, including marketing databases, information gathered at industry and trade shows, internet research and website marketing to identify and target new customers.

CUSTOMERS

We manufacture products for a variety of customers in the wind energy, O&G, gas turbine, mining, and other industrial markets. Within the wind energy industry, our customer base consists primarily of wind turbine manufacturers who supply end users and wind farm operators with wind turbines, and wind gearbox re-manufacturers who use our replacement gears in their replacement gearboxes. The wind turbine market is very concentrated. According to Wood Mackenzie Power & Renewables 2022 industry data, the top four wind turbine manufacturers comprised approximately 90% of the U.S. market. As a result, although we have historically produced towers for a broad range of wind turbine manufacturers, in any given year a limited number of customers have accounted for the majority of our revenues. Within the O&G and mining industries, our customer base consists of manufacturers of hydraulic fracturing and mud pumps, drilling and production equipment, mining equipment, and off highway vehicles. Within the gas turbine industry, our customers supply end-users with natural gas turbines and after-market replacement and efficiency upgrade packages. Within our other industrial markets served, our customer base includes steel producers, ship builders, and manufacturers of material handling, pulp and paper and other power generation equipment. Sales to Siemens Gamesa Renewable Energy ("SGRE") and GE Renewable Energy each represented greater than 10% of our consolidated revenues for the years ended December 31, 2022 and 2021. The loss of one of these customers could have a material adverse effect on our business, results of operation or financial condition. As a result, we have an ongoing initiative to diversify our customer base.

COMPETITION

Each of our businesses faces competition from both domestic and international companies. In recent years, the industrial gearing industry has experienced consolidation of producers and acquisitions by strategic buyers in response to strong international competition, although recent tariff and supply chain uncertainties have caused buyers to shift more of their purchases to domestic gear manufacturers.

Within the wind tower product line of our Heavy Fabrications segment, the largest North American based competitor is Arcosa Inc., which was formerly a Trinity Industries company. Other competitors include C.S. Wind, a South Korean Company, Marmen Industries, a Canadian company, and GRI Renewable Industries, a Spanish company, each of which have production facilities in the U.S. We also face competition from imported towers, although in recent years a number of trade cases have periodically significantly reduced competition from imports.

Imports from China and Vietnam have declined following a determination by the U.S. International Trade Commission ("USITC") in 2013 that wind towers from those countries were being sold in the U.S. at less than fair value. As a result of the determination, the U.S. Department of Commerce ("USDOC") issued antidumping and countervailing duty orders on imports of wind towers from China and an antidumping duty order on imports of towers from Vietnam. In May 2018, the U.S. Court of Appeals affirmed the decision from the U.S. Court of International Trade and at the same time excluded CS Wind Vietnam from the antidumping order. In April 2019, the USDOC extended the term of these duties for an additional five-year period. Following a renewed surge of tower imports from countries not impacted by existing tariffs, in July 2020, the USDOC issued antidumping and countervailing duty orders on imports of wind towers from Canada, Indonesia, and Vietnam and an antidumping order on imports of towers from Korea. Then in September 2020, a new trade case was brought before the USDOC and USITC, to assess whether wind towers imported from India, Malaysia, and Spain were being sold in the U.S. at less than fair value. The USDOC and USITC issued affirmative final determinations in all three antidumping (India, Malaysia, and Spain) and two countervailing duty cases (India and Malaysia). The USDOC imposed orders for two cases in August 2021 and the remainder in December 2021. Appeals of several of the USDOC determinations are currently pending at the CIT and the CAFC.

Within our industrial fabrications product line of our Heavy Fabrications segment, our competitors in a fragmented market include Weldall Manufacturing and AT&F Advanced Metals, along with a large number of other regional competitors. The primary differentiator among fabricators is the range of manufacturing and machining capabilities, including lifting capacity, precision machining, heat treatment capacity and the sophistication of quality systems.

In our Gearing segment, which is focused on O&G, wind energy, mining and steel markets, we compete with domestic and international manufacturers who produce gears greater than one meter in diameter. Our key competitors include Overton Chicago Gear, Cincinnati Gearing Systems, Milwaukee Gear and Horsburgh & Scott. In addition, we compete with the internal gear manufacturing capacity of relevant equipment manufacturers and face competition from foreign competitors.

In our Industrial Solutions segment, which is primarily focused on the gas turbine market, we compete with electrical supply distributors. Our key competitors include Gexpro and other small independent companies.

REGULATION

Production Tax Credit/Investment Tax Credit

The most impactful development incentive for our products has been the production tax credit ("PTC") for new wind energy projects, which provides federal income tax credits based on electricity produced from qualifying wind turbines. Legislative support for the PTC has been intermittent since its introduction in 1992, which has caused volatility in the demand for new wind energy projects.

In December 2020, the Consolidated Appropriations Act of 2021 ("COVID IV"), a $2.3 trillion spending bill that combines a $1.4 trillion omnibus spending bill for federal fiscal year 2021 with $900 billion in stimulus relief for the COVID-19 pandemic was signed into law. As part of COVID IV, the PTC was extended for an additional year, allowing for a 60% credit for projects that start construction by the end of 2021. In order to benefit from the PTC, qualifying projects must either be completed within four years from their start of construction, or the developer must demonstrate that its projects are in continuous construction between start of construction and completion. As a result of COVID IV, the PTC will subsidize wind projects commenced as late as 2021 and completed by 2025, or later if continuous construction can be demonstrated. Included in COVID IV is the addition of a new 30% investment tax credit ("ITC") created for offshore wind projects that start construction by the end of 2025. The provision will retroactively apply to projects that started production in 2016.

On August 16, 2022, the Inflation Reduction Act ("IRA") was enacted to reduce inflation and promote clean energy in the United States. The IRA modifies and extends the PTC until the later of 2032 or when greenhouse gas emissions have been reduced by 75% compared to 2022. It provides for tax credits up to a maximum of 30%, adjusted for inflation annually, for electricity generated from qualified renewable energy sources where taxpayers meet prevailing wage standards and employ a sufficient proportion of qualified apprentices from registered apprenticeship programs. It also provides a bonus credit for qualifying clean energy production in energy communities.

The IRA also includes advanced manufacturing tax credits for manufacturers of eligible components, including wind and solar components ("45X credits"). Manufacturers qualify for the 45X credits based on the electricity output for each component produced and sold in the US starting in 2023 through 2032. The credit amount varies based on the eligible component, which includes solar components, wind energy components, inverters, qualifying battery components, and critical minerals. Tower manufacturers are eligible for credits of $0.03 per watt for applicable components produced. Manufacturers can apply to the Internal Revenue Service for cash refunds of the 45X credits for up to five years. After the first five years, the 45X credits are transferable and can be sold to third parties for cash. We are waiting for the Internal Revenue Service and the U.S. Treasury Department to provide implementation guidance for the legislation.

Investment in Infrastructure

In November 2021, the federal Infrastructure Investment and Jobs Act ("IIJA") was signed into law. The IIJA provides for $548 billion in new infrastructure spending over the next five years and $650 billion in previously allocated funds. The IIJA allocated $62 billion to the Department of Energy for various projects focused on clean energy resources and expanding renewable energy. However the timing of the award of projects funded by the IIJA is uncertain thus the impact on our business is uncertain.

Occupational Safety and Health Administration

Our operations are subject to regulation of health and safety matters by the U.S. Occupational Safety and Health Administration. We believe that we take appropriate precautions to protect our employees and third parties from workplace injuries and harmful exposure to materials handled and managed at our facilities. However, claims asserted in the future against the Company for work-related injury or illnesses could increase our costs.

Environmental

Our operations are subject to numerous federal, state and local environmental laws and regulations. Although it is our objective to maintain compliance with these laws and regulations, it may not be possible to quantify with certainty the potential impact of actions involving environmental matters, particularly remediation and other compliance efforts that we may undertake in the future.

BACKLOG

We sell our towers under either supply agreements or individual purchase orders (“POs”), depending on the size and duration of the purchase commitment. Under the supply agreements, we typically receive a purchase commitment for towers to be delivered in future fiscal quarters, then receive POs on a periodic basis depending upon the customer’s forecast of production volume requirements within the contract terms. For our Gearing and Industrial Solutions segments, sales are generally based on individual POs. As of December 31, 2022, the dollar amount of our backlog believed to be firm was approximately $297 million. This represents a 179% increase from the backlog at December 31, 2021. Backlog as of December 31, 2022 and 2021 is net of revenue recognized over time as described in Note 2, “Revenues” of our consolidated financial statements.

SEASONALITY

The majority of our business is not affected by seasonality.

EMPLOYEES

We had 499 U.S.-based employees at December 31, 2022, of which 451 were in manufacturing related functions and 48 were in administrative functions. As of December 31, 2022, approximately 19% of our employees were covered by collective bargaining agreements with local unions in our Cicero, Illinois and Neville Island, Pennsylvania locations. We anticipate that the collective bargaining agreements with our union members will be renewed through contract renegotiation near the contract expiration dates, although there can be no assurance that any such agreements will be concluded. The collective bargaining agreement with the Neville Island union was renegotiated in November 2022 and is expected to remain in effect through October 2026. A four-year collective bargaining agreement in regards to the Cicero, Illinois facility was negotiated in February 2022 and is expected to remain in effect through February 2026. We believe that our relationship with our employees is generally positive. The table below summarizes our employees as of December 31, 2022:

Segment	Number of Employees As of December 31, 2022
Heavy Fabrications	309
Gearing	134
Industrial Solutions	42
Corporate	14
Total	499

RAW MATERIALS

The primary raw material used in the construction of heavy fabrication and gearing products is steel in the form of plate, bar stock, forgings and castings. The market for tower steel and internal packages has become increasingly globalized. Although we are generally responsible for procurement of the raw materials, our global tower customers often negotiate the prices and terms for purchases, and, through a “directed buy”, we purchase under these agreements. We then pass the raw material cost through to our end customer plus a conversion margin.

Outside of these directed buys, we operate a multiple supplier sourcing strategy and source our raw materials through various suppliers located throughout the U.S. and abroad. We do not have long term supply agreements with our raw material suppliers, and closely match terms with those of our customers to limit our exposure to commodity price fluctuations. We have made modifications to our supply chain management practices to deal more effectively with potential disruptions arising from these purchasing practices.

Although we have been affected by global supply chain issues that are at least partially a result of the COVID-19 pandemic, we believe that we will be able to obtain an adequate supply of steel and other raw materials in 2023 to meet our manufacturing requirements. From time to time we have faced shortages of specific grades of steel, internal packages and delays associated with other materials from foreign sources including shortages and delays resulting from the impact of the COVID-19 pandemic.

QUALITY CONTROL

We have a long-standing focus on processes for ensuring the manufacture of high-quality products. To achieve high standards of production and operational quality, we implement strict and extensive quality control and inspections throughout our production processes. We maintain internal quality controls over all core manufacturing processes and carry out quality assurance inspections at the completion of each major manufacturing step to ensure the quality of our products. The manufacturing process at our Gearing segment, for example, involves transforming forged steel into precision gears through cutting, heat treating, testing and finishing. We inspect and test raw materials before they enter the assembly process, retest the raw materials after rough machining, test the functioning of gear teeth and cores after thermal treatment and accuracy test final outputs for compliance with product specifications. We believe our investment in industry leading heat treatment, high precision machining, specialized grinding technologies and cutting-edge welding has contributed to our high product reliability and the consistent performance of our products under varying operating conditions. All of our core operating facilities are ISO 9001:2015 certified.

INFORMATION SYSTEMS

We utilize standardized information technology systems across all areas of quoting and estimating, enterprise resource planning, materials resource planning, capacity planning and accounting, project execution and financial controls. We provide information technology oversight and support from our corporate headquarters in Cicero, IL. The operational information systems we employ throughout the Company are industry-specific applications that in some cases have been internally developed or modified by the vendor and improved to fit our operations. Our enterprise resource planning software is integrated with our operational information systems wherever possible to deliver relevant and real-time operational data. We believe our information systems provide our people with the tools to execute their individual job function and achieve our strategic initiatives.

WORKING CAPITAL

We sell to a broad range of industrial customers. In general, we produce to order rather than to stock. For wind towers, our largest product line, the industry has historically used customized contracts with varying terms and conditions between suppliers and customers, depending on the specific objectives of each party. Our practices mirror this historical industry practice of negotiating agreements on a case- by-case basis. As a result, working capital needs, including levels of accounts receivable ("A/R"), accounts payable ("A/P"), and inventory, can vary significantly from quarter to quarter based on the contractual terms associated with each quarter's sales, such as whether and when we are required to purchase and supply steel to meet our contractual obligations. Customer deposits can vary significantly from quarter to quarter based on customer mix, contractual terms associated with each quarter's sales and the timing impacts associated with customers placing orders for future production. In recent years, our larger customers have increasingly used supplier financing programs, whereby a third-party lender advances customer payments to us net of an interest charge. The combination of customer deposits and supplier financing programs arrangements may significantly reduce our working capital requirements.

In analyzing our liquidity, an important short-term metric is our use of operating working capital ("OWC") in relation to revenue. OWC is comprised of A/R and inventories, net of A/P and customer deposits. Our OWC at December 31, 2022 was $475, or 0.3% of trailing three months of sales annualized, compared to December 31, 2021, when OWC was $18,635, or 18% of trailing three months of sales annualized. The decrease in OWC was driven primarily by the timing and level of customer deposits received for future scheduled production.

CORPORATE INFORMATION

Our principal executive office is located at 3240 South Central Avenue, Cicero, IL 60804. Our phone number is (708) 780-4800 and our website address is *www.bwen.com.*

OTHER INFORMATION

On our website at *www.bwen.com*, we make available under the "Investors" menu selection, free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8 K, and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such reports or amendments are electronically filed with, or furnished to, the Securities and Exchange Commission (the "SEC"). Also, the SEC maintains an Internet site at *www.sec.gov* that contains reports, proxy and information statements, and other information that we file electronically with the SEC.

ITEM 1A. RISK FACTORS

RISKS RELATED TO OUR INDUSTRIES

Our financial and operating performance is subject to certain factors out of our control, including the state of the wind energy market in North America.

Our results of operations (like those of our customers) are subject to general economic conditions, and specifically to the state of the wind energy market. In addition to the state and federal government policies supporting renewable energy described below, the growth and development of the larger wind energy market in North America is subject to a number of factors, including, among other things:

- the availability and cost of financing for the estimated pipeline of wind energy development projects;
- the cost of electricity, which may be affected by a number of factors, including government regulation, power transmission, seasonality, fluctuations in demand, and the cost and availability of fuel, particularly natural gas;
- the cost of raw materials used to make wind turbines, particularly steel
- the general increase in demand for electricity or "load growth";
- the costs of competing power sources, including natural gas, nuclear power, solar power and other power sources;
- the development of new power generating technology, advances in existing technology or discovery of power generating natural resources;
- the development of electrical transmission infrastructure;
- state and federal laws and regulations regarding avian protection plans and noise or turbine setback requirements;
- other state and federal laws and regulations, particularly those favoring low carbon energy generation alternatives;
- administrative and legal challenges to proposed wind energy development projects;
- the effects of global climate change such as more frequent or more extreme weather events, changes in temperature and precipitation patterns, changes to ground and surface water and other related phenomena;
- the improvement in efficiency and cost of wind energy, as influenced by advances in turbine design and operating efficiencies; and
- public perception and localized community responses to wind energy projects.

Consolidation among wind turbine manufacturers could increase our customer concentration and/or disrupt our supply chain relationships.

Wind turbine manufacturers are among our primary customers. There has been consolidation among these manufacturers, and more consolidation may occur in the future. For example, both Siemens Energy, Inc. and Gamesa Wind US, LLC, were customers for our tower business until early 2017, at which time they merged into SGRE. Customer consolidation may result in pricing pressures, leading to downward pressure on our margins and profits, and may also disrupt our supply chain relationships.

We face competition from industry participants who may have greater resources than we do.

Our businesses are subject to risks associated with competition from new or existing industry participants who may have more resources and better access to capital. Certain of our competitors and potential competitors may have substantially greater financial resources, customer support, technical and marketing resources, larger customer bases, longer operating histories, greater name recognition and more established relationships in the industry than we do. Among other things, these industry participants compete with us based upon price, quality, location and available capacity. We cannot be sure that we will have the resources or expertise to compete successfully in the future. We also cannot be sure that we will be able to match cost reductions by our competitors or that we will be able to succeed in the face of current or future competition.

OPERATIONAL RISKS

We are substantially dependent on a few significant customers and the ordering levels for our products may vary based on customer needs.

Historically, the majority of our revenues are highly concentrated with a limited number of customers. Some of the markets we serve have a limited number of customers. In 2022, two customers, SGRE and GE Renewable Energy, each accounted for more than 10% of our consolidated revenues, and our five largest customers accounted for 69% of our consolidated revenues. Certain of our customers have periodically expressed their intent to scale back, delay or restructure existing customer agreements, which has led to reduced revenues from these customers and periodic deviations in expected ordering levels. It is possible that this may occur again in the future. Additionally, not all of our customers make purchases every year. As a result, our operating profits and gross margins have historically been negatively affected by significant variability in production levels, which has created production volume inefficiencies in our operations and cost structures. Because of this variability, we believe that comparisons of our operating results in any particular

quarterly period may not be a reliable indicator of future performance.

We face significant risks associated with uncertainties resulting from changes to policies and laws with the periodic changes in the U.S. administration as well as risks associated with changes in our relationship with our significant customers.

Changes of administration in the U.S. federal government may affect our business in a manner that currently cannot be reliably predicted, especially given the potentially significant changes to various laws and regulations that affect us. These uncertainties may include changes in laws and policies in areas such as corporate taxation, taxation on imports of internationally sourced products, international trade including trade treaties such as the United States-Mexico-Canada Agreement, environmental protection and workplace safety laws, labor and employment law, immigration and health care, which individually or in the aggregate could materially and adversely affect our business, results of operations or financial condition.

Additionally, if our relationships with significant customers should change materially, it could be difficult for us to immediately and profitably replace lost sales in a market with such concentration, which could have a material adverse effect on our operating and financial results. We could be adversely impacted by decreased customer demand for our products due to (i) the impact of current or future economic conditions on our customers, (ii) our customers' loss of market share to their competitors that do not use our products, and (iii) our loss of market share with our customers. We could lose market share with our customers to our competitors or to our customers themselves, should they decide to become more vertically integrated and produce the products that we currently provide.

In addition, even if our customers continue to do business with us, we could be adversely affected by a number of other potential developments with our customers. For example:

- The inability or failure of our customers to meet their contractual obligations could have a material adverse effect on our business, financial position and results of operations.
- Certain customer contracts provide the customer with the opportunity to cancel a substantial portion of its volume obligation by providing us with notice of such election prior to commencement of production. Such contracts generally require the customer to pay a sliding cancellation fee based on how far in advance of commencement of production such notice is provided.
- If we are unable to deliver products to our customers in accordance with an agreed-upon schedule, we may become subject to liquidated damages provisions in certain supply agreements for the period of time we are unable to deliver finished products. Although the liquidated damages provisions are generally capped, they can become significant and may have a negative impact on our profit margins and financial results.
- A material change in payment terms with a significant customer could have a material adverse effect on our short-term cash flows.

Disruptions in the supply of parts and raw materials, or changes in supplier relations, may negatively impact our operating results.

We are dependent upon the supply of certain raw materials used in our production process, and these raw materials are exposed to price fluctuations on the open market. Raw material costs for materials such as steel, our primary raw material, have fluctuated significantly and may continue to fluctuate. To reduce price risk caused by market fluctuations, we have generally tried to match raw material purchases to our sales contracts or incorporated price adjustment clauses in our contracts. However, limitations on availability of raw materials or increases in the cost of raw materials (including steel), energy, transportation and other necessary services may impact our operating results if our manufacturing businesses are not able to fully pass on the costs associated with such increases to their respective customers. Alternatively, we will not realize material improvements from any decline in steel prices as the terms of our contracts generally require that we pass these cost savings through to our customers. In addition, we may encounter supplier constraints, be unable to maintain favorable supplier arrangements and relations or be affected by disruptions in the supply chain caused by events such as natural disasters, pandemics, shipping delays, power outages and labor strikes. Additionally, our supply chain has become more global in nature and, thus, more complex from a shipping and logistics perspective. In the event of limitations on availability of raw materials or significant changes in the cost of raw materials, particularly steel, our margins and profitability could be negatively impacted.

We rely on unionized labor, the loss of which could adversely affect our future success.

We depend on the services of unionized labor and have collective bargaining agreements with certain of our operations workforce at our Cicero, Illinois and Neville Island, Pennsylvania Gearing facilities. The loss of the services of these and other personnel, whether through terminations, attrition, labor strike or otherwise, or a material change in our collective bargaining agreements, including a significant increase in labor costs, could have a material adverse impact on us and our future profitability. In November 2022, a four-year collective bargaining agreement was ratified by the collective bargaining union in our Neville Island facility and will remain in effect through October 2026. A four-year collective bargaining agreement in regard to the Cicero, Illinois facility was negotiated in February 2022, and is expected to remain in effect through February 2026. Any failure to negotiate and conclude a new collective bargaining agreement with a union when the applicable agreement expires could result in strikes, boycotts, or other labor disruptions. As of December 31, 2022, these collective bargaining units represented approximately 19% of our workforce.

Our ability to hire and retain qualified personnel at competitive cost could adversely affect our business.

Many of the products we sell, and related services that we provide require that we have skilled labor in our manufacturing facilities. The availability of labor in the markets in which we operate has declined in recent years and competition for such labor has increased, especially under the economic crises experienced throughout and following the COVID-19 pandemic. A significant increase in wages paid by competitors, both within and outside the energy industry, for such work force could result in insufficient availability of workers or increase our labor costs, or both. In the event prevailing wage rates continue to increase in the markets in which we operate, we may be required to concurrently increase the wages paid to our employees to maintain the quality of our workforce and customer service. If the supply of skilled labor is constrained or our costs of attracting and maintaining a workforce increase, our profit margins could decrease, and our growth potential and brand image could be impaired.

We may be unable to keep pace with rapidly changing technology in wind turbine and other industrial component manufacturing.

