

**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, 2019

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 ENERGY, INC.**

(Exact name of Registrant as specified in its charter)

Delaware
(State of or other jurisdiction of
incorporation or organization)

**3240 S. Central Avenue
Cicero, Illinois**
(Address of principal executive offices)

88-0409160
(I.R.S. Employer
Identification No.)

60804
(Zip code)

Securities registered pursuant to Section 12 (g) 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 or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

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 is a shell company, as defined in Rule 12b-2 of the Exchange Act. Yes No

As of June 30, 2019 the aggregate market value of the Registrant's voting common stock held by non-affiliates of the Registrant was approximately \$26,772,000, based upon the \$2.22 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 4,104,000 shares of the Registrant's voting common stock on June 30, 2019.

The number of shares of the Registrant's common stock, par value \$0.001, outstanding as of February 21, 2020, was 16,556,993.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement for the Registrant's 2020 Annual Meeting of Stockholders are incorporated by reference in Part III of this Form 10-K.

BROADWIND ENERGY, INC.

FORM 10-K

TABLE OF CONTENTS

	<u>Page</u>
<u>PART I</u>	
<u>ITEM 1. BUSINESS</u>	4
<u>ITEM 1A. RISK FACTORS</u>	11
<u>ITEM 1B. UNRESOLVED STAFF COMMENTS</u>	24
<u>ITEM 2. PROPERTIES</u>	25
<u>ITEM 3. LEGAL PROCEEDINGS</u>	25
<u>ITEM 4. MINE SAFETY DISCLOSURES</u>	25
<u>PART II</u>	
<u>ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	26
<u>ITEM 6. SELECTED FINANCIAL DATA</u>	27
<u>ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	27
<u>ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	36
<u>ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	36
<u>ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	37
<u>ITEM 9A. CONTROLS AND PROCEDURES</u>	37
<u>ITEM 9B. OTHER INFORMATION</u>	37
<u>PART III</u>	
<u>ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	38
<u>ITEM 11. EXECUTIVE COMPENSATION</u>	38
<u>ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	38
<u>ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	39
<u>ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	39
<u>PART IV</u>	
<u>ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	40
<u>ITEM 16. FORM 10-K SUMMARY</u>	40

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: (i) 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; (ii) 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; (iii) our ability to continue to grow our business organically and through acquisitions; (iv) the production, sales, collections, customer deposits and revenues generated by new customer orders and our ability to realize the resulting cash flows; (v) the sufficiency of our liquidity and alternate sources of funding, if necessary; (vi) our ability to realize revenue from customer orders and backlog; (vii) our ability to operate our business efficiently, comply with our debt obligations, manage capital expenditures and costs effectively, and generate cash flow; (viii) the economy and the potential impact it may have on our business, including our customers; (ix) 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; (x) the effects of market disruptions and regular market volatility, including fluctuations in the price of oil, gas and other commodities; (xi) competition from new or existing industry participants including, in particular, increased competition from foreign tower manufacturers; (xii) the effects of the change of administrations in the U.S. federal government; (xiii) our ability to successfully integrate and operate acquired companies and to identify, negotiate and execute future acquisitions; (xiv) the potential loss of tax benefits if we experience an “ownership change” under Section 382 of the Internal Revenue Code of 1986, as amended; (xv) the limited trading market for our securities and the volatility of market price for our securities; and (xvi) 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 Energy, 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 tech 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, 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 (“Red Wolf”), a kitter and assembler of industrial components primarily supporting the global gas turbine market. In early 2020, we rebranded to Broadwind Energy, Inc. doing business as Broadwind, 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 this 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. This Annual Report on Form 10-K incorporates these changes.

Segment	Heavy Fabrications	Gearing	Industrial Solutions
Key Markets Served	-Wind Power Generation -Surface and Underground Mining -Construction -Material Handling -Oil and Gas -Infrastructure	-Onshore & Offshore Oil and Gas Fracking/Drilling -Surface and Underground Mining -Wind Power Generation -Steel Production -Pulp and Paper -Waste Processing -Material Handling -Infrastructure	-Combined Cycle Natural Gas Power Generation -Solar Power Generation
Products	-Wind Towers -Industrial Fabrications Mining Components Crane Components Pressure Vessels Other Frames/Structures	-Custom Gearboxes -Loose Gearing -Heat Treat Services	-Supply Chain Solutions -Inventory Management -Kitting and Assembly

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 utility 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 and other industrial markets. We 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, 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.

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:

- ***Diversify our customer and product line concentrations.*** In 2019, sales derived from our top five customers represented 79% of total sales and sales into the wind energy industry represented 66% of total sales. This is an improvement as compared to 2016, when our top five customers comprised 91% of total sales and sales in the wind energy industry represented 92% of total sales. To reduce the concentration of our sales, we have focused our market research 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 have introduced a new product development process, a stage gate model, which provides a framework for evaluating opportunities and

commercialization. Additionally, we have adopted new customer and product revenues as metrics within our variable executive compensation programs.

- ***Improve capacity utilization and broaden our manufacturing capabilities.*** 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 are expanding production capabilities and leveraging our fabrication competencies to support growth in mining, material handling, and other industrial markets.
- ***Improve production technology and 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 have introduced 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.
- ***Reduce fixed manufacturing costs and operating expenses to improve profitability.*** In 2018, we completed a multi-year rationalization of our operational footprint, which significantly reduced our cumulative square footage through the sale or exit of several operational locations. We lease approximately 74% of our manufacturing square footage, which has allowed us to negotiate flexible lease structure and terms. During periods of lower tower demand, we have reduced our capital spending and labor to optimize our cost structure. In our Gearing segment, after several years of reducing workforce and selling excess gear cutting and grinding equipment, we have been modestly increasing our production capabilities in response to improved market conditions. We have focused on reducing professional fees and expenses, lowering our administrative costs and eliminating non-critical overhead positions.

SALES AND MARKETING

We market our heavy fabrications, gearing, and industrial solutions primarily 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. We sell our products through our trained sales force or through manufacturers’ representatives to a wide variety of customers.

CUSTOMERS

We manufacture products for a variety of customers in the wind energy, O&G, mining and other industrial markets. The majority of our wind energy industry customer base consists of wind turbine manufacturers who supply wind farm operators and wind farm developers with completed wind turbines. The wind turbine market is very concentrated. According to Wood Mackenzie Power & Renewables 2018 industry data, the top five wind turbine manufacturers constituted approximately 97% 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 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. 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”) represented greater than 10% of our consolidated revenues for the year ended December 31, 2019. Sales to SGRE and Gardner Denver represented greater than 10% of our consolidated revenues for the year ended December 31, 2018. 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. The December 2015 extension of the PTC attracted additional investment and competition for wind towers. 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 trade 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 Vestas Wind Systems, which has periodically produced towers for third party customers in addition to meeting the majority of its own captive tower requirements, Marmen Industries, a Canadian company and GRI, a Spanish company, which both have production facilities in the U.S. We also face competition from imported towers, although 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 resulting in CS Wind Vietnam being excluded 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 2019, a new trade case was brought before the USDOC and USITC, to assess whether wind towers imported from Canada, Indonesia, South Korea and Vietnam were being sold in the U.S.

at less than fair value. This case includes a reassessment of CS Wind Vietnam. On December 6, 2019, the USDOC issued an affirmative preliminary determination in the countervailing duty investigations against Canada, Indonesia and Vietnam. Subsequently, on February 5, 2020, the USDOC issued an affirmative preliminary determination in the anti-dumping investigations against Canada, Indonesia, Korea and Vietnam. A final determination in the antidumping and countervailing duties investigations is expected to be issued by the USITC no later than August 2020.

Within our industrial fabrications product line of our Heavy Fabrications segment, our competitors in a fragmented market includes Weldall and AT&F, 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 the 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, Merit Gear, 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 currently primarily focused on the gas turbine market, we primarily compete with electrical supply distributors. Our key competitors include Gexpro and other small independent companies.

REGULATION

Production Tax Credit

The highest impact development incentive has been the production tax credit (“PTC”) for new wind energy projects, which 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 based on the year the wind project is started. This legislation has provided some longer-term stability in the market because the subsidy supports construction activity over the medium term. The phase-out schedule legislated in 2015 provided for: 100% extension of the credit for projects commenced before the end of 2016, 80% for projects commenced in 2017, 60% in 2018 and 40% 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% credit for projects commenced before the end of 2020. In order to benefit from the PTC, qualifying projects must either be completed within three years from their commencement, or the developer must demonstrate that their projects are in continuous construction between commencement and completion. As a result of the new legislation, the PTC will subsidize wind projects commenced as late as 2020 and completed by 2024, or later if continuous construction can be demonstrated.

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 regarding 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, 2019, the dollar amount of our backlog believed to be firm was approximately \$142 million. This represents a 48% increase from the backlog at December 31, 2018, primarily due to an increase in demand for wind towers in our Heavy Fabrications segment, combined with growth in orders for other industrial fabrications and in our Industrial Solutions segment.

SEASONALITY

The majority of our business is not affected by seasonality.

EMPLOYEES

We had 521 U.S. based employees at December 31, 2019, of which 466 were in manufacturing related functions and 55 were in administrative functions. As of December 31, 2019, approximately 18% of our employees were covered by collective bargaining agreements with local unions in our Cicero, Illinois and Neville Island, Pennsylvania locations. The five-year collective bargaining agreement with the Neville Island union was renegotiated in November 2017, and is expected to remain in effect through October 2022. A new four-year collective bargaining agreement with the Cicero union was negotiated in the third quarter of 2018 and is expected to remain in effect through February 2022. We believe that our relationship with our employees is generally positive. The table below summarizes our employees as of December 31, 2019:

Segment	Number of Employees As of December 31, 2019
Heavy Fabrications	339
Gearing	133
Industrial Solutions	34
Corporate	15
Total	521

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 generally 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. Our business has been impacted by steel plate availability and pricing issues primarily attributable to steel tariffs introduced in early 2018. We have made modifications to our supply chain management practices to deal more effectively with potential disruptions arising from these purchasing practices.

We believe that we will be able to obtain an adequate supply of steel and other raw materials in 2020 to meet our manufacturing requirements, although from time to time we have faced shortages of specific grades of steel and delays associated of other materials from foreign sources.

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.

WORKING CAPITAL

We sell to a broad range of industrial customers. In general, we produce to order rather than to stock. For wind towers, currently 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 relationship to revenue. OWC is comprised of A/R and inventories, net of A/P and customer deposits. Our OWC at December 31, 2019 was \$5,580 or 3% of trailing three months of sales annualized, in line with December 31, 2018, when OWC was \$5,000, or 5% of trailing three months of sales annualized. Although OWC was relatively flat on a percent of trailing three months sales

annualized basis year over year, OWC fluctuated materially during the year, 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

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 above, 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 general 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.

In addition, while some of the factors listed above may only affect individual wind energy project developments or portions of the market, in the aggregate they may have a significant effect on the successful development of the wind energy market as a whole, and thus affect our operating and financial results.

We may have difficulty maintaining our current financing arrangements or obtaining additional financing when needed or on acceptable terms, and there can be no assurance that our operations will generate cash flows in an amount sufficient to enable us to pay our indebtedness.

We rely on banks and capital markets as a source of liquidity for capital requirements not satisfied by cash flows from operations or asset sales. We have experienced operating losses for most periods during which we have operated, and our committed sources of liquidity may be inadequate to satisfy our operational needs. There can be no assurance that, even if we were to achieve any or all of our strategic objectives, we would be successful in obtaining and improving profitability. If we are not able to access capital at competitive rates, our ability to implement our business plans may be adversely affected. Without access to capital resources, we could face substantial liquidity problems and might be required to dispose of material assets or operations at times when the prices for such assets or operations are depressed. In such event, we may not be able to consummate those dispositions. Furthermore, the proceeds of any such dispositions may not be adequate to meet our debt service obligations when due.

Our ability to comply with the restrictive covenants contained in our debt instruments, to make scheduled payments on our existing or future debt obligations, and to fund our operations will depend on our future financial and operating performance. Such performance is, to a significant extent, subject to general economic, financial, competitive and other factors that are beyond our control. If assumptions regarding our production, sales and subsequent collections from certain of our large customers, as well as customer deposits and revenues generated from new customer orders, are materially inconsistent with actual results, or any future restructuring efforts are not successful, we may encounter cash flow and liquidity issues. Additionally, new or existing customers may request acceleration of production or we may accept new orders or modify existing orders to purchase steel opportunistically or to build products with deposits, which will reduce our liquidity. There can be no assurance that our operations will generate sufficient cash flows to enable us to maintain compliance with the restrictive covenants contained in our debt instruments, pay our remaining indebtedness or to fund our other liquidity needs. If we cannot make scheduled payments on our debt, we will be in default and, as a result, among other things, our debt holders could declare all outstanding principal and interest to be due and payable, which could force us to liquidate certain assets or alter our business operations or debt obligations, and we could be forced into a restructuring, bankruptcy or liquidation. We cannot assure you that we will be able to do any of the foregoing on commercially reasonable terms or at all, or on terms that would be advantageous to our stockholders. In addition, raising capital in the equity capital markets could result in limitations on our ability to use our net operating loss carryforwards.

Borrowings under our credit facility and other variable rate indebtedness may use the London Interbank Offering Rate (“LIBOR”) as a benchmark for establishing the applicable interest rate. LIBOR is the subject of recent regulatory guidance and proposals for reform, which may cause LIBOR to disappear entirely or to perform differently than in the past. The consequences of these developments with respect to LIBOR cannot be entirely predicted, but could result in an increase in the cost of our variable rate indebtedness causing a negative impact on our financial position and operating results.

We are substantially dependent on a few significant customers.

Historically, the majority of our revenues are highly concentrated with a limited number of customers. In 2019, one customer, SGRE, accounted for more than 10% of our consolidated revenues, and our five largest customers accounted for 79% 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. It is possible that this may occur again in the future. 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.

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 economic incentives to the owners of wind energy facilities in the form of a tax credit. The PTC has been extended several times since its initial introduction in 1992. The FY16 Omnibus Appropriations Bill, passed on December 18, 2015, included a five-year extension and phase-down of the PTC, as well as providing the option to elect the ITC for wind energy projects. As a result, the PTC was extended at full value for projects commenced by the end of 2016, was reduced to 80% of full value for projects commenced in 2017, 60% for projects commenced in 2018, and 40% 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% credit for projects commenced before the end of 2020. Similarly, for the ITC election, projects that started construction in 2015 and 2016 are eligible for a full 30% ITC, and projects that start construction in 2017, 2018 and 2019 are eligible for an ITC of 24%, 18% and 12%, respectively. As before, the rules allow wind energy projects to qualify so long as construction is started before the end of the applicable period and is either completed within three years, or under continuous construction between the start date and completion. 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.

