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

Form 10-K

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

For the fiscal year ended March 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: 001-33887

Orion Energy Systems, Inc.

(Exact name of Registrant as specified in its charter)

Wisconsin	**39-1847269**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
2210 Woodland Drive, Manitowoc, WI	**54220**
(Address of principal executive offices)	**(Zip Code)**

(920) 892-9340

(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol (s)	Name of Each Exchange on Which Registered
Common stock, no par value	**OESX**	The Nasdaq Stock Market LLC (NASDAQ Capital Market)
Common stock purchase rights		The Nasdaq Stock Market LLC (NASDAQ Capital Market)

Securities registered pursuant to Section 12(g) of the act:

None

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

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

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

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

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

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

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

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

The aggregate market value of shares of the Registrant's common stock held by non-affiliates as of September 30, 2018, the last business day of the Registrant's most recently completed second fiscal quarter, was approximately $19,881,105.

As of May 31, 2019, there were 29,601,669 shares of the Registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement for the 2019 Annual Meeting of Shareholders to be held on August 7, 2019 are incorporated herein by reference in Part III of this Annual Report on Form 10-K.

ORION ENERGY SYSTEMS, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED MARCH 31, 2019

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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K includes forward-looking statements that are based on Orion Energy Systems, Inc's ("Orion", "we", "us", "our" and similar references) beliefs and assumptions and on information currently available to us. When used in this Form 10-K, the words “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” and similar expressions identify forward-looking statements. Although we believe that our plans, intentions, and expectations reflected in any forward-looking statements are reasonable, these plans, intentions or expectations are based on assumptions, are subject to risks and uncertainties, and may not be achieved. These statements are based on assumptions made by us based on our experience and perception of historical trends, current conditions, expected future developments and other factors that we believe are appropriate under the current circumstances. Such statements are subject to a number of risks and uncertainties, many of which are beyond our control. Our actual results, performance or achievements could differ materially from those contemplated, expressed or implied by the forward-looking statements contained in this Form 10-K. Important factors could cause actual results to differ materially from our forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our beliefs and assumptions only as of the date of this Form 10-K, including particularly the Risk Factors described under Part I. Item 1A. of this Form 10-K. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements set forth in this Form 10-K. Actual events, results and outcomes may differ materially from our expectations due to a variety of factors. Although it is not possible to identify all of these factors, they include, among others, the following:

- our ability to achieve our expected revenue growth, gross margin and other financial objectives in fiscal 2020 and beyond;
- our recent and expected fiscal 2020 reliance on revenue generated from the retrofit of a single national account customer;
- our ability to achieve profitability and positive cash flows;
- our levels of cash and our limited borrowing capacity under our revolving line of credit;
- the availability of additional debt financing and/or equity capital;
- our lack of major sources of recurring revenue, our dependence on a limited number of key customers, and the potential consequences of the loss of one or more key customers or suppliers, including key contacts at such customers;
- our risk of potential loss related to single or focused exposure within the current customer base and product offerings;
- our ability to manage the ongoing decreases in the average selling prices of our products as a result of competitive pressures in the evolving light emitting diode ("LED") market;
- our ability to differentiate our products in a highly competitive market, expand our customer base and gain market share;
- our ability to manage our inventory and avoid inventory obsolescence in a rapidly evolving LED market;
- our ability to adapt to increasing convergence in the LED market;
- the reduction or elimination of investments in, or incentives to adopt, LED lighting technologies;
- our increasing emphasis on selling more of our products through third party distributors and sales agents, including our ability to attract and retain effective third party distributors and sales agents to execute our sales model;
- our ability to develop and participate in new product and technology offerings or applications in a cost effective and timely manner;
- the potential deterioration of market conditions, including our dependence on customers' capital budgets for sales of products and services, and adverse impacts on costs and the demand for our products as a result of the implementation of tariffs;
- our increasing reliance on third parties for the manufacture and development of products and product components;
- our ability to maintain safe and secure information technology systems;
- our failure to comply with the covenants in our revolving credit agreement;
- our fluctuating quarterly results of operations as we continue to implement cost reductions, and continue to focus investing in our third party distribution sales channel;
- our ability to recruit, hire and retain talented individuals in all disciplines of our company;
- our ability to balance customer demand and production capacity;
- our ability to maintain an effective system of internal control over financial reporting;
- price fluctuations (including as a result of tariffs), shortages or interruptions of component supplies and raw materials used to manufacture our products;

- our ability to defend our patent portfolio;
- a reduction in the price of electricity;
- the cost to comply with, and the effects of, any current and future industry and government regulations, laws and policies; and
- potential warranty claims in excess of our reserve estimates.