The global markets for wind turbines and our other manufactured industrial components are rapidly evolving technologically. Our component

manufacturing equipment and technology may not be suited for future generations of products being developed by wind turbine companies. As turbines grow in size, particularly to support the development of offshore windfarms, tower manufacturing becomes more complicated and may require investments in new manufacturing equipment. For example, some wind turbine manufacturers are using wind turbine towers made partially or wholly from concrete instead of steel. To maintain a successful business in our field, we must keep pace with technological developments and the changing standards of our customers and potential customers and meet their constantly evolving demands. If we fail to adequately respond to the technological changes in our industry, make the necessary capital investments or are not suited to provide components for new types of wind turbines, our business, financial condition and operating results may be adversely affected.

If our estimates for warranty expenses differ materially from actual claims made, or if we are unable to reasonably estimate future warranty expense for our products, our business and financial results could be adversely affected.

We provide warranty terms generally ranging between one and five years to our customers depending upon the specific product and terms of the customer agreement. We reserve for warranty claims based on prior experience and estimates made by management based upon a percentage of our sales revenues related to such products. From time to time, customers have submitted warranty claims to us. However, we have a limited history on which to base our warranty estimates for certain of our manufactured products. Our assumptions could materially differ from the actual performance of our products in the future and could exceed the levels against which we have reserved. In some instances, our customers have interpreted the scope and coverage of certain of our warranty provisions differently from our interpretation of such provisions. The expenses associated with remediation activities in the wind energy industry can be substantial, and if we are required to pay such costs in connection with a customer's warranty claim, we could be subject to additional unplanned cash expenditures. If our estimates prove materially incorrect, or if we are required to cover remediation expenses in addition to our regular warranty coverage, we could be required to incur additional expenses and could face a material unplanned cash expenditure, which could adversely affect our business, financial condition and results of operations. Market disruptions and volatility may result in an increased likelihood of our customers asserting warranty or remediation claims in connection with our products that they would not ordinarily assert in a more stable economic environment. In the event of such a claim, we may incur costs if we decide to compensate the affected customer or to engage in litigation with the affected customer regarding the claim. We maintain product liability insurance, but there can be no guarantee that such insurance will be available or adequate to protect against such claims. A successful claim against us could have a material adverse effect on our business.

Because our industry is capital intensive and we have significant fixed and semi-fixed costs, our profitability is sensitive to changes in volume.

The property, plants and equipment needed to manufacture products for our customers and provide our processes and solutions can be very expensive. We must spend a substantial amount of capital to purchase and maintain such property, plant and equipment. Although we believe our current cash balance, along with our projected internal cash flows and available financing sources, will provide sufficient cash to support our currently anticipated operating and capital needs, if we are unable to generate sufficient cash to purchase and maintain the property, plant and equipment necessary to operate our business, we may be required to reduce or delay planned capital expenditures or to incur additional indebtedness.

The COVID-19 pandemic has had, and may continue to have, adverse effects on our operations.

In prior periods, we experienced adverse impacts from the COVID-19 pandemic including a decline in order activity levels within the Gearing and Heavy Fabrications segments and customers' postponement of scheduled purchases and project timing partially offset by the continued operation of our facilities as essential businesses in light of the customers and markets served. We continue to incur manufacturing inefficiencies associated with severe supply chain disruptions and realized employee staffing constraints due to the continued spread of the COVID-19 pandemic.

Although availability of vaccines and reopening of state and local economies have improved the outlook for recovery from the impact of the COVID-19 pandemic, due to the ongoing global pandemic, including emerging variants, we may again experience weaker customer demand, requests for extended payment terms, customer bankruptcies, additional supply chain disruption, more employee staffing constraints and difficulties, government restrictions or other factors that could negatively impact us and our business, operations and financial results. In addition, a possible recession or market correction resulting from the spread of COVID-19 or otherwise could materially affect our business and the value of our stock.

The impacts and potential impacts of COVID-19 that could directly or indirectly materially affect our business also include, but are not limited to, effectiveness of the vaccines against the evolving variants, additional widespread resurgences in COVID-19 infections, and evolving safety protocols such as requirements for proof of vaccination or regular testing in certain of our markets. As we cannot predict the duration or scope of the pandemic or its impact on economic and financial markets, any negative impact to our results cannot be reasonably estimated, but it could be material.

Cybersecurity incidents could disrupt our business and result in the compromise of confidential information.

Our business is at risk from and may be impacted by information security incidents, including attempts to gain unauthorized access to our confidential data, ransomware, malware, phishing emails, and other electronic security events. Such incidents can range from individual attempts to gain unauthorized access to our information technology systems to more sophisticated security threats. They can also result from internal compromises, such as human error, or malicious acts. While we seek to employ measures to prevent, detect, and mitigate these threats, there is no guarantee such efforts will be successful in preventing a cyber event. Cybersecurity incidents could disrupt our business and compromise confidential information belonging to us and third parties.

Recent increases in inflation and interest rates in the United States and elsewhere could adversely affect our business.

We are exposed to fluctuations in inflation and interest rates, which could negatively affect our business, financial condition and results of operations. The United States and other jurisdictions have recently experienced high levels of inflation. If the inflation rate continues to increase, it will likely affect our expenses, including, but not limited to, employee compensation and labor expenses and increased costs for supplies, and we may not be successful in offsetting such cost increases. In addition, historically we have carried a significant amount of variable rate debt which is subject to fluctuations in interest rates. Recent increases in interest rates will result in increased interest expense to the extent we cannot limit our debt balances.

RISKS RELATED TO OUR CORPORATE STRATEGY

Our plans for growth and diversification may not be successful, and could result in poor financial performance.

We continue to seek to strategically diversify and grow the business to improve operational efficiency and meet customer demand. Our diversification efforts into the natural gas turbine power generation, O&G, mining and other industries may require additional investments in personnel, equipment and operational infrastructure. Moreover, although we have historically participated in most of these lines of business, there is no assurance that we will be able to

grow our presence in these markets at a rate sufficient to compensate for a potentially weaker wind energy market. If we are unable to further penetrate these markets, our plans to diversify our operations may not be successful and our anticipated future growth may be adversely affected.

Our growth efforts through increased production levels at existing facilities, acquisitions and continuous improvement activities such as the proper coordination and integration of the supply chain, the consistent use of systems with respect to production activities, the Advanced Product Quality Processes (APQP) to support the introduction of new products, and the hiring of continuous improvement experts to optimize our production processes, will require coordinated efforts across the Company and continued enhancements to our current operating infrastructure. If the cost of making these changes increases or if our efforts are unsuccessful, the Company may not realize anticipated benefits and our future earnings may be adversely affected.

Our diversification outside of the wind energy market exposes us to business risks associated with the gas turbine, O&G, and mining industries, among others, which may slow our growth or penetration in these markets.

Although we have experience in the gas turbine, O&G and mining industry markets, these markets have not historically been our primary focus. In further diversifying our business to serve these markets, we face competitors who may have more resources, longer operating histories and more well-established relationships than we do, and we may not be able to successfully or profitably generate additional business opportunities in these industries. Moreover, if we are able to successfully diversify into these markets, our businesses may be exposed to risks associated with these industries, which could adversely affect our future earnings and growth. These risks include, among other things:

- Variability in the prices and relative demand for oil, gas, minerals and other commodities;
- Changes in domestic and global political and economic conditions affecting the O&G and mining industries;
- Changes in technology;
- Changes in the price and availability of alternative fuels and energy sources and changes in energy consumption or supply; and
- Changes in federal, state and local regulations, including, among other regulations, relating to hydraulic fracturing and greenhouse gas emissions.

If our projections regarding the future market demand for our products are inaccurate, our operating results and our overall business may be adversely affected.

We have previously made significant capital investments in anticipation of rapid growth in the U.S. wind energy market. However, the growth in the U.S. wind energy market has not kept pace with our expectations when some of these capital investments were made, and there can be no assurance that the U.S. wind energy market will grow and develop in a manner consistent with our expectations, or that we will be able to fill our capacity through the further diversification of our operations. Our internal manufacturing capabilities have required significant upfront capital costs. If market demand for our products does not increase at the pace we have anticipated and align with our manufacturing capacity, we may be unable to offset these costs and achieve economies of scale, and our operating results may continue to be adversely affected by high fixed costs, reduced margins and underutilization of capacity which may prevent us from achieving or maintaining profitability. In light of these considerations, we may be forced to reduce our labor force and production to minimum levels, as was done at certain operating locations in the past, temporarily idle existing capacity or sell to third parties manufacturing capacity that we cannot utilize in the near term, in addition to the steps that we have already taken to adjust our capacity more closely to demand. Alternatively, if we experience rapid increased demand for our products in excess of our estimates, or we reduce our manufacturing capacity, our installed capital equipment and existing workforce may be insufficient to support higher production volumes, which could adversely affect our customer relationships and overall reputation. In addition, we may not be able to expand our workforce and operations in a timely manner, procure adequate resources or locate suitable third-party suppliers to respond effectively to changes in demand for our existing products or to the demand for new products requested by our customers, and our business could be adversely affected. Our ability to meet such excess customer demand could also depend on our ability to raise additional capital and effectively scale our manufacturing operations.

Additionally, most of our customers do not commit to long-term contracts or firm production schedules, and accordingly, we frequently experience volatile lead-times in customer orders. Additionally, customers may change production quantities or delay production with little advance notice. Therefore, we rely on and plan our production and inventory levels based on our customers' advance orders, commitments and/or forecasts, as well as our internal assessments and forecasts of customer demand. The variations in volume and timing of sales make it difficult to schedule production and optimize utilization of manufacturing capacity. This uncertainty may require us to increase staffing and incur other expenses in order to meet an unexpected increase in customer demand, potentially placing a significant burden on our resources. An inability to respond to such changes in a timely manner may also cause customer dissatisfaction, which may negatively affect our customer relationships.

Our growth strategies could be ineffective due to the risks of acquisitions and risks relating to integration.

Our growth strategy includes acquiring complementary businesses. In regards to any other future acquisitions, we could fail to identify, finance or complete suitable acquisitions on acceptable terms and prices. Acquisitions and the related integration processes could increase a number of risks, including diversion of operations personnel, financial personnel and management's attention, difficulties in integrating systems and operations, potential loss of key employees and customers of the acquired companies and exposure to unanticipated liabilities. The price we pay for a business may exceed the value realized and we cannot provide any assurance that we will realize the expected synergies and benefits of any acquisitions. Our discovery of, or failure to discover, material issues during due diligence investigations of acquisition targets, either before closing with regard to potential risks of the acquired operations, or after closing with regard to the timely discovery of breaches of representations or warranties, could materially harm our business. Our failure to meet the challenges involved in integrating a new business to realize the anticipated benefits of an acquisition could cause an interruption or loss of momentum in our existing activities and could adversely affect our profitability. Acquisitions also may result in the recording of goodwill and other intangible assets which are subject to potential impairments in the future that could diminish our reported earnings and operating results.

We are subject to risks associated with proxy contests and other actions of activist stockholders.

Publicly traded companies have increasingly become subject to campaigns by activist investors advocating corporate actions such as governance changes, financial restructurings, increased borrowings, special dividends, stock repurchases or even sales of assets or entire companies to third parties or the activists themselves. We have received a notice dated January 18, 2023 from WM Argyle Fund, LLC ("WM Argyle"), which allegedly owned approximately 1.0% of the Company's outstanding shares at the time of submission, purporting to nominate a slate of six candidates for election as directors at our 2023 Annual Meeting of Stockholders. The Company values input from all stockholders, including WM Argyle, and remains open to ongoing engagement with WM Argyle. However, if the Company and WM Argyle cannot reach an agreement in connection with its nomination, there will be a contested election at the Company's 2023 Annual Meeting of Stockholders. A proxy contest or related activities on the part of activist stockholders, including, among others, WM Argyle, could adversely affect our business for a number of reasons, including, without limitation, the following:

- Responding to proxy contests and other actions by activist stockholders can be costly and time-consuming, disrupting our operations and diverting the attention of our Board of Directors (the "Board"), management and our employees;
- Perceived uncertainties as to our future direction may result in the loss of potential business opportunities and may make it more difficult to attract and retain qualified personnel, business partners, customers and others important to our success, any of which could negatively affect our business and our results of operations and financial condition;
- Action by activist stockholders may be exploited by our competitors, cause concern to our current or potential customers and make it more difficult to attract and retain qualified personnel;
- A successful proxy contest could result in a change in control of our Board, and such an event could subject us to certain contractual obligations under several material agreements, including our existing 2015 EIP agreement and certain employment agreements;
- If nominees advanced by activist stockholders are elected or appointed to our Board with a specific agenda, it may adversely affect our ability to effectively and timely implement our strategic plans or to realize long-term value from our assets, and this could in turn have an adverse effect on our business and on our results of operations and financial condition; and
- Proxy contests may cause our stock price to experience periods of volatility.

FINANCIAL RISKS

We have substantially generated net losses since our inception.

We have experienced operating losses since inception, except that we were profitable in 2016 and 2021. We have incurred significant costs in connection with the development of our businesses, and because we have operated at low-capacity utilization in certain facilities, there is no assurance that we will generate sufficient revenues to offset anticipated operating costs. Although we anticipate deriving revenues from the sale of our products, no assurance can be given that these products can be sold on a profitable basis. We cannot give any assurance that we will be able to sustain or increase profitability on a quarterly or annual basis in the future.

We may continue to incur significant losses in the future for a number of reasons, including other risks described in this Annual Report on Form 10-K, and we may encounter unforeseen expenses, difficulties, complications, delays, and other unknown factors.

Our PPP Loans were forgiven, but we may still be subject to audit and any resulting adverse audit financings of non-compliance could result in the repayment of a portion or all of the PPP Loans and may restrict our flexibility in operating our business or otherwise adversely affect our results of operations.

On April 15, 2020, we received funds under notes and related documents (“PPP Loans”) with CIBC Bank, USA under the Paycheck Protection Program (the “PPP”), which was established under the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”), as amended by the Paycheck Protection Program Flexibility Act of 2020 in response to the COVID-19 pandemic and is administered by the U.S. Small Business Administration (the “SBA”). We received total proceeds of $9,530 from the PPP Loans and made repayments of $379 on May 13, 2020. We used at least 60% of our PPP Loan proceeds to pay for payroll costs and the balance on other eligible qualifying expenses that we believe to be consistent with the PPP.

We submitted our forgiveness applications to CIBC Bank, USA in the first quarter of 2021, and during the second quarter of 2021, all PPP Loans were forgiven by the SBA. The U.S. Department of the Treasury has announced that it will conduct audits for PPP Loans that exceed $2,000 for a period of six years after forgiveness. Should we be audited or reviewed by the U.S. Department of the Treasury or the SBA, such audit or review could result in the diversion of management's time and attention and cause us to incur significant costs. If we were to be audited and receive an adverse outcome in such an audit, we could be required to return the full amount of the PPP Loans and may potentially be subject to civil and criminal fines and penalties. If it is subsequently determined that the PPP Loans must be repaid, we may be required to use a substantial portion of our available cash and/or cash flows from operations to pay interest and principal on the PPP Loans, and any future repayment of such loans, would adversely impact our operations and financial results.

RISKS RELATED TO OWNING OUR COMMON STOCK

There is a limited trading market for our securities and the market price of our securities is subject to volatility.

Our common stock trades on the Nasdaq Capital Market. Historically, we have not had an active trading market for our common stock. The absence of an active trading market increases price volatility and reduces the liquidity of our common stock. The market price and level of trading of our common stock could be subject to wide fluctuations in response to numerous factors, many of which are beyond our control. These factors include, among other things, our limited trading volume, actual or anticipated variations in our operating results and cash flow, the nature and content of our earnings releases, announcements or events that impact our business and the general state of the securities market, as well as general economic, political and market conditions and other factors that may affect our future results. In 2022, the closing price of our common stock varied from a high of $3.59 per share to a low of $1.47 per share. Stockholders may have incurred substantial losses with regard to any investment in our common stock adversely affecting stockholder confidence.

Limitations on our ability to utilize our NOLs may negatively affect our financial results.

We may not be able to utilize all of our NOLs. For financial statement presentation, all benefits associated with the NOL carryforwards have been reserved; therefore, this potential asset is not reflected on our balance sheet. To the extent available, we will use any NOL carryforwards to reduce the U.S. corporate income tax liability associated with our operations. However, if we do not achieve sufficient profitability prior to their expiration, we will not be able to fully utilize our NOLs to offset income. Section 382 of the IRC ("Section 382") generally imposes an annual limitation on the amount of NOL carryforwards that may be used to offset taxable income when a corporation has undergone certain changes in stock ownership. Our ability to utilize NOL carryforwards and built-in losses may be limited, under Section 382 or otherwise, by our issuance of common stock or by other changes in ownership of our stock. After analyzing Section 382 in 2010, we determined that aggregate changes in our stock ownership had triggered an annual limitation of NOL carryforwards and built-in losses available for utilization to $14,284 per annum. Although this event limited the amount of pre ownership change date NOLs and built- in losses we can utilize annually, it does not preclude us from fully utilizing our current NOL carryforwards prior to their expiration. However, subsequent changes in our stock ownership could further limit our ability to use our NOL carryforwards and our income could be subject to taxation earlier than it would if we were able to use NOL carryforwards and built-in losses without an annual limitation, which could result in lower profits. To address these concerns, in February 2013 we adopted a Section 382 Stockholder Rights Plan, which was subsequently approved by our stockholders and extended in 2016 and 2019 for additional three-year periods (as amended, the "Rights Plan"), designed to preserve our substantial tax assets associated with NOL carryforwards under Section 382. The Rights Plan is intended to deter any person or group from being or becoming the beneficial owner of 4.9% or more of our common stock and thereby triggering a further limitation of our available NOL carryforwards. On February 3, 2022, the Board of Directors (the "Board") approved an amendment which included an extension of the Rights Plan for an additional three years, which was subsequently approved by our stockholders at our 2022 Annual Meeting of Stockholders. See Note 13, "Income Taxes" of our consolidated financial statements for further discussion of our Rights Plan. There can be no assurance that the Rights Plan will be effective in protecting our NOL carryforwards. Additionally, because the Rights Plan subjects any person that acquires 4.9% of our common stock without the Board's permission to significant dilution, it could make it harder for a third party to acquire us without the consent of the Board. In particular, the Rights Plan may deter a third party from completing or even initiating an acquisition of the Company, which may prevent stockholders from realizing a control premium from a potential acquirer, or from otherwise maximizing stockholder value.

INTELLECTUAL PROPERTY RISKS

Any failure to protect our customers' intellectual property that we use in the products we manufacture for them could harm our customer relationships and subject us to liability.

The products we manufacture for our customers often contain our customers' intellectual property, including copyrights, patents, trade secrets and know-how. Our success depends, in part, on our ability to protect our customers' intellectual property. The steps we take to protect our customers' intellectual property may not adequately prevent its disclosure or misappropriation. If we fail to protect our customers' intellectual property, our customer relationships could be harmed and we may experience difficulty in establishing new customer relationships. Additionally, our customers might pursue legal claims against us for any failure to protect their intellectual property, possibly resulting in harm to our reputation and our business, financial condition and operating results.

We may not be able to protect important intellectual property and we could incur substantial costs defending against claims that our products infringe on the proprietary rights of others.

Our ability to compete effectively will depend, in part, on our ability to protect our proprietary system level technologies, systems designs and manufacturing processes. While we have attempted to safeguard and maintain our proprietary rights, we do not know whether we have been or will be successful in doing so.

Further, our competitors may independently develop or patent technologies or processes that are substantially equivalent or superior to ours. If we are found to be infringing third-party patents, we could be required to pay substantial royalties and/or damages, and we do not know whether we will be able to obtain licenses to use such patents on acceptable terms, if at all. Failure to obtain needed licenses could delay or prevent the development, manufacture or sale of our products, and could necessitate the expenditure of significant resources to develop or acquire non infringing intellectual property.

We may need to pursue lawsuits or legal action in the future to enforce our intellectual property rights and to determine the validity and scope of the proprietary rights of others. Litigation and other proceedings, even if they are successful, are expensive to pursue and time consuming, and we could use a substantial amount of our management and financial resources in either case.

Confidentiality agreements to which we are party may be breached, and we may not have adequate remedies for any breach. Our trade secrets may also be known without breach of such agreements or may be independently developed by competitors. Our inability to maintain the proprietary nature of our technology and processes could allow our competitors to limit or eliminate any competitive advantages we may have.

LEGAL, TAX, REGULATORY AND COMPLIANCE RISKS

The U.S. wind energy industry is significantly impacted by tax and other economic incentives. A significant change in these incentives could significantly impact our results of operations and growth.

We sell towers to wind turbine manufacturers who supply wind energy generation facilities. The U.S. wind energy industry is significantly impacted by federal tax incentives and state Renewable Portfolio Standards ("RPSs"). Despite recent reductions in the cost of wind energy, due to variability in wind quality and consistency, and other regional differences, wind energy may not be economically viable in certain parts of the country absent such incentives. These programs have provided material incentives to develop wind energy generation facilities and thereby impact the demand for our products. The increased demand for our products that generally results from the credits and incentives could be impacted by the expiration or curtailment of these programs.

One such federal government program, the PTC, provides a supplemental payment based on electricity produced from each qualifying wind turbine. Legislative support for the PTC has been intermittent since its introduction in 1992, which has caused volatility in the demand for new wind energy projects. In 2015, the PTC was extended for a five-year period, with a time-based phase-out depending on the year the wind project is commenced. The phase-out schedule legislated in 2015 provided for: 100% extension of the credit for projects commenced before the end of 2016, 80% extension of the credit for projects commenced in 2017, 60% extension of the credit for projects commenced in 2018 and 40% extension of the credit for projects commenced in 2019. As part of a year-end tax extenders bill in 2019, the PTC was extended for an additional year, allowing for a 60% extension of the credit for projects commenced before the end of 2020.

On December 27, 2020, COVID IV was signed into law. As part of COVID IV, the PTC was extended for an additional year, allowing for a 60% credit for projects that start construction by the end of 2021. In order to benefit from the PTC, qualifying projects must either be completed within four years from their start of construction, or the developer must demonstrate that its projects are in continuous construction between start of construction and completion. As a result of COVID IV, the PTC will subsidize wind projects commenced as late as 2021 and completed by 2025, or later if continuous construction can be demonstrated. The PTC tax benefits are available for the first ten years of operation of a wind energy facility, and also applies to significant redevelopment of existing wind energy facilities. Included in COVID IV is the addition of a new 30% ITC created for offshore wind projects that start construction by the end of 2025. The provision will be retroactively applied to projects that started production in 2016.