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. 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.

New 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 U.S. International Trade Commission (“USITC”) determined that wind towers from China and Vietnam were being sold in the U.S. at less than fair value. As a result of that 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 resulting in CS Wind Vietnam being excluded 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 2019, a new trade case was brought before the USDOC and USITC, to assess if wind towers imported from Canada, Indonesia, South Korea and Vietnam were being sold in the U.S. at less than fair value. This case includes a reassessment of CS Wind Vietnam. A final determination of whether to assess antidumping and countervailing duties in this case is expected to be issued by the USITC in August 2020. On August 22, 2019, the USITC determined that there is a reasonable indication that a U.S. industry is materially injured by reason of imports of utility scale wind towers from Canada, Indonesia, South Korea and Vietnam sold in the U.S. at less than fair value, and voted to continue its antidumping and countervailing duty investigations into those countries. On December 6, 2019, the USDOC issued an affirmative preliminary determination in the countervailing duty investigations against Canada, Indonesia and Vietnam. Subsequently, on February 5, 2020, the USDOC issued an affirmative preliminary determination in the anti-dumping investigations against Canada, Indonesia, Korea and Vietnam. A final determination in the antidumping and countervailing duties investigations is expected to be issued by the USITC no later than August 2020. There can be no assurance that antidumping and/or countervailing duty orders will be issued, renewed or extended. Additionally, producers in other countries not subject to those orders may benefit from government

subsidies (particularly with respect to the price of steel, the primary raw material used in the production of wind towers) which could lead to increased competition from those producers in the U.S. market, causing us to lose market share and/or reducing our margins.

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 and became our largest customer. 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.

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 North American Free Trade 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.

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

The Company continues to strategically diversify, restructure 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, particularly within our gearing and industrial fabrication product lines and through our 2017 acquisition of Red Wolf, 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.

Any restructuring efforts may involve occasionally opening or closing facilities to rationalize facility capacity and management structure, and consolidating and increasing efficiencies in certain operations. If the Company is unable to generate anticipated cost savings or successfully implement its strategies, the Company's financial results could suffer. These efforts and strategies could also have a negative impact on the Company's relationships, including those with its employees or customers, which could also adversely affect the Company's financial results.

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.

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 cause us to continue to incur significant losses and 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 both 2017 and 2018, 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.

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, 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.

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

Our growth strategy has historically included 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.

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

Although we have experience in the gas turbine, oil and gas 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.

We have substantially generated net losses since our inception.

We have experienced operating losses since inception, except that we were profitable in 2016. 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.

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, could have a material adverse impact on us and our future profitability. In November 2017, a five-year collective bargaining agreement was ratified by the collective bargaining union in our Neville Island facility and is expected to remain in effect through October 2022. A new four-year collective bargaining agreement with the Cicero union was negotiated in the third quarter of 2018 and is expected to remain in effect through February 2022. As of December 31, 2019, these collective bargaining units represented approximately 18% of our workforce.

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.

Our ability to comply with regulatory requirements 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.

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.

If we are unable to produce, maintain and disseminate relevant and/or reliable data and information pertaining to our business in an efficient, cost-effective, secure and well-controlled fashion and avoid security breaches affecting our information technology systems, such inability may have significant negative impacts on our confidentiality obligations, and proprietary needs and therefore on our future operations, profitability and competitive position.

Management relies on information technology infrastructure and architecture, including hardware, network, software, people and processes, to provide useful and confidential information to conduct our business in the ordinary course, including correspondence and commercial data and information interchange with customers, suppliers, consultants, advisors and governmental agencies, and to support assessments and conclusions about future plans and initiatives pertaining to market demands, operating performance and competitive positioning.

There has been an increase in global cybersecurity threats, computer viruses and more sophisticated and targeted cyber-related attacks as well as cybersecurity failures resulting from human and technological errors. While we attempt to mitigate these risks, including through the use of protective systems, monitoring and testing and employee training, any material failure, interruption of service, compromised data security, computer virus or cybersecurity threat or attack could adversely affect our relations with suppliers and customers, place us in violation of confidentiality and data protection laws, rules and regulations, and result in negative impacts to our reputation, market share, operations and profitability. Despite our use of measures to protect our systems and confidential information, security breaches, human or technological error or other failures in our information

technology could result in theft, destruction, loss, misappropriation or release of confidential data or intellectual property which could materially and adversely impact our future results.

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. 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 2019, the price of our common stock varied from a high of \$2.36 per share to a low of \$1.30 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 net operating losses (“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 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 for an additional three-year period (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 7, 2019, the Board of Directors (the “Board”) approved an amendment extending the Rights Plan for an additional three years, which was approved by our stockholders at the 2019 Annual Meeting of Stockholders held on April 23, 2019. 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.

Equipment failures or extensive damage to our facilities, including those that might occur as a result of natural disasters, could lead to production, delivery or service curtailments or shutdowns, loss of revenue or higher expenses.

We operate a substantial amount of equipment at our production facilities. Operation of this equipment may be subject to interruption due to equipment failure or acts of nature. Any such interruption in production capabilities at our facilities could reduce or prevent the production, delivery, service, or repair of our products and increase our costs and expenses. A halt of production at any of our manufacturing facilities could severely affect delivery times to our customers. While we maintain emergency response and business recovery plans that are intended to allow us to recover from natural disasters that could disrupt our business, we cannot provide assurance that these plans would fully protect us from the effects of all such disasters. In addition, insurance may not adequately compensate us for any losses incurred as a result of natural or other disasters, which may adversely affect our financial condition. Any significant delay in deliveries not otherwise contractually mitigated by favorable force majeure or other provisions could result in cancellation of all or a portion of our orders, cause us to lose future sales, and negatively affect our reputation and results of operations.

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.

If our intangible assets and other long-lived assets or inventory become impaired, we may be required to record a significant charge to earnings.

We may be required to record a significant charge to operations in our financial statements should we determine that our long-lived assets or inventory are impaired. Such a charge might have a significant impact on our reported financial position and results of operations. We review inventory, long-lived assets and project assets for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. In conjunction with the rebranding initiative, during 2019 we decided we would no longer utilize the Red Wolf trade name and subsequently accelerated the amortization of the trade name by \$871 so that it was fully amortized in 2019.

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 completely 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.

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, 2019).

<u>Operating Segment and Facility Type</u>	<u>Location</u>	<u>Owned / Leased</u>	<u>Approximate Square Footage</u>
<i>Heavy Fabrications (1)</i>			
Tower Manufacturing	Manitowoc, WI	Leased	213,000
Tower Manufacturing	Abilene, TX	Owned	175,000
Industrial Fabrications Manufacturing	Manitowoc, WI	Leased	30,000
<i>Gearing and Corporate</i>			
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
<i>Industrial Solutions</i>			
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.

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
2019		
First quarter	\$ 1.75	\$ 1.30
Second quarter	2.35	1.60
Third quarter	2.36	1.62
Fourth quarter	1.85	1.45
	Common Stock	
	High	Low
2018		
First quarter	\$ 2.85	\$ 2.20
Second quarter	3.15	2.11
Third quarter	2.54	2.07
Fourth quarter	2.22	1.20

The closing price for our common stock as of February 21, 2020 was \$2.15. As of February 21, 2020, there were 46 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 under our repurchase program made during the years ended December 31, 2019 and 2018.

Unregistered Sales of Equity Securities

There were no unregistered sales of equity securities for the years ended December 31, 2019 or 2018.

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, 2019 with respect to shares of our common stock that may be issued under our existing share-based compensation plans.

ITEM 6. SELECTED FINANCIAL DATA

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 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 Energy, 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)

On January 1, 2020, we rebranded as Broadwind Energy, Inc. doing business as Broadwind, a reflection of our diversification progress to date and our continued strategy to diversify our product and customer mix outside of wind energy. Effective with that rebranding, we renamed certain segments. Our Towers and Heavy Fabrications segment was renamed as Heavy Fabrications and our Process Systems segment was renamed as Industrial Solutions. Our Gearing segment name remained the same.

We booked \$221,549 in net new orders in 2019, up sharply from \$83,241 in 2018. The significant increase in orders was driven by growth in each of our primary markets, except for the market for O&G production equipment. We realized a \$145,371 increase in tower orders within our Heavy Fabrications segment, as tower customers secured 2020 production capacity in support of an expected increase in wind turbine tower installations. During 2018, our largest customer fulfilled orders under a three-year framework agreement in which minimum contract orders were reported in backlog at the onset of the agreement in 2016 and is now placing orders on a project-by-project basis; this change in ordering patterns also contributed to the year-over-year increase. Other industrial fabrication orders, also included in the Heavy Fabrications segment, increased \$5,682 or 37%, reflecting an expansion of our customer base and the results of the investments we have made to broaden our manufacturing capabilities. Gearing orders declined \$16,110, primarily due to a reduction from O&G customers due to excess fracking and drilling equipment capacity. Lower demand from aftermarket wind customers, which can fluctuate based on customer order patterns and repair activity, was partially offset by an increase in orders from other industrial customers. Our Industrial Solutions segment had \$16,426 in orders in 2019, an increase of \$3,365 over 2018, primarily due to higher customer demand for gas turbine components and initial orders resulting from our entry into the market to support solar energy installation. This was partially offset by lower customer demand for gas turbine aftermarket content. At December 31, 2019, total backlog was \$142,302, up 48% from \$96,456 at December 31, 2018 due to the aforementioned surge in tower orders.

We recognized revenue of \$178,220 in 2019, up 42% from revenue of \$125,380 in 2018 due to the growth in orders described above.

We reported a net loss of \$4,523, or \$0.28 per share in 2019, compared to a net loss of \$24,146 or \$1.56 per share in 2018. The improvement in earnings was primarily due to the absence of a \$12,585 impairment charge recognized in the prior year, as well as higher capacity utilization in our Heavy Fabrications segment and improved margins in our other segments. Partially offsetting these increases was the impact of increased price competition from foreign tower manufacturers which depressed tower product line margins, higher incentive compensation expense, the absence of a \$2,249

gain recognized upon extinguishment of the New Markets Tax Credit (NMTC) loan and the \$1,140 benefit associated with the reversal of the final Red Wolf earn-out reserve, which were both recognized in the prior year.

During 2018, we conducted a review of our business strategies and product plans given the outlook of the industries we serve and our business environment. As a result, we executed a restructuring plan to rationalize our facility capacity and management structure, and to consolidate and increase the efficiencies in our Abilene facility operations. We exited the market for natural gas compression units and transferred remaining operations from a leased facility in Abilene, TX into other production locations. We vacated the leased Abilene facility in 2018 and incurred costs totaling \$12 and \$668 for the years ended December 31, 2019 and 2018, respectively. In conjunction with this initiative, all costs associated with this vacated facility have been recorded as restructuring expenses within the Towers and Heavy Fabrications segment. Our restructuring activities concluded in 2019.

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, 2019, we had \$11,517 drawn under our \$35,000 line of credit, and \$2,416 of cash on hand, resulting in \$18,993 of available liquidity. 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.

KEY METRICS USED BY MANAGEMENT TO MEASURE PERFORMANCE

In addition to measures of financial performance presented in our consolidated financial statements in accordance with 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

	Twelve Months Ended	
	December 31,	
	2019	2018
Net revenues	\$ 178,220	\$ 125,380
Net loss	\$ (4,523)	\$ (24,146)
Adjusted EBITDA (1)	\$ 7,226	\$ (1,019)
Capital expenditures	\$ 1,844	\$ 2,324
Free cash flow (2)	\$ 4,803	\$ 3,709
Operating working capital (3)	\$ 5,580	\$ 5,000
Total debt	\$ 13,422	\$ 13,338
Total orders	\$ 221,549	\$ 83,241
Backlog at end of period	\$ 142,302	\$ 96,456
Book-to-bill	1.2	0.7

- (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

[Table of Contents](#)

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.

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

	Twelve Months Ended	
	December 31,	
	2019	2018
Net loss from continuing operations	\$ (4,586)	\$ (24,000)
Interest expense	2,309	1,494
Income tax provision (benefit)	39	(204)
Depreciation and amortization	7,497	9,183
Share-based compensation and other stock payments	1,955	1,504
Restructuring costs	12	668
Impairment charges	—	12,585
NMTC extinguishment gain	—	(2,249)
Adjusted EBITDA	7,226	(1,019)
Changes in operating working capital	(580)	6,376
Capital expenditures	(1,844)	(2,324)
Proceeds from disposal of property and equipment	1	676
Free Cash Flow	\$ 4,803	\$ 3,709

RESULTS OF OPERATIONS

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

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, 2019 compared to the year ended December 31, 2018.

	Year Ended December 31,				2019 vs. 2018	
	2019	% of Total Revenue	2018	% of Total Revenue	\$ Change	% Change
Revenues	\$ 178,220	100.0 %	\$ 125,380	100.0 %	\$ 52,840	42.1 %
Cost of sales	162,796	91.3 %	121,684	97.1 %	41,112	33.8 %
Restructuring	12	0.0 %	631	0.5 %	(619)	(98.1)%
Gross profit	15,412	8.6 %	3,065	2.4 %	12,347	402.8 %
Operating expenses						
Selling, general and administrative expenses	16,086	9.0 %	13,625	10.9 %	2,461	18.1 %
Impairment charges	—	— %	12,585	10.0 %	(12,585)	(100.0)%
Intangible amortization	1,683	0.9 %	1,884	1.5 %	(201)	(10.7)%
Restructuring	—	— %	37	0.0 %	(37)	(100.0)%
Total operating expenses	17,769	10.0 %	28,131	22.4 %	(10,362)	(36.8)%
Operating loss	(2,357)	(1.3)%	(25,066)	(20.0)%	22,709	90.6 %
Other expense, net						
Interest expense, net	(2,309)	(1.3)%	(1,496)	(1.2)%	(813)	(54.3)%
Other, net	118	0.1 %	2,355	1.9 %	(2,237)	(95.0)%
Total other expense, net	(2,191)	(1.2)%	859	0.7 %	(3,050)	(355.1)%
Net loss before provision (benefit) for income taxes	(4,548)	(2.6)%	(24,207)	(19.3)%	19,659	81.2 %
Provision (benefit) for income taxes	38	0.0 %	(205)	(0.2)%	243	118.5 %
Loss from continuing operations	(4,586)	(2.6)%	(24,002)	(19.1)%	19,416	80.9 %
Income (loss) from discontinued operations, net of tax	63	0.0 %	(144)	(0.1)%	207	143.8 %
Net loss	\$ (4,523)	(2.5)%	\$ (24,146)	(19.3)%	\$ 19,623	81.3 %

Consolidated

Revenues increased by \$52,840 during the year ended December 31, 2019. This increase was driven by higher capacity utilization in the Heavy Fabrications segment as tower sections sold increased 73% in support of a strengthening wind turbine installation market, and due to \$3,482 of growth in other industrial fabrications sales. Partially offsetting this improvement was a decrease in Gearing segment revenues of \$3,499 due to lower demand from O&G customers. The Industrial Solutions segment recognized revenue of \$14,664 in 2019 as compared to \$12,467 in 2018 primarily due to increased demand for gas turbine components and because of our entry into the solar power generation market. Gross profit increased by \$12,347 during the year ended December 31, 2019. The increase in gross profit reflects improved capacity utilization in the Heavy Fabrications segment and improved manufacturing efficiencies in all segments. These benefits were partially offset by the adverse impact of margin pressure associated with lower prices driven by increased competition from foreign tower manufacturers. As a result, our gross margin more than tripled from 2.4% for the year ended December 31, 2018, to 8.6% for the year ended December 31, 2019.