You are urged to carefully consider these factors and the other factors described under Part I. Item 1A. “Risk Factors” when evaluating any forward-looking statements, and you should not place undue reliance on these forward-looking statements.

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

ITEM 1. BUSINESS

As used herein, unless otherwise expressly stated or the context otherwise requires, all references to "Orion," "we," "us," "our," "Company" and similar references are to Orion Energy Systems, Inc. and its consolidated subsidiaries.

Overview

We provide state-of-the-art LED lighting, wireless Internet of Things ("IoT") enabled control solutions, and energy project management. We research, design, develop, manufacture, market, sell, install, and implement energy management systems consisting primarily of high-performance, energy-efficient commercial and industrial interior and exterior lighting systems and related services. Our products are targeted for applications in three primary market segments: commercial office and retail, area lighting, and industrial applications, although we do sell and install products into other markets. Virtually all of our sales occur within North America.

Our lighting products consist primarily of light emitting diode ("LED") lighting fixtures, many of which include IoT enabled control systems. Our principal customers include large national account end-users, electrical distributors and energy service companies ("ESCOs"). Currently, substantially all of our products are manufactured at our leased production facility located in Manitowoc, Wisconsin, although as the LED market continues to evolve, we are increasingly sourcing products and components from third parties in order to provide versatility in our product development.

We have experienced recent success offering our comprehensive project management services to national account customers to retrofit their multiple locations. Our comprehensive services include initial site surveys and audits, utility incentive and government subsidy management, engineering design, and project management from delivery through to installation and controls integration.

We believe the market for LED lighting products continues to grow. Due to their size and flexibility in application, we also believe that LED lighting systems can address opportunities for retrofit applications that cannot be satisfied by other lighting technologies. Our LED lighting technologies have become the primary component of our revenue as we continue to strive to be a leader in the LED market.

We generally do not have long-term contracts with our customers that provide us with recurring revenue from period to period and we typically generate substantially all of our revenue from sales of lighting systems and related services to governmental, commercial and industrial customers on a project-by-project basis. We also perform work under global services or product purchasing agreements with major customers with sales completed on a purchase order basis. We typically sell our lighting systems in replacement of our customers' existing fixtures. We call this replacement process a "retrofit". We frequently engage our customer's existing electrical contractor to provide installation and project management services. We also sell our lighting systems on a wholesale basis, principally to electrical distributors and ESCOs to sell to their own customer bases.

The gross margins of our products can vary significantly depending upon the types of products we sell, with margins typically ranging from 10% to 50%. As a result, a change in the total mix of our sales among higher or lower margin products can cause our profitability to fluctuate from period to period.

Reportable Segments

Reportable segments are components of an entity that have separate financial data that the entity's chief operating decision maker ("CODM") regularly reviews when allocating resources and assessing performance. Our CODM is our chief executive officer. We have three reportable segments: Orion Engineered Systems Division ("OES"), and Orion Distribution Services Division ("ODS"), and Orion U.S. Markets Division ("USM").

For financial results by reportable segment, please refer to Note 16, "Segment Data" in our consolidated financial statements included in Item 8. of this Annual Report.

Orion Engineered Systems Division

The OES segment develops and sells lighting products and provides construction and engineering services for our commercial lighting and energy management systems. OES provides turnkey solutions for large national accounts, governments, municipalities and schools.

Orion Distribution Services Division

The ODS segment focuses on selling lighting products through manufacturer representative agencies and a network of broadline North American distributors.

Orion U.S. Markets Division

The USM segment sells commercial lighting systems and energy management systems to the wholesale contractor markets. USM customers are primarily ESCOs.

Our Market Opportunity

We provide enterprise-grade LED lighting and energy project solutions. We are primarily focused on providing commercial and industrial facilities lighting retrofit solutions in North America using solid-state LED technology. We believe the market for lighting products has shifted to LED lighting systems and continues to grow. We believe that LED lighting technology allows for better optical performance, significantly reduced maintenance costs due to performance longevity and reduced energy consumption. Due to their size and flexibility in application, we also believe that LED lighting systems can address opportunities for retrofit applications that cannot be satisfied by other technologies.