On August 16, 2022, the IRA was enacted to reduce inflation and promote clean energy in the United States. The IRA modifies and extends the PTC until the later of 2032 or when greenhouse gas emissions have been reduced by 75% compared to 2022. It provides for tax credits up to a maximum of 30%, adjusted for inflation annually, for electricity generated from qualified renewable energy sources where taxpayers meet prevailing wage standards and employ a sufficient proportion of qualified apprentices from registered apprenticeship programs. It also provides a bonus credit for qualifying clean energy production in energy communities.

The IRA also includes advanced manufacturing tax credits for manufacturers of eligible components, including wind and solar components ("45X credits"). Manufacturers qualify for the 45X credits based on the electricity output for each component produced and sold in the US starting in 2023 through 2032. The credit amount varies based on the eligible component, which includes solar components, wind energy components, inverters, qualifying battery components, and critical minerals. Tower manufacturers are eligible for credits of $0.03 per watt for applicable components produced. Manufacturers can apply to the Internal Revenue Service for cash refunds of the 45X credits for up to five years. After the first five years, the 45X credits are transferable and can be sold to third parties for cash. We are waiting for the Internal Revenue Service and the U.S. Treasury Department to provide implementation guidance for the legislation.

RPSs generally require or encourage state regulated electric utilities to supply a certain proportion of electricity from renewable energy sources or to devote a certain portion of their plant capacity to renewable energy generation. Typically, utilities comply with such standards by qualifying for renewable energy credits evidencing the share of electricity that was produced from renewable sources. Under many state standards, these renewable energy credits can be unbundled from their associated energy and traded in a market system, allowing generators with insufficient credits to meet their applicable state mandate. These standards have spurred significant growth in the wind energy industry and a corresponding increase in the demand for our products. Currently, the majority of states have RPSs in place and certain states have voluntary utility commitments to supply a specific percentage of their electricity from renewable sources. The enactment of RPSs in additional states or any changes to existing RPSs (including changes due to the failure to extend or renew the federal incentives described above), or the enactment of a federal RPS or imposition of other greenhouse gas regulations, may impact the demand for our products. We cannot assure that government support for renewable energy will continue including any assurance regarding the adoption of any of the clean energy provisions of the Build Back Better agenda. The elimination of, or reduction in, state or federal government policies that support renewable energy could have a material adverse impact on our business, results of operations, financial performance and future development efforts.

Changes to trade regulation, quotas, duties or tariffs, and sanctions caused by changing U.S. and geopolitical policies, may impact our competitive position or adversely impact our margins.

Tariffs have resulted in increased prices, including with respect to certain steel products, and could adversely affect our consolidated results of operations, financial position and cash flows. These tariffs, along with any additional tariffs or trade restrictions that may be implemented by the U.S. or other

countries, could result in further increased prices and a decreased available supply of steel and other imported components and inputs. We may not be able to pass price increases on to our customers and may not be able to secure adequate alternative sources of steel on a timely basis.

The existence of government subsidies available to our competitors in certain countries may affect our ability to compete on a price basis. In 2013, the USITC determined that wind towers from China and Vietnam were being sold in the U.S. at less than fair value. Imports from China and Vietnam have declined following a determination by the USITC in 2013 that wind towers from those countries were being sold in the U.S. at less than fair value. As a result of the determination, the USDOC issued antidumping and countervailing duty orders on imports of wind towers from China and an antidumping duty order on imports of towers from Vietnam. In May 2018, the U.S. Court of Appeals affirmed the decision from the U.S. Court of International Trade and at the same time excluded CS Wind Vietnam from the antidumping order. In April 2019, the USDOC extended the term of these duties for an additional five-year period. Following a renewed surge of tower imports from countries not impacted by existing tariffs, in July 2020, the USDOC issued antidumping and countervailing duty orders on imports of wind towers from Canada, Indonesia, and Vietnam and an antidumping order on imports of towers from Korea. Then in September 2020, a new trade case was brought before the USDOC and USITC, to assess whether wind towers imported from India, Malaysia, and Spain were being sold in the U.S. at less than fair value. The USDOC and USITC issued affirmative final determinations in all three antidumping (India, Malaysia, and Spain) and two countervailing duty cases (India and Malaysia). The USDOC imposed orders for two cases in August 2021 and the remainder in December 2021. Appeals of several of the USDOC determinations are currently pending at the CIT and the CAFC.

Additionally, the war in Ukraine has led to economic sanctions imposed against Russia by the U.S. and certain European nations, including a prohibition on doing business with certain Russian companies. Such sanctions may impact companies in many sectors and could lead to volatility of prices in the global energy industry. The extent and duration of the war and extent and strength of the sanctions are still developing, and the corresponding effect on the Company remains uncertain.

We could incur substantial costs to comply with environmental, health and safety ("EHS") laws and regulations and to address violations of or liabilities under these requirements.

Our operations are subject to a variety of EHS laws and regulations in the jurisdictions in which we operate and sell products governing, among other things, health, safety, pollution and protection of the environment and natural resources, including the use, handling, transportation and disposal of non-hazardous and hazardous materials and wastes, as well as emissions and discharges into the environment, including discharges to air, surface water, groundwater and soil, product content, performance and packaging. We cannot guarantee that we have been, or will at all times be in compliance with such laws and regulations. Changes in existing EHS laws and regulations, or their application, could cause us to incur additional or unexpected costs to achieve or maintain compliance. Failure to comply with these laws and regulations, obtain the necessary permits to operate our business, or comply with the terms and conditions of such permits may subject us to a variety of administrative, civil and criminal enforcement measures, including the imposition of civil and criminal sanctions, monetary fines and penalties, remedial obligations, and the issuance of compliance requirements limiting or preventing some or all of our operations. The assertion of claims relating to regulatory compliance, on or off-site contamination, natural resource damage, the discovery of previously unknown environmental liabilities, the imposition of criminal or civil fines or penalties and/or other sanctions, or the obligation to undertake investigation, remediation or monitoring activities could result in potentially significant costs and expenditures to address contamination or resolve claims or liabilities. Such costs and expenditures could have a material adverse effect on our business, financial condition or results of operations. Under certain circumstances, violation of such EHS laws and regulations could result in us being disqualified from eligibility to receive federal government contracts or subcontracts under the federal government's debarment and suspension system.

We also are subject to laws and regulations that impose liability and cleanup responsibility for releases of hazardous substances into the environment. Under certain of these laws and regulations, such liabilities can be imposed for cleanup of currently and formerly owned, leased or operated properties, or properties to which hazardous substances or wastes were sent by current or former operators at our current or former facilities, regardless of whether we directly caused the contamination or violated any law at the time of discharge or disposal. Several of our facilities have a history of industrial operations, and contaminants have been detected at some of our facilities. The presence of contamination from hazardous substances or wastes could interfere with ongoing operations or adversely affect our ability to sell, lease or use our properties as collateral for financing. We also could be held liable under third-party claims for property damage, natural resource damage or personal injury and for penalties and other damages under such environmental laws and regulations, which could have a material adverse effect on our business, financial condition and results of operations. During 2022, we did not incur significant remediation costs or penalties related to environmental matters.

Our ability to comply with regulatory requirements and potential environmental, social and governance ("ESG") regulations and trends is critical to our future success, and there can be no guarantee that our businesses are in full compliance with all such requirements.

As a manufacturer and distributor of wind and other energy industry products we are subject to the requirements of federal, state, local and foreign regulatory authorities. In addition, we are subject to a number of authorities setting industry standards, such as the American Gear Manufacturers Association and the American Welding Society. Changes in the standards and requirements imposed by such authorities could have a material adverse effect on us. In the event we are unable to meet any such standards when adopted, our businesses could be adversely affected. We may not be able to obtain all regulatory approvals, licenses and permits that may be required in the future, or any necessary modifications to existing regulatory approvals, licenses and permits, or maintain all required regulatory approvals, licenses and permits. There can be no guarantee that our businesses are fully compliant with such standards and requirements.

Additionally, other ESG-related laws, regulations, treaties, and similar initiatives and programs are being proposed, adopted and implemented throughout the world. If we were to violate or become liable under environmental or certain ESG-related laws or if our products become non-compliant with such laws or market access requirements, our customers may refuse to purchase our products, and we could incur costs or face other sanctions, such as restrictions on our products entering certain jurisdictions, fines, and/or civil or criminal sanctions. In addition to potential implementation of ESG laws, investor advocacy groups, certain institutional investors, investment funds, other market participants, stockholders, and customers have focused increasingly on the ESG practices of companies, including those associated with climate change. If our ESG practices do not meet investor or other industry stakeholder expectations and standards, which continue to evolve, our brand, reputation and employee retention may be negatively impacted based on an assessment of our ESG practices.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our corporate headquarters is located in Cicero, Illinois, a suburb located west of Chicago, Illinois. In addition, the Subsidiaries own or lease operating facilities, which are presented by operating segment as follows (information below is as of December 31, 2022).

Operating Segment and Facility Type	Location	Owned / Leased	Approximate Square Footage
Heavy Fabrications (1)			
Tower Manufacturing	Manitowoc, WI	Leased	194,000
Tower Manufacturing	Abilene, TX	Owned	175,000
Industrial Fabrications Manufacturing	Manitowoc, WI	Leased	113,000
Gearing and Corporate			
Gearing System Manufacturing—Machining and Corporate Administration	Cicero, IL	Leased	301,000
Gearing System Manufacturing—Heat Treatment and Gearbox Repair	Neville Island, PA	Owned	52,000
Industrial Solutions			
Industrial Solutions Manufacturing	Sanford, NC	Leased	105,000

(1) The Heavy Fabrications segment listing does not include the tower storage yards of 40 acres in Manitowoc, WI and 25 acres in Abilene, TX.

We consider our active facilities to be in good condition and adequate for our present and future needs.

ITEM 3. LEGAL PROCEEDINGS

We are party to a variety of legal proceedings that arise in the ordinary course of our business. While the results of these legal proceedings cannot be predicted with certainty, management believes that the final outcome of these proceedings will not have a material adverse effect, individually or in the aggregate, on our results of operations, financial condition or cash flows. Due to the inherent uncertainty of litigation, there can be no assurance that the resolution of any particular claim or proceeding would not have a material adverse effect on our results of operations, financial condition or cash flows. It is possible that if one or more of such matters were decided against us, the effects could be material to our results of operations in the period in which we would be required to record or adjust the related liability and could also be material to our financial condition and cash flows in the period in which we would be required to pay such liability.

We received a notice dated January 18, 2023 from WM Argyle Fund, LLC, which allegedly owned approximately 1.0% of our outstanding shares at the time of submission, purporting to nominate a slate of six candidates for election as directors at our 2023 Annual Meeting of Stockholders. We remain open to ongoing engagement with WM Argyle. However, if the Company and WM Argyle cannot reach an agreement in connection with its nomination, there will be a contested election at the Company's 2023 Annual Meeting of Stockholders.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

PART II

(Dollar amounts are presented in thousands, except per share data and unless otherwise stated)

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

Our common stock is traded on the NASDAQ Capital Market ("NASDAQ") under the symbol "BWEN." The following table sets forth the high and low bid prices of our common stock traded on the NASDAQ.

	Common Stock	
	High	**Low**
2022		
First quarter	$ 2.36	$ 1.58
Second quarter	2.17	1.52
Third quarter	3.59	1.47
Fourth quarter	2.83	1.57

	Common Stock	
	High	**Low**
2021		
First quarter	$ 11.55	$ 4.84
Second quarter	6.41	3.97
Third quarter	4.55	2.46
Fourth quarter	3.51	1.88

The closing price for our common stock as of March 6, 2023 was $4.65. As of March 6, 2023, there were 49 holders of record of our common stock.

Dividends

We have never paid cash dividends on our common stock and have no current plan to do so in the foreseeable future. The declaration and payment of dividends on our common stock are subject to the discretion of our Board and are further limited by our credit agreement and other contractual agreements we may have in place from time to time. The decision of our Board to pay future dividends will depend on general business conditions, the effect of a dividend payment on our financial condition, and other factors our Board may consider relevant. The current policy of our Board is to reinvest cash generated in our operations to promote future growth and to fund potential investments.

Repurchases

There were no repurchases of our equity securities made during the years ended December 31, 2022 and 2021.

Unregistered Sales of Equity Securities

There were no unregistered sales of equity securities for the years ended December 31, 2022 or 2021.

Securities Authorized for Issuance Under Equity Compensation Plans

See Part III, Item 12 "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" of this Annual Report on Form 10-K for information as of December 31, 2022 with respect to shares of our common stock that may be issued under our existing share-based compensation plans.

ITEM 6. SELECTED FINANCIAL DATA

[RESERVED]

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

As used in this Annual Report, the terms "we," "us," "our," "Broadwind," and the "Company" refer to Broadwind, Inc., a Delaware corporation headquartered in Cicero, Illinois, and its Subsidiaries.

(Dollar amounts are presented in thousands, except per share data and unless otherwise stated)

We booked $368,027 in net new orders in 2022, up from $159,025 in 2021. Heavy Fabrications orders increased by 215% from the prior year as demand increased for our capacity as tower customers secured production capacity through 2024 for ongoing wind turbine tower installation projects. Gearing segment orders increased 16% from the prior year primarily due to increased demand in all end markets led by industrial customers. Industrial Solutions segment orders increased by 3% in 2022 from the prior year primarily due to an increase in orders associated with new gas turbine projects. At December 31, 2022, total backlog was $297,200, up 179% from $106,383 at December 31, 2021 primarily due to the aforementioned increase in Heavy Fabrication segment orders.

We recognized revenue of $176,759 in 2022, up 21% from revenue of $145,619 in 2021. Heavy Fabrications segment revenues increased by 15% during 2022 primarily due to a 92% increase in industrial fabrication revenue as a result of higher recent order intake from industrial customers and revenue recognized from our PRS units in the current year. Gearing segment revenues increased 49% during 2022 from the prior year primarily due to recent higher order intake levels from customers in most end markets, particularly O&G, partially offset by a decrease in aftermarket wind revenue. Industrial Solutions segment revenue increased 16% from the prior year primarily due to the timing of aftermarket installations.

We reported a net loss of $9,730, or $0.48 per share in 2022, compared to a net income of $2,847 or $0.15 per share in 2021. The decrease in earnings was primarily due to the absence of the $9,151 benefit recognized from the PPP loan forgiveness and the $6,965 ERC benefit (described below), both of which were recognized in "Other Income (expense), net" in our consolidated statement of operations for the year ended December 31, 2021. This decrease was partially offset by the volume related increases discussed above.

On March 27, 2020, the CARES Act was signed into law providing numerous tax provisions and other stimulus measures, including the Employee Retention Credit ("ERC"), which is a refundable tax credit against certain employment taxes. The Taxpayer Certainty and Disaster Tax Relief Act of 2020 and the American Rescue Plan Act of 2021 extended and expanded the availability of the ERC. As amended, the ERC was available for wages paid through September 30, 2021 and was equal to 70% of qualified wages (which included employer qualified health plan expenses) paid to employees. During each quarter of 2021, a maximum of $10,000 in qualified wages for each employee was eligible for the ERC. Therefore, the maximum tax credit that could be claimed by an eligible employer in 2021 was $7,000 per employee per calendar quarter. We qualified for the ERC in the first quarter of the year because we experienced a reduction in gross receipts of more than 20% for the first quarter of 2021 compared to the first quarter of 2019, the relevant criteria for the ERC. Since we qualified for the ERC in the first quarter of 2021, we automatically qualified for the ERC in the second quarter of 2021. In the first and second quarters of 2021, we received ERC benefits of $3,372 and $3,593, respectively, and under analogy to IAS 20 "Accounting for Government Grants and Disclosure of Government Assistance" were recorded in "Other income (expense), net" in our consolidated statement of operations. During the third quarter of 2021 due to relatively higher revenues in 2021 as compared to the third quarter of 2019, we did not qualify for the ERC benefit. The receivable for the remaining uncollected ERC benefit was $497 as of December 31, 2021 and was included in the "Employee retention credit receivable" line item in our consolidated balance sheet at December 31, 2021. The $497 receivable balance was collected during January 2022.

We use our credit facility to fund working capital requirements and believe that our credit facility, together with the operating cash generated by our businesses, and any potential proceeds from access to the public or private debt or equity markets, are sufficient to meet all cash obligations over the next twelve months. On December 31, 2022, we had $0 outstanding under our senior secured revolving credit facility, $7,217 outstanding under our senior secured term loan, $12,732 of cash on hand, with the ability to borrow an additional $27,351. For a further discussion of our capital resources and liquidity, including a description of recent amendments and waivers under our credit facility, please see the discussion under "Liquidity, Financial Position and Capital Resources" in this Annual Report on Form 10-K.

COVID-19 Pandemic

Our facilities continued to operate as essential businesses in light of the customers and markets served. However, through December 31, 2022, we have experienced an adverse impact to our business, operations and financial results as a result of this pandemic due in part to manufacturing inefficiencies associated with supply chain disruptions and employee staffing constraints due to the spread of the COVID-19 pandemic. In response to the pandemic, we continue to right-size our workforce and delay certain capital expenditures. In future periods, we may experience weaker customer demand, requests for extended payment terms, customer bankruptcies, additional supply chain disruption, employee staffing constraints and difficulties, government restrictions or other factors that could negatively impact the Company and its business, operations and financial results. As we cannot predict the duration or scope of the pandemic, including in light of the emerging variants, or its impact on economic and financial markets, any negative impact to our results cannot be reasonably estimated, but it could be material.

Although the long-term effects of COVID-19 remain unknown, the availability of vaccines and reopening of state and local economies have improved the outlook for recovery from COVID-19 impacts. However, we continue to monitor closely the Company's financial health and liquidity and the impact of the pandemic on the Company, including emerging variants. We have been able to serve the needs of our customers while taking steps to protect the health and safety of our employees, customers, partners, and communities. Among these steps, we follow the guidance provided by the U.S. Centers for Disease Control and Prevention.

KEY METRICS USED BY MANAGEMENT TO MEASURE PERFORMANCE

In addition to measures of financial performance presented in our consolidated financial statements in accordance with generally accepted accounting principles ("GAAP"), we use certain other financial measures to analyze our performance. These non-GAAP financial measures primarily consist of adjusted EBITDA and free cash flow which help us evaluate growth trends, establish budgets, assess operational efficiencies, oversee our overall liquidity, and evaluate our overall financial performance.

Key Financial Measures

	Year Ended December 31,	
	2022	**2021**
Net revenues	$ 176,759	$ 145,619
Net (loss) income	$ (9,730)	$ 2,847
Adjusted EBITDA (1)	$ 2,444	$ 13,209
Capital expenditures	$ 3,098	$ 1,707
Free cash flow (2)	$ 17,506	$ (2,038)
Operating working capital (3)	$ 475	$ 18,635
Total debt	$ 8,311	$ 6,827
Total orders	$ 368,027	$ 159,025
Backlog at end of period (4)	$ 297,200	$ 106,383
Book-to-bill (5)	2.1	1.1

(1) We provide non-GAAP adjusted EBITDA (earnings before interest, income taxes, depreciation, amortization, share-based compensation, and other stock payments, restructuring costs, impairment charges, and other non-cash gains and losses) as supplemental information regarding our business performance. Our management uses adjusted EBITDA when they internally evaluate the performance of our business, review financial trends and make operating and strategic decisions. We believe that this non-GAAP financial measure is useful to investors because it provides a better understanding of our past financial performance and future results, and it allows investors to evaluate our performance using the same methodology and information as used by our management. Our definition of adjusted EBITDA may be different from similar non-GAAP financial measures used by other companies and/or analysts.

(2) We define free cash flow as adjusted EBITDA plus or minus changes in operating working capital less capital expenditures net of any proceeds from disposals of property and equipment. We believe free cash flow is a useful measure for investors because it portrays our ability to generate cash from our business for purposes such as repaying maturing debt and funding business acquisitions.

(3) We define operating working capital as accounts receivable and inventory net of accounts payable and customer deposits.

(4) Our backlog at December 31, 2022 and 2021 is net of revenue recognized over time.

(5) We define book-to-bill as the ratio of new orders we received, net of cancellations, to revenue during a period.

The following table reconciles our non-GAAP key financial measures to the most directly comparable GAAP measure:

	Year Ended December 31,	
	2022	**2021**
Net (loss) income from continuing operations	$ (9,730)	$ 2,847
Interest expense	3,218	1,129
Income tax provision	35	25
Depreciation and amortization	6,060	6,336
Share-based compensation and other stock payments	2,861	2,872
Adjusted EBITDA	**2,444**	**13,209**
Changes in operating working capital	18,160	(13,573)
Capital expenditures	(3,098)	(1,707)
Proceeds from disposal of property and equipment	—	33
Free Cash Flow	$ **17,506**	$ **(2,038)**

RESULTS OF OPERATIONS

Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

The summary of selected financial data table below should be referenced in connection with a review of the following discussion of our results of operations for the year ended December 31, 2022 compared to the year ended December 31, 2021.

	Year Ended December 31,				2022 vs. 2021	
	2022	% of Total Revenue	2021	% of Total Revenue	$ Change	% Change
Revenues	$ 176,759	100.0%	$ 145,619	100.0%	$ 31,140	21.4%
Cost of sales	166,049	93.9%	140,108	96.2%	25,941	18.5%
Gross profit	10,710	6.1%	5,511	3.8%	5,199	94.3%
Operating expenses						
Selling, general and administrative expenses	16,592	9.4%	17,372	11.9%	(780)	(4.5)%
Intangible amortization	725	0.4%	733	0.5%	(8)	(1.1)%
Total operating expenses	17,317	9.8%	18,105	12.4%	(788)	(4.4)%
Operating loss	(6,607)	(3.7)%	(12,594)	(8.6)%	5,987	47.5%
Other income (expense), net						
Paycheck Protection Program loan forgiveness	—	—%	9,151	6.3%	(9,151)	(100.0)%
Interest expense, net	(3,218)	(1.8)%	(1,129)	(0.8)%	(2,089)	(185.0)%
Other, net	130	0.1%	7,444	5.1%	(7,314)	(98.3)%
Total other income (expense), net	(3,088)	(1.7)%	15,466	10.6%	(18,554)	(120.0)%
Net (loss) income before provision for income taxes	(9,695)	(5.5)%	2,872	2.0%	(12,567)	(437.6)%
Provision for income taxes	35	0.0%	25	0.0%	10	40.0%
Net (loss) income	$ (9,730)	(5.5)%	$ 2,847	2.0%	$ (12,577)	(441.8)%

Consolidated

Revenues increased by $31,140 during the year ended December 31, 2022 primarily due to a 92% increase in industrial fabrications product line revenue within the Heavy Fabrications segment compared to the prior year. This was primarily due to higher recent order intake from industrial customers and revenue recognized from our PRS units in the current year. Gearing segment revenue increased by 49% compared to the prior year primarily due to higher order intake in recent quarters from customers in most end markets, particularly O&G, partially offset by a decrease in aftermarket wind revenue. Industrial Solutions segment revenue increased 16% primarily due to the timing of aftermarket installations.