Operating expenses decreased \$10,362 during the year ended December 31, primarily due to the absence of a \$12,585 impairment charge recognized in the prior year. Partially offsetting this was increased incentive compensation and the absence of a \$1,140 benefit associated with the reversal of the final earn-out reserve associated with the Red Wolf acquisition, which was recorded in 2018. As a result, operating expenses as a percentage of sales decreased from 22.4% to 10.0% in 2019.

Loss from continuing operations improved significantly from \$24,002 for the year ended December 31, 2018 to \$4,586 for the year ended December 31, 2019, primarily as a result of the factors described above.

Heavy Fabrications Segment

The following table summarizes the Heavy Fabrications segment operating results for the twelve months ended December 31, 2019 and 2018:

	Twelve Months Ended December 31,	
	2019	2018
Orders	\$ 179,657	\$ 28,604
Tower sections sold	934	540
Revenues	128,686	74,667
Operating income (loss)	1,861	(5,440)
Operating margin	1.4 %	(7.3)%

The \$151,053 increase in orders was driven primarily by tower customers securing 2020 production capacity in support of increased wind turbine installations. During 2018, our largest customer fulfilled orders under a three-year framework agreement in which minimum contract orders were reported in backlog at the onset of the agreement in 2016 and is now placing orders on a project-by-project basis; this change in ordering also impacted the year-over-year comparison. Other industrial fabrication orders increased \$5,682. Segment revenues increased by 72% during the year ended December 31, 2019 primarily due to a 73% increase in tower sections sold and a \$3,482 increase in other industrial fabrication revenue, reflecting an expansion of our customer base and investments to broaden our manufacturing capabilities.

Heavy Fabrications segment operating results improved by \$7,301 versus the prior year. The improvement in capacity utilization, the expansion of other industrial fabrications and the absence of plant start-up costs incurred in the prior year were partially offset by the negative impacts from increased competitive tower pricing pressure in the current year. Operating profit margin was 1.4% during the year ended December 31, 2019 compared to a loss of 7.3% during the year ended December 31, 2018.

Gearing Segment

The following table summarizes the Gearing segment operating results for the twelve months ended December 31, 2019 and 2018:

	Twelve Months Ended December 31,	
	2019	2018
Orders	\$ 25,466	\$ 41,576
Revenues	34,877	38,376
Operating income	3,237	51
Operating margin	9.3 %	0.1 %

Gearing segment orders decreased 39% from the year ended December 31, 2018, primarily due to a decrease in demand from O&G customers. The prior year period included the benefit of the industry's expansion of fracking capacity and earlier than normal receipt of customer orders due to significantly longer lead times caused by steel availability issues. Also demand was lower from aftermarket wind customers, which can fluctuate based on customer order patterns and repair activity levels. These reductions were partially offset by an increase in orders from other industrial customers.

Revenue decreased 9% during the year ended December 31, 2019 primarily due to a decrease in shipments to O&G customers, partially offset by an increase in sales to mining and aftermarket wind customers; custom gearbox revenue was double the prior year.

The Gearing segment operating income improved significantly to \$3,237 during the year ended December 31, 2019 primarily due to a higher margin sales mix and improved manufacturing efficiencies, including lower scrap and warranty costs. The operating margin was 9.3% for the year ended December 31, 2019 compared to 0.1% during the year ended December 31, 2018.

Industrial Solutions Segment

The following table summarizes the Industrial Solutions segment operating results for the twelve months ended December 31, 2019 and 2018.

	Twelve Months Ended	
	December 31,	
	2019	2018
Orders	\$ 16,426	\$ 13,061
Revenues	14,664	12,467
Impairment charges	-	12,585
Operating loss	(1,059)	(15,348)
Operating margin	(7.2)%	(123.1)%

Industrial Solutions segment orders increased 26% during the year ended December 31, 2019 primarily due to higher customer demand for new gas turbine content and diversification efforts linked to our solar market strategy, partially offset by lower customer demand for gas turbine aftermarket products. The same factors resulted in an 18% increase in revenues to \$14,664 for the year ended December 31, 2019.

The Industrial Solutions segment operating results improved by \$14,289 during the year ended December 31, 2019 primarily due to the absence of \$12,585 in impairment charges recognized during 2018, lower related amortization expense, improved labor efficiency and higher prices. This was partially offset by accelerated amortization of \$871 in 2019 associated with the Red Wolf trade name. Operating margin decreased from a loss of 123.1% during the year ended December 30, 2018, to a loss of 7.2% during the year ended December 31, 2019.

Corporate and Other

Corporate and Other expenses increased by \$2,067 during the year ended December 31, 2019. The increase was primarily attributable to the absence of a \$1,140 benefit recognized in the prior year associated with the reversal of an earn-out reserve associated with the acquisition of Red Wolf, as well as higher incentive compensation recognized in the current year.

SUMMARY OF CRITICAL ACCOUNTING POLICIES

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.

We adopted the provisions of Accounting Standards Codification ("ASC") 606, Revenue from Contracts with Customers, for the fiscal year beginning January 1, 2018 and elected the modified retrospective approach. Through our assessment of the ASC 606, we identified minimal changes to the assumptions utilized for the year ending December 31, 2017 and the adoption of the guidance did not result in a material impact on our consolidated financial statements.

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 market value in our inventory allowance. Market 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 the Industrial Solutions' segment recent operating losses, we continue to evaluate the recoverability of certain of the long-lived assets associated with that segment. In accordance with GAAP, we compared the carrying value of the Industrial Solutions asset group to the forecast undiscounted cash flows associated with this asset group. Based on the analysis performed, the forecast undiscounted cash flows exceeded the carrying value resulting in no indicated or recorded impairment of this group. However, in conjunction with our rebranding initiative, during 2019 we decided we would no longer utilize the Red Wolf trade name. As a result, we accelerated the amortization of the trade name by \$871 so that it was fully amortized in 2019.

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 net operating loss ("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.

Health Insurance Reserves

We self-insure for our 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. We take into account claims incurred but not reported when determining our health insurance reserves. Health insurance reserves are included in accrued liabilities. While we believe that we have adequately reserved for these claims, the ultimate outcome of these matters may exceed the amounts recorded and additional losses may be incurred.

LIQUIDITY, FINANCIAL POSITION AND CAPITAL RESOURCES

As of December 31, 2019, cash and cash equivalents totaled \$2,416, an increase of \$1,239 from December 31, 2018. We have in place a line of credit with CIBC Bank (the “Credit Facility”) under which we can borrow up to \$35,000, depending on our borrowing base. Debt and finance lease obligations at December 31, 2019 totaled \$14,641, and we had the ability to borrow up to \$16,577 under the Credit Facility. 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, additional equipment financing, and access to the public or private debt equity markets, including under a “shelf” registration statement on Form S-3, which was declared effective by the SEC on October 10, 2017.

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 January 16, 2019, we executed the Sixth Amendment to Loan and Security Agreement which increased our capability to issue letters of credit under the Credit Facility.

On February, 25, 2019, we executed an Amended and Restated Loan and Security Agreement (the “Amended and Restated Loan Agreement”) which expanded our Credit Facility to \$35,000 and extended the term to February 25, 2022. The Amended and Restated Loan Agreement included minimum EBITDA covenants through September 30, 2019 which has been replaced by a Fixed Charge Coverage Ratio. We are in compliance with all covenants under the Credit Facility as of December 31, 2019.

While we believe that we will continue to have sufficient cash available to operate our businesses and to meet our financial obligations and amended debt covenants, there can be no assurance that our operations will generate sufficient cash, that we will be able to comply with applicable loan covenants or that credit facilities will be available in an amount sufficient to enable us to repay our indebtedness or to fund our other liquidity needs.

Sources and Uses of Cash

The following table summarizes our cash flows from operating, investing, and financing activities for the years ended December 31, 2019 and 2018:

	Twelve Months Ended	
	December 31,	
	2019	2018
Total cash provided by (used in):		
Operating activities	\$ 4,521	\$ 2,045
Investing activities	(1,843)	(1,648)
Financing activities	(1,444)	807
Discontinued operations	5	(105)
Net increase in cash	\$ 1,239	\$ 1,099

Operating Cash Flows

During the year ended December 31, 2019, net cash provided by operations was \$4,521 compared to net cash provided by operating activities of \$2,045 for the year ended December 31, 2018. The operating cash flow improvement was due primarily to the improved capacity utilization in the current year which resulted in a significantly improved operating results. Partially offsetting this was a build of working capital in response to the higher production levels within the Heavy Fabrications segment, versus the prior year when working capital decreased primarily as a result of the significant collections of deposits related to new tower orders.

Investing Cash Flows

During the year ended December 31, 2019, net cash used in investing activities was \$1,843 compared to net cash used in investing activities of \$1,648 for the year ended December 31, 2018. The increase was primarily due to the absence of proceeds from property disposals in the prior year period.

Financing Cash Flows

During the year ended December 31, 2019, net cash used in financing activities totaled \$1,444 compared to net cash provided by financing activities of \$807 for the year ended December 31, 2018. The decrease in net cash provided by financing activities was primarily due to the absence of financing activity resulting in \$2,060 of proceeds on long-term debt that occurred in the prior year.

Other

In 2016, we entered into a \$570 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, 2019 and 2018, \$114 of the loan was forgiven. As of December 31, 2019, the loan balance was \$342. In addition, we have outstanding notes payable for capital expenditures in the amount of \$1,563 and \$1,882 as of December 31, 2019 and 2018, respectively, with \$1,400 and \$930 included in the “Line of credit and other notes payable” line item of our consolidated financial statements as of December 31, 2019 and 2018, respectively. The notes payable have monthly payments that range from \$1 to \$36 and an interest rate of 5%. The equipment purchased is utilized as collateral for the notes payable. The outstanding notes payable have maturity dates that range from April 2020 to August 2022.

Contractual Obligations

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.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements.

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, 2019.

(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, 2019. 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, 2019.

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.

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,” “Executive Officers” and “Other Matters—Delinquent Section 16(a) Reports” in our definitive Proxy Statement to be filed in connection with our 2020 Annual Meeting of Stockholders (the “2020 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 Energy, 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” and “Executive Officers and Executive Compensation” in the 2020 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 2020 Proxy Statement.

The following table provides information as of December 31, 2019, with respect to shares of our common stock that may be issued under our existing equity compensation plans:

EQUITY COMPENSATION PLAN INFORMATION

<u>Plan Category</u>	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>
	Number of securities to be issued upon exercise of outstanding options, warrants, and rights	Weighted-average exercise price of outstanding options, warrants, and rights	Number of securities remaining available for future issuances under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by stockholders	1,411,277 (1)	\$ 2.73	414,270
Total	1,411,277	\$ 2.73	414,270

(1) Includes outstanding stock options to purchase shares of our common stock and outstanding restricted stock awards pursuant to the Amended and Restated Broadwind Energy, Inc. 2007 Equity Incentive Plan, the Broadwind Energy, Inc. 2012 Equity Incentive Plan, and the Broadwind Energy, Inc. 2015 Equity Incentive Plan. Each of these plans 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 2020 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 2020 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 41) 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 (pages 77 through 80) are filed as part of this Annual Report.

ITEM 16. FORM 10-K SUMMARY

None.

INDEX TO FINANCIAL STATEMENTS

	<u>Page</u>
Report of Independent Registered Public Accounting Firm	42
Consolidated Balance Sheets as of December 31, 2019 and 2018	43
Consolidated Statements of Operations for the Years Ended December 31, 2019 and 2018	44
Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2019 and 2018	45
Consolidated Statements of Cash Flows for the Years Ended December 31, 2019 and 2018	46
Notes to Consolidated Financial Statements	47

Report of Independent Registered Public Accounting Firm

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

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Broadwind Energy, Inc. (the Company) as of December 31, 2019 and 2018, 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, 2019 and 2018, 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.

/s/ RSM US LLP

We have served as the Company's auditor since 2016.