Our products deliver energy savings and efficiency gains to our commercial and industrial customers without compromising their quantity or quality of light. We estimate that our energy management systems reduce our customers' legacy lighting-related electricity costs by approximately 50% or greater, while maintaining their quantity of light after the reduced wattage and improving overall lighting quality when replacing traditional fixtures. Our customers with legacy lighting systems typically realize a one to four-year payback period, and most often 12 – 18 months, from electricity cost savings generated by our lighting systems without considering utility incentives or government subsidies.

Energy-efficient lighting systems are cost-effective and environmentally responsible solutions allowing end users to reduce operating expenses. Based on a July 2015 report published by the United States Department of Energy, or DOE, we estimate the potential North American LED retrofit market within our primary markets to be approximately 1.1 billion lighting fixtures. We serve government and private sector end-customers in the following primary markets: commercial office and retail, area lighting and industrial applications.

Commercial office and retail. Our commercial office and retail market includes commercial office buildings, retail store fronts, government offices, schools, hospitals and other buildings with traditional 10 to 12 foot ceiling heights. The DOE estimates that there are approximately 987 million office "troffer" fixtures within the United States, which is a rectangular light fixture that fits into a modular dropped ceiling grid. We believe we have the opportunity to increase our revenue by serving this market with our LED Door Retrofit, or LDR™, lighting solutions.

Area lighting. Our market for area lighting includes parking garages, surface lots, automobile dealerships and gas service stations. The DOE estimates that there are approximately 66 million area lighting fixtures within the United States and an additional 45 million roadway lighting fixtures in the United States.

Industrial applications. Our market for industrial facilities includes manufacturing facilities, distribution and warehouse facilities, government buildings and agricultural buildings. These facilities typically contain "high-bay" lighting fixtures. The DOE estimates that there are approximately 139 million low/high bay fixtures within the United States.

Commercial and industrial facilities in the United States employ a variety of lighting technologies, including HID, traditional fluorescents, LED and incandescent lighting fixtures. We estimate that approximately 50% of this market still utilizes inefficient high intensity discharge ("HID") lighting technologies. Our lighting systems typically replace less efficient HID, HIF fixtures, and earlier generation of LED fixtures. According to the Electric Power Research Institute, or EPRI, HID fixtures only convert approximately 36% of the energy they consume into visible light. We estimate that our energy management systems reduce our customers' legacy lighting-related electricity costs by approximately 50% or greater, while improving overall lighting quality when replacing traditional fixtures.

We believe that utilities within the United States recognize the importance of energy efficiency as an economical means to manage capacity constraints and as a low-cost alternative when compared to the construction costs of building new power plants. Accordingly, many of these utilities are continually focused on demand reduction through energy efficiency. According to our research of individual state and utility programs, 50 states, through legislation, regulation or voluntary action, have seen their utilities design and fund programs that promote or deliver energy efficiency. Our products are not solely dependent upon these incentive programs, but we do believe that these incentive programs provide an important benefit as our customers evaluate their out-of-pocket cash investments.

Our Solution

Value Proposition. We estimate our LED lighting systems generally reduce lighting-related electricity costs by approximately 50% or greater, compared to legacy fixtures, while improving overall lighting quality.

Multi-Facility Roll-Out Capability. We offer our customers a single source, turnkey solution for project implementation in which we manage and maintain responsibility for entire multi-facility roll-outs of our energy management solutions across North American commercial and industrial facility portfolios. This capability allows us to offer our customers an orderly, timely and scheduled process for recognizing energy reductions and cost savings.

Rapid Payback Period. In most retrofit projects where we replace HID and HIF fixtures, our customers typically realize a one to four year, but most often 12 – 18 months, payback period on our lighting systems. These returns are achieved without considering utility incentives or government subsidies (although subsidies and incentives are continually being made available to our customers in connection with the installation of our systems that further shorten payback periods).

Easy Installation, Implementation and Maintenance. Most of our fixtures are designed with a lightweight construction and modular plug-and-play architecture that allows for fast and easy installation, facilitates maintenance, and integration of other components of our energy management system. Our office LED Troffer Door Retrofit ("LDR™") products are designed to allow for a fast and easy installation without disrupting the ceiling space or the office workspace. We believe our system's design reduces installation time and expense compared to other lighting solutions, which further improves our customers' return on investment. We also believe that our use of standard components reduces our customers' ongoing maintenance costs.

Expanded Product Offerings. We are committed to continue developing LED product offerings in all of the markets we serve. Our third generation of ISON® class of LED interior fixture delivers a market leading 214 lumens per watt. This advancement means our customers can get more light with less energy, and sometimes fewer fixtures, than with any other product on the market. In fiscal 2018 and 2019, we launched a variety of new products, features and functionality targeting healthcare, food service, high and low temperature environments and other market segments. See "Products and Services" below.