Gross profit improved by $5,199 during the year ended December 31, 2022 primarily due to higher sales volumes in the Gearing and the Heavy Fabrications segments, partially offset by higher material costs and ramp-up costs. As a result, our gross margin increased from 3.8% for the year ended December 31, 2021, to 6.1% for the year ended December 31, 2022.

Operating expenses as a percentage of sales decreased to 9.8% in 2022 from 12.4% in 2021 primarily due to higher revenue levels, reduced salaries and benefits and reduced legal fees.

Net income decreased from $2,847 for the year ended December 31, 2021 to a net loss of $9,730 for the year ended December 31, 2022.The decrease in net income was primarily due to the absence of the $9,151 benefit recognized from the PPP loan forgiveness and the $6,965 ERC benefit, both of which were recognized in "Other Income (expense), net" in our consolidated statement of operations for the year ended December 31, 2021. This decrease was partially offset by the volume related increases discussed above.

Heavy Fabrications Segment

The following table summarizes the Heavy Fabrications segment operating results for the twelve months ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	**2021**
Orders	$ 294,097	$ 93,246
Tower sections sold	570	747
Revenues	117,206	101,994
Operating loss	(1,044)	(3,214)
Operating margin	(0.9)%	(3.2)%

Heavy Fabrications orders increased by 215% versus the prior year as a result of increased demand for our capacity as tower customers secured production capacity through 2024 for ongoing wind turbine tower installation projects. Segment revenues increased by 15% during the year ended December 31, 2022 primarily due to a 92% increase in industrial fabrication revenue due to higher recent order intake from industrial customers and revenue recognized from our PRS units in the current year.

Heavy Fabrications segment operating results improved by $2,170 as compared to the prior year. The improvement in operating performance was primarily a result of higher sales in the current year and the absence of one-time events that occurred during the prior year period including a weather-related event and a customer driven project delay, partially offset by costs associated with transitioning a portion of the workforce to support growth in the industrial fabrications product line and inefficiencies associated with a change to a new tower design in the fourth quarter. Operating profit margin was (0.9%) during the year ended December 31, 2022 compared to (3.2%) during the year ended December 31, 2021.

Gearing Segment

The following table summarizes the Gearing segment operating results for the twelve months ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	**2021**
Orders	$ 53,597	$ 46,081
Revenues	42,588	28,583
Operating income (loss)	43	(2,593)
Operating margin	0.1%	(9.1)%

Gearing segment orders for the year ended December 31, 2022 increased 16% compared to the year ended December 31, 2021 primarily due to increased demand from customers in all end markets. Revenues increased 49% during the year ended December 31, 2022 primarily due to higher order intake in recent quarters from customers in most end markets, particularly O&G, partially offset by a decrease in aftermarket wind revenue.

The Gearing segment's operating income improved by $2,636 during the year ended December 31, 2022 from the year ended December 31, 2021 primarily due to higher sales, partially offset by higher material costs, ramp-up costs, and increased fixed costs to support higher volumes. Operating margin was 0.1% for the year ended December 31, 2022 compared to (9.1)% during the year ended December 31, 2021.

Industrial Solutions Segment

The following table summarizes the Industrial Solutions segment operating results for the twelve months ended December 31, 2022 and 2021.

	Year Ended December 31,	
	2022	2021
Orders	$ 20,333	$ 19,698
Revenues	17,804	15,402
Operating income (loss)	120	(386)
Operating margin	0.7%	(2.5)%

Industrial Solutions segment orders increased by 3% for the year ended December 31, 2022 primarily due to an increase in new gas turbine orders. Segment revenue increased 16% from the prior year primarily due to the timing of aftermarket installations. The improvement in operating income during the year ended December 31, 2022 was a result of the revenue increase, partially offset by increased labor and freight costs. The operating margin improved from (2.5)% during the year ended December 31, 2021, to 0.7% during the year ended December 31, 2022.

Corporate and Other

Corporate and Other expenses decreased by $679 during the year ended December 31, 2022. The decrease was primarily attributable to lower salaries and benefits.

SUMMARY OF CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The methods, estimates and judgments that we use in applying our critical accounting policies have a significant impact on the results that we report in our financial statements. Some of our accounting policies require us to make difficult and subjective judgments, often as a result of the need to make estimates regarding matters that are inherently uncertain.

We have identified the accounting policies listed below to be critical to obtain an understanding of our consolidated financial statements. This section should also be read in conjunction with Note 1, “Description of Business and Summary of Significant Accounting Policies” in the notes to our consolidated financial statements for further discussion of these and other significant accounting policies.

Revenue Recognition

We recognize revenue when control of the promised goods or services is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. Customer deposits and other receipts are deferred and recognized when the revenue is realized and earned. Cash payments to customers, like those made for liquidated damages, are presumed to be classified as reductions of revenue in our statement of operations.

In many instances within our Heavy Fabrications segment, wind towers are sold under terms included in bill and hold sales arrangements that result in different timing for revenue recognition versus shipment, due to our customers' preference to ship products in batches to support efficient construction of wind farms. We recognize revenue under these arrangements when there is a substantive reason for the arrangement (i.e., the buyer requests the arrangement), the ordered goods are segregated from inventory and not available to fill other orders, the goods are currently ready for physical transfer to the customer, and we do not have the ability to use the product or to direct it to another customer. Assuming these required revenue recognition criteria are met, revenue is recognized upon completion of product manufacture and customer acceptance.

During 2022 and 2021, we also recognized revenue over time, versus point in time, when products in the Gearing and Heavy Fabrications segments had no alternative use to us and we had an enforceable right to payment, including profit, upon termination of the contract by the customer. Since the projects are labor intensive, we use labor hours as the input measure of progress for the contract. Contract assets are recorded when performance obligations are satisfied but we are not yet entitled to payment. We recognize contract assets associated with this revenue which represents our rights to consideration for work completed but not billed at the end of the period.

Warranty Liability

We provide warranty terms that generally range from one to five years for various products relating to workmanship and materials supplied by us. In certain contracts, we have recourse provisions for items that would enable us to seek recovery from third parties for amounts paid to customers under warranty provisions. We estimate the warranty accrual based on various factors, including historical warranty costs, current trends, product mix and sales.

Inventories

Inventories consist of raw materials, work-in-process and finished goods. Raw materials consist of components and parts for general production use. Work-in-process consists of labor and overhead, processing costs, purchased subcomponents, and materials purchased for specific customer orders. Finished goods consist of components purchased from third parties as well as components manufactured by us.

Inventories are stated at the lower of cost or net realizable value. Where necessary, we have recorded a reserve for the excess of cost over net realizable value in our inventory allowance. Net realizable value of inventory, and management's judgment concerning the need for reserves, encompasses consideration of many business factors including physical condition, inventory holding period, contract terms and usefulness. Inventories are valued based either on actual cost or using a first-in, first out method.

Long-Lived Assets

We review property and equipment and other long-lived assets ("long-lived assets") for impairment whenever events or circumstances indicate that their carrying amounts may not be recoverable. Due to triggering events identified within our segments at various times in the past, we continue to evaluate the recoverability of certain of the long-lived assets. During November 2022, we identified a triggering event associated with the Heavy Fabrications segment. In accordance with GAAP, we compared the carrying value of the segment asset group to the forecast undiscounted cash flows associated with the asset group. Based on the analysis performed, the forecast undiscounted cash flows exceeded the carrying value resulting in no recorded impairment of this group.

Income Taxes

We account for income taxes based upon an asset and liability approach. Deferred tax assets and liabilities represent the future tax consequences of the differences between the financial statement carrying amounts of assets and liabilities versus the tax basis of assets and liabilities. Under this method, deferred tax assets are recognized for deductible temporary differences, and operating loss and tax credit carryforwards. Deferred tax liabilities are recognized for taxable temporary differences. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. The impact of tax rate changes on deferred tax assets and liabilities is recognized in the year that the change is enacted.

In connection with the preparation of our consolidated financial statements, we are required to estimate our income tax liability for each of the tax jurisdictions in which we operate. This process involves estimating our actual current income tax expense and assessing temporary differences resulting from differing treatment of certain income or expense items for income tax reporting and financial reporting purposes. We also recognize the expected future income tax benefits of NOL carryforwards as deferred income tax assets. In evaluating the realizability of deferred income tax assets associated with NOL carryforwards, we consider, among other things, expected future taxable income, the expected timing of the reversals of existing temporary reporting differences, and the expected impact of tax planning strategies that may be implemented to prevent the potential loss of future income tax benefits. Changes in, among other things, income tax legislation, statutory income tax rates or future taxable income levels could materially impact our valuation of income tax assets and liabilities and could cause our income tax provision to vary significantly among financial reporting periods.

We also account for the uncertainty in income taxes related to the recognition and measurement of a tax position taken or expected to be taken in an income tax return. We follow the applicable pronouncement guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition related to the uncertainty in these income tax positions.

LIQUIDITY, FINANCIAL POSITION AND CAPITAL RESOURCES

On August 4, 2022, we entered into a credit agreement (the "2022 Credit Agreement") with Wells Fargo Bank, National Association, as lender ("Wells Fargo"), providing the Company and its subsidiaries with a $35,000 senior secured revolving credit facility (which may be further increased by up to an additional $10,000 upon the request of the Company and at the sole discretion of Wells Fargo) and a $7,578 senior secured term loan (collectively, the "2022 Credit Facility"). The proceeds of the 2022 Credit Facility are available for general corporate purposes, including strategic growth opportunities. As of December 31, 2022, cash totaled $12,732, an increase of $11,880 from December 31, 2021. Debt and finance lease obligations at December 31, 2022 totaled $14,545, and we had the ability to borrow up to $27,351 under the 2022 Credit Facility.

In addition to the 2022 Credit Facility, we also utilize supply chain financing arrangements as a component of our funding for working capital, which accelerates receivable collections and helps to better manage cash flow. Under these agreements, we have agreed to sell certain of our accounts receivable balances to banking institutions who have agreed to advance amounts equal to the net accounts receivable balances due, less a discount as set forth in the respective agreements. The balances under these agreements are accounted for as sales of accounts receivable, as they are sold without recourse. Cash proceeds from these agreements are reflected as operating activities included in the change in accounts receivable in the consolidated statements of cash flows. Fees incurred in connection with the agreements are recorded as interest expense.

On August 18, 2020, we filed a "shelf" registration statement on Form S-3, which was declared effective by the Securities and Exchange Commission (the "SEC") on October 13, 2020 (the "Form S-3") and expires on October 12, 2023. This shelf registration statement, which includes a base prospectus, allows us at any time to offer any combination of securities described in the prospectus in one or more offerings. Unless otherwise specified in the prospectus supplement accompanying the base prospectus, we would use the net proceeds from the sale of any securities offered pursuant to the shelf registration statement for general corporate purposes.

On March 9, 2021, we entered into a $10,000 Equity Distribution Agreement (the "Equity Distribution Agreement") with Craig-Hallum Capital Group, LLC. Pursuant to the terms of the Equity Distribution Agreement, we issued 1,897,697 shares of the Company's common stock thereunder during the first two quarters of 2021. The net proceeds (before upfront costs) to the Company from the sales of such shares were approximately $9,725 after deducting commissions paid of approximately $275 and before deducting other expense of $411.

On September 12, 2022, we entered into a Sales Agreement (the "Sales Agreement") with Roth Capital Partners, LLC and HC Wainwright & Co., LLC (collectively, the "Agents"). Pursuant to the terms of the Sales Agreement, we may sell from time to time, through the Agents, shares of the Company's common stock, par value $0.001 per share with an aggregate sales price of up to $12,000. The Company will pay a commission to the Agents of 2.75% of the gross proceeds of the sale of the shares sold under the Sales Agreement and reimburse the Agents for the expenses incident to the performance of their obligations under the Sales Agreement. During the year ended December 31, 2022, we issued 100,379 shares of the Company's common stock under the Sales Agreement and the net proceeds (before upfront costs) from the sale of the Company's common stock were approximately $323 after deducting commissions paid of approximately $9 and before deducting other expenses of $93. As of December 31, 2022, shares of the Company's common stock having a value of approximately $11,667 remained available for issuance under the Sales Agreement.

On March 27, 2020, the CARES Act was signed into law providing numerous tax provisions and other stimulus measures, including the Employee Retention Credit ("ERC"), which is a refundable tax credit against certain employment taxes. The Taxpayer Certainty and Disaster Tax Relief Act of 2020 and the American Rescue Plan Act of 2021 extended and expanded the availability of the ERC. As amended, the ERC was available for wages paid through September 30, 2021 and was equal to 70% of qualified wages (which included employer qualified health plan expenses) paid to employees. During each quarter of 2021, a maximum of $10,000 in qualified wages for each employee was eligible for the ERC. Therefore, the maximum tax credit that could be claimed by an eligible employer in 2021 was $7,000 per employee per calendar quarter. We qualified for the ERC in the first quarter of the year because we experienced a reduction in gross receipts of more than 20% for the first quarter of 2021 compared to the first quarter of 2019, the relevant criteria for the ERC. Since we qualified for the ERC in the first quarter of 2021, we automatically qualified for the ERC in the second quarter of 2021. In the first and second quarters of 2021, we received ERC benefits of $3,372 and $3,593, respectively, and under analogy to IAS 20 "Accounting for Government Grants and Disclosure of Government Assistance" were recorded in "Other income (expense), net" in our consolidated statement of operations. During the third quarter of 2021 due to relatively higher revenues in 2021 as compared to the third quarter of 2019, we did not qualify for the ERC benefit. The receivable for the remaining uncollected ERC benefit was $497 as of December 31, 2021 and was included in the "Employee retention credit receivable" line item in our consolidated balance sheet at December 31, 2021. The $497 receivable balance was collected during January 2022.

We anticipate that we will be able to satisfy the cash requirements associated with, among other things, working capital needs, capital expenditures and lease commitments through at least the next twelve months primarily through cash generated from operations, available cash balances, our Credit Facility, sales of shares under the Sales Agreement, additional equipment financing, and access to the public or private debt and/or equity markets, including the option to raise additional capital from the sale of our securities under a "shelf" registration statement on Form S-3.

Other

In 2016, we entered into a $570 unsecured loan agreement with the Development Corporation of Abilene which is included in long-term debt, less current maturities. The loan is forgivable upon us meeting and maintaining specific employment thresholds. During each of the years ended December 31, 2022 and 2021, $114 of the loan was forgiven. As of December 31, 2022, the loan balance was $0. In addition, we have outstanding notes payable for capital expenditures in the amount of $1,094 and $363 as of December 31, 2022 and 2021, respectively, with $88 and $186 included in the "Line of credit and current portion of long-term debt" line item of our consolidated financial statements as of December 31, 2022 and 2021, respectively. The notes payable have monthly payments that range from $3 to $16 and an interest rate of 4%. The equipment purchased is utilized as collateral for the notes payable. The outstanding notes payable have maturity dates that range from July 2023 to September 2028.

Sources and Uses of Cash

The following table summarizes our cash flows from operating, investing, and financing activities for the years ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	**2021**
Total cash provided by (used in):		
Operating activities	$ 16,643	$ (12,826)
Investing activities	(3,098)	(1,674)
Financing activities	(1,665)	11,980
Net increase (decrease) in cash	$ 11,880	$ (2,520)

Operating Cash Flows

During the year ended December 31, 2022, net cash provided by operations was $16,643 compared to net cash used in operating activities of $12,826 for the year ended December 31, 2021. The increase in net cash provided by operating activities was primarily due to an increase in customer deposits for future scheduled production during the current year period and an increase in accounts payable as compared to the prior year.

Investing Cash Flows

During the year ended December 31, 2022, net cash used in investing activities was $3,098 compared to net cash used in investing activities of $1,674 for the year ended December 31, 2021. The increase was primarily due to an increase in net purchases of property and equipment.

Financing Cash Flows

During the year ended December 31, 2022, net cash used in financing activities totaled $1,665 compared to net cash provided by financing activities of $11,980 for the year ended December 31, 2021. The decrease was primarily due to greater proceeds from the sale of securities under the Equity Distribution Agreement received in the prior year and increased net repayments under our 2022 Credit Facility during the current year. This was partially offset by an increase in proceeds from long term debt primarily related to the senior secured term loan under our 2022 Credit Facility.

Contractual Obligations

We enter into a variety of contractual obligations as part of our normal operations in addition to capital expenditures. As of December 31, 2022, we have (i) debt obligations related to our Credit Facility and other notes payable as described in Note 9, “Debt and Credit Agreements” of our consolidated financial statements (ii) cash payments for operating and finance lease obligations that are described in Note 10, “Leases” of our consolidated financial statements and (iii) purchase obligations made in the normal course of business. We expect to fund these cash requirements primarily through cash generated from operations, available cash balances, our 2022 Credit Facility, additional equipment financing, and access to the public or private debt and/or equity markets, including the option to raise additional capital from the sale of our securities under a “shelf” registration statement on Form S-3.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial information required by Item 8 is contained in Part IV, Item 15 “EXHIBITS AND FINANCIAL STATEMENT SCHEDULES” of this Annual Report.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

We seek to 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 our reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. This information is also accumulated and communicated to management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to allow timely decisions regarding required disclosure. Our management, under the supervision and with the participation of our CEO and CFO, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the most recent fiscal year reported on herein. Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures are effective as of December 31, 2022.

(b) Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(c) Report of Management on Internal Control Over Financial Reporting

Our management, including our CEO and CFO, is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

Our management, including our CEO and CFO, assessed the effectiveness of our internal control over financial reporting as of December 31, 2022. Management based this assessment on criteria for effective internal control over financial reporting described in "Internal Control—Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management determined that our internal control over financial reporting was effective as of December 31, 2022.

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

With the exception of the description of our Code of Ethics and Business Conduct below, the information required by this item is incorporated herein by reference from the discussion under the headings "Directors and Director Compensation," "Corporate Governance," and "Executive Officers" in our definitive Proxy Statement to be filed in connection with our 2023 Annual Meeting of Stockholders (the "2023 Proxy Statement").

Code of Ethics and Business Conduct

We have adopted a Code of Ethics and Business Conduct (the "Code") that applies to all of our directors, executive officers and senior financial officers (including our principal executive officer, principal financial officer, principal accounting officer, controller, and any person performing similar functions). The Code is available on our website at *www.bwen.com* under the caption "Investors" and is available in print, free of charge, to any stockholder who sends a request for a paper copy to Broadwind, Inc., Attn: Investor Relations, 3240 South Central Avenue, Cicero, IL 60804. We intend to include on our website any amendment to, or waiver from, a provision of the Code that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, that relates to any element of the code of ethics definition enumerated in Item 406(b) of Regulation S-K.

ITEM 11. EXECUTIVE COMPENSATION

Information regarding director and executive compensation is incorporated by reference from the discussion under the headings "Directors and Director Compensation," "Executive Officers" and "Compensation Discussion and Analysis" in the 2023 Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Certain of the information required by this item is incorporated herein by reference from the discussion under the heading "Security Ownership of Certain Beneficial Holders and Management" in the 2023 Proxy Statement.

The following table provides information as of December 31, 2022, with respect to shares of our common stock that may be issued under our existing equity compensation plans:

EQUITY COMPENSATION PLAN INFORMATION

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants, and rights		(b) Weighted-average exercise price of outstanding options, warrants, and rights	(c) Number of securities remaining available for future issuances under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by stockholders	822,737	(1)	$ 2.37	130,201
Total	822,737		$ 2.37	130,201

(1) Includes outstanding restricted stock awards pursuant to the Broadwind Energy, Inc. 2015 Equity Incentive Plan, as amended. This plan has been approved by our stockholders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated herein by reference from the discussion under the headings “Certain Transactions and Business Relationships” and “Corporate Governance” in the 2023 Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated herein by reference from the discussion under the heading “Ratification of Appointment of Independent Registered Public Accounting Firm” in the 2023 Proxy Statement.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

1. Financial Statements

The financial statements listed on the Index to Financial Statements (page 34) are filed as part of this Annual Report.

2. Financial Statement Schedules

These schedules have been omitted because the required information is included in the consolidated financial statements or notes thereto or because they are not applicable or not required.

3. Exhibits

The exhibits listed on the Index to Exhibits are filed as part of this Annual Report.

ITEM 16. FORM 10-K SUMMARY

None.

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Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Broadwind, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Broadwind, Inc. and its subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations, stockholders' equity and cash flows for the years then ended, and the related notes to the consolidated financial statements (collectively, the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

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

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

Critical Audit Matter

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

Long-Lived Assets

As described in Note 7 of the financial statements, the Company's evaluation of long-lived asset impairment involves the comparison of the undiscounted future cash flows of a respective asset group to its corresponding carrying value. This requires management to make significant qualitative and quantitative estimates and assumptions including estimates of future revenue growth rates, operating cash flow margins, and capital expenditures. Changes in these assumptions could have a significant impact on the amount of undiscounted cash flows, which could have an impact on the impairment charge, if any.