Chicago, Illinois
February 27, 2020

BROADWIND ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

	As of December 31,	
	2019	2018
ASSETS		
CURRENT ASSETS:		
Cash	\$ 2,416	\$ 1,177
Accounts receivable, net	18,310	17,455
Inventories, net	31,863	22,670
Prepaid expenses and other current assets	2,124	1,776
Total current assets	54,713	43,078
LONG-TERM ASSETS:		
Property and equipment, net	46,940	49,087
Operating lease right-of-use assets	15,980	—
Other intangible assets, net	4,919	6,602
Other assets	314	398
TOTAL ASSETS	\$ 122,866	\$ 99,165
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Line of credit and other notes payable	\$ 12,917	\$ 11,930
Current portion of finance lease obligations	546	967
Current portion of operating lease obligations	1,326	—
Accounts payable	21,876	11,618
Accrued liabilities	4,911	3,806
Customer deposits	22,717	23,507
Current liabilities held for sale	—	27
Total current liabilities	64,293	51,855
LONG-TERM LIABILITIES:		
Long-term debt, net of current maturities	505	1,408
Long-term finance lease obligations, net of current portion	673	571
Long-term operating lease obligations, net of current portion	16,591	—
Other	44	1,969
Total long-term liabilities	17,813	3,948
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; 16,830,930 and 15,982,622 shares issued as of December 31, 2019, and December 31, 2018, respectively	17	16
Treasury stock, at cost, 273,937 shares as of December 31, 2019 and December 31, 2018	(1,842)	(1,842)
Additional paid-in capital	383,361	381,441
Accumulated deficit	(340,776)	(336,253)
Total stockholders' equity	40,760	43,362
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 122,866	\$ 99,165

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

BROADWIND ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)

	For the Years Ended December 31,	
	2019	2018
Revenues	\$ 178,220	\$ 125,380
Cost of sales	162,796	121,684
Restructuring	12	631
Gross profit	<u>15,412</u>	<u>3,065</u>
OPERATING EXPENSES:		
Selling, general and administrative	16,086	13,625
Impairment charges	—	12,585
Intangible amortization	1,683	1,884
Restructuring	—	37
Total operating expenses	<u>17,769</u>	<u>28,131</u>
Operating loss	<u>(2,357)</u>	<u>(25,066)</u>
OTHER EXPENSE, net:		
Interest expense, net	(2,309)	(1,496)
Other, net	118	2,355
Total other expense, net	<u>(2,191)</u>	<u>859</u>
Net loss before provision (benefit) for income taxes	(4,548)	(24,207)
Provision (benefit) for income taxes	38	(205)
LOSS FROM CONTINUING OPERATIONS	<u>(4,586)</u>	<u>(24,002)</u>
INCOME (LOSS) FROM DISCONTINUED OPERATIONS	<u>63</u>	<u>(144)</u>
NET LOSS	<u>\$ (4,523)</u>	<u>\$ (24,146)</u>
NET LOSS PER COMMON SHARE—BASIC:		
Loss from continuing operations	\$ (0.28)	\$ (1.55)
Income (loss) from discontinued operations	0.00	(0.01)
Net loss	<u>\$ (0.28)</u>	<u>\$ (1.56)</u>
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING—BASIC	16,127	15,469
NET LOSS PER COMMON SHARE—DILUTED:		
Loss from continuing operations	\$ (0.28)	\$ (1.55)
Income (loss) from discontinued operations	0.00	(0.01)
Net loss	<u>\$ (0.28)</u>	<u>\$ (1.56)</u>
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING—DILUTED	16,127	15,469

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

BROADWIND ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share data)

	Common Stock		Treasury Stock		Additional Paid-in Capital	Accumulated Deficit	Total
	Shares Issued	Issued Amount	Shares	Issued Amount			
BALANCE, December 31, 2017	15,480,299	\$ 15	(273,937)	\$ (1,842)	\$ 380,005	\$ (312,107)	\$ 66,071
Stock issued for restricted stock	156,472	1	—	—	—	—	1
Stock issued under defined contribution 401(k) retirement savings plan	330,739	—	—	—	685	—	685
Share-based compensation	—	—	—	—	803	—	803
Sale of common stock, net of expenses	15,112	—	—	—	(52)	—	(52)
Net loss	—	—	—	—	—	(24,146)	(24,146)
BALANCE, December 31, 2018	15,982,622	\$ 16	(273,937)	\$ (1,842)	\$ 381,441	\$ (336,253)	\$ 43,362
Stock issued for restricted stock	223,580	1	—	—	—	—	1
Stock issued under defined contribution 401(k) retirement savings plan	624,728	—	—	—	962	—	962
Share-based compensation	—	—	—	—	958	—	958
Net loss	—	—	—	—	—	(4,523)	(4,523)
BALANCE, December 31, 2019	16,830,930	\$ 17	(273,937)	\$ (1,842)	\$ 383,361	\$ (340,776)	\$ 40,760

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

BROADWIND ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	December 31,	
	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	\$ (4,523)	\$ (24,146)
Income (loss) from discontinued operations	63	(144)
Loss from continuing operations	(4,586)	(24,002)
Adjustments to reconcile net cash used in operating activities:		
Depreciation and amortization expense	7,497	9,183
Deferred income taxes	(30)	(307)
Impairment charges	—	12,585
Remeasurement of contingent consideration	—	(1,140)
Change in fair value of interest rate swap agreements	34	—
Stock-based compensation	958	803
Extinguishment of New Markets Tax Credits obligation	—	(2,249)
Allowance for doubtful accounts	(63)	(35)
Common stock issued under defined contribution 401(k) plan	962	685
Gain on disposal of assets	(1)	(116)
Changes in operating assets and liabilities, net of acquisition:		
Accounts receivable	(792)	(3,776)
Inventories	(9,193)	(2,944)
Prepaid expenses and other current assets	(585)	22
Accounts payable	9,769	801
Accrued liabilities	1,105	553
Customer deposits	(790)	13,716
Other non-current assets and liabilities	236	(1,734)
Net cash provided by operating activities of continuing operations	4,521	2,045
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property and equipment	(1,844)	(2,324)
Proceeds from disposals of property and equipment	1	676
Net cash used in investing activities of continuing operations	(1,843)	(1,648)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from line of credit	177,081	141,414
Payments on line of credit	(176,564)	(141,040)
Proceeds from long-term debt	—	2,060
Payments on long-term debt	(937)	(761)
Principal payments on finance leases	(1,024)	(814)
Proceeds from sale of common stock, net	—	(52)
Net cash (used in) provided by financing activities of continuing operations	(1,444)	807
DISCONTINUED OPERATIONS:		
Operating cash flows	5	(105)
Net cash provided by (used in) discontinued operations	5	(105)
NET INCREASE IN CASH	1,239	1,099
CASH beginning of the period	1,177	78
CASH end of the period	\$ 2,416	\$ 1,177
Supplemental cash flow information:		
Interest paid	\$ 1,619	\$ 1,168
Income taxes paid	\$ 49	\$ 116
Non-cash activities:		
Issuance of restricted stock grants	\$ 958	\$ 803
Equipment additions via finance lease	\$ 704	\$ 650
Non-cash purchases of property and equipment	\$ 552	\$ 64

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

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019 and 2018

(in thousands, except share and per share data)

1. DESCRIPTION OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business

Broadwind Energy, 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.

During the first quarter of 2019, the Company assessed its segment reporting by evaluating various qualitative and quantitative measures for each business and product line. Following the execution of the Company’s 2018 restructuring plan and the resulting exit of the leased Abilene facility at the end of 2018, the Company revised its segment presentation by moving its Abilene compressed natural gas and industrial fabrication business from the Industrial Solutions segment to the Heavy Fabrications segment. The Company made this determination because, post-restructuring, the residual industrial fabrications business activities previously carried out in the now vacated space were transferred to the nearby tower plant under the supervision of Heavy Fabrications segment management. The Company has restated prior periods presented to reflect this change. See Note 15, “Segment Reporting” of these consolidated financial statements for further discussion of reportable segments.

Effective, January 1, 2020, the Company rebranded to Broadwind Energy, Inc. doing business as Broadwind, a reflection of its diversification progress to date and continued strategy to expand its product and customer diversification outside of wind energy. Effective with that rebranding, the Company renamed certain segments. The Towers and Heavy Fabrications segment was renamed to Heavy Fabrications and the Process Systems segment was renamed to Industrial Solutions. The Gearing segment name remained the same. These notes to the consolidated financial statements incorporate these changes.

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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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 Cicero, Illinois, and heat treatment in Neville Island, Pennsylvania.

Industrial Solutions

The Company provides supply chain solutions, 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 and through its credit facility (as further discussed in Note 9 “Debt and Credit Agreements” of these consolidated financial statements), equipment financing and access to the public and private debt 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 Credit Facility to fund working capital requirements. Under the Credit Facility, borrowings are continuous and all cash receipts are usually applied to the outstanding borrowed balance. As of December 31, 2019, cash and cash equivalents and short-term investments totaled \$2,416, an increase of \$1,239 from December 31, 2018. The Company had the ability to borrow up to \$16,577 under the Credit Facility as of December 31, 2019.

The Company also utilizes 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, 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

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

the Company's consolidated statements of cash flows. Fees incurred in connection with the agreements are recorded as interest expense by the Company.

Debt and finance lease obligations at December 31, 2019 totaled \$14,641, which includes current outstanding debt and finance lease obligations totaling \$13,463, over the next twelve months. The current outstanding debt includes \$11,517 outstanding under the Credit Facility.

On August 11, 2017, the Company filed a “shelf” registration statement on Form S-3, which was declared effective by the SEC on October 10, 2017 (the “Broadwind Form S-3”). 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 Company’s 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 July 31, 2018, the Company entered into an At Market Issuance Sales Agreement (the "ATM Agreement") with Roth Capital Partners, LLC (the “Agent”). Pursuant to the terms of the ATM Agreement, the Company may sell from time to time through the Agent shares of the Company's common stock, par value \$0.001 per share with an aggregate sales price of up to \$10,000. The Company will pay a commission to the Agent of 3% of the gross proceeds of the sale of the shares sold under the ATM Agreement and reimburse the Agent for the expenses of their counsel. During the year ended December 31, 2018, the Company issued 15,112 shares of the Company’s common stock under the ATM Agreement and the net proceeds (before upfront costs) to the Company from the sale of the Company’s common stock were approximately \$33 after deducting commissions paid of approximately \$1. As of December 31, 2019, the Company’s common stock having a value of approximately \$9,967 remained available for issuance with respect to the ATM Agreement. The Company did not use the ATM Agreement in 2019.

The Company anticipates that current cash resources, amounts available under the Credit Facility, cash to be generated from operations, equipment financing, and any potential proceeds from access to the public or private debt or equity markets, including the option to raise capital under the Broadwind Form S-3, will be adequate to meet the Company’s liquidity needs for at least the next twelve months.

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, health insurance reserves, and environmental

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

reserves. 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 and Cash Equivalents and Short-Term Investments

Cash and cash equivalents typically comprise cash balances and readily marketable investments with original maturities of three months or less, such as money market funds, short-term government bonds, Treasury bills, marketable securities and commercial paper. As of December 31, 2019 and December 31, 2018, cash totaled \$2,416 and \$1,177, respectively. For the years ended December 31, 2019 and 2018, interest income was \$0 and \$5, 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.

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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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, 2019, the Company's five largest customers accounted for 79% of its consolidated revenues and 55% of outstanding A/R balances, compared to the year ended December 31, 2018 when the Company's five largest customers accounted for 78% of its consolidated revenues and 54% 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. Cost is determined either based on the first-in, first-out ("FIFO") method, or on a standard cost basis that approximates the FIFO method. Market is determined based on net realizable value. 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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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, 2019 and 2018 was \$5,814 and \$7,299, 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. The Company has in the past capitalized interest costs incurred on indebtedness used to construct property and equipment. Capitalized interest is recorded as part of the asset to which it relates and is amortized over the asset's estimated useful life. There was no interest cost capitalized during the years ended December 31, 2019 or 2018. 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 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. Results for reporting periods beginning after January 1, 2019 are presented under Topic 842 while prior period amounts are not adjusted and continue to be reported in accordance with the Company's historical accounting under legacy accounting. 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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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, 2019 and 2018 were as follows, excluding activity related to the discontinued Services segment:

	<u>As of December 31,</u>	
	<u>2019</u>	<u>2018</u>
Balance, beginning of period	\$ 226	\$ 581
Reduction of warranty reserve	(32)	(350)
Warranty claims	(21)	(5)
Other adjustments	(10)	—
Balance, end of period	<u>\$ 163</u>	<u>\$ 226</u>

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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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. 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 (Loss) 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, 2019 and 2018:

	For the Years Ended December 31,	
	2019	2018
Heavy Fabrications	\$ 128,686	\$ 74,667
Gearing	34,877	38,376
Industrial Solutions	14,664	12,467
Eliminations	(7)	(130)
Consolidated	\$ 178,220	\$ 125,380

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

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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.

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, 2019 and 2018 as follows:

	For the Years Ended December 31,	
	2019	2018
Basic earnings per share calculation:		
Net loss	\$ (4,523)	\$ (24,146)
Weighted average number of common shares outstanding	16,127,296	15,468,975
Basic net loss per share	\$ (0.28)	\$ (1.56)
Diluted earnings per share calculation:		
Net loss	\$ (4,523)	\$ (24,146)
Weighted average number of common shares outstanding	16,127,296	15,468,975
Common stock equivalents:		
Stock options and non-vested stock awards ⁽¹⁾	—	—
Weighted average number of common shares outstanding	16,127,296	15,468,975
Diluted net loss per share	\$ (0.28)	\$ (1.56)

- (1) Stock options and restricted stock units granted and outstanding of 1,411,277 and 862,706, respectively, are excluded from the computation of diluted earnings for the years ended December 31, 2019 and 2018 due to the anti-dilutive effect as a result of the Company's net loss for those respective periods.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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.

5. ALLOWANCE FOR DOUBTFUL ACCOUNTS

The activity in the accounts receivable allowance from operations for the years ended December 31, 2019 and 2018 consists of the following:

	For the Years Ended December 31,	
	2019	2018
Balance at beginning of period	\$ 190	\$ 225
Recoveries	(27)	(34)
Write-offs	(36)	(1)
Balance at end of period	<u>\$ 127</u>	<u>\$ 190</u>

6. INVENTORIES

The components of inventories from operations as of December 31, 2019 and 2018 are summarized as follows:

	As of December 31,	
	2019	2018
Raw materials	\$ 22,759	\$ 16,394
Work-in-process	8,366	5,426
Finished goods	2,915	2,958
	34,040	24,778
Less: Reserve for excess and obsolete inventory	(2,177)	(2,108)
Net inventories	<u>\$ 31,863</u>	<u>\$ 22,670</u>

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

7. LONG-LIVED ASSETS

The cost basis and estimated lives of property and equipment from continuing operations as of December 31, 2019 and 2018 are as follows:

	<u>As of December 31,</u>		<u>Life</u>	
	<u>2019</u>	<u>2018</u>		
Land	\$ 1,423	\$ 1,423		
Buildings	20,747	20,747	39	years
Machinery and equipment	109,775	107,469	2	- 10 years
Office furniture and equipment	4,597	4,387	3	- 7 years
Leasehold improvements	8,974	8,974	Asset life or life of lease	
Construction in progress	1,093	172		
	<u>146,609</u>	<u>143,172</u>		
Less accumulated depreciation and amortization	<u>(99,669)</u>	<u>(94,085)</u>		
Total property and equipment	<u>\$ 46,940</u>	<u>\$ 49,087</u>		

As of December 31, 2019 and December 31, 2018, the Company had commitments of \$758 and \$80, respectively, related to the completion of projects within construction in progress.