Environmental Benefits. By allowing for the permanent reduction of electricity consumption, our energy management systems reduce indirect CO_2 emissions that are a negative by-product of energy generation. We estimate that one of our LED lighting systems, when replacing a standard HID fixture, displaces 0.352 kW of electricity, which, based on information provided by the EPA, reduces a customer's indirect CO_2 emissions by approximately 1.5 tons per year.

Our Competitive Strengths

Compelling Value Proposition. By permanently reducing lighting-related electricity usage, our systems enable our customers to achieve significant cost savings, without compromising quantity and quality of light in their facilities. As a result, our products offer our customers a rapid return on their investment, without relying on government subsidies or utility incentives.

Comprehensive Project Management. We offer our customers a single source solution whereby we manage and are responsible for an entire retrofit lighting project, from initial site surveys and energy audits through to installation and controls integration. Our ability to offer such comprehensive turnkey project management services, coupled with best-in-class customer service, allows us to deliver energy reductions and cost savings to our customers in timely, orderly and planned multi-facility roll-outs nationwide. We experienced substantial success with offering these services in fiscal 2019 with one national account customer entering into commitments to retrofit multiple locations beginning in the fourth quarter of fiscal 2019 and continuing throughout our fiscal 2020.

Large and Growing Customer Base. We have developed a large and growing national customer base, and have installed our products in more than 14,500 commercial and industrial facilities across North America. We believe that the willingness of our blue-chip customers to install our products across multiple facilities represents a significant endorsement of our value proposition, which in turn helps us sell our energy management systems to new customers. We intend to leverage our expertise in managing projects across multiple facilities within our new LED product markets, which now include new customer opportunities with banks, insurance companies, hospitals, fast food chains, retail storefronts, grocery and pharmacies.

Innovative Technology. We have developed a portfolio of 104 United States patents primarily covering various elements of our products. We believe these innovations allow our products to produce more light output per unit of input energy compared to our competition. We also have 15 patents pending that primarily cover various elements of our newly developed LED products and certain business methods. To complement our innovative energy management products, our integrated energy management services provide our customers with a turnkey solution either at a single facility or across their North American facility footprints. Our demonstrated ability to innovate provides us with significant competitive advantages. Our lighting products offer significantly more light output as measured in foot-candles of light delivered per watt of electricity consumed when compared to HID or traditional fluorescent fixtures. Beyond the benefits of our lighting fixtures, we believe that there is also an opportunity to utilize our system platform as a “connected ceiling” or “smart ceiling”, or a framework or network that can support the installation and integration of other solutions on a digital platform. This “smart ceiling” can be integrated with other technologies to collect data and manage assets and resources more efficiently. This anticipated potential growth opportunity is also known as the “Industrial Internet of Things” or IoT and is in the early adoption phase in the marketplace as businesses and municipalities explore use of these new technologies to optimize operations or develop “smart cities”. Orion’s percentage of systems utilizing IoT enabled devices has grown significantly over the past few years and we expect this trend to continue. Our IoT enabled devices not only contain energy management control functions, but also have the ability to collect facility usage and traffic data as well as collect data from other facility mechanical systems.

Expanded Sales and Distribution Network. In addition to selling directly to national accounts and ESCOs, we sell our lighting products and services to electrical distributors through a North American network of independent lighting agencies. As of the end of fiscal 2019, we had approximately 50 different independent lighting agencies representing us in substantially all of North America. We intend to continue to selectively build our sales network in the future, with a focus on geographic regions where we do not currently have a strong sales presence.

Our Growth Strategies

Our ability to achieve our desired revenue growth and profitability goals depends on our ability to effectively execute on the following key strategic initiatives:

Focus on executing and marketing our turnkey LED retrofit capabilities to large national account customers. We believe one of our competitive advantages is our ability to deliver full turnkey LED lighting project capabilities starting with energy audits and site assessments that lead to custom engineering and manufacturing through to fully managed installations. These attributes coupled with our superior customer service, high quality designs and expedited delivery responsiveness resulted in our contract to retrofit multiple locations for a single national account. This contract will lead our growth momentum for fiscal 2020 and beyond.

Support success of our ESCO and agent-driven distribution sales channels. We continue to focus on building our relationships and product and sales support for our ESCO and agent driven distribution channels. These efforts include an array of product and sales training efforts as well as the development of new products to cater to the unique needs of these sales channels.