The Company's Heavy Fabrications asset group has experienced recurring operating losses in consecutive years ending December 31, 2022. Company management determined that the carrying amount of the Heavy Fabrications asset group may not be recoverable based on the operating performance of the asset group. Accordingly, the Company performed an impairment assessment of the asset group as of November 30, 2022. As part of the impairment assessment, it was determined that the asset group had undiscounted future cash flows that exceeded its estimated carrying value. Additionally, there were no changes in facts or circumstances following the November 30, 2022 assessment through December 31, 2022, which would alter the asset group's initial undiscounted future cash flows or carrying value estimates. As a result, no impairment charge was recorded in the consolidated statement of operations for the year ended December 31, 2022, for the Heavy Fabrications asset group. Key financial assumptions used to determine the undiscounted cash flows of the asset group were developed by management.

We identified the long-lived asset impairment assessment of the Heavy Fabrications asset group as a critical audit matter because of the high degree of judgement and subjectivity involved in auditing management's assumptions regarding their asset group determination, the asset group's primary asset determination, and projected revenue growth rates, operating cash flow margins and capital expenditures utilized to determine the recoverability of the asset group's long-lived assets.

How the Critical Audit Matter Was Addressed in the Audit

The audit procedures performed related to the evaluation of Company management's assumptions and estimates relating to their determination of recoverability of the Heavy Fabrications asset group included the following, among others:

- Evaluated the reasonableness of management's determination that each asset group represented the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities by comparing the inputs and processes utilized within each asset group to each other to ensure the inputs and processes were not comingled and were independent of each other.
- Evaluated the reasonableness of management's determination of the primary asset for the asset group which included comparing the estimated future cash flows derived from the primary asset compared to other assets within the asset grouping.
- Evaluated the reasonableness of management's forecasted revenue, operating cash flow margins, and capital expenditures for the asset group by comparing the projections to historical results and industry expectations.

/S/ RSM US LLP
We have served as the Company's auditor since 2016.

Chicago, Illinois
March 9, 2023

BROADWIND, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(In thousands, except share data)

	As of December 31,	
	2022	**2021**
ASSETS		
CURRENT ASSETS:		
Cash	$ 12,732	$ 852
Accounts receivable, net	17,018	13,802
Employee retention credit receivable	—	497
Contract assets	1,955	1,136
Inventories, net	44,262	33,377
Prepaid expenses and other current assets	3,291	2,661
Total current assets	79,258	52,325
LONG-TERM ASSETS:		
Property and equipment, net	45,319	43,655
Operating lease right-of-use assets	16,396	18,029
Intangible assets, net	2,728	3,453
Other assets	839	585
TOTAL ASSETS	$ 144,540	$ 118,047
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Line of credit and current portion of long-term debt	$ 1,170	$ 6,650
Current portion of finance lease obligations	2,008	2,060
Current portion of operating lease obligations	1,882	1,775
Accounts payable	26,255	16,462
Accrued liabilities	4,313	3,654
Customer deposits	34,550	12,082
Total current liabilities	70,178	42,683
LONG-TERM LIABILITIES:		
Long-term debt, net of current maturities	7,141	177
Long-term finance lease obligations, net of current portion	4,226	2,481
Long-term operating lease obligations, net of current portion	16,696	18,405
Other	26	167
Total long-term liabilities	28,089	21,230
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' EQUITY:		
Preferred stock, $0.001 par value; 10,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, $0.001 par value; 30,000,000 shares authorized; 21,127,130 and 19,859,650 shares issued as of December 31, 2022, and December 31, 2021, respectively	21	20
Treasury stock, at cost, 273,937 shares as of December 31, 2022 and December 31, 2021	(1,842)	(1,842)
Additional paid-in capital	397,240	395,372
Accumulated deficit	(349,146)	(339,416)
Total stockholders' equity	46,273	54,134
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 144,540	$ 118,047

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

BROADWIND, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

	For the Years Ended December 31,	
	2022	**2021**
Revenues	$ 176,759	$ 145,619
Cost of sales	166,049	140,108
Gross profit	10,710	5,511
OPERATING EXPENSES:		
Selling, general and administrative	16,592	17,372
Intangible amortization	725	733
Total operating expenses	17,317	18,105
Operating loss	(6,607)	(12,594)
OTHER INCOME (EXPENSE), net:		
Paycheck Protection Program loan forgiveness	—	9,151
Interest expense, net	(3,218)	(1,129)
Other, net	130	7,444
Total other (expense) income, net	(3,088)	15,466
Net (loss) income before provision for income taxes	(9,695)	2,872
Provision for income taxes	35	25
NET (LOSS) INCOME	(9,730)	2,847
NET (LOSS) INCOME PER COMMON SHARE—BASIC:		
Net (loss) income	$ (0.48)	$ 0.15
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING—BASIC	20,299	18,726
NET (LOSS) INCOME PER COMMON SHARE—DILUTED:		
Net (loss) income	$ (0.48)	$ 0.15
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING—DILUTED	20,299	19,388

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

BROADWIND, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except share data)

	Common Stock		Treasury Stock				
	Shares Issued	Issued Amount	Shares	Issued Amount	Additional Paid-in Capital	Accumulated Deficit	Total
BALANCE, December 31, 2020	17,211,498	$ 17	(273,937)	$ (1,842)	$ 384,749	$ (342,263)	$ 40,661
Stock issued for restricted stock	695,216	1	—	—	—	—	1
Stock issued under defined contribution 401(k) retirement savings plan	289,519	—	—	—	1,193	—	1,193
Share-based compensation	—	—	—	—	1,541	—	1,541
Shares withheld for taxes in connection with issuance of restricted stock	(234,280)	—	—	—	(1,423)	—	(1,423)
Sale of common stock, net	1,897,697	2	—	—	9,312	—	9,314
Net income	—	—	—	—	—	2,847	2,847
BALANCE, December 31, 2021	19,859,650	$ 20	(273,937)	$ (1,842)	$ 395,372	$ (339,416)	$ 54,134
Stock issued for restricted stock	818,956	—	—	—	—	—	—
Stock issued under defined contribution 401(k) retirement savings plan	629,213	—	—	—	1,244	—	1,244
Share-based compensation	—	—	—	—	944	—	944
Shares withheld for taxes in connection with issuance of restricted stock	(281,068)	—	—	—	(549)	—	(549)
Sale of common stock, net	100,379	1	—	—	229	—	230
Net loss	—	—	—	—	—	(9,730)	(9,730)
BALANCE, December 31, 2022	21,127,130	$ 21	(273,937)	$ (1,842)	$ 397,240	$ (349,146)	$ 46,273

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

BROADWIND, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended December 31,	
	2022	**2021**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net (loss) income	$ (9,730)	$ 2,847
Adjustments to reconcile net cash provided by (used in) provided by operating activities:		
Depreciation and amortization expense	6,060	6,336
Paycheck Protection Program loan forgiveness	—	(9,151)
Deferred income taxes	(13)	(2)
Change in fair value of interest rate swap agreements	(27)	23
Stock-based compensation	944	1,541
Allowance for doubtful accounts	(30)	(426)
Common stock issued under defined contribution 401(k) plan	1,244	1,193
Loss (gain) on disposal of assets	3	(33)
Changes in operating assets and liabilities:		
Accounts receivable	(3,186)	1,961
Employee retention credit receivable	497	(497)
Contract assets	(820)	1,117
Inventories	(10,885)	(6,653)
Prepaid expenses and other current assets	(629)	133
Accounts payable	9,926	(1,736)
Accrued liabilities	686	(2,676)
Customer deposits	22,468	(6,737)
Other non-current assets and liabilities	135	(66)
Net cash provided by (used in) provided by operating activities	16,643	(12,826)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property and equipment	(3,098)	(1,707)
Proceeds from disposals of property and equipment	—	33
Net cash used in investing activities	(3,098)	(1,674)
CASH FLOWS FROM FINANCING ACTIVITIES:		
(Payments on) proceeds from line of credit, net	(6,350)	5,105
Payments for deferred financing costs	(470)	—
Proceeds from long-term debt	8,113	817
Payments on long-term debt	(863)	(161)
Principal payments on finance leases	(1,776)	(1,672)
Shares withheld for taxes in connection with issuance of restricted stock	(549)	(1,423)
Proceeds from sale of common stock, net	230	9,314
Net cash (used in) provided by financing activities	(1,665)	11,980
NET INCREASE (DECREASE) IN CASH	11,880	(2,520)
CASH beginning of the period	852	3,372
CASH end of the period	$ 12,732	$ 852
Supplemental cash flow information:		
Interest paid	$ 1,638	$ 741
Income taxes paid	$ 23	$ 102
Non-cash investing and financing activities:		
Equipment additions via finance lease	$ 3,882	$ 2,757
Non-cash purchases of property and equipment	$ 134	$ 18

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

BROADWIND, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2022 and 2021

(in thousands, except share and per share data)

1. DESCRIPTION OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business

Broadwind, Inc. (the “Company”) is a precision manufacturer of structures, equipment and components for clean tech and other specialized applications. The Company provides technologically advanced high value products to customers with complex systems and stringent quality standards that operate in energy, mining and infrastructure sectors, primarily in the United States of America (the “U.S.”). The Company’s most significant presence is within the U.S. wind energy industry, although the Company has increasingly diversified into other industrial markets. Within the U.S. wind energy industry, the Company provides products primarily to turbine manufacturers. The Company also provides precision gearing and heavy fabrications to a broad range of industrial customers for oil and gas (“O&G”), mining, steel and other industrial applications, in addition to supplying components for natural gas turbines. The Company has three reportable operating segments: Heavy Fabrications, Gearing, and Industrial Solutions.

Heavy Fabrications

The Company provides large, complex and precision fabrications to customers in a broad range of industrial markets. The Company’s most significant presence is within the U.S. wind energy industry, although it has diversified into other industrial markets in order to improve capacity utilization, reduce customer concentrations, and reduce exposure to uncertainty related to governmental policies currently impacting the U.S. wind energy industry. Within the U.S. wind energy industry, the Company provides steel towers and adapters primarily to wind turbine manufacturers. Production facilities, located in Manitowoc, Wisconsin and Abilene, Texas, are situated in close proximity to the primary U.S. domestic wind energy and equipment manufacturing hubs. The two facilities have a combined annual tower production capacity of up to approximately 550 towers (1650 tower sections), sufficient to support turbines generating more than 1,100 MW of power. The Company has expanded its production capabilities and leveraged manufacturing competencies, including welding, lifting capacity and stringent quality practices, into aftermarket and OEM components utilized in surface and underground mining, construction, material handling, O&G and other infrastructure markets.

Gearing

The Company provides gearing and gearboxes to a broad set of customers in diverse markets including; onshore and offshore O&G fracking and drilling, surface and underground mining, wind energy, steel, material handling and other infrastructure markets. The Company has manufactured loose gearing, gearboxes and systems, and provided heat treat services for aftermarket and OEM applications for nearly a century. The Company uses an integrated manufacturing process, which includes machining and finishing processes in addition to gearbox repair in Cicero, Illinois, and heat treatment and gearbox repair in Neville Island, Pennsylvania.

Industrial Solutions

The Company provides supply chain solutions, light fabrication, inventory management, kitting and assembly services, primarily serving the combined cycle natural gas turbine market.

Liquidity

The Company meets its short term liquidity needs through cash generated from operations, its available cash balances, through its 2022 Credit Facility (as defined and further discussed in Note 9 "Debt and Credit Agreements" of these consolidated financial statements), equipment financing, access to the public and private debt and/or equity markets, and has the option to raise capital under the Company's registration statement on Form S-3 (as discussed below). The Company uses the 2022 Credit Facility to fund working capital requirements. Under the 2022 Credit Facility, borrowings are continuous and all cash receipts are usually applied to the outstanding borrowed balance. As of December 31, 2022, cash totaled $12,732, an increase of $11,880 from December 31, 2021. The Company had the ability to borrow up to $27,351 under the 2022 Credit Facility as of December 31, 2022.

The Company also utilizes supply chain financing arrangements as a component of its funding for working capital, which accelerates receivable collections and helps to better manage cash flow. Under these agreements, the Company has agreed to sell certain of its accounts receivable balances to banking institutions who have agreed to advance amounts equal to the net accounts receivable balances due, less a discount as set forth in the respective agreements. The balances under these agreements are accounted for as sales of accounts receivable, as they are sold without recourse. Cash proceeds from these agreements are reflected as operating activities included in the change in accounts receivable in the Company's consolidated statements of cash flows. Fees incurred in connection with the agreements are recorded as interest expense by the Company.

During the years ended December 31, 2022 and December 31, 2021, the Company sold account receivables totaling $93,245 and $99,130, respectively, related to supply chain financing arrangements, of which customers' financial institutions applied discount fees totaling $1,431 and $251, respectively.

Debt and finance lease obligations at December 31, 2022 totaled $14,545, which includes current outstanding debt and finance lease obligations totaling $3,178, due over the next twelve months. The Company's outstanding debt includes $7,217 outstanding from the senior secured term loan under the 2022 Credit Facility. The Company had $0 drawn on the senior secured revolving credit facility as of December 31, 2022.

On August 18, 2020, the Company filed a “shelf” registration statement on Form S-3, which was declared effective by the Securities and Exchange Commission (the “SEC”) on October 13, 2020 (the “Form S-3”) and expires on October 12, 2023. This shelf registration statement, which includes a base prospectus, allows the Company at any time to offer any combination of securities described in the prospectus in one or more offerings. Unless otherwise specified in the prospectus supplement accompanying the base prospectus, the Company would use the net proceeds from the sale of any securities offered pursuant to the shelf registration statement for general corporate purposes.

On March 9, 2021, the Company entered into a $10,000 Equity Distribution Agreement (the “Equity Distribution Agreement”) with Craig-Hallum Capital Group, LLC. Pursuant to the terms of the Equity Distribution Agreement, the Company issued 1,897,697 shares of the Company’s common stock thereunder during the first two quarters of 2021. The net proceeds (before upfront costs) to the Company from the sale of such shares were approximately $9,725 after deducting commissions paid of approximately $275 and before deducting other expenses of $411.

On September 12, 2022, the Company entered into a Sales Agreement (the “Sales Agreement”) with Roth Capital Partners, LLC and HC Wainwright & Co., LLC (collectively, the “Agents”). Pursuant to the terms of the Sales Agreement, the Company may sell from time to time through the Agents shares of the Company’s common stock, par value $0.001 per share with an aggregate sales price of up to $12,000. Any shares offered and sold under the Sales Agreement are to be issued pursuant to the Form S-3 and the 424(b) prospectus supplement relating to the offering dated September 12, 2022. The Company will pay a commission to the Agents of 2.75% of the gross proceeds of the sale of the shares sold under the Sales Agreement and reimburse the Agents for the expenses incident to the performance of their obligations under the Sales Agreement. During the year ended December 31, 2022, the Company issued 100,379 shares of the Company’s common stock under the Sales Agreement and the net proceeds (before upfront costs) to the Company from the sale of the Company’s common stock were approximately $323 after deducting commissions paid of approximately $9 and before deducting other expenses of $93. As of December 31, 2022, shares of the Company’s common stock having a value of approximately $11,667 remained available for issuance under the Sales Agreement.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”) was signed into law providing numerous tax provisions and other stimulus measures, including an employee retention credit (“ERC”), which is a refundable tax credit against certain employment taxes. The Taxpayer Certainty and Disaster Tax Relief Act of 2020 and the American Rescue Plan Act of 2021 extended and expanded the availability of the ERC. As amended, the ERC is available for wages paid through September 30, 2021 and is equal to 70% of qualified wages (which includes employer qualified health plan expenses) paid to employees. During each quarter of 2021, a maximum of $10,000 in qualified wages for each employee is eligible for the ERC. Therefore, the maximum tax credit that can be claimed by an eligible employer in 2021 is $7,000 per employee per calendar quarter. In the first and second quarters of 2021, the Company received ERC benefits of $3,372 and $3,593, respectively, and under analogy to IAS 20 “Accounting for Government Grants and Disclosure of Government Assistance” were recorded in “Other income (expense), net” in our consolidated statement of operations. The Company qualified for the ERC in the first quarter of 2021 because it experienced a reduction in gross receipts of more than 20% for the first quarter of 2021 compared to the first quarter of 2019, the relevant criteria for the ERC. Since the Company qualified for the ERC in the first quarter of 2021, it automatically qualified for the ERC in the second quarter of 2021. As a result of the Company averaging 500 or fewer full-time employees in 2019, all wages paid to employees were eligible for the ERC (rather than only wages paid to employees not providing services). During the third quarter of 2021 due to relatively higher revenues in 2021 as compared to the third quarter of 2019, the Company did not qualify for the ERC benefit. The receivable for the remaining uncollected ERC benefit is $497 as of December 31, 2021 and is included in the “Employee retention credit receivable” line item in the Company’s consolidated balance sheet at December 31, 2021. The $497 receivable balance was collected during January 2022.

The Company anticipates that current cash resources, amounts available under the 2022 Credit Facility, cash to be generated from operations and equipment financing, and any potential proceeds from the sale of further Company securities under the Form S-3 will be adequate to meet the Company’s liquidity needs for at least the next twelve months.

Reclassifications

Certain prior year amounts, which are not material, have been reclassified to conform to current year presentation in the consolidated financial statements and the notes to the consolidated financial statements.

Summary of Significant Accounting Policies

Management’s Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. (“GAAP”) requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities as of the date of the financial statements and reported amounts of revenues and expenses during the reported period. Significant estimates, among others, include inventory reserves, warranty reserves, impairment of long-lived assets, allowance for doubtful accounts, and valuation allowances on deferred taxes. Although these estimates are based upon management’s best knowledge of current events and actions that the Company may undertake in the future, actual results could differ

from these estimates.

Cash

As of December 31, 2022 and December 31, 2021, cash totaled $12,732 and $852, respectively. For the years ended December 31, 2022 and 2021, interest income was $0 and $1, respectively.

Revenue Recognition

Revenues are recognized when control of the promised goods or services is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. Customer deposits, deferred revenue and other receipts are deferred and recognized when the revenue is realized and earned. Cash payments to customers are presumed to be classified as reductions of revenue in the Company's statement of operations.

For many tower sales within the Company's Heavy Fabrications segment, products are sold under terms included in bill and hold sales arrangements that result in different timing for revenue recognition versus shipment. The Company recognizes revenue under these arrangements only when there is a substantive reason for the agreement, the ordered goods are identified separately as belonging to the customer and not available to fill other orders, the goods are currently ready for physical transfer to the customer, and the Company does not have the ability to use the product or to direct it to another customer. Assuming these required revenue recognition criteria are met, revenue is recognized upon completion of product manufacture and customer acceptance.

During 2022 and 2021, the Company also recognized revenue over time, versus point in time, when products in the Gearing and Heavy Fabrications segments had no alternative use to the Company and the Company had an enforceable right to payment, including profit, upon termination of the contract by the customer. Since the projects are labor intensive, the Company uses labor hours as the input measure of progress for the contract. Contract assets are recorded when performance obligations are satisfied but the Company is not yet entitled to payment. The Company recognizes contract assets associated with this revenue which represents its rights to consideration for work completed but not billed at the end of the period.

Cost of Sales

Cost of sales represents all direct and indirect costs associated with the production of products for sale to customers. These costs include operation, repair and maintenance of equipment, materials, direct and indirect labor and benefit costs, rent and utilities, maintenance, insurance, equipment rentals, freight, and depreciation.

Selling, General and Administrative Expenses

Selling, general and administrative ("SG&A") expenses include all corporate and administrative functions such as sales and marketing, legal, human resource management, finance, investor and public relations, information technology and senior management. These functions serve to support the Company's current and future operations and provide an infrastructure to support future growth. Major expense items in this category include management and staff wages and benefits, share-based compensation and professional services.

Accounts Receivable (A/R)

The Company generally grants uncollateralized credit to customers on an individual basis based upon the customer's financial condition and credit history. Credit is typically on net 30 day terms and customer deposits are frequently required at various stages of the production process to finance customized products and minimize credit risk.

Historically, the Company's A/R is highly concentrated with a select number of customers. During the year ended December 31, 2022, the Company's five largest customers accounted for 69% of its consolidated revenues and 43% of outstanding A/R balances, compared to the year ended December 31, 2021 when the Company's five largest customers accounted for 71% of its consolidated revenues and 25% of its outstanding A/R balances.

Allowance for Doubtful Accounts

Based upon past experience and judgment, the Company establishes an allowance for doubtful accounts with respect to A/R. The Company's standard allowance estimation methodology considers a number of factors that, based on its collections experience, the Company believes will have an impact on its credit risk and the realizability of its A/R. These factors include individual customer circumstances, history with the Company and other relevant criteria. A/R balances that remain outstanding after the Company has exhausted reasonable collection efforts are written off through a charge to the valuation allowance and a credit to A/R.

The Company monitors its collections and write-off experience to assess whether or not adjustments to its allowance estimates are necessary. Changes in trends in any of the factors that the Company believes may impact the realizability of its A/R, as noted above, or modifications to the Company's credit standards, collection practices and other related policies may impact its allowance for doubtful accounts and its financial results.

Inventories

Inventories are stated at the lower of cost or net realizable value. Net realizable value is the value that can be realized upon the sale of the inventory less a reasonable estimate of selling costs. Cost is determined either based on the first-in, first-out ("FIFO") method, or on a standard cost basis that approximates the FIFO method. Any excess of cost over net realizable value is included in the Company's inventory allowance. Net realizable value of inventory, and management's judgment of the need for reserves, encompasses consideration of other business factors including physical condition, inventory holding period, contract terms and usefulness.

Inventories consist of raw materials, work-in-process and finished goods. Raw materials consist of components and parts for general production use. Work-in-process consists of labor and overhead, processing costs, purchased subcomponents and materials purchased for specific customer orders. Finished goods consist of components purchased from third parties as well as components manufactured by the Company that will be used to produce final customer products.

Long-Lived Assets

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization of property and equipment is recognized using the straight-line method over the estimated useful lives of the related assets for financial reporting purposes, and generally using an accelerated method for income tax reporting purposes. Depreciation expense related to property and equipment for the years ended December 31, 2022 and 2021 was $5,335 and $5,603, respectively. Expenditures for additions and improvements are capitalized, while replacements, maintenance and repairs that do not improve or extend the useful lives of the respective assets are expensed as incurred. Property or equipment sold or disposed of is removed from the respective property accounts, with any corresponding gains and losses recorded within the operating results of the Company's consolidated statement of operations.