Other intangible assets represent the fair value assigned to definite-lived assets such as trade names and customer relationships as part of the Company's acquisition of Brad Foote completed in 2007 as well as the noncompetition agreements, trade names and customer relationships that were part of the Company's acquisition of Red Wolf. Other intangible assets are amortized on a straight-line basis over their estimated useful lives, with a remaining life range from 3 to 8 years.

During 2018, the Company recorded impairment charges of \$12,585 associated with certain intangible assets recorded as part of the Red Wolf acquisition. The assets that were impaired related to the full amount of goodwill in the amount of \$4,993 and the impairment of the customer relationship intangible in the amount of \$7,592. These charges were recorded within the Company's Industrial Solutions segment. During 2019, the Company also identified a triggering event associated with its continued operating losses within the Industrial Solutions segment. The Company relied upon an undiscounted cash flow analysis and concluded that no impairment to this asset group was indicated as of December 31, 2019. However, in conjunction with the Company's rebranding initiative, during 2019 the Company decided it would no longer utilize the Red Wolf trade name. As a result, the Company accelerated the amortization of the trade name by \$871 so that it was fully amortized in 2019.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

As of December 31, 2019 and 2018, the cost basis, accumulated amortization and net book value of intangible assets were as follows:

	December 31, 2019					December 31, 2018				
	Cost	Accumulated Amortization	Impairment Charges	Net Book Value	Remaining Weighted Average Amortization Period	Cost	Accumulated Amortization	Impairment Charges	Net Book Value	Remaining Weighted Average Amortization Period
Other intangible assets:										
Noncompete agreements	\$ 170	\$ (83)	\$ —	\$ 87	3.1	\$ 170	\$ (54)	\$ —	\$ 116	4.1
Customer relationships	15,979	(6,674)	(7,592)	1,713	5.8	15,979	(6,369)	(7,592)	2,018	6.8
Trade names	9,099	(5,980)	—	3,119	7.8	9,099	(4,631)	—	4,468	9.5
Other intangible assets	<u>\$25,248</u>	<u>\$ (12,737)</u>	<u>\$ (7,592)</u>	<u>\$4,919</u>	5.5	<u>\$25,248</u>	<u>\$ (11,054)</u>	<u>\$ (7,592)</u>	<u>\$6,602</u>	6.5

Intangible assets are amortized on a straight-line basis over their estimated useful lives, which range from 6 to 20 years. Amortization expense was \$1,683 and \$1,884 for the years ended December 31, 2019 and 2018, respectively. As of December 31, 2019, estimated future amortization expense is as follows:

2020	\$ 733
2021	733
2022	725
2023	664
2024	661
2025 and thereafter	1,403
Total	<u>\$ 4,919</u>

8. ACCRUED LIABILITIES

Accrued liabilities as of December 31, 2019 and 2018 consisted of the following:

	December 31,	
	2019	2018
Accrued payroll and benefits	\$ 3,870	\$ 2,126
Income taxes payable	61	66
Accrued professional fees	136	101
Accrued warranty liability	163	226
Self-insured workers compensation reserve	115	374
Accrued other	566	913
Total accrued liabilities	<u>\$ 4,911</u>	<u>\$ 3,806</u>

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

9. DEBT AND CREDIT AGREEMENTS

The Company's outstanding debt balances as of December 31, 2019 and 2018 consisted of the following:

	December 31,	
	2019	2018
Line of credit	\$ 11,517	\$ 11,000
Other notes payable	1,563	1,882
Long-term debt	342	456
Less: Current portion	(12,917)	(11,930)
Long-term debt, net of current maturities	<u>\$ 505</u>	<u>\$ 1,408</u>

As of December 31, 2019, future annual principal payments on the Company's outstanding debt obligations were as follows:

2020	\$ 12,917
2021	275
2022	116
2023	114
2024 and thereafter	—
Total	<u>\$ 13,422</u>

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 "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 (the "Credit Facility"). The obligations under the Credit Facility are 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.

The Credit Facility is an asset-based revolving credit facility, pursuant to which the Lenders advance funds against a borrowing base consisting of approximately (a) 85% of the face value of eligible receivables of the Company and the subsidiaries, plus (b) the lesser of (i) 50% of the lower of cost or market value of eligible inventory of the Company, (ii) 85% of the orderly liquidation value of eligible inventory and (iii) \$12.5 million, plus (c) the lesser of (i) the sum of (A) 75% of the appraised net orderly liquidation value of the Company's eligible machinery and equipment plus (B) 50% of the fair market value of the Company's mortgaged property and (ii) \$12 million. Subject to certain borrowing base conditions, the aggregate Credit Facility limit under the Amended and Restated Loan Agreement is \$35 million with a sublimit for letters of credit of \$10 million. Borrowings under the Credit Facility bear interest at a per annum rate equal to, at the option of the Company, the one, two or

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

three-month LIBOR rate or the base rate, plus a margin. The applicable margin is 5.50% for LIBOR rate loans and 3.50% for base rates loans. Upon certain pay downs, a pricing grid based on the Company's trailing twelve month fixed charge coverage ratio may become effective under which applicable margins would range from 2.25% to 2.75% for LIBOR rate loans and 0.00% to 0.75% for base rate loans. The Company must also pay an unused facility fee equal to 0.50% per annum on the unused portion of the Credit Facility along with other standard fees. The initial term of the Amended and Restated Loan Agreement ends on February 25, 2022. With the exception of the balance impacted by the interest rate swap (as described below), the Company is allowed to prepay in whole or in part advances under the Credit Facility without penalty or premium other than customary "breakage" costs with respect to LIBOR loans.

The Amended and Restated Loan Agreement contains customary representations and warranties applicable to the Company and the subsidiaries. It also contains a requirement that the Company, on a consolidated basis, maintain minimum quarterly earnings before interest, taxes, depreciation, amortization, share-based payments, restructuring costs, and intangible impairments ("EBITDA") levels through September 30, 2019 and a minimum quarterly fixed charge coverage ratio thereafter, along with other customary restrictive covenants, certain of which are subject to materiality thresholds, baskets and customary exceptions and qualifications. The Company was in compliance with all covenants under the Credit Facility as of December 31, 2019.

In conjunction with the 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 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.

As of December 31, 2019, there was \$11,517 outstanding under the Credit Facility. The Company had the ability to borrow up to \$16,577 under the Credit Facility as of December 31, 2019.

Other

In 2016, the Company entered into a \$570 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, 2019 and 2018, \$114 of the loan was forgiven. As of December 31, 2019, the loan balance was \$342. In addition, the Company has outstanding notes payable for capital expenditures in the amount of \$1,563 and \$1,882 as of December 31, 2019 and 2018, respectively, with \$1,400 and \$930 included in the "Line of credit and other notes payable" line item of the Company's consolidated financial statements as of December 31, 2019 and 2018, respectively. The notes payable have monthly payments that range from \$1 to \$36 and an interest rate of 5%. The equipment purchased is utilized as

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

collateral for the notes payable. The outstanding notes payable have maturity dates that range from April 2020 to August 2022.

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. Results for reporting periods beginning after January 1, 2019 are presented under Topic 842 while prior period amounts are not adjusted and continue to be reported in accordance with the Company's historical accounting under legacy accounting. ASU 2018-11 also allows an exception so that companies do not have to make the new required lease disclosures for periods before the effective date. The Company has elected to apply the short-term lease exception to all leases of one year or less.

The adoption of Topic 842 resulted in the Company recognizing operating lease liabilities totaling \$19,508 with a corresponding right-of-use ("ROU") asset of \$17,613 based on the present value of the minimum rental payments of such leases. The variance between the ROU asset balance and the lease liability is a deferred rent liability that existed prior to the adoption of Topic 842 and was offset against the ROU asset balance during the adoption. As of December 31, 2019, the ROU asset had a balance of \$15,980 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 \$1,326 and \$16,591, 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. 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, 2019 and 2018 was \$4,264 and \$3,654, 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, 2019 and 2018 was \$666 and \$572, respectively.

Amortization expense recorded in connection with assets recorded under finance leases was \$560 and \$527 for the years ended December 31, 2019 and 2018, respectively.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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

	For the Year Ended December 31, 2019
Components of lease cost	
Finance lease cost components:	
Amortization of finance lease assets	\$ 560
Interest on finance lease liabilities	106
Total finance lease costs	666
Operating lease cost components:	
Operating lease cost	3,017
Short-term lease cost	629
Variable lease cost ⁽¹⁾	783
Sublease income	(165)
Total operating lease costs	4,264
Total lease cost	\$ 4,930

Supplemental cash flow information related to our operating leases is as follows for the year ended December 31, 2019:

Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash outflow from operating leases	\$ 3,505

Weighted-average remaining lease term-finance leases at 12/31/19 (in years)	1.1
Weighted-average remaining lease term-operating leases at 12/31/19 (in years)	10.8
Weighted-average discount rate-finance leases at 12/31/19	8.4%
Weighted-average discount rate-operating leases at 12/31/19	9.0%

(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.

As of December 31, 2019, the Company had an additional operating lease of \$4,380 that will commence during fiscal year 2020 and carries a lease term of ten years.

As of December 31, 2019, future minimum lease payments under finance leases and operating leases were as follows:

	Finance Leases	Operating Leases	Total
2020	\$ 631	\$ 2,914	\$ 3,545
2021	501	2,772	3,273
2022	179	2,286	2,465
2023	29	2,268	2,297
2024	—	2,291	2,291
2025 and thereafter	—	16,655	16,655
Total lease payments	\$ 1,340	\$ 29,186	\$ 30,526
Less—portion representing interest	(121)	(11,269)	(11,390)
Present value of lease obligations	1,219	17,917	19,136
Less—current portion of lease obligations	(546)	(1,326)	(1,872)

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

Long-term portion of lease obligations	\$ 673	\$ 16,591	\$ 17,264
--	--------	-----------	-----------

As of December 31, 2018, future minimum lease payments under finance leases and operating leases were as follows:

	Finance Leases	Operating Leases	Total
2019	\$ 1,057	\$ 3,524	\$ 4,581
2020	376	2,784	3,160
2021	252	2,334	2,586
2022	—	2,333	2,333
2023	—	2,213	2,213
2024 and thereafter	—	6,340	6,340
Total lease payments	\$ 1,685	\$ 19,528	\$ 21,213
Less—portion representing interest	(147)		
Present value of lease obligations	1,538		
Less—current portion of lease obligations	(967)		
Long-term portion of lease obligations	\$ 571		

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, 2019, 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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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 2019 and 2018, the Company incurred no liquidated damages and there was no reserve for liquidated damages as of December 31, 2019.

Workers' Compensation Reserves

As of December 31, 2019 and 2018, the Company had \$115 and \$374, 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, 2019 and 2018, the Company had \$344 and \$450, 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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

Other

As of December 31, 2019, approximately 18% 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. The current five-year collective bargaining agreement with the Neville Island union is expected to remain in effect through October 2022. During the third quarter of 2018, a new collective bargaining agreement was negotiated and ratified with the Cicero Union. The new four-year collective bargaining agreement with the Cicero union is expected to remain in effect through February 2022.

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, restricted 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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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 following tables represent the fair values of the Company’s financial assets measured as of December 31, 2019 and 2018:

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Liabilities measured on a recurring basis:				
Interest rate swap	\$ —	\$ 78	\$ —	\$ 78
Total liabilities at fair value	<u>\$ —</u>	<u>\$ 78</u>	<u>\$ —</u>	<u>\$ 78</u>
	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets measured on a nonrecurring basis:				
Customer relationships	\$ —	\$ —	\$ 1,852	\$ 1,852
Total assets at fair value	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,852</u>	<u>\$ 1,852</u>

13. INCOME TAXES

The provision for income taxes for the years ended December 31, 2019 and 2018 consists of the following:

	For the Years Ended December 31,	
	2019	2018
Current provision		
Federal	\$ —	\$ —
Foreign	—	—
State	57	98
Total current benefit	<u>57</u>	<u>98</u>
Deferred credit		
Federal	(558)	(3,978)
State	(453)	(2,963)
Total deferred credit	<u>(1,011)</u>	<u>(6,941)</u>
Increase (decrease) in deferred tax valuation allowance	992	6,638
Total provision (benefit) for income taxes	<u>\$ 38</u>	<u>\$ (205)</u>

During the year ended December 31, 2019, the Company recorded an expense for income taxes of \$38, compared to a benefit for income taxes of \$205 during the year ended December 31, 2018.

The total change in the deferred tax valuation allowance was \$992 and \$6,638 for the years ended December 31, 2019 and 2018, respectively. The changes in the deferred tax valuation allowances in 2019 and 2018 were primarily the result of increases to the deferred tax assets pertaining

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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 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 December 31,	
	2019	2018
Noncurrent deferred income tax assets:		
Net operating loss carryforwards	\$ 67,014	\$ 63,906
Intangible assets	5,040	7,261
Accrual and reserves	2,462	2,502
Other	77	19
Total noncurrent deferred tax assets	74,593	73,688
Valuation allowance	(74,121)	(73,129)
Noncurrent deferred tax assets, net of valuation allowance	472	559
Noncurrent deferred income tax liabilities:		
Fixed assets	476	593
Total noncurrent deferred tax liabilities	476	593
Net deferred income tax liability	\$ (4)	\$ (34)

Valuation allowances of \$74,121 and \$73,129 have been provided for deferred income tax assets for which realization is uncertain as of December 31, 2019 and 2018, respectively. A reconciliation of the beginning and ending amounts of the valuation is as follows:

Valuation allowance as of December 31, 2018	\$ (73,129)
Gross increase for current year activity	(92)
Valuation allowance as of December 31, 2019	\$ (74,121)

As of December 31, 2019, the Company had federal and unapportioned state NOL carryforwards of approximately \$258,834 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,	
	2019	2018
Statutory U.S. federal income tax rate	21.0 %	21.0 %
State and local income taxes, net of federal income tax benefit	2.0	3.2
Permanent differences	(0.4)	(4.4)
Change in valuation allowance	(23.1)	(18.7)
Other	(0.5)	(0.3)
Effective income tax rate	(1.0)%	0.8 %

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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, 2019, 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, 2019, open tax years in the federal and some state jurisdictions date back to 1996 due to the taxing authorities' ability to adjust NOL carryforwards. 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").

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. 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 \$4.25 per Right, subject to adjustment. As a result of the Rights Plan, any person or group that acquires

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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 ("2007 and 2012 EIPs"). 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," and together with the 2007 and 2012 EIPs, the "Equity Incentive Plans"), 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.