Continued Product Innovation. We continue to innovate, developing lighting fixtures and features that address specific customer requirements, while also working to maintain a leadership position in energy efficiency, smart product design and installation benefits. We also continue to deepen our capabilities in the integration of smart lighting controls. Our goal is to provide state-of-the-art lighting products with modular plug-and-play designs to enable lighting system customization from basic controls to advanced IoT capabilities.

Leveraging of Orion's Smart Lighting Systems to Support Internet of Things Applications. We believe we are ideally positioned to help customers to efficiently deploy new IoT controls and applications by leveraging the "Smart Ceiling" capabilities of their Orion solid state lighting system. IoT capabilities can include the management and tracking of facilities, personnel, resources and customer behavior, driving both sales and lowering costs. As a result, these added capabilities provide customers an even greater return on investment from their lighting system and make us an even more attractive partner.

Products and Services

Our primary focus has been, and will continue to be, emphasizing our LED lighting fixtures. Currently, substantially all of our products are manufactured at our leased production facility location in Manitowoc, Wisconsin, although as the LED market continues to evolve, we also source products and components from third parties in order to have versatility in our product development. We are focused on researching, developing and/or acquiring new innovative LED products and technologies for the retrofit markets, such as the LDR™. We plan to focus our efforts on developing creative new LED retrofit products in order to offer our customers a variety of integrated energy management services, such as system design, project management and installation.

Products

The following is a description of our primary products:

The LED Troffer Door Retrofit (LDR™): The LDR™ is designed to replace existing 4 foot by 2 foot and 2 foot by 2 foot fluorescent troffers that are frequently found in office or retail grid ceilings. Our LDR™ product is unique in that the LED optics and electronics are housed within the doorframe that allows for installation of the product in approximately one to two minutes. Our LDR™ product also provides reduced maintenance expenses based upon improved LED chips.

Interior LED High Bay Fixtures: Our LED interior high bay lighting products consist of our Harris high bay, Apollo™ high bay and ISON® high bay products. Our ISON® class of LED interior fixture offers a full package of premium features, including low total cost of ownership, optics that currently exceed competitors in terms of lumen package, delivered light, modularity and advanced thermal management. Our third generation of ISON® class of LED interior fixture delivers up to an exceptional 214 lumens per watt. This advancement means our customers can get more light with less energy, and sometimes fewer fixtures, compared to other products on the market. Our Apollo™ class of LED interior fixtures is designed for new construction and retrofit projects where initial cost is the largest factor in the purchase decision. Our Harris high bay is ideal for customers seeking a cost-effective solution to deliver energy savings and maintenance reductions. In addition, our LED interior lighting products are lightweight and easy to handle, which further reduces installation and maintenance costs and helps to build brand loyalty with electrical contractors and installers.

Smart Lighting Controls. We offer a broad array of smart building control systems that have either been developed by us under the InteLite™ brand or procured from third parties. These control systems provide both lighting control options (such as occupancy, daylight, or schedule control) and data intelligence capabilities for building managers to log, monitor, and analyze use of space, energy savings, and provide physical security of the space.

Other Products. We also offer our customers a variety of other LED and HIF fixtures to address their lighting and energy management needs, including fixtures designed for agribusinesses, parking lots, roadways, retail, mezzanine, outdoor applications and private label resale.

Warranty Policy. Our warranty policy generally provides for a limited one-year warranty on our HIF products and a limited five-year warranty on our LED products, although we do offer warranties ranging up to 10 years for certain LED products. Ballasts, lamps, drivers, LED chips and other electrical components are excluded from our standard warranty as they are covered by separate warranties offered by the original equipment manufacturers. We coordinate and process customer warranty inquiries and claims, including inquiries and claims relating to ballast and lamp components, through our customer service department.

Services

We provide a range of fee-based lighting-related energy management services to our customers, including:

- comprehensive site assessment, which includes a review of the current lighting requirements and energy usage at the customer's facility;
- site field verification, or SFV, during which we perform a test implementation of our energy management system at a customer's facility;
- utility incentive and government subsidy management, where we assist our customers in identifying, applying for and obtaining available utility incentives or government subsidies;
- engineering design, which involves designing a customized system to suit our customers' facility lighting and energy management needs, and providing the customer with a written analysis of the potential energy savings and lighting and environmental benefits associated with the designed system;
- project management, which involves us working with the electrical contractor in overseeing and managing all phases of implementation from delivery through installation for a single facility or through multi-facility roll-outs tied to a defined project schedule;
- installation services, for our products, which we provide through our national network of qualified third-party installers; and
- recycling in connection with our retrofit installations, where we remove, dispose of and recycle our customer's legacy lighting fixtures.