The Company reviews property and equipment and other long-lived assets ("long-lived assets") for impairment whenever events or circumstances indicate that carrying amounts may not be recoverable. Asset recoverability is first measured by comparing the assets' carrying amounts to their expected future undiscounted net cash flows to determine if the assets are impaired.

In evaluating the recoverability of long-lived assets, the Company must make assumptions regarding estimated future cash flows and other factors to determine the fair value of such assets. If the Company's fair value estimates or related assumptions change in the future, the Company may be required to record impairment charges related to property and equipment and other long-lived assets. If such assets are considered to be impaired, the impairment recognized is measured based on the amount by which the carrying amount of the assets exceeds the fair value. See Note 7, "Long-Lived Assets" of these consolidated financial statements for further discussion of long-lived assets.

Leases

The Company leases various property and equipment under operating lease arrangements. On January 1, 2019, the Company adopted Accounting Standards Update ("ASU") 2016-02, Leases ("Topic 842") and ASU 2018-11 using the cumulative effect method. Adopting the standard resulted in the Company recognizing operating lease assets and liabilities on the balance sheet. Rent expense for these types of leases is recognized on a straight-line basis over the lease term. In addition, the Company has entered into finance lease arrangements to finance property and equipment and assumed finance lease obligations in connection with certain acquisitions. The cost basis and accumulated amortization of assets recorded under finance leases are included in property and equipment, while the liabilities are included in finance lease obligations.

Warranty Liability

The Company provides warranty terms that generally range from one to five years for various products and services relating to workmanship and materials supplied by the Company. In certain contracts, the Company has recourse provisions for items that would enable the Company to pursue recovery from third parties for amounts paid to customers under warranty provisions. Warranty liability is recorded in accrued liabilities within the consolidated balance sheet. The Company estimates the warranty accrual based on various factors, including historical warranty costs, current trends, product mix and sales. The changes in the carrying amount of the Company's total product warranty liability for the years ended December 31, 2022 and 2021 were as follows:

	As of December 31,	
	2022	2021
Balance, beginning of period	$ 125	$ 33
Increase of warranty reserve	23	70
Warranty claims	3	22
Other adjustments	(2)	—
Balance, end of period	$ 149	$ 125

Income Taxes

The Company accounts for income taxes based upon an asset and liability approach. Deferred tax assets and liabilities represent the future tax consequences of the differences between the financial statement carrying amounts of assets and liabilities versus the tax basis of assets and liabilities. Under this method, deferred tax assets are recognized for deductible temporary differences, and operating loss and tax credit carryforwards. Deferred tax liabilities are recognized for taxable temporary differences. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. The impact of tax rate changes on deferred tax assets and liabilities is recognized in the year that the change is enacted.

In connection with the preparation of its consolidated financial statements, the Company is required to estimate its income tax liability for each of the tax jurisdictions in which the Company operates. This process involves estimating the Company's actual current income tax expense and assessing temporary differences resulting from differing treatment of certain income or expense items for income tax reporting and financial reporting purposes. The Company also recognizes as deferred income tax assets the expected future income tax benefits of net operating loss ("NOL") carryforwards. In evaluating the realizability of deferred income tax assets associated with NOL carryforwards, the Company considers, among other things, expected future taxable income, the expected timing of the reversals of existing temporary reporting differences and the expected impact of tax planning strategies that may be implemented to prevent the potential loss of future income tax benefits. Changes in, among other things, income tax legislation, statutory income tax rates or future taxable income levels could materially impact the Company's valuation of income tax assets and liabilities and could cause its income tax provision to vary significantly among financial reporting periods.

The Company also accounts for the uncertainty in income taxes related to the recognition and measurement of a tax position taken or expected to be taken in an income tax return. The Company follows the applicable pronouncement guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition related to the uncertainty in these income tax positions.

Share-Based Compensation

The Company grants incentive stock options, restricted stock units (“RSUs”) and/or performance awards (“PSUs”) to certain officers, directors, and employees. The Company accounts for share-based compensation related to these awards based on the estimated fair value of the equity award and recognizes expense ratably over the required vesting term of the award. The expense associated with PSUs is also based on the probability of achieving embedded targets. Awards that are based on a fixed number of shares are treated as equity while awards that are based on a fixed amount of dollars are treated as liabilities. See Note 14 “Share-Based Compensation” of these consolidated financial statements for further discussion of the Company’s share-based compensation plans, the nature of share-based awards issued and the Company’s accounting for share-based compensation.

Net Income Per Share

The Company presents both basic and diluted net income (loss) per share. Basic net income (loss) per share is based solely upon the weighted average number of common shares outstanding and excludes any dilutive effects of restricted stock, options, warrants and convertible securities. Diluted net income (loss) per share is based upon the weighted average number of common shares and common-share equivalents outstanding during the year excluding those common-share equivalents where the impact to basic net income (loss) per share would be anti-dilutive.

2. REVENUES

Revenues are recognized when control of the promised goods or services is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services.

The following table presents the Company’s revenues disaggregated by revenue source for the years ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
Heavy Fabrications	$ 117,206	$ 101,994
Gearing	42,588	28,583
Industrial Solutions	17,804	15,402
Eliminations	(839)	(360)
Consolidated	$ 176,759	$ 145,619

The Company’s revenue is generally recognized at a point in time, typically when control of the promised goods or services is transferred to its customers in an amount that reflects the consideration it expects to be entitled to in exchange for those goods or services. A performance obligation is a promise in a contract to transfer a distinct product or service to the customer. The Company measures revenue based on the consideration specified in the purchase order and revenue is recognized when the performance obligations are satisfied. If applicable, the transaction price of a contract is allocated to each distinct performance obligation and recognized as revenue when or as the customer receives the benefit of the performance obligation.

For many tower sales within the Company's Heavy Fabrications segment, products are sold under terms included in bill and hold sales arrangements that result in different timing for revenue recognition versus shipment. The Company recognizes revenue under these arrangements only when there is a substantive reason for the arrangement, the ordered goods are identified separately as belonging to the customer and not available to fill other orders, the goods are currently ready for physical transfer to the customer, and the Company does not have the ability to use the product or to direct it to another customer. Assuming these required revenue recognition criteria are met, revenue is recognized upon completion of product manufacture and customer acceptance.

During the years ended December 31, 2022 and 2021, the Company recognized a portion of revenue within the Gearing and Heavy Fabrications segments over time, as the products had no alternative use to the Company and the Company had an enforceable right to payment, including profit, upon termination of the contracts. Since the projects are labor intensive, the Company uses labor hours as the input measure of progress for the applicable contracts. Within the Heavy Fabrications segment, the Company recognized revenue over time of $14,298 and $5,665 for the years ended December 30, 2022 and 2021, respectively. Within the Gearing segment, the Company recognized revenue over time of $2,444 for the year ended December 31, 2021. During the fourth quarter of 2021, the Company ceased recording revenue over time within the Gearing segment due to a change in contract terms with a customer. Contract assets are recorded when performance obligations are satisfied but the Company is not yet entitled to payment. Contract assets represent the Company's rights to consideration for work completed but not billed at the end of the period.

The Company generally expenses sales commissions when incurred. These costs are recorded within selling, general and administrative expenses. Customer deposits, deferred revenue and other receipts are deferred and recognized when the revenue is realized and earned. Cash payments to customers are classified as reductions of revenue in the Company's statement of operations.

The Company does not disclose the value of the unsatisfied performance obligations for contracts with an original expected length of one year or less.

3. EARNINGS PER SHARE

The following table presents a reconciliation of basic and diluted earnings per share for the years ended December 31, 2022 and 2021 as follows:

	For the Years Ended December 31,	
	2022	2021
Basic earnings per share calculation:		
Net (loss) income	$ (9,730)	$ 2,847
Weighted average number of common shares outstanding	20,298,641	18,726,459
Basic net (loss) income per share	$ (0.48)	$ 0.15
Diluted earnings per share calculation:		
Net (loss) income	$ (9,730)	$ 2,847
Weighted average number of common shares outstanding	20,298,641	18,726,459
Common stock equivalents:		
Non-vested stock awards (1)	—	662,030
Weighted average number of common shares outstanding	20,298,641	19,388,489
Diluted net (loss) income per share	$ (0.48)	$ 0.15

(1) Restricted stock units granted and outstanding of 822,737 are excluded from the computation of diluted earnings for the year ended December 31, 2022 due to the anti-dilutive effect as a result of the Company's net loss for that period.

4. RECENT ACCOUNTING PRONOUNCEMENTS

The Company reviews new accounting standards as issued. Although some of the accounting standards issued or effective in the current fiscal year may be applicable to it, the Company believes that none of the new standards have a significant impact on its consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments-Credit Losses (Topic 326)," which replaces the current incurred loss impairment methodology for most financial assets with the current expected credit loss, or CECL, methodology. The series of new guidance amends the impairment model by requiring entities to use a forward-looking approach based on expected losses rather than incurred losses to estimate credit losses on certain types of financial instruments, including trade receivables and contract assets. The guidance should be applied on either a prospective transition or modified-retrospective approach depending on the subtopic. The guidance is effective for annual periods beginning after December 15, 2022, including interim periods within those fiscal years, with early adoption permitted. The Company is currently evaluating the impact that the new guidance will have on its consolidated financial statements.

5. ALLOWANCE FOR DOUBTFUL ACCOUNTS

The activity in the accounts receivable allowance from operations for the years ended December 31, 2022 and 2021 consists of the following:

	For the Year Ended December 31,	
	2022	2021
Balance at beginning of period	$ 47	$ 473
Bad debt expense	—	9
Write-offs	—	(229)
Other adjustments	(30)	(206)
Balance at end of period	$ 17	$ 47

6. INVENTORIES

The components of inventories as of December 31, 2022 and 2021 are summarized as follows:

	As of December 31,	
	2022	2021
Raw materials	$ 27,644	$ 16,148
Work-in-process	13,843	13,639
Finished goods	4,916	6,575
	46,403	36,362
Less: Reserve	(2,141)	(2,985)
Net inventories	$ 44,262	$ 33,377

7. LONG-LIVED ASSETS

The cost basis and estimated lives of property and equipment from continuing operations as of December 31, 2022 and 2021 are as follows:

	As of December 31,		
	2022	2021	Life (in years)
Land	$ 1,423	$ 1,423	
Buildings	20,792	20,778	39
Machinery and equipment	120,893	116,725	2 - 10
Office furniture and equipment	5,705	5,480	3 - 7
Leasehold improvements	9,040	8,937	Shorter of asset life or life of lease
Construction in progress	2,360	677	
	160,213	154,020	
Less accumulated depreciation and amortization	(114,894)	(110,365)	
Total property and equipment	$ 45,319	$ 43,655	

As of December 31, 2022, the Company had commitments of $1,942 related to the completion of projects within construction in progress.

Intangible assets represent the fair value assigned to definite-lived assets such as trade names and customer relationships. Intangible assets are amortized on a straight-line basis over their estimated useful lives, with a remaining life range from 1 to 5 years.

During November 2022, the Company identified a triggering event associated with an expected operating loss within the Heavy Fabrications segment during the year ended December 31, 2022. Accordingly, the Company performed an undiscounted cash flow analysis as of November 30, 2022 and determined that the undiscounted future cash flows exceeded the asset group's carrying value. Additionally, there were no changes in facts or circumstances following the November 30, 2022 assessment through December 31, 2022, which would alter the asset group's initial undiscounted future cash flows or carrying value estimates. As a result, no impairment charge was recorded for the Heavy Fabrications asset group for the year ended December 31, 2022.

During November 2021, the Company identified triggering events associated with operating losses within the Gearing segment and a decline in revenue and operating margin within the Heavy Fabrications segment during the year ended December 31, 2021. Accordingly, the Company performed undiscounted cash flow analyses as of November 30, 2021 and determined that the undiscounted future cash flows exceeded the asset groups' carrying values. Additionally, there were no changes in facts or circumstances following the November 30, 2021 assessments through December 31, 2021, which would alter the asset groups initial undiscounted future cash flows or carrying value estimates. As a result, no impairment charges were recorded for the Heavy Fabrications and Gearing asset groups for the year ended December 31, 2021.

As of December 31, 2022 and 2021, the cost basis, accumulated amortization and net book value of intangible assets were as follows:

	December 31, 2022					December 31, 2021				
	Cost Basis	Accumulated Amortization	Accumulated Impairment Charges	Net Book Value	Remaining Weighted Average Amortization Period	Cost	Accumulated Amortization	Accumulated Impairment Charges	Net Book Value	Remaining Weighted Average Amortization Period
Intangible assets:										
Noncompete agreements	$ 170	$ (167)	$ —	$ 3	0.1	$ 170	$ (139)	$ —	$ 31	1.1
Customer relationships	15,979	(7,581)	(7,592)	806	3.1	15,979	(7,284)	(7,592)	1,103	4.0
Trade names	9,099	(7,180)	—	1,919	4.8	9,099	(6,780)	—	2,319	5.8
Intangible assets	$ 25,248	$ (14,928)	$ (7,592)	$ 2,728	4.3	$ 25,248	$ (14,203)	$ (7,592)	$ 3,453	5.2

Intangible assets are amortized on a straight-line basis over their estimated useful lives, which range from 6 to 20 years. Amortization expense was $725 for the years ended December 31, 2022 and 2021. As of December 31, 2022, estimated future amortization expense is as follows:

2023	$ 664
2024	661
2025	661
2026	422
2027	320
Total	$ 2,728

8. ACCRUED LIABILITIES

Accrued liabilities as of December 31, 2022 and 2021 consisted of the following:

	December 31, 2022	December 31, 2021
Accrued payroll and benefits	$ 3,110	$ 2,992
Fair value of interest rate swap	—	27
Accrued property taxes	17	—
Income taxes payable	26	1
Accrued professional fees	118	129
Accrued warranty liability	149	125
Self-insured workers compensation reserve	30	166
Long term incentive plan accrual	619	—
Accrued other	244	214
Total accrued liabilities	$ 4,313	$ 3,654

9. DEBT AND CREDIT AGREEMENTS

The Company's outstanding debt balances as of December 31, 2022 and 2021 consisted of the following:

	December 31,	
	2022	2021
Line of credit	$ —	$ 6,350
Other notes payable	1,094	477
Long-term debt	7,217	—
Less: current portion	(1,170)	(6,650)
Long-term debt, net of current maturities	$ 7,141	$ 177

As of December 31, 2022, future annual principal payments on the Company's outstanding debt obligations were as follows:

2023	$ 1,170
2024	1,969
2025	1,113
2026	1,114
2027	1,115
2028 and thereafter	1,830
Total	$ 8,311

Credit Facilities

On October 26, 2016, the Company established a three-year secured revolving line of credit with CIBC Bank USA ("CIBC"). This line of credit has been amended from time to time. On February 25, 2019, the line of credit was expanded and extended for three years when the Company and its subsidiaries entered into an Amended and Restated Loan and Security Agreement (the "2016 Amended and Restated Loan Agreement"), with CIBC as administrative agent and sole lead arranger and the other financial institutions party thereto (the "Lenders"), providing the Company and its subsidiaries with a $35,000 secured credit facility (as amended to date, the "2016 Credit Facility"). The obligations under the 2016 Credit Facility were secured by, subject to certain exclusions, (i) a first priority security interest in all accounts receivable, inventory, equipment, cash and investment property, and (ii) a mortgage on the Abilene, Texas tower and Pittsburgh, Pennsylvania gearing facilities.

On October 29, 2020, the Company executed the First Amendment to the 2016 Amended and Restated Loan Agreement (the "First Amendment"), implementing a payoff of a syndicated lender and a pricing grid based on the Company's trailing twelve month EBITDA under which applicable margins range from 2.25% to 2.75% for LIBOR rate loans and 0.00% and 0.75% for base rate loans, and extending the term of the 2016 Credit Facility to July 31, 2023.

On February 23, 2021, the Company executed the Second Amendment to the Amended and Restated Loan Agreement, which waived testing of the fixed charge coverage covenant for the quarters ended March 31, 2021 and June 20, 2021, added a new liquidity covenant applicable to the quarter ended March 31, 2021 and new minimum EBITDA covenants applicable to the quarters ended March 31, 2021 and June 30, 2021. As of September 30, 2021, the Company transitioned back to a fixed charge coverage covenant.

On November 8, 2021, the Company executed the Third Amendment to the Amended and Restated Loan Agreement (the "Third Amendment") which waived the fixed charge coverage ratio default for the quarter ended September 30, 2021, suspended testing of the fixed charge coverage ratio covenant through September 30, 2022, added a minimum EBITDA covenant applicable to the three-month period ending December 31, 2021, the six-month period ending March 31, 2022, the nine-month period ending June 30, 2022 and the twelve-month period ending September 30, 2022 and added a reserve of $5,000 to the Revolving Loan Availability through December 31, 2022.

On February 28, 2022, the Company executed the Fourth Amendment to the Amended and Restated Loan Agreement (the "Fourth Amendment") which reduced the line of credit from $35,000 to $30,000, extended the maturity date until January 31, 2024, waived the minimum EBITDA covenant for the three-month period ended December 31, 2021, revised the fixed charge coverage ratio covenant as of December 31, 2022 for the trailing nine-month period after March 31, 2022, revised the minimum EBITDA covenant applicable to the three-month period ending March 31, 2022, the six-month period ending June 30, 2022 and the nine-month period ending September 30, 2022, revised the liquidity reserve and amended certain other provisions in connection with the discontinuation of LIBOR and replacement with the forward-looking term Secured Overnight Financing Rate (Term SOFR) administered by CME Group, Inc.

In conjunction with the 2016 Amended and Restated Loan Agreement, during June 2019, the Company entered into a floating to fixed interest rate swap with CIBC. The swap agreement has a notional amount of $6,000 and a schedule matching that of the underlying loan that synthetically fixes the interest rate on LIBOR borrowings for the entire term of the 2016 Credit Facility at 2.13%, before considering the Company's risk premium. The interest rate swap is accounted for using mark-to-market accounting. Accordingly, changes in the fair value of the swap each reporting period are adjusted through earnings, which may subject the Company's results of operations to non-cash volatility. The interest rate swap liability is included in the "Accrued liabilities" line item of the Company's consolidated financial statements as of December 31, 2021. The interest rate swap expired in February 2022.

All obligations outstanding under the 2016 Credit Facility were refinanced by the 2022 Credit Facility on August 5, 2022. On August 4, 2022, the Company entered into a credit agreement (the "2022 Credit Agreement") with Wells Fargo Bank, National Association, as lender ("Wells Fargo"), providing the Company and its subsidiaries with a $35,000 senior secured revolving credit facility (which may be further increased by up to an additional $10,000 upon the request of the Company and at the sole discretion of Wells Fargo) and a $7,578 senior secured term loan (collectively, the "2022 Credit Facility"). The proceeds of the 2022 Credit Facility are available for general corporate purposes, including strategic growth opportunities. The 2022 Credit Facility replaced the 2016 Credit Facility. In connection with the 2022 Credit Facility, the Company incurred deferred financing costs in the amount of $470 primarily related to the revolving credit loan. These costs are included in the "Other assets" line item of the Company's consolidated financial statements as of December 31, 2022.

The 2022 Credit Facility, as amended, contains customary covenants limiting the Company's and its subsidiaries' ability to, among other things, incur liens, make investments, incur indebtedness, merge or consolidate with others or dispose of assets, change the nature of its business, and enter into transactions with affiliates. In addition, the 2022 Credit Facility contains financial covenants requiring the Company to have a Fixed Charge Coverage Ratio (i) as of the twelve-month period ending January 31, 2024 through and including June 30, 2024 of 1.0 to 1.0, and (ii) as of each twelve-month period thereafter to be greater than 1.1 to 1.0 and minimum EBITDA (as defined in the 2022 Credit Facility) on a month-end basis of $1,921,000 for the twelve-month period ending March 31, 2023, $3,661,000 for the twelve-month period ending June 30, 2023, $5,876,000 for the twelve-month period ending September 30, 2023, and $9,929,000 for the twelve-month period ending December 31, 2023. The initial term of the revolving credit facility matures August 4, 2027. The term loan also matures on August 4, 2027, with monthly payments based on an 84-month amortization.

On February 8, 2023, the Company executed Amendment No. 1 to Credit Agreement and Limited Waiver (the "First Amendment to 2022 Credit Agreement"), which waived the Company's fourth quarter minimum EBITDA (as defined in the 2022 Credit Facility) requirement for the period ended December 31, 2022, amended the Fixed Charge Coverage Ratio (as defined in the 2022 Credit Facility) requirements for the twelve-month period ending January 31, 2024 through and including June 30, 2024 and each twelve-month period thereafter, and amended the minimum EBITDA requirements applicable to the twelve-month periods ending March 31, 2023, June 30, 2023, September 30, 2023, and December 31, 2023.

As of December 31, 2022, only $7,217 from the senior secured term loan was outstanding under the 2022 Credit Facility. The Company had $0 drawn on the senior secured revolving credit facility and had the ability to borrow up to $27,351 under the 2022 Credit Facility as of December 31, 2022. As of December 31, 2022, the effective interest rate of the senior secured revolving credit facility was 6.55% and the effective rate of the senior secured term loan was 6.80%. As of December 31, 2021, the effective interest rate of the 2016 Credit Facility was 4.0%.

Other

In 2016, the Company entered into a $570 unsecured loan agreement with the Development Corporation of Abilene which is included in long-term debt, less current maturities. The loan is forgivable upon the Company meeting and maintaining specific employment thresholds. During each of the years ended December 31, 2022 and 2021, $114 of the loan was forgiven. As of December 31, 2022 and December 31, 2021, the loan balance was $0 and $114,

respectively. In addition, the Company has outstanding notes payable for capital expenditures in the amount of $1,094 and $363 as of December 31, 2022 and 2021, respectively, with $88 and $186 included in the "Line of credit and current portion of long-term debt" line item of the Company's consolidated financial statements as of December 31, 2022 and 2021, respectively. The notes payable have monthly payments that range from $3 to $16 and an interest rate of 4%. The equipment purchased is utilized as collateral for the notes payable. The outstanding notes payable have maturity dates that range from July 2023 to September 2028.