The purposes of the 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 Equity Incentive Plans 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 Equity Incentive Plans. 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 Equity Incentive Plans. 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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

The Equity Incentive Plans reserve shares of the Company's common stock for grants to officers, directors, employees, consultants and advisors upon whose efforts the success of the Company and its affiliates depends to a large degree. The 2007 and 2012 EIPs reserved 1,891,051 shares of the Company's common stock. As of December 31, 2019, 888,748 shares of common stock reserved for issuance pursuant to stock options and RSU awards granted under the 2007 and 2012 EIPs had been issued in the form of common stock, and 54,362 shares of common stock remained reserved for issuance upon the exercise of stock options outstanding under the 2007 and 2012 EIPs.

The 2015 EIP reserves 2,200,000 shares of the Company's common stock. As of December 31, 2019, 567,009 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 1,356,915 shares of common stock remained reserved for issuance upon the exercise of stock options outstanding under the 2015 EIP.

Stock option activity during the year ended December 31, 2019 under the Equity Incentive Plans was as follows:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2018	56,862	\$ 15.06	2.72	\$ —
Expired	(2,500)	\$ 99.90	—	\$ —
Outstanding as of December 31, 2019	54,362	\$ 11.16	1.81	\$ —
Exercisable as of December 31, 2019	54,362	\$ 11.16	1.81	\$ —

The following table summarizes information with respect to all outstanding and exercisable stock options under the Equity Incentive Plans as of December 31, 2019:

Exercise Price or Range	Options Outstanding			Options Exercisable		
	Number of options outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Number Exercisable	Weighted Average Exercise Price	
\$3.39 - \$13.50	49,039	\$ 6.47	1.99 years	49,039	\$ 6.47	
\$54.40	5,323	\$ 54.40	0.19 years	5,323	\$ 54.40	
	54,362	\$ 11.16	1.81 years	54,362	\$ 11.16	

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. There were no stock options granted during the twelve months ended December 31, 2019 and 2018.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

The following table summarizes information with respect to outstanding RSUs and PSUs under the Equity Incentive Plans as of December 31, 2019 and 2018:

	Number of Shares	Weighted Average Grant-Date Fair Value Per Share
Unvested as of December 31, 2018	805,844	\$ 3.16
Granted	905,321	\$ 1.92
Vested	(272,351)	\$ 3.05
Forfeited	(81,899)	\$ 2.56
Unvested as of December 31, 2019	1,356,915	\$ 2.39

RSUs and PSUs are generally subject to ratable vesting over a three-year period. Compensation expense related to these service-based awards is recognized on a straight-line basis over the vesting period. During the years ended December 31, 2019 and 2018, the Company utilized a forfeiture rate of 25% for estimating the forfeitures of stock compensation granted.

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, 2019 and 2018 as follows:

	For the Years Ended December 31,	
	2019	2018
Share-based compensation expense:		
Cost of sales	\$ 99	\$ 99
Selling, general and administrative	859	704
Net effect of share-based compensation expense on net income	\$ 958	\$ 803
Reduction in earnings per share:		
Basic earnings per share	\$ 0.06	\$ 0.05
Diluted earnings per share	\$ 0.06	\$ 0.05

(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, 2019 and 2018. 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, 2019, the Company estimates that pre-tax compensation expense for all unvested share-based RSUs and PSUs in the amount of approximately \$1,537 will be recognized through the year 2021. The Company expects to satisfy the exercise of stock options and 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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

During the first quarter of 2019, the Company revised its segment presentation by moving its Abilene compressed natural gas and industrial fabrication business from the Industrial Solutions segment to the Heavy Fabrications segment. The Company believes that this change more appropriately aligns its businesses in terms of the nature of its products and services, as well as its production processes and customers. The Company has restated prior periods presented to reflect this change. In conjunction with the Company's rebranding initiative, the Company renamed certain segments. See Note 1 "Description of Business and Summary of Significant Accounting Policies" of these consolidated financial statements for further discussion of the renamed segments.

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 tower 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 in Neville Island, Pennsylvania.

Industrial Solutions

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

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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, 2019						
Revenues from external customers	\$ 128,686	\$ 34,877	\$ 14,657	\$ —	\$ —	\$ 178,220
Intersegment revenues	—	—	7	—	(7)	—
Net revenues	128,686	34,877	14,664	—	(7)	178,220
Operating profit (loss)	1,861	3,237	(1,059)	(6,396)	—	(2,357)
Depreciation and amortization	3,976	1,981	1,362	178	—	7,497
Capital expenditures	992	769	52	31	—	1,844
Total assets	41,432	47,022	8,893	239,629	(214,110)	122,866

	Heavy Fabrications	Gearing	Industrial Solutions	Corporate	Eliminations	Consolidated
For the Year Ended December 31, 2018						
Revenues from external customers	\$ 74,625	\$ 38,376	\$ 12,379	\$ —	\$ —	\$ 125,380
Intersegment revenues	42	—	88	—	(130)	—
Net revenues	74,667	38,376	12,467	—	(130)	125,380
Operating (loss) profit	(5,440)	51	(15,348)	(4,329)	—	(25,066)
Depreciation and amortization	5,145	2,255	1,550	233	—	9,183
Capital expenditures	1,472	706	—	146	—	2,324
Total assets	34,839	37,028	11,758	243,867	(228,327)	99,165

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 2019, one customer accounted for more than 10% of total net revenues and had an accounts receivable balance greater than 10% of current assets. This customer accounted for revenues of \$110,693 and account receivables of \$8,428 for fiscal year 2019 and is reported within the Heavy Fabrications segment. At December 31, 2019, no other customer had an account receivables balance greater than 10% of current assets. During 2018, two customers accounted for more than 10% of total net revenues or \$72,851 in revenue for fiscal year 2018, with one reported within the Heavy Fabrications segment and one reported within the Gearing segment. At December 31, 2018, no customer had an accounts receivable balance greater than 10% of current assets. During the years ended December 31, 2019 and 2018, five customers accounted for 79% and 78%, respectively, of total net revenues.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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, 2019, all employees are 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, 2019 and 2018, the Company recorded expense under these plans of approximately \$1,002 and \$812, 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 expense associated with the deferred compensation plan recorded during the years ended December 31, 2019 and 2018 was \$3 and \$(13). 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, 2019 and 2018, the fair value of plan liability to the Company was \$15 and \$12, 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.

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

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, 2019 and 2018 as follows:

2019	First	Second	Third	Fourth
Revenues	\$ 41,660	\$ 41,169	\$ 46,138	\$ 49,253
Gross profit	3,537	3,892	3,994	3,989
Operating loss	(494)	(206)	(258)	(1,399)
Loss from continuing operations, net of tax	(1,043)	(1,018)	(898)	(1,627)
Net loss	(1,042)	(1,018)	(898)	(1,565)
Loss from continuing operations per share:				
Basic	\$ (0.07)	\$ (0.06)	\$ (0.06)	\$ (0.09)
Diluted	\$ (0.07)	\$ (0.06)	\$ (0.06)	\$ (0.09)
Net loss per share:				
Basic	\$ (0.07)	\$ (0.06)	\$ (0.06)	\$ (0.09)
Diluted	\$ (0.07)	\$ (0.06)	\$ (0.06)	\$ (0.09)
2018	First	Second	Third	Fourth
Revenues	\$ 29,967	\$ 36,781	\$ 31,445	\$ 27,187
Gross (loss) profit	(132)	2,223	1,486	(512)
Operating loss	(4,537)	(5,736)	(2,612)	(12,181)
Loss from continuing operations, net of tax	(4,811)	(6,083)	(750)	(12,358)
Net loss	(4,838)	(6,116)	(783)	(12,409)
Loss from continuing operations per share:				
Basic	\$ (0.32)	\$ (0.40)	\$ (0.05)	\$ (0.79)
Diluted	\$ (0.32)	\$ (0.40)	\$ (0.05)	\$ (0.79)
Net loss per share:				
Basic	\$ (0.32)	\$ (0.40)	\$ (0.05)	\$ (0.79)
Diluted	\$ (0.32)	\$ (0.40)	\$ (0.05)	\$ (0.79)

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

BROADWIND ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2019 and 2018

(in thousands, except share and per share data)

also be material to the Company's financial condition and cash flows in the periods the Company would be required to pay such liability.

19. RESTRUCTURING

During 2018, the Company conducted a review of its business strategies and product plans given the outlook of the industries it serves and its business environment. As a result, the Company executed a restructuring plan to rationalize its facility capacity and management structure, and to consolidate and increase the efficiencies of its Abilene facility operations. The Company exited the market for natural gas compression units and transferred remaining operations from a leased facility in Abilene, TX into other production locations. The Company vacated the leased Abilene facility in 2018 and incurred costs totaling \$12 and \$668 for the years ended December 31, 2019 and 2018, respectively. In conjunction with this initiative, all costs associated with this vacated facility were recorded as restructuring expenses within the Heavy Fabrications segment. Our restructuring activities concluded in 2019.

The Company's total net restructuring charges for the years ended December 31, 2019 and 2018 consist of the following:

	For the Years Ended December 31,	
	2019	2018
<i>Cost of sales:</i>		
Facility costs	\$ 2	\$ 249
Moving and remediation	10	33
Salary and severance	—	17
Depreciation	—	332
Total cost of sales	12	631
<i>Selling, general, and administrative expenses:</i>		
Salary and severance	—	37
Total selling, general, and administrative expenses	—	37
Grand Total	\$ 12	\$ 668

INDEX TO EXHIBITS

<u>Exhibit Number</u>	<u>Description</u>
2.1	Membership Interest Purchase Agreement dated as of February 1, 2017, by and among the Company, Christopher J. Brice, Lewis J. Hendrix and Kimberley M. Sutton (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed February 1, 2017)
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	Second Amended and Restated Bylaws of the Company, adopted as of May 20, 2014 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed May 23, 2014)
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	Description of Securities (filed herewith)
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†	Severance and Non-Competition Agreement, dated as of December 15, 2011 between the Company and Robert R. Rogowski (incorporated by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014)

[Table of Contents](#)

- 10.4† [Severance and Non-Competition Agreement, dated as of July 8, 2014 between the Company and Erik W. Jensen \(incorporated by reference to Exhibit 10.27 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2014\)](#)
- 10.5† [Form of Indemnification Agreement \(incorporated by reference to Exhibit 10.6 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2010\)](#)
- 10.6† [Broadwind Energy, Inc. 2015 Equity Incentive Plan \(incorporated by reference to Exhibit A to the Company’s Schedule 14A filed on March 12, 2015\)](#)
- 10.7† [Form of Executive Incentive Stock Option Agreement \(incorporated by reference to Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2010\)](#)
- 10.8† [Form of Restricted Stock Unit Award Agreement \(incorporated by reference to Exhibit 10.2 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012\)](#)
- 10.9† [Form of Restricted Stock Unit Award Agreement \(incorporated by reference to Exhibit 10.3 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012\)](#)
- 10.10† [Form of Stock Option Agreement \(incorporated by reference to Exhibit 10.4 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012\)](#)
- 10.11† [Form of Restricted Stock Unit Award Agreement \(Non-Employee Directors\) \(incorporated by reference to Exhibit 10.35 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2015\)](#)
- 10.12† [Form of Restricted Stock Unit Award Agreement \(Extended Executive Team\) \(incorporated by reference to Exhibit 10.36 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2015\)](#)
- 10.13† [Form of Restricted Stock Unit Award Agreement \(incorporated by reference to Exhibit 10.37 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2015\)](#)
- 10.14† [Broadwind Energy, Inc. 2015 Equity Incentive Plan Restricted Stock Unit Award Notice \(incorporated by reference to Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2018\)](#)
- 10.15† [Second Amended and Restated Employment Agreement, dated May 20, 2016, between the Company and Stephanie K. Kushner \(incorporated by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed May 24, 2016\)](#)
- 10.16 [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 \(incorporated by reference to Exhibit 10.25 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2018\)](#)

[Table of Contents](#)

- 10.17† [Severance and Non-Competition Agreement, dated October 23, 2017, between the Company and Jason L. Bonfigt \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K/A filed November 28, 2017\)](#)
- 10.18† [Severance and Non-Competition Agreement, dated as of May 4, 2018, between the Company and Eric Blashford \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed May 3, 2018\)](#)
- 10.19 [At Market Issuance Sales Agreement, dated July 31, 2018, by and among the Company and Roth Capital Partners, LLC \(incorporated by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed July 31, 2018\)](#)
- 10.20† [Form of Performance Award Agreement \(Broadwind Energy, Inc. 2015 Equity Incentive Plan\) \(incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019\)](#)
- 10.21† [Form of Performance Award Agreement \(Amended and Restated Broadwind Energy, Inc. 2015 Equity Incentive Plan\) \(incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019\)](#)
- 10.22† [Form of Performance Award Agreement dated April 23, 2019 between the Company and Stephanie K. Kushner \(incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019\)](#)
- 10.23† [Restricted Stock Award Agreement dated April 23, 2019 between the Company and Stephanie K. Kushner \(incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019\)](#)
- 10.24† [Amended and Restated Broadwind Energy, Inc. 2015 Equity Incentive Plan \(incorporated by reference to Exhibit D to the Company's Schedule 14A filed on March 11, 2019\)](#)
- 10.25† [Separation Agreement, dated December 23, 2019 between the Company and Erik W. Jensen \(filed herewith\)](#)
- 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 Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 \(filed herewith\)](#)

[Table of Contents](#)

- 101 The following financial information from this Form 10-K of Broadwind Energy, Inc. for the year ended December 31, 2019, formatted in iXBRL (inline eXtensible Business Reporting Language): (i) Consolidated Balance Sheets as of December 31, 2019 and 2018, (ii) Consolidated Statements of Operations for the years ended December 31, 2019 and 2018, (iii) Consolidated Statements of Stockholders' Equity for the years ended December 31, 2019 and 2018, (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2019 and 2018, and (v) Notes to Consolidated Financial Statements, tagged as blocks of text.

† 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 27th day of February, 2020.

BROADWIND ENERGY, INC.

By: /s/ Stephanie K. Kushner
Stephanie K. Kushner
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 on behalf of the registrant and in the capacities and on the dates indicated.