We also provide other services that comprise a small amount of our revenue. These services primarily include management and control of power quality and remote monitoring and control of our installed systems. We also sell and distribute replacement lamps and fixture components into the after-market.

Our Customers

We primarily target commercial, institutional and industrial customers who have warehousing, retail, manufacturing, and office facilities. In fiscal 2019, one customer accounted for 20.7% of total revenue. We expect this customer will continue to account for even a substantially higher percentage of our fiscal 2020 total revenue. In fiscal 2018, two customers accounted for 11.7% and 10.8% of total revenue. In fiscal 2017, there was no single customer that accounted for more than 10% of our total revenue. While we continue to seek to diversify our customer base by expanding our reach to national accounts, ESCOs and the agent driven distribution channel, we expect to continue to derive a significant percentage of our revenue from contracts with one customer. These contracts are entered into in the ordinary course of business and provide that we will deliver products and services on a work order or purchase order basis and any purchase order may be terminated prior to shipment. The contracts do not guarantee that the customer will buy our products or services.

The amount and concentration of our revenues with one or more customer may fluctuate on a year to year basis depending on the number of purchase orders issued by our customers. The loss of a significant customer or the termination of a material volume of purchase orders (or the underlying agreements) could have a material adverse effect on our results of operations.

Sales and Marketing

We sell our products in one of three ways: (i) directly with our relationships with our national account partners; (ii) indirectly through independent sales agencies and broadline North American distributors; and (iii) through ESCOs. Our ODS segment focuses on developing and expanding customer relationships with independent manufacturer’s agents and broadline distributors. During fiscal 2019 and fiscal 2018, we engaged approximately 50 manufacturer representative agencies to expand our reach with broadline distributors and further enhance our ability to increase our revenue. We attempt to leverage the customer relationships of these distributors to further extend the geographic scope of our selling efforts. We work cooperatively with our indirect channels through participation in national trade organizations and by providing training on our sales methodologies.

We have historically focused our marketing efforts on traditional direct advertising, as well as developing brand awareness through customer education and active participation in trade shows and energy management seminars. These efforts have included participating in national, regional and local trade organizations, exhibiting at trade shows, executing targeted direct mail campaigns, advertising in select publications, public relations campaigns, social media and other lead generation and brand-building initiatives.

Competition

The market for energy-efficient lighting products and services is fragmented. We face strong competition primarily from manufacturers and distributors of lighting products and services as well as electrical contractors. We compete primarily on the basis of technology, cost, performance, quality, customer experience, energy efficiency, customer service and marketing support.

There are a number of lighting fixture manufacturers that sell LED and HIF products that compete with our lighting product lines. Lighting companies such as Acuity Brands, Inc., Carmanah Technology Corporation, Energy Focus, Inc., Eaton Corporation plc, Cree, Inc., LSI Industries, Inc., Revolution Lighting Technologies Inc., TCP International Holdings, Inc., and Hubbell Incorporated are some of our main competitors within the commercial office, retail and industrial markets. We are also facing increased competition from manufacturers in low-cost countries.

We also face competition from companies who provide energy management services. Some of these competitors, such as Ameresco, Inc., Johnson Controls, Inc. and Honeywell International, provide basic systems and controls designed to further energy efficiency.

Intellectual Property

As of March 31, 2019, we had been issued 104 United States patents and have applied for 15 additional United States patents. The patented and patent pending technologies cover various innovative elements of our products, including our HIF and LED fixtures. Our patented LDR™ product allows for a significantly quicker installation when compared to competitor's commercial office lighting products. Our smart lighting controls allow our lighting fixtures to selectively provide a targeted amount of light where and when it is needed most.

We believe that our patent portfolio as a whole is material to our business. We also believe that our patents covering our ability to manage the thermal and optical performance of our LED and HIF lighting products are material to our business, and that the loss of these patents could significantly and adversely affect our business, operating results and prospects.

Backlog

Backlog represents the amount of revenue that we expect to realize in the future as a result of firm, committed orders. Our backlog as of March 31, 2019 and March 31, 2018 totaled $10.8 million and $3.3 million, respectively. We generally expect our backlog to be recognized as revenue within one year.

Manufacturing and Distribution

We lease