On April 15, 2020, the Company received funds under notes and related documents ("PPP Loans") with CIBC, under the Paycheck Protection Program (the "PPP") which was established under the CARES Act enacted on March 27, 2020 in response to the COVID-19 pandemic and is administered by the U.S. Small Business Administration ("SBA"). The Company received total proceeds of $9,530 from the PPP Loans and made repayments of $379 on May 13, 2020. Under the terms of the CARES Act, as amended by the Paycheck Protection Program Flexibility Act of 2020 enacted on June 5, 2020, the PPP Loans, and accrued interest and fees are eligible to be forgiven following a period of twenty-four weeks after PPP Loan proceeds are received (the "covered period") if they are used for qualifying expenses as described in the CARES Act including payroll costs and certain employee benefits (which must equal or exceed 60% of the amount requested to be forgiven), rent, mortgage interest, and utilities. The amount of loan forgiveness is reduced if the borrower terminates employees or significantly reduces salaries during such period, subject to certain exceptions. The Company used at least 60% of the amount of the PPP Loans proceeds to pay for payroll costs and the balance on other eligible qualifying expenses consistent with the terms of the PPP and submitted its forgiveness applications to CIBC during the first quarter of 2021. During the quarter ended June 30, 2021, all loans were forgiven by the SBA and a gain of $9,151 was recorded in "Other income (expense), net" in the Company's condensed consolidated statements of operations.

10. LEASES

The Company leases various property and equipment under operating lease arrangements. On January 1, 2019, the Company adopted Topic 842 and ASU 2018-11 using the cumulative effect method and has elected to apply each available practical expedient. The standard requires companies to recognize operating lease assets and liabilities on the balance sheet and to disclose key information regarding leasing arrangements. The Company has elected to apply the short-term lease exception to all leases of one year or less.

As of December 31, 2022, the right-of-use ("ROU") asset had a balance of $16,396 which is included in the "Operating lease right-of-use assets" line item of these consolidated financial statements and current and non-current lease liabilities relating to the ROU asset of $1,882 and $16,696, respectively, and are included in the "Current portion of operating lease obligations" and "Long-term operating lease obligations, net of current portion" line items of these consolidated financial statements. As of December 31, 2021, the ROU asset had a balance of $18,029 and current and non-current lease liabilities relating to the ROU asset of $1,775 and $18,405, respectively. The discount rates used for leases accounted for under Topic 842 are based on an interest rate yield curve developed for the leases in the Company's lease portfolio.

Lease terms generally range from 3 to 15 years with renewal options for extended terms. Some of the Company's facility leases include options to renew. The exercise of the renewal options is at the Company's discretion. Therefore, the majority of renewals to extend the lease terms are not included in ROU assets and lease liabilities as they are not reasonably certain of exercise. The Company regularly evaluates the renewal options and includes them in the lease term when the Company is reasonably certain to exercise them. Certain leases contain rent escalation clauses that require additional rental payments in the later years of the term. Rent expense for these types of leases is recognized on a straight-line basis over the lease term. Operating rental expense for the years ended December 31, 2022 and 2021 was $4,253 and $4,302, respectively.

In addition, the Company has entered into finance lease arrangements to finance property and equipment and assumed finance lease obligations in connection with certain acquisitions. Finance rental expense for the years ended December 31, 2022 and 2021 was $1,639 and $1,379, respectively.

Amortization expense recorded in connection with assets recorded under finance leases was $1,172 and $984 for the years ended December 31, 2022 and 2021, respectively.

Quantitative information regarding the Company's leases is as follows:

	Year Ended December 31, 2022	Year Ended December 31, 2021
Components of lease cost		
Finance lease cost components:		
Amortization of finance lease assets	$ 1,172	$ 984
Interest on finance lease liabilities	467	395
Total finance lease costs	1,639	1,379
Operating lease cost components:		
Operating lease cost	2,839	2,965
Short-term lease cost	707	654
Variable lease cost (1)	898	870
Sublease income	(191)	(187)
Total operating lease costs	4,253	4,302
Total lease cost	$ 5,892	$ 5,681
Supplemental cash flow information related to our operating leases is as follows for the twelve months ended December 31, 2022 and 2021:		
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflow from operating leases	$ 3,496	$ 3,581
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 187	$ 907
Weighted-average remaining lease term-finance leases at end of period (in years)	3.3	1.9
Weighted-average remaining lease term-operating leases at end of period (in years)	8.1	8.9
Weighted-average discount rate-finance leases at end of period	6.0%	6.3%
Weighted-average discount rate-operating leases at end of period	8.7%	8.6%

(1) Variable lease costs consist primarily of taxes, insurance, utilities, and common area or other maintenance costs for the Company's leased facilities and equipment.

Amortization associated with new right-of-use assets obtained in exchange for new operating lease liabilities is $20 and $270 for the years ended December 31, 2022 and 2021, respectively.

As of December 31, 2022, future minimum lease payments under finance leases and operating leases were as follows:

	Finance Leases	Operating Leases	Total
2023	$ 2,372	$ 3,453	$ 5,825
2024	1,392	2,998	4,390
2025	986	3,064	4,050
2026	774	3,059	3,833
2027	671	3,098	3,769
2028 and thereafter	1,015	10,948	11,963
Total lease payments	7,210	26,620	33,830
Less—portion representing interest	(976)	(8,042)	(9,018)
Present value of lease obligations	6,234	18,578	24,812
Less—current portion of lease obligations	(2,008)	(1,882)	(3,890)
Long-term portion of lease obligations	$ 4,226	$ 16,696	$ 20,922

11. COMMITMENTS AND CONTINGENCIES

Legal Proceedings

From time to time, the Company is subject to legal proceedings or claims that arise in the ordinary course of its business. The Company accrues for costs related to loss contingencies when such costs are probable and reasonably estimable. As of December 31, 2022, the Company is not aware of any material pending legal proceedings or threatened litigation that would have a material adverse effect on the Company's results of operations, financial condition or cash flows, although no assurance can be given with respect to the ultimate outcome of pending actions. Refer to Note 18, "Legal Proceedings" of these consolidated financial statements for further discussion of legal proceedings.

Environmental Compliance and Remediation Liabilities

The Company's operations and products are subject to a variety of environmental laws and regulations in the jurisdictions in which the Company operates and sells products governing, among other things, air emissions, wastewater discharges, the use, handling and disposal of hazardous materials, soil and groundwater contamination, employee health and safety, and product content, performance and packaging. Also, certain environmental laws can impose the entire cost or a portion of the cost of investigating and cleaning up a contaminated site, regardless of fault, upon any one or more of a number of parties, including the current or previous owners or operators of the site. These environmental laws also impose liability on any person who arranges for the disposal or treatment of hazardous substances at a contaminated site. Third parties may also make claims against owners or operators of sites and users of disposal sites for personal injuries and property damage associated with releases of hazardous substances from those sites.

Collateral

In select instances, the Company has pledged specific inventory and machinery and equipment assets to serve as collateral on related payable or financing obligations.

Warranty Liability

The Company provides warranty terms that generally range from one to five years for various products and services relating to workmanship and materials supplied by the Company. In certain contracts, the Company has recourse provisions for items that would enable the Company to pursue recovery from third parties for amounts paid to customers under warranty provisions.

Liquidated Damages

In certain customer contracts, the Company has agreed to pay liquidated damages in the event of qualifying delivery or production delays. These damages are typically limited to a specific percentage of the value of the product in question and dependent on actual losses sustained by the customer. When the damages are determined to be probable and estimable, the damages are recorded as a reduction to revenue. During 2022 and 2021, the Company incurred no liquidated damages and there was no reserve for liquidated damages as of December 31, 2022 or December 31, 2021.

Workers' Compensation Reserves

As of December 31, 2022 and 2021, the Company had $30 and $166, respectively, accrued for self-insured workers' compensation liabilities. At the beginning of the third quarter of 2013, the Company began to self-insure for its workers' compensation liabilities, including reserves for self-retained losses. The Company entered into a guaranteed workers' compensation cost program at the beginning of the third quarter of 2016, but still maintains a liability for the trailing claims for the self-insured policy periods. Although the ultimate outcome of these matters may exceed the amounts recorded and additional losses may be incurred, the Company does not believe that any additional potential exposure for such liabilities will have a material adverse effect on the Company's consolidated financial position or results of operations.

Health Insurance Reserves

As of December 31, 2022 and 2021, the Company had $360 and $416, respectively, accrued for health insurance liabilities. The Company self-insures for its health insurance liabilities, including establishing reserves for self-retained losses. Historical loss experience combined with actuarial evaluation methods and the application of risk transfer programs are used to determine required health insurance reserves. The Company takes into account claims incurred but not reported when determining its health insurance reserves. Health insurance reserves are included in accrued liabilities. While the Company's management believes that it has adequately reserved for these claims, the ultimate outcome of these matters may exceed the amounts recorded and additional losses may be incurred.

Other

As of December 31, 2022, approximately 19% of the Company's employees were covered by two collective bargaining agreements with local unions at the Company's Cicero, Illinois and Neville Island, Pennsylvania locations. During November 2022, the Company negotiated a four-year collective bargaining agreement with the Neville Island union and it is expected to remain in effect through October 2026. A four-year collective bargaining agreement in regards to the Cicero, Illinois facility was negotiated in February 2022 and is expected to remain in effect through February 2026.

12. FAIR VALUE MEASUREMENTS

The Company measures its financial assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., exit price) in an orderly transaction between market participants at the measurement date. Additionally, the Company is required to provide disclosure and categorize assets and liabilities measured at fair value into one of three different levels depending on the assumptions (i.e., inputs) used in the valuation. Level 1 provides the most reliable measure of fair value while Level 3 generally requires significant management judgment. Financial assets and liabilities are classified in their entirety based on the lowest level of input significant to the fair value measurement. Financial instruments are assessed quarterly to determine the appropriate classification within the fair value hierarchy. Transfers between fair value classifications are made based upon the nature and type of the observable inputs. The fair value hierarchy is defined as follows:

Level 1 — Valuations are based on unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 — Valuations are based on quoted prices for similar assets or liabilities in active markets, or quoted prices in markets that are not active for which significant inputs are observable, either directly or indirectly. For the Company's corporate and municipal bonds, although quoted prices are available and used to value said assets, they are traded less frequently.

Level 3 — Valuations are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. Inputs reflect management's best estimate of what market participants would use in valuing the asset or liability at the measurement date.

Fair value of financial instruments

The carrying amounts of the Company's financial instruments, which include cash, A/R, accounts payable and customer deposits, approximate their respective fair values due to the relatively short-term nature of these instruments. Based upon interest rates currently available to the Company for debt with similar terms, the carrying value of the Company's long-term debt is approximately equal to its fair value.

The Company entered into an interest rate swap in June 2019 to mitigate the exposure to the variability of LIBOR for its floating rate debt described in Note 9, "Debt and Credit Agreements," of these consolidated financial statements. The fair value of the interest rate swap is reported in "Accrued liabilities" and the change in fair value is reported in "Interest expense, net" of these consolidated financial statements. The fair value of the interest rate swap is estimated as the net present value of projected cash flows based on forward interest rates at the balance sheet date. The interest rate swap expired in February 2022.

The following table represents the fair value of the Company's financial assets measured as of December 31, 2022 and 2021:

	December 31, 2021			
	Level 1	Level 2	Level 3	Total
Liabilities measured on a recurring basis:				
Interest rate swap	$ —	$ 27	$ —	$ 27
Total liabilities at fair value	$ —	$ 27	$ —	$ 27

13. INCOME TAXES

The provision for income taxes for the years ended December 31, 2022 and 2021 consists of the following:

	For the Years Ended Year Ended December 31,	
	2022	2021
Current provision		
Federal	$ —	$ —
State	48	21
Total current provision	48	21
Deferred provision		
Federal	(2,102)	(1,636)
State	(460)	(304)
Total deferred provision	(2,562)	(1,940)
Increase in deferred tax valuation allowance	2,549	1,944
Total provision for income taxes	$ 35	$ 25

During the year ended December 31, 2022, the Company recorded an expense for income taxes of $35, compared to an expense for income taxes of $25 during the year ended December 31, 2021. On August 16, 2022, Congress enacted the Inflation Reduction Act which includes advanced manufacturing tax credits for manufacturers of eligible components, including wind and solar components produced and sold in the US from 2023 through 2032. No rulings have been made on the taxability of these credits.

The total change in the deferred tax valuation allowance was $2,549 and $1,944 for the years ended December 31, 2022 and 2021, respectively. The changes in the deferred tax valuation allowance in 2022 and 2021 were primarily the result of increases to the deferred tax assets pertaining to federal and state NOLs. Management believes that significant uncertainty exists surrounding the recoverability of deferred tax assets. As a result, the Company recorded a valuation allowance against the remaining deferred tax assets.

The tax effects of the temporary differences and NOLs that give rise to significant portions of deferred tax assets and liabilities are as follows:

	As of Year Ended December 31,	
	2022	2021
Noncurrent deferred income tax assets:		
Net operating loss carryforwards	$ 74,807	$ 71,967
Intangible assets	—	453
Accrual and reserves	3,531	2,946
Leases	3,834	4,428
Other	4	8
Total noncurrent deferred tax assets	82,176	79,802
Valuation allowance	(74,559)	(72,010)
Noncurrent deferred tax assets, net of valuation allowance	7,617	7,792
Noncurrent deferred income tax liabilities:		
Fixed assets	2,584	2,834
Intangible assets	674	—
Leases	4,344	4,956
Total noncurrent deferred tax liabilities	7,602	7,790
Net deferred income tax asset	$ 15	$ 2

Certain prior year amounts have been reclassified to conform to current year presentation. Valuation allowances of $74,559 and $72,010 have been provided for deferred income tax assets for which realization is uncertain as of December 31, 2022 and 2021, respectively. A reconciliation of the beginning and ending amounts of the valuation is as follows:

Valuation allowance as of December 31, 2021	$ (72,010)
Gross increase for current year activity	(2,549)
Valuation allowance as of Balance at December 31, 2022	$ (74,559)

As of December 31, 2022, the Company had federal and unapportioned state NOL carryforwards of approximately $288,462 of which $227,781 will begin to expire in 2026. The majority of the NOL carryforwards will expire in various years from 2028 through 2037. NOLs generated after January 1, 2018 will not expire.

The reconciliation between the statutory U.S. federal income tax rate and the Company's effective income tax rate is as follows:

	For the Year Ended December 31,	
	2022	2021
Statutory U.S. federal income tax rate	21.0%	21.0%
State and local income taxes, net of federal income tax benefit	3.3	(6.6)
Permanent differences	(0.6)	1.9
Change in valuation allowance	(26.3)	29.2
Equity compensation	0.0	14.5
Other	(2.1)	0.2
State NOL deferred adjustment	4.3	-
PPP loan forgiveness	0.0	(59.6)
Effective income tax rate	(0.4)%	0.6%

The Company accounts for the uncertainty in income taxes by prescribing a minimum recognition threshold for a tax position taken, or expected to be taken, in a tax return that is required to be met before being recognized in the financial statements. The Company recognizes interest and penalties related to uncertain tax positions as income tax expense. As of December 31, 2022, the Company had no unrecognized tax benefits that could impact the income tax expense.

The Company files income tax returns in the U.S. federal and state jurisdictions. As of December 31, 2022, with few exceptions, the Company is no longer subject to federal or state income tax examinations by taxing authorities for years before December 31, 2018; however, taxing authorities have the ability to adjust NOL carryforwards in open tax years that may have been carried forward from closed years. The Company's 2008 and 2009 federal tax returns were examined in 2011 and no material adjustments were identified related to any of the Company's tax positions. Although these periods have been audited, they continue to remain open until all NOLs generated in those tax years have either been utilized or expire.

Section 382 of the Internal Revenue Code of 1986, as amended (the "IRC"), generally imposes an annual limitation on the amount of NOL carryforwards and associated built-in losses that may be used to offset taxable income when a corporation has undergone certain changes in stock ownership. The Company's ability to utilize NOL carryforwards and built-in losses may be limited, under this section or otherwise, by the Company's issuance of common stock or by other changes in stock ownership. Upon completion of the Company's analysis of IRC Section 382, the Company has determined that aggregate changes in stock ownership have resulted in an annual limitation of $14,284 on NOLs and built-in losses available for utilization based on the triggering event in 2010. To the extent the Company's use of NOL carryforwards and associated built-in losses is significantly limited in the future due to additional changes in stock ownership, the Company's income could be subject to U.S. corporate income tax earlier than it would if the Company were able to use NOL carryforwards and built-in losses without such annual limitation, which could result in lower profits and the loss of the majority of the benefits from these attributes.

In February 2013, the Company adopted a Stockholder Rights Plan, which was amended in February 2016 and approved by our stockholders (as amended, the "Rights Plan"), designed to preserve the Company's substantial tax assets associated with NOL carryforwards under Section 382 of the IRC. On February 7, 2019, the Board of Directors (the "Board") approved an amendment extending the Rights Plan for an additional three years, which was subsequently approved by the Company's stockholders at the 2019 Annual Meeting of Stockholders held on April 23, 2019 (the "2019 Annual Meeting of Stockholders"). On February 3, 2022, the Board approved an amendment which included an extension of the Rights Plan for an additional three years, which was subsequently approved by the Company's stockholders at the 2022 Annual Meeting of Stockholders.

The Rights Plan is intended to act as a deterrent to any person or group, together with its affiliates and associates, being or becoming the beneficial owner of 4.9% or more of the Company's common stock and thereby triggering a further limitation of the Company's available NOL carryforwards. In connection with the adoption of the Rights Plan, the Board declared a non-taxable dividend of one preferred share purchase right (a "Right") for each outstanding share of the Company's common stock to the Company's stockholders of record as of the close of business on February 22, 2013. Since the record date, the Company has issued one Right with each newly issued share of its common stock. Until the distribution date (unless earlier redeemed or exchanged or upon expiration of the Rights, as applicable), the Rights will be evidenced by certificates of the Company's common stock and will be transferred only with such certificates. Each Right entitles its holder to purchase from the Company one one-thousandth of a share of the Company's Series A Junior Participating Preferred Stock at an exercise price of $7.26 per Right, subject to adjustment. As a result of the Rights Plan, any person or group that acquires beneficial ownership of 4.9% or more of the Company's common stock without the approval of the Board would be subject to significant dilution in the ownership interest of that person or group. Stockholders who owned 4.9% or more of the outstanding shares of the Company's common stock as of February 12, 2013 will not trigger the preferred share purchase rights unless they acquire additional shares after that date.

14. SHARE-BASED COMPENSATION

Overview of Share-Based Compensation Plan

The Company has granted incentive stock options and other equity awards pursuant to previously Board approved equity incentive plans. Most recently, the Company has granted equity awards pursuant to the Broadwind Energy, Inc. 2015 Equity Incentive Plan, which was approved by the Board in February 2015 and by the Company's stockholders in April 2015. On February 19, 2019, the Board approved an Amended and Restated 2015 Equity Incentive Plan (as amended, the "2015 EIP,"), which, among other things, increased the number of shares of our common stock authorized for issuance under the 2015 EIP from 1,100,000 to 2,200,000. The amendment and restatement of the 2015 EIP was approved by the Company's stockholders at the 2019 Annual Meeting of Stockholders. On February 7, 2021, the Board approved the Second Amendment to the Amended and Restated 2015 Equity Incentive Plan which, among other things, increased the number of shares of our common stock authorized for issuance under the 2015 EIP from 2,200,000 to 3,200,000. The Second Amendment to the amendment and restatement of the 2015 EIP was approved by the Company's stockholders at the 2021 Annual Meeting of Stockholders.

The purposes of the Company's equity incentive plans are (a) to align the interests of the Company's stockholders and recipients of awards by increasing the proprietary interest of such recipients in the Company's growth and success; (b) to advance the interests of the Company by attracting and retaining officers, other employees, non-employee directors and independent contractors; and (c) to motivate such persons to act in the long-term best interests of the Company and its stockholders. Under the 2015 EIP, the Company may grant (i) non-qualified stock options; (ii) "incentive stock options" (within the meaning of Section 422 of the IRC); (iii) stock appreciation rights; (iv) restricted stock and restrictive stock units; and (v) performance awards.

Stock Options. The exercise price of stock options granted under the 2015 EIP is equal to the closing price of the Company's common stock on the date of grant. Stock options generally become exercisable on the anniversary of the grant date, with vesting terms that may range from one to five years from the date of grant. Additionally, stock options expire ten years after the date of grant. The fair value of stock options granted is expensed ratably over their vesting term.

Restricted Stock Units (RSUs). The granting of RSUs is provided for under the 2015 EIP. RSUs generally contain a vesting period of one to five years from the date of grant. The fair value of each RSU granted is equal to the closing price of the Company's common stock on the date of grant and is generally expensed ratably over the vesting term of the RSU award.

Performance Awards (PSUs). The granting of PSUs is provided for under the 2015 EIP. Vesting of PSUs is conditioned upon the Company meeting applicable performance measures over the performance period. The fair value of each PSU granted is equal to the closing price of the Company's common stock on the date of grant and is generally expensed ratably over the term of the PSU award plan.

The 2015 EIP reserves 3,200,000 shares of the Company's common stock. As of December 31, 2022, 1,854,919 shares of common stock reserved for issuance pursuant to stock options and RSU awards granted under the 2015 EIP had been issued in the form of common stock and 822,737 shares of common stock are issued and unvested.

There was no stock option activity during the years ended December 31, 2022 and 2021 and no stock options were outstanding as of December 31, 2022 and 2021. The fair value of each stock option award is estimated on the date of grant using the Black-Scholes option pricing model. The determination of the fair value of each stock option is affected by the Company's stock price on the date of grant, as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the Company's expected stock price volatility over the expected life of the awards and actual and projected stock option exercise behavior.

The following table summarizes information with respect to outstanding RSUs and PSUs accounted for as equity awards as of December 31, 2022 and 2021:

	Number of Shares	Weighted Average Grant-Date Fair Value Per Share
Unvested as of December 31, 2021	918,448	$ 2.73
Granted	748,694	$ 1.75
Vested	(818,956)	$ 2.23
Forfeited	(25,449)	$ 2.60
Unvested as of December 31, 2022	822,737	$ 2.37

RSUs and PSUs are generally subject to ratable vesting over a three-year period. Compensation expense related to these service and performance based awards is generally recognized on a straight-line basis over the vesting period. During the years ended December 31, 2022 and 2021, the Company utilized a forfeiture rate of 25% for estimating the forfeitures of stock compensation granted.