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
<u>/s/ Stephanie K. Kushner</u> Stephanie K. Kushner	President, Chief Executive Officer, and Director (Principal Executive Officer)	February 27, 2020
<u>/s/ Jason L. Bonfigt</u> Jason L. Bonfigt	Vice President and Chief Financial Officer (Principal Financial Officer)	February 27, 2020
<u>/s/ David P. Reiland</u> David P. Reiland	Director and Chairman of the Board	February 27, 2020
<u>/s/ Philip J. Christman</u> Philip J. Christman	Director	February 27, 2020
<u>/s/ Terence P. Fox</u> Terence P. Fox	Director	February 27, 2020
<u>/s/ Thomas A. Wagner</u> Thomas A. Wagner	Director	February 27, 2020
<u>/s/ Cary B. Wood</u> Cary B. Wood	Director	February 27, 2020

**BROADWIND ENERGY, INC.
DESCRIPTION OF SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

The authorized capital stock of Broadwind Energy, Inc. (the “Company,” “Broadwind” or “us”) consists of 30,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of undesignated stock, par value \$0.001 per share, which may be designated as one or more series of preferred stock by resolution or resolutions providing for the issuance of such series adopted by the Board of Directors, 30,000 shares of which have been designated Series A Junior Participating Preferred Stock.

The following description of the terms of our securities is not complete and is qualified in its entirety by reference to the Company’s Certificate of Incorporation, as amended (the “Certificate of Incorporation”), the Company’s Second Amended and Restated Bylaws (the “Bylaws”), and the Rights Agreement (as defined below), all of which are exhibits to our Annual Report on Form 10-K.

Common Stock

The holders of common stock are entitled to one vote for each outstanding share of common stock owned by that stockholder on every matter properly submitted to the stockholders for their vote. Generally, all matters to be voted on by stockholders must be approved by a majority in voting power of the stock having voting power present in person or represented by proxy. However, questions governed expressly by provisions of the certificate of incorporation, bylaws, applicable stock exchange rules or applicable law require approval as set forth in the applicable governing document, stock exchange rule or law. The election of directors shall be by majority of the votes cast (meaning the number of shares voted “for” a nominee must exceed the number of shares voted “against” such nominee) with “abstentions” and “broker non-votes” not counted as a vote cast either “for” or “against” that nominee’s election, and there is no cumulative voting for the election of directors; provided that at a meeting for the election of directors at which there are one or more stockholder nominees, directors shall be elected by a plurality of the votes cast on the election of directors.

The holders of common stock will be entitled to such dividends and other distributions of cash or any other right or property as may be declared by the Board of Directors out of the assets or funds legally available for such dividends or distributions.

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company’s affairs, holders of common stock would be entitled to share ratably, based upon the number of shares held, in assets that are legally available for distribution to stockholders after payment of liabilities. If there is any preferred stock outstanding at such time, holders of the preferred stock may be entitled to distribution and/or liquidation preferences.

The Certificate of Incorporation provides that holders of common stock shall not have any preference, preemptive right, or right of subscription, other than to the extent, if any, the Board of Directors may determine from time to time.

Provisions of the Company’s Certificate of Incorporation, Bylaws and Delaware Law that May Have an Anti-Takeover Effect

Certificate of Incorporation and Bylaws. The Certificate of Incorporation and Bylaws provide that a special meeting of stockholders may be called only by the Chairman of the Board, Chief Executive Officer, or the Secretary of the Company. Stockholders are not permitted to call, or to require that the Board of Directors call, a special meeting of stockholders.

Delaware Takeover Statute. The Certificate of Incorporation provides that the Company will not be subject to Section 203 of the Delaware General Corporation Law (the “DGCL”), which, subject to certain exceptions, prohibits a Delaware corporation from engaging in any “business combination” (as defined below) with any “interested stockholder” (as defined below) for a period of three years following the date that such stockholder became an interested stockholder, unless: (i) prior to such date, the Board of Directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) on consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned (x) by persons who are directors and also officers and (y) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or (iii) on or subsequent to such date, the business combination is approved by the Board of Directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 of the DGCL defines “business combination” to include: (i) any merger or consolidation involving the corporation and the interested stockholder; (ii) any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder; (iii) subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; (iv) any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or (v) the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation. In general, Section 203 of the DGCL defines an “interested stockholder” as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person.

Rights to Acquire Series A Junior Participating Preferred Stock

Broadwind has adopted, and its stockholders have approved, a Section 382 stockholders rights plan and declared a dividend distribution of one right for each outstanding share of our common stock to stockholders of record at the close of business on February 22, 2013. Each right entitles its holder, under the circumstances described below, to purchase from us one one-thousandth of a share of our Series A Junior Participating Preferred Stock at an exercise price of \$4.25 per right, subject to adjustment. The terms of the rights are set forth in a Section 382 Rights Agreement between us and Wells Fargo Bank, N.A., as rights agent, as amended (the “Rights Agreement”).

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 common stock, with certain exceptions (any such person or group is referred to as an “acquiring person”). A person shall be deemed to be a “beneficial owner” of, and shall be deemed to “beneficially own,” any securities that such person is deemed to constructively own under Section 382 of the Code and the Treasury Regulations thereunder (including pursuant to the “option” rules of Treasury Regulation Section 1.382-4), that such person would be deemed to own together with any other persons as a single “entity” under Treasury Regulations Section 1.382-3(a)(1), or that otherwise would be aggregated with securities owned by such person pursuant to Section 382 of the Code and the Treasury Regulations thereunder.

A stockholder who together with its affiliates and associates beneficially owned 4.9% or more of common stock as of February 12, 2013 is deemed not to be an “acquiring person,” so long as such stockholder does not acquire any additional shares of common stock without the prior written approval of Broadwind, other than pursuant to or as a result of (a) a reduction in the amount of common stock outstanding; (b) any unilateral grant of any common stock by Broadwind or (c) any issuance of common stock by Broadwind or any share dividend, share split or similar transaction effected by Broadwind in which all holders of common stock are treated equally. Such a stockholder is a “grandfathered person” for purposes of the rights plan.

The board of directors of Broadwind may, in its sole discretion, exempt any person or group who would otherwise be an acquiring person from being deemed an acquiring person for purposes of the rights plan if it determines at any time prior to the time at which the rights are no longer redeemable that the beneficial ownership of such person would not jeopardize, endanger or limit (in timing or amount) the availability of Broadwind's net operating losses and other tax benefits. Any such person or group is an "exempted person" under the rights plan. The board of directors, in its sole discretion, may subsequently make a contrary determination and such person would then become an acquiring person.

An "exempted transaction" is a transaction that the board of directors determines is an exempted transaction and, unlike the determination of an exempted person, such determination is irrevocable.

Initially, the rights are associated with our common stock and evidenced by common stock certificates or, in the case of uncertificated shares of common stock, the book-entry records evidencing the common stock, and are transferable with and only with the underlying shares of common stock. Subject to certain exceptions, the rights become exercisable and trade separately from the common stock only upon the "distribution date," which occurs upon the earlier of (i) ten days following a public announcement (such date, the "stock acquisition date") that an acquiring person has acquired, or obtained the right to acquire, beneficial ownership of 4.9% or more of our outstanding shares of common stock, or (ii) ten business days (or later date if determined by our board of directors prior to such time as any person or group becomes an acquiring person) following the commencement of a tender offer or exchange offer which, if consummated, would result in a person or group becoming an acquiring person.

In addition, if Broadwind's board of directors determines in good faith that a person became an acquiring person inadvertently and such person divests as promptly as practicable a sufficient number of shares of common stock so that such person would no longer be an acquiring person, then such person will not be deemed to be an acquiring person.

Until the distribution date, the surrender for transfer of any shares of common stock outstanding will also constitute the transfer of the rights associated with those shares.

The rights are not exercisable until the distribution date and, unless earlier redeemed or exchanged by us as described below, will expire upon the close of business on February 22, 2022, unless earlier terminated in accordance with the terms of the Rights Plan.

In the event that a person or group becomes an acquiring person (a "flip-in event"), each holder of a right (other than any acquiring person and certain related parties, whose rights automatically become null and void) will have the right to receive, upon exercise, common stock having a value equal to two times the exercise price of the right. If an insufficient number of shares of common stock is available for issuance, then our board of directors would be required to substitute cash, property or other securities of Broadwind for the common stock. The rights may not be exercised following a flip-in event while Broadwind has the ability to cause the rights to be redeemed, as described later in this summary.

In general, Broadwind may redeem the rights in whole, but not in part, at a price of \$0.001 per right (subject to adjustment and payable in cash, common stock or other consideration deemed appropriate by our board of directors) at any time until ten days following the stock acquisition date. Immediately upon the action of the board of directors authorizing any redemption, the rights will terminate and the only right of the holders of rights will be to receive the redemption price.

At any time after there is an acquiring person and prior to the acquisition by the acquiring person of 50% or more of the outstanding shares of our common stock, we may exchange the rights (other than rights owned by the acquiring person which will have become void), in whole or in part, at an exchange ratio of one share of common stock, or one one-thousandth of a share of preferred stock (or of a share of a class or series of our preferred stock having equivalent rights, preferences and privileges), per right (subject to adjustment).

Until a right is exercised, its holder will have no rights as a stockholder of Broadwind, including the right to vote or to receive dividends. While the distribution of the rights will not result in the recognition of taxable income by us or our stockholders, stockholders may, depending upon the circumstances, recognize taxable income after a triggering event.

Broadwind and the rights agent may from time to time amend or supplement the Section 382 Rights Agreement without the consent of the holders of the rights. After the stock acquisition date, however, no amendment can materially adversely affect the interests of the holders of the rights (other than the acquiring person or any affiliate or associate thereof).

SEPARATION AGREEMENT

THIS SEPARATION AGREEMENT (this “*Agreement*”) is made and entered into by and between **BROADWIND ENERGY, INC.** (the “*Company*”) and **ERIK W. JENSEN** (the “*Employee*”). *Company* and *Employee* are sometimes referred to hereinafter individually as a “*Party*” and collectively as the “*Parties*.”

WHEREAS, the Parties have previously entered into that certain Severance and Non-Competition Agreement dated as of July 8, 2014 (the “*Non-Competition Agreement*”); and

WHEREAS, the Parties desire to settle fully and amicably all issues between them, including, but not limited to, any issues arising out of *Employee*’s employment with *Company* and the termination of that employment, consistent with the terms of the *Non-Competition Agreement*;

NOW, THEREFORE, for and in consideration of the mutual promises contained herein, and for other good and sufficient consideration, receipt of which is hereby acknowledged, the Parties, intending to be legally bound, agree as follows:

Section 1. Termination Date. As of the close of business on December 31, 2019 (the “*Termination Date*”), *Employee*’s service as an officer of and employment with *Company* is terminated and *Employee* irrevocably resigns from all positions with *Company* and any parents, subsidiaries and affiliates of *Company*.

Section 2. Restrictive Covenants. *Employee* expressly acknowledges and agrees that the terms, conditions and restrictions set forth in Section 1 of the *Non-Competition Agreement* shall remain in full force and effect as provided therein following the termination of *Employee*’s employment. *Employee* may seek *Company*’s written consent to engage in activities covered by Section 1 of the *Non-Competition Agreement*, and the granting or denying of such consent shall be provided in writing to *Employee* within ten (10) business days of *Employee*’s written request for such consent and shall be within the sole discretion of *Company*.

Section 3. Benefits. Subject to *Employee*’s compliance with this Agreement and the restrictive covenants set forth in Section 1 of the *Non-Competition Agreement* and *Employee*’s timely execution of this Agreement and the Release pursuant to **Section 7** of this Agreement, *Employee* shall receive the severance benefits set forth in this **Section 3** (collectively referred to herein as the “*Severance Benefits*”).

- (a) **Payment of Salary Benefit.** *Employee* shall receive a cash severance benefit of \$113,625.50 (the “*Salary Benefit*”), which equals *Employee*’s base salary for a period of six (6) months following the Termination Date. The Salary Benefit shall be payable in equal installments in accordance with *Company*’s normal payroll schedule and the terms of the *Non-Competition Agreement*.
 - (b) **Outstanding Equity Awards.** *Employee*’s rights with regard to any outstanding equity award granted to *Employee* by *Company*
-

shall be governed by the applicable agreement relating to such award.

- (c) **2019 Short Term Incentive Performance (STIP).** The Employee shall be entitled to any payments under the Company's STIP for periods prior to the Termination Date.
- (d) **Healthcare Benefits.** In accordance with the terms of the applicable plans, Employee's benefits under the Company's healthcare benefit program will end on December 31, 2019, the last day of the month in which Employee's employment with Company terminates. Employee will be advised separately of his COBRA continuation rights in a separate mailing. The timely election of COBRA continuation coverage and the timely payment of all COBRA premiums is Employee's obligation alone.

Section 4. Final Paycheck and Business Expenses. Regardless of whether Employee signs this Agreement, Company will pay Employee's final paycheck for Employee's employment services, and for Employee's earned and unused vacation time, through the Termination Date. Company also will reimburse Employee for reasonable business expenses appropriately incurred by Employee prior to the Termination Date in furtherance of Employee's employment with Company, subject to Company's applicable business expense reimbursement policy. Employee shall submit all requests to Company for expense reimbursements within ten (10) days after the Termination Date. Any requests submitted thereafter shall not be eligible for reimbursement, except as required by applicable law.

Section 5. Employee Acknowledgement. Employee acknowledges and agrees that, subject to fulfillment of all obligations provided for herein, Employee has been fully compensated by Company for all amounts owed to Employee under the Non-Competition Agreement and Company's policies, practices and rules, and any applicable law, and that nothing is owed to Employee with respect to salaries, bonuses, benefits or any other form of compensation. Employee further acknowledges and agrees that the Severance Benefits referred to in **Section 3** are consideration for Employee's promises contained in this Agreement and the Release.

Section 6. Termination of Benefits. Except as provided in **Section 3** above, Employee's participation in all employee benefit (pension and welfare) and compensation plans will cease as of the Termination Date. Nothing contained herein shall limit or otherwise impair Employee's right to receive pension or similar benefit payments which are vested as of the Termination Date under any applicable tax qualified pension or other tax qualified or non-qualified benefit plans, pursuant to the terms and conditions of the applicable plan.

Section 7. Release of Claims. The benefits and payments to Employee provided under this Agreement are subject to Employee's execution of and delivery to Company by the thirtieth (30th) day following the Termination Date of a Release and Waiver of Claims (the "**Release**") in the form attached hereto as Exhibit A and Employee not revoking such Release as set forth therein.

Section 8.Representations by Employee. Employee represents and warrants that (a) Employee is legally competent to execute this Agreement; (b) Employee has not relied on any statements or explanations made by Company or its attorneys with respect to this Agreement; (c) Employee has read and understands the terms and effect of this Agreement; (d) Employee has the full right and power to grant, execute and deliver the releases, undertakings and agreements contained in this Agreement and in the Release; and (e) the releases and waiver of claims under this Agreement and under the Release are in exchange for consideration in addition to anything of value to which Employee already is entitled. Moreover, Employee hereby acknowledges that Employee has been afforded the opportunity to be advised by legal counsel regarding the terms of this Agreement and of Employee's right to be advised by legal counsel regarding the terms of this Agreement, including the release of all claims and waiver of rights set forth in the Release. Employee acknowledges that Employee has been offered twenty-one (21) days to consider this Agreement. After being so advised, and without coercion of any kind, Employee freely, knowingly and voluntarily enters into this Agreement and this Agreement shall be effective on the date the Agreement has been duly executed by both Parties (the "*Effective Date*").

Section 9.Company Property.

- (a) Employee agrees to immediately return to Company all information, property and supplies belonging to Company and/or its affiliates, including without limitation, any company autos, keys (for equipment or facilities), cellular phone, smart phone or PDA (including SIM cards), security cards, corporate credit cards, and the originals and all copies of all files, materials or documents (whether in tangible or electronic form) containing Confidential Information (as defined in the Non-Competition Agreement) or relating to Company's and/or its affiliates' business; provided, however, that Employee shall be allowed to keep his Company-issued laptop computer after Company has removed all Confidential Information from same.
- (b) Employee agrees that Employee shall not, at any time on or after the Termination Date, directly or indirectly use, access or in any way alter or modify any of the databases, e mail systems, software, computer systems or hardware or other electronic, computerized or technological systems of Company. Employee acknowledges and agrees that any such conduct by Employee would be illegal and could subject Employee to legal action by Company, including, without limitation, claims for damages and/or appropriate injunctive relief.

Section 10.Future Cooperation. In connection with any and all claims, disputes, negotiations, governmental or internal investigations, lawsuits or administrative proceedings (the "*Legal Matters*") involving Company, or any of its current or former officers, employees or board members (each, a "*Disputing Party*"), Employee agrees to make himself reasonably available and provide his reasonable efforts, upon reasonable notice from Company and without the necessity of subpoena, to provide information or documents, provide truthful declarations or statements regarding a Disputing Party, meet with attorneys or other representatives of a

Disputing Party, prepare for and give truthful depositions or testimony, and/or otherwise cooperate in the investigation, defense or prosecution of any or all such Legal Matters, as may, in the good faith and judgment of Company, be reasonably requested. Employee will be compensated at the rate of \$175 per hour or any part thereof plus reasonable travel expenses for this cooperation.

Section 11. No Admissions. Nothing in this Agreement is intended to or shall be construed as an admission by Company or any of the other Releasees (as defined in the Release) that any of them violated any law, interfered with any right, breached any obligation or otherwise engaged in any improper or illegal conduct with respect to Employee or otherwise. Company and the other Releasees deny that they have taken any improper action against Employee, and Employee agrees that this Agreement shall not be admissible in any proceeding as evidence of improper action by Company or any of the Releasees.

Section 12. Non-Waiver. Company's waiver of a breach of this Agreement by Employee shall not be construed or operate as a waiver of any subsequent breach by Employee of the same or of any other provision of this Agreement.

Section 13. Withholding. All amounts and benefits payable under this Agreement shall be reduced by any and all required or authorized withholding and deductions.

Section 14. Choice of Law; Forum; Attorneys' Fees. This Agreement is executed pursuant to and is governed by the substantive law of Illinois without regard to choice-of-laws principles. All claims shall be brought, commenced and maintained only in a state or federal court of competent jurisdiction situated in the County of Cook, State of Illinois. Each Party hereby (i) consents to the exercise of jurisdiction over his or its person and property by any court of competent jurisdiction situated in the County of Cook, State of Illinois for the enforcement of any claim, case or controversy based on or arising under this Agreement; (ii) waives any and all personal or other rights to object to such jurisdiction for such purposes; and (iii) waives any objection which he or it may have to the laying of venue of any such action, suit or proceeding in any such court.

Section 15. Entire Agreement. This Agreement sets forth the entire agreement of the Parties with respect to the subject matter described herein and supersedes any and all prior and/or contemporaneous agreements and understandings, oral and written, between the Parties regarding such matters.

Section 16. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same Agreement. Facsimile or other electronic transmission of any executed original document shall be deemed to be the same as the delivery of the executed original.

Section 17. Enforcement. The provisions of this Agreement shall be regarded as divisible and separable and if any provision should be declared invalid or unenforceable by a court of competent jurisdiction (after reformation pursuant to Section 1(h) of the Non-Competition Agreement, where applicable), the validity and enforceability of the remaining provisions shall not be affected thereby. In addition, Employee agrees and stipulates that breach by Employee of restrictions and requirements under this Agreement will cause irreparable damage to the Releasees and Company would not have entered into this Agreement without

Employee binding himself to these restrictions and requirements. In the event of Employee's breach of this Agreement, in addition to and without prejudice to any other rights and remedies Company may have for Employee's breach of this Agreement, and without bond, Company shall be relieved of any obligation to provide Severance Benefits pursuant to this Agreement and shall be entitled to an injunction to prevent or restrain any such violation by Employee and any and all persons directly or indirectly acting for or with Employee. Employee further stipulates that the restrictive period for which Company is entitled to an injunction shall be extended in for a period which equals the time period during which Employee is or has been in violation of the restrictions contained herein.

Section 18. Miscellaneous. The headings used in this Agreement are for convenience only, shall not be deemed to constitute a part hereof, and shall not be deemed to limit, characterize or in any way affect the construction or enforcement of the provisions of this Agreement. Wherever from the context that it appears appropriate, each term stated in either the singular or plural shall include the singular and the plural and the pronouns stated in either the masculine, feminine or the neuter gender shall include the masculine, feminine and neuter, and the words "include," "includes" and "including" shall mean "include, without limitation," "includes, without limitation" and "including, without limitation," respectively. The subject matter and language of this Agreement have been the subject of negotiations between the Parties and their respective counsel, and this Agreement has been jointly prepared by their respective counsel. Accordingly, this Agreement shall not be construed against either Party on the basis that this Agreement was drafted by such Party or its counsel. This Agreement shall be binding upon and inure to the benefit of Employee and Employee's heirs and personal representatives and Company and its successors, representatives and assigns. This Agreement may be modified only in a written agreement signed by both Parties, and either Party's failure to enforce this Agreement in the event of one or more events which violate this Agreement shall not constitute a waiver of any right to enforce this Agreement against subsequent violations. The Section headings used herein are for convenience of reference only and are not to be considered in construction of the provisions of this Agreement.

IN WITNESS WHEREOF, this Agreement has been duly executed by the Parties as of the respective dates set forth below.

Erik W. Jensen

Date: December __, 2019

Broadwind Energy, Inc.

By: _____
Name: Stephanie K. Kushner
Title: President and Chief Executive Officer

Date: December __, 2019

Exhibit A

Release and Waiver of Claims

Broadwind Energy, Inc. (the “Company”) and **Erik W. Jensen** (the “Employee”) hereby enter into this Release and Waiver of Claims (the “Release”) in accordance with the Separation Agreement between Company and Employee dated as of December ____, 2019 (the “Agreement”). Capitalized terms not expressly defined in this Release have the meanings set forth in the Agreement.

1. Employee understands and agrees that Employee’s execution of this Release within thirty (30) days after (but not before) the Termination Date, and his not revoking it as provided for in Section 6 below, is among the conditions precedent to Company’s obligation to provide any of the payments or benefits set forth in Section 3 of the Agreement. Company will provide such payments or benefits in accordance with the terms of the Agreement once the conditions set forth therein and in this Release have been met.
 2. The term “Releasees” as used in this Release includes: (a) Company and its past, present and future parents, divisions, subsidiaries, affiliates and other related entities (whether or not they are wholly owned); and (b) the past, present and future owners, trustees, fiduciaries, administrators, shareholders, directors, officers, agents, representatives, members, associates, employees and attorneys of each entity listed in subpart (a) above; and (c) the predecessors, successors and assigns of each person and entity listed in subparts (a) and (b) above.
 3. Employee, on his own behalf and that of his heirs, executors, attorneys, administrators, successors, assigns and anyone claiming by or through Employee or on his behalf, hereby waives and releases Company and the other Releasees with respect to any and all liability, claims and demands Employee now has or has ever had, whether currently known or unknown, against Company or any of the other Releasees arising from or related to any act, omission or thing occurring or existing at any time prior to or on the date on which Employee signs this Release. Without limiting the generality of the foregoing, the claims waived and released by Employee hereunder include, but are not limited to:
 - a. any and all claims arising from or relating to Employee’s employment, the terms and conditions of Employee’s employment, or the termination of Employee’s employment, including, without limitation, any and all claims relating to wages, bonuses, other compensation, or benefits, and any and all claims arising from or relating to any employment contract (including, without limitation, the Non-Competition Agreement);
-

- b.** any and all claims arising from or relating to any employment or other federal, state, local, employment or other law, regulation, ordinance, constitutional provision, court order or other source of law, including, without limitation, any of the following laws as amended from time to time: the United States Constitution or the constitution of any state; Title VII of the Civil Rights Act of 1964; the Civil Rights Act of 1991; the Illinois Human Rights Act or similar applicable statute of any other state; the Employee Retirement Income Security Act of 1974; the Age Discrimination in Employment Act; the Americans with Disabilities Act; the Equal Pay Act; the Lilly Ledbetter Fair Pay Act of 2009; the Family and Medical Leave Act; Employee Order 11246; the Illinois Equal Pay Act; the Cook County Human Rights Ordinance; and any other federal, state or local statute, ordinance or regulation with respect to employment;
 - c.** any and all claims with respect to Employee's employment with Company or other association with Company through the Effective Date;
 - d.** any and all claims under any tort or common law theory, including, but not limited to, all claims for breach of contract (oral, written or implied), defamation, intentional or negligent infliction of emotional distress, breach of the covenant of good faith and fair dealing, promissory estoppel, wrongful termination, invasion of privacy, tortious interference, fraud, estoppel, unjust enrichment and negligence; and
 - e.** any and all claims that were or could have been asserted by Employee or on his behalf in any federal, state or local court, commission or agency.
- 4.** Employee acknowledges, agrees, represents and warrants, without limiting the generality of the above release, that (i) Employee hereby irrevocably and unconditionally waives any and all rights to recover damages or any other amounts, including attorneys' fees, concerning the claims that are lawfully released in this Release, (ii) Employee has not previously filed, initiated or joined in any such claims or proceedings against any of the Releasees; (iii) no such proceedings have been initiated against any of the Releasees on Employee's behalf; (iv) Employee is the sole owner of the
-

claims that are released above; and (v) none of these claims has been transferred or assigned or caused to be transferred or assigned to any other person, firm or other legal entity.

5. Excluded from the release above are any claims or rights which cannot be waived or released by law. Also excluded is Employee's right to file a charge with an administrative agency or participate in any agency investigation. Employee is, however, waiving the right to recover any money in connection with any charge or investigation. Employee is also waiving the right to recover any money in connection with any charge filed by any other individual or by the Equal Employment Opportunity Commission or any other federal or state agency.

6. Employee represents and warrants that (a) Employee is legally competent to execute this Release; (b) Employee has not relied on any statements or explanations made by Company or its attorneys; (c) Employee has read and understands the terms and effect of this Release; (d) Employee has the full right and power to grant, execute and deliver the releases, undertakings and agreements contained in this Release; and (e) the releases and waiver of claims under this Release are in exchange for consideration in addition to anything of value to which Employee already is entitled. Moreover:
 - a. Employee acknowledges that he hereby is and has been advised of Employee's right to be advised by legal counsel regarding the terms of this Release before signing it;
 - b. Employee acknowledges that he has been offered thirty (30) days to consider whether to sign this Release; and
 - c. Employee acknowledges that he may, at his sole option, revoke this Release upon written notice delivered to Company's Human Resources Dept. at 3240 S. Central Ave., Cicero, IL 60804, within seven (7) days after signing it. This Release, and Company's obligations to provide payments and benefits under Section 3 of the Agreement, shall not become effective or enforceable until this seven (7)-day period has expired and will be void if Employee revokes this Release within such period.

THE PARTIES STATE THAT THEY HAVE READ AND UNDERSTAND THE FOREGOING RELEASE AND KNOWINGLY, VOLUNTARILY AND WITHOUT ANY COERCION OF ANY KIND SIGN BELOW, INTENDING TO BE BOUND HERETO:

BROADWIND ENERGY, INC.

/s/ Erik W. Jensen
ERIK W. JENSEN

Date: December 23, 2019

By: /s/ Stephanie K. Kushner
Name: Stephanie K. Kushner
Title: President and Chief Executive Officer

Date: December 20, 2019

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

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (Nos. 333-176066 and 333-219931) on Form S-3 and (Nos. 333-160039, 333-181168, 333-181170, 333-181901, 333-190311, 333-203736, 333-223260, 333-229875, 333-231051 and 333-234361) on Form S-8 of Broadwind Energy, Inc. of our report dated February 27, 2020 relating to the consolidated financial statements of Broadwind Energy, Inc. appearing in the Annual Report to Shareholders, which is incorporated in this Annual Report on Form 10-K of Broadwind Energy, Inc. for the year ended December 31, 2019.

/s/ RSM US LLP

Chicago, Illinois
February 27, 2020

CERTIFICATION

I, Stephanie K. Kushner, certify that:

1. I have reviewed this Annual Report on Form 10-K of Broadwind Energy, 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-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's 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: February 27, 2020

/s/ Stephanie K. Kushner
Stephanie K. Kushner
President and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Jason L. Bonfigt, certify that:

1. I have reviewed this Annual Report on Form 10-K of Broadwind Energy, 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-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's 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: February 27, 2020

/s/ Jason L. Bonfigt
Jason L. Bonfigt
Vice President and Chief Financial Officer
(Principal Financial Officer)

**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 Energy, Inc. (the "Company") for the year ended December 31, 2019, as filed with the Securities and Exchange Commission (the "Commission") on the date hereof (the "Report"), I, Stephanie K. Kushner, 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.

February 27, 2020

/s/ Stephanie K. Kushner
Stephanie K. Kushner
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.

**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 Energy, Inc. (the "Company") for the year ended December 31, 2019, as filed with the Securities and Exchange Commission (the "Commission") on the date hereof (the "Report"), I, Jason L. Bonfigt, 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.

February 27, 2020

/s/ Jason L. Bonfigt

Jason L. Bonfigt
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.