During the year ended December 31, 2022, the Company recorded share-based compensation expense in the amount of $619 for PSUs treated as liability awards that will be settled in shares in 2023. The liability is recognized in the "Accrued liabilities" line item of the Company's condensed consolidated balance sheet and has a balance of $619 as of December 31, 2022. The following table summarizes share-based compensation expense, net of taxes withheld, included in the Company's consolidated statements of operations for the years ended December 31, 2022 and 2021 as follows:

	For the Years Ended December 31,	
	2022	2021
Share-based compensation expense:		
Cost of sales	$ 129	$ 130
Selling, general and administrative	1,434	1,411
Net effect of share-based compensation expense on net income	$ 1,563	$ 1,541
Reduction in earnings per share:		
Basic earnings per share	$ 0.08	$ 0.08
Diluted earnings per share	$ 0.08	$ 0.08

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(1) Income tax benefit is not illustrated because the Company is currently in a full tax valuation allowance position and an actual income tax benefit was not realized for the years ended December 31, 2022 and 2021. The result of the income (loss) situation creates a timing difference, resulting in a deferred tax asset, which is fully reserved for in the Company's valuation allowance.

As of December 31, 2022, the Company estimates that pre-tax compensation expense for all unvested share-based RSUs and PSUs in the amount of approximately $1,162 will be recognized through the year 2024. The Company expects to satisfy the future distribution of shares of restricted stock by issuing new shares of common stock.

15. SEGMENT REPORTING

The Company is organized into reporting segments based on the nature of the products offered and business activities from which it earns revenues and incurs expenses for which discrete financial information is available and regularly reviewed by the Company's chief operating decision maker.

The Company's segments and their product offerings are summarized below:

Heavy Fabrications

The Company provides large, complex and precision fabrications to customers in a broad range of industrial markets. The Company's most significant presence is within the U.S. wind energy industry, although it has diversified into other industrial markets in order to improve capacity utilization, reduce customer concentrations, and reduce exposure to uncertainty related to governmental policies currently impacting the U.S. wind energy industry. Within the U.S. wind energy industry, the Company provides steel towers and adapters primarily to wind turbine manufacturers. Production facilities, located in Manitowoc, Wisconsin and Abilene, Texas, are situated in close proximity to the primary U.S. domestic wind energy and equipment manufacturing hubs. The two facilities have a combined annual tower production capacity of up to approximately 550 towers (1650 tower sections), sufficient to support turbines generating more than 1,100 MW of power. The Company has expanded production capabilities and leveraged manufacturing competencies, including welding, lifting capacity and stringent quality practices, into aftermarket and OEM components utilized in surface and underground mining, construction, material handling, O&G and other infrastructure markets.

Gearing

The Company provides gearing and gearboxes to a broad set of customers in diverse markets including; onshore and offshore O&G fracking and drilling, surface and underground mining, wind energy, steel, material handling and other infrastructure markets. The Company has manufactured loose gearing, gearboxes and systems, and provided heat treat services for aftermarket and OEM applications for nearly a century. The Company uses an integrated manufacturing process, which includes machining and finishing processes in Cicero, Illinois, and heat treatment and gearbox repair in Neville Island, Pennsylvania.

Industrial Solutions

The Company provides supply chain solutions, light fabrication, inventory management, kitting and assembly services, primarily serving the combined cycle natural gas turbine market.

Corporate and Other

"Corporate" includes the assets and SG&A expenses of the Company's corporate office. "Eliminations" comprises adjustments to reconcile segment results to consolidated results.

The accounting policies of the reportable segments are the same as those referenced in Note 1, "Description of Business and Summary of Significant Accounting Policies" of these consolidated financial statements. Summary financial information by reportable segment is as follows:

	Heavy Fabrications	Gearing	Industrial Solutions	Corporate	Eliminations	Consolidated
For the Year Ended December 31, 2022						
Revenues from external customers	$ 117,194	42,572	16,993	—	—	$ 176,759
Intersegment revenues	12	16	811	—	(839)	—
Net revenues	117,206	42,588	17,804	—	(839)	176,759
Operating (loss) income	(1,044)	43	120	(5,722)	(4)	(6,607)
Depreciation and amortization	3,446	1,978	397	239	—	6,060
Capital expenditures	2,601	446	48	3	—	3,098
Total assets	45,475	51,944	12,775	224,856	(190,510)	144,540

	Heavy Fabrications	Gearing	Industrial Solutions	Corporate	Eliminations	Consolidated
For the Year Ended December 31, 2021						
Revenues from external customers	$ 101,989	28,583	15,047	—	—	$ 145,619
Intersegment revenues	5	—	355	—	(360)	—
Net revenues	101,994	28,583	15,402	—	(360)	145,619
Operating loss	(3,214)	(2,593)	(386)	(6,401)	—	(12,594)
Depreciation and amortization	3,844	1,855	425	212	—	6,336
Capital expenditures	1,038	328	261	80	—	1,707
Total assets	37,131	46,219	10,825	228,219	(204,347)	118,047

The Company generates revenues entirely from transactions completed in the U.S. and its long-lived assets are all located in the U.S. All intercompany revenue is eliminated in consolidation. During 2022, two customers accounted for more than 10% of total net revenues. The customers, reported within the Heavy Fabrications segment, accounted for revenues of $64,625 and $20,336, respectively. During 2021, two customers accounted for more than 10% of total net revenues. The customers, reported within the Heavy Fabrications segment, accounted for revenues of $59,278 and $25,946 respectively. During the years ended December 31, 2022 and 2021, five customers accounted for 69% and 71%, respectively, of total net revenues.

16. EMPLOYEE BENEFIT PLANS

Retirement Savings and Profit Sharing Plans

Retirement Savings and Profit Sharing Plans

The Company offers a 401(k) retirement savings plan to all eligible employees who may elect to contribute a portion of their salary on a pre-tax basis, subject to applicable statutory limitations. As of December 31, 2022, all employees were eligible to receive safe harbor matching contributions equal to 100% of the first 3% of the participant's elective deferral contributions and 50% of the next 2% of the participant's elective deferral contributions. The Company has the discretion, subject to applicable statutory requirements, to fund any matching contribution with a contribution to the plan of the Company's common stock. The Company periodically evaluates whether to fund the matching contribution in cash or in the Company's common stock. Under the plan, elective deferrals and basic Company matching is 100% vested at all times.

For the years ended December 31, 2022 and 2021, the Company recorded expense under these plans of approximately $1,247 and $1,195, respectively.

Deferred Compensation Plan

The Company maintains a deferred compensation plan for certain key employees and nonemployee directors, whereby certain wages earned, compensation for services rendered, and discretionary company-matching contributions may be deferred and deemed to be invested in the Company's common stock. Changes in the fair value of the plan liability are recorded as charges or credits to compensation expense. Compensation income associated with the deferred compensation plan recorded during the years ended December 31, 2022 and 2021 was $(1) and $(55). The fair value of the plan liability to the Company is included in accrued liabilities in the Company's consolidated balance sheets. As of December 31, 2022 and 2021, the fair value of plan liability to the Company was $15 and $16, respectively.

In addition to the employee benefit plans described above, the Company participates in certain customary employee benefits plans, including those which provide health and life insurance benefits to employees.

17. QUARTERLY FINANCIAL SUMMARY (UNAUDITED)

The following table provides a summary of selected financial results of operations by quarter for the years ended December 31, 2022 and 2021 as follows:

2022	First	Second	Third	Fourth
Revenues	$ 41,844	$ 50,012	$ 44,843	$ 40,060
Gross profit	2,012	2,394	3,748	2,556
Operating loss	(2,073)	(1,912)	(520)	(2,102)
Net loss	(2,404)	(2,703)	(1,772)	(2,851)
Net loss per share:				
Basic	$ (0.12)	$ (0.13)	$ (0.09)	$ (0.14)
Diluted	$ (0.12)	$ (0.13)	$ (0.09)	$ (0.14)

2021	First	Second	Third	Fourth
Revenues	$ 32,728	$ 46,491	$ 40,389	$ 26,011
Gross profit	282	2,198	2,074	957
Operating loss	(4,311)	(2,311)	(1,997)	(3,975)
Net (loss) income	(1,210)	10,252	(2,105)	(4,090)
Net (loss) income per share:				
Basic	$ (0.07)	$ 0.55	$ (0.11)	$ (0.21)
Diluted	$ (0.07)	$ 0.53	$ (0.11)	$ (0.21)

18. LEGAL PROCEEDINGS

The Company is party to a variety of legal proceedings that arise in the normal course of its business. While the results of these legal proceedings cannot be predicted with certainty, management believes that the final outcome of these proceedings will not have a material adverse effect, individually or in the aggregate, on the Company's results of operations, financial condition or cash flows. Due to the inherent uncertainty of litigation, there can be no assurance that the resolution of any particular claim or proceeding would not have a material adverse effect on the Company's results of operations, financial condition or cash flows. It is possible that if one or more litigation matters were decided against the Company, the effects could be material to the Company's results of operations in the period in which the Company would be required to record or adjust the related liability and could also be material to the Company's financial condition and cash flows in the periods the Company would be required to pay such liability.

The Company received a notice dated January 18, 2023 from WM Argyle Fund, LLC, which allegedly owned approximately 1.0% of the Company's outstanding shares at the time of submission, purporting to nominate a slate of six candidates for election as directors at the Company's 2023 Annual Meeting of Stockholders. The Company remains open to ongoing engagement with WM Argyle. However, if the Company and WM Argyle cannot reach an agreement in connection with its nomination, there will be a contested election at the Company's 2023 Annual Meeting of Stockholders.

INDEX TO EXHIBITS

Exhibit Number	Description
3.1	Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2008)
3.2	Certificate of Amendment to the Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company’s Current Report on Form 8-K filed August 23, 2012)
3.3	Certificate of Amendment to the Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company’s Current Report on Form 8-K filed May 6, 2020)
3.4	Third Amended and Restated Bylaws of the Company, adopted as of May 4, 2020 (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed May 6, 2020)
4.1	Section 382 Rights Agreement dated as of February 12, 2013 between the Company and Equiniti Trust Company, as rights agent, which includes the Form of Rights Certificate as Exhibit B thereto (incorporated by reference to Exhibit 1 to the Company’s Registration Statement on Form 8-A filed February 13, 2013)
4.2	Certificate of Designation of Series A Junior Participating Preferred Stock of the Company (incorporated by reference to Exhibit 2 to the Company’s Registration Statement on Form 8-A filed February 13, 2013)
4.3	First Amendment to Section 382 Rights Agreement dated as of February 2, 2016 between the Company and Equiniti Trust Company, as rights agent (incorporated by reference to Exhibit 4.1 to the Company’s Current Report on Form 8-K filed February 8, 2016)
4.4	Second Amendment to Section 382 Rights Agreement dated as of February 7, 2019 between the Company and Equiniti Trust Company, as rights agent (incorporated by reference to Exhibit 4.1 to the Company’s Current Report on Form 8-K filed February 12, 2019)
4.5	Third Amendment to Section 382 Rights Agreement dated as of February 3, 2022 between the Company and Equiniti Trust Company, as rights agent (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed February 3, 2022
4.6	Description of Securities (incorporated by reference to Exhibit 4.5 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019)
10.1	Lease Agreement dated December 26, 2007 between Tower Tech Systems Inc. and City Centre, LLC (incorporated by reference to Exhibit 10.3 to the Company’s Annual Report on Form 10-KSB for the fiscal year ended December 31, 2007)
10.2	Amended and Restated Lease for Industrial/Manufacturing Space dated as of May 1, 2010 between Tower Tech Systems Inc. and City Centre, LLC (incorporated by reference to Exhibit 10.5 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2010)
10.3†	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.6 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2010)
10.4†	Broadwind Energy, Inc. 2015 Equity Incentive Plan (incorporated by reference to Exhibit A to the Company’s Schedule 14A filed on March 12, 2015)
10.5†	Form of Executive Incentive Stock Option Agreement (incorporated by reference to Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2010)
10.6†	Form of Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012)
10.7†	Form of Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012)
10.8†	Form of Stock Option Agreement (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012)
10.9†	Form of Restricted Stock Unit Award Agreement (Non-Employee Directors) (incorporated by reference to Exhibit 10.35 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2015)
10.10†	Form of Restricted Stock Unit Award Agreement (Extended Executive Team) (incorporated by reference to Exhibit 10.36 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2015)
10.11†	Form of Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.37 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2015)
10.12†	Broadwind Energy, Inc. 2015 Equity Incentive Plan Restricted Stock Unit Award Notice (incorporated by reference to Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2018)
10.13	Amended and Restated Loan and Security Agreement, dated February 25, 2019, among the Company, Brad Foote Gearworks, Inc., Broadwind Services, LLC, Broadwind Towers, Inc., Red Wolf Company, LLC, the other Loan Parties and Lenders party thereto, and CIBC Bank USA, as Administrative Agent and Sole Lead Arranger (incorporated by reference to Exhibit 10.25 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2018)
10.14†	Severance and Non-Competition Agreement, dated as of May 4, 2018, between the Company and Eric Blashford (incorporated by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed May 3, 2018)
10.15†	Form of Performance Award Agreement (Broadwind Energy, Inc. 2015 Equity Incentive Plan) (incorporated by reference to Exhibit 10.4 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019)
10.16†	Form of Performance Award Agreement (Amended and Restated Broadwind Energy, Inc. 2015 Equity Incentive Plan) (incorporated by reference to Exhibit 10.5 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019)
10.17†	Form of Performance Award Agreement dated April 23, 2019 between the Company and Stephanie K. Kushner (incorporated by reference to Exhibit 10.6 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019)
10.18†	Restricted Stock Award Agreement dated April 23, 2019 between the Company and Stephanie K. Kushner (incorporated by reference to Exhibit 10.7 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019)
10.19†	Amended and Restated Broadwind Energy, Inc. 2015 Equity Incentive Plan (incorporated by reference to Exhibit D to the Company’s Schedule 14A filed on March 11, 2019)

10.20	Note dated April 5, 2020 by and between Brad Foote Gear Works, Inc. and CIBC Bank USA (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2020)
10.21	Note dated April 5, 2020 by and between Broadwind Heavy Fabricators, Inc. and CIBC Bank USA (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2020)
10.22	Note dated April 5, 2020 by and between Broadwind Industrial Solutions, Inc. and CIBC Bank USA (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2020)
10.23	Note dated April 8, 2020 by and between Broadwind Energy, Inc. n/k/a Broadwind, Inc. and CIBC Bank USA (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2020)
10.24†	Form of Performance Award Agreement (Amended and Restated Broadwind, Inc. 2015 Equity Incentive Plan) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2020)
10.25†	First Amendment to Amended and Restated Broadwind Energy, Inc. 2015 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2020)
10.26	First Amendment to the Amended and Restated Loan and Security Agreement and Other Loan Documents, dated October 29, 2020, among the Company, Brad Foote Gearworks, Inc, Broadwind Services, LLC, Broadwind Heavy Fabrications, Inc., Broadwind Industrial Solutions, LLC, CIBC Bank USA, as Administrative Agent for itself and all Lenders and Siena Lending Group (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2020)
10.27	Second Amendment to the Amended and Restated Loan and Security Agreement, dated February 23, 2021, among the Company, Brad Foote Gearworks, Inc, Broadwind Services, LLC, Broadwind Heavy Fabrications, Inc., Broadwind Industrial Solutions, LLC, and CIBC Bank USA, as Administrative Agent for itself and all Lenders (incorporated by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2020)
10.28	Second Amendment to Amended and Restated Broadwind, Inc. 2015 Equity Incentive Plan (incorporated by reference to Appendix B to Amendment No. 1 to the Company's Schedule 14A filed April 5, 2021)
10.29	Third Amendment to Amended and Restated Loan and Security Agreement, dated November 8, 2021, among the Company, Brad Foote Gearworks, Inc., Broadwind Services, LLC, Broadwind Heavy Fabrications, Inc., Broadwind Industrial Solutions, LLC and CIBC Bank USA, as Administrative Agent for itself and all Lenders (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2021)
10.30	Equity Distribution Agreement, dated March 9, 2021, by and between the Company and Craig-Hallum Capital Group LLC (incorporated by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed March 9, 2021)
10.31	Fourth Amendment to Amended and Restated Loan and Security Agreement, dated February 28, 2022, among the Company, Brad Foote Gearworks, Inc., Broadwind Services, LLC, Broadwind Heavy Fabrications, Inc., Broadwind Industrial Solutions, LLC and CIBC Bank USA, as Administrative Agent for itself and all Lenders (incorporated by reference to Exhibit 10.30 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021)
10.32	Credit Agreement, dated as of August 4, 2022, by and among Broadwind, Inc., Brad Foote Gear Works, Inc., Broadwind Industrial Solutions, LLC, Broadwind Heavy Fabrications, Inc., 5100 Neville Road, LLC and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed August 8, 2022)
10.33	Guaranty, dated as of August 4, 2022, by Broadwind, Inc., Brad Foote Gear Works, Inc., Broadwind Industrial Solutions, LLC, Broadwind Heavy Fabrications, Inc. and 5100 Neville Road, LLC in favor of Wells Fargo Bank, National Association (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed August 8, 2022)
10.34	Severance and Non-Competition Agreement dated as of August 10, 2022, between Broadwind, Inc. and Thomas A. Ciccone (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed August 12, 2022)
10.35	Sales Agreement, dated September 12, 2022, by and among Broadwind, Inc., Roth Capital Partners, LLC and H.C. Wainwright & Co. (incorporated by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed September 12, 2022)
10.36	Amendment No. 1 to Credit Agreement and Limited Waiver, dated as of February 8, 2023, by and among Broadwind Inc., Brad Foote Gear Works, Inc., Broadwind Industrial Solutions, LLC, Broadwind Heavy Fabrications, Inc., 5100 Neville Island, LLC and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed February 14, 2023)
21	Subsidiaries of the Registrant (filed herewith)
23	Consent of RSM LLP (filed herewith)
31.1	Rule 13a-14(a) Certification of Chief Executive Officer (filed herewith)
31.2	Rule 13a-14(a) Certification of Chief Financial Officer (filed herewith)
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
101	The following financial information from this Form 10-K of Broadwind, Inc. for the year ended December 31, 2022, formatted in Inline XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets as of December 31, 2022 and 2021, (ii) Consolidated Statements of Operations for the years ended December 31, 2022 and 2021, (iii) Consolidated Statements of Stockholders' Equity for the years ended December 31, 2022 and 2021, (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2022 and 2021, and (v) Notes to Consolidated Financial Statements, tagged as blocks of text.
104	Cover Page Interactive Data File (embedded within the Inline XBRL and contained in Exhibit 101)

† Indicates management contract or compensation plan or arrangement.

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 report to be signed on its behalf by the undersigned, thereunto duly authorized, on the ninth day of March, 2023 .

BROADWIND, INC.

By: /s/ Eric B. Blashford
Eric B. Blashford
President and Chief Executive Officer
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons (including a majority of the board of directors) on behalf of the registrant and in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ Eric B. Blashford Eric B. Blashford	President, Chief Executive Officer, and Director (Principal Executive Officer)	March 9, 2023
/s/ Thomas A. Ciccone Thomas A. Ciccone	Vice President and Chief Financial Officer (Principal Financial Officer)	March 9, 2023
/s/ David P. Reiland David P. Reiland	Director	March 9, 2023
/s/ Philip J. Christman Philip J. Christman	Director	March 9, 2023
/s/ Thomas A. Wagner Thomas A. Wagner	Director	March 9, 2023
/s/ Cary B. Wood Cary B. Wood	Director	March 9, 2023
/s/ Sachin Shivaram Sachin Shivaram	Director	March 9, 2023

EXHIBIT 21

Subsidiaries of the Registrant

Subsidiaries	State of Incorporation/Formation
Brad Foote Gear Works, Inc.	Illinois
Broadwind Services, LLC	Delaware
Broadwind Heavy Fabrications, Inc.	Wisconsin
Broadwind Industrial Solutions, LLC	North Carolina

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (No. 333-248107) on Form S-3 and (Nos. 333-160039, 333-181168, 333-181170, 333-203736, 333-223260, 333-229875, 333-231051, 333-234361, 333-255892, 333-260956, and No. 333-266690) on Form S-8 of Broadwind, Inc. of our report dated March 9, 2023, relating to the consolidated financial statements of Broadwind, Inc., appearing in this Annual Report on Form 10-K of Broadwind, Inc. for the year ended December 31, 2022.

/s/ RSM US LLP

Chicago, Illinois
March 9, 2023

EXHIBIT 31.1

CERTIFICATION

I, Eric B. Blashford, certify that:

1. I have reviewed this Annual Report on Form 10-K of Broadwind, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 9, 2023

/s/ERIC B. BLASHFORD
Eric B. Blashford
President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Thomas A. Ciccone, certify that:

1. I have reviewed this Annual Report on Form 10-K of Broadwind, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 9, 2023

/s/ Thomas A. Ciccone

Thomas A. Ciccone
Vice President and Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32.1

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of Broadwind, Inc. (the "Company") for the year ended December 31, 2022, as filed with the Securities and Exchange Commission (the "Commission") on the date hereof (the "Report"), I, Eric B. Blashford, President and Chief Executive Officer of the Company, certify, pursuant to Section 906 of the Sarbanes- Oxley Act of 2002 ("Section 906"), that:

(i) the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of, and for, the periods presented in the Report.

March 9, 2023

/s/ ERIC B. BLASHFORD
Eric B. Blashford
President and Chief Executive Officer
(Principal Executive Officer)

This certification accompanies the Report pursuant to Section 906 and shall not be deemed filed by the Company for purposes of Section 18 of the Exchange Act.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Commission or its staff upon request.

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Broadwind, Inc. (the “Company”) for the year ended December 31, 2022, as filed with the Securities and Exchange Commission (the “Commission”) on the date hereof (the “Report”), I, Thomas A. Ciccone, Vice President and Chief Financial Officer of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (“Section 906”), that:

(i) the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”); and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of, and for, the periods presented in the Report.

March 9, 2023

/s/ Thomas A. Ciccone

Thomas A. Ciccone
Vice President and Chief Financial Officer
(Principal Financial Officer)

This certification accompanies the Report pursuant to Section 906 and shall not be deemed filed by the Company for purposes of Section 18 of the Exchange Act.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Commission or its staff upon request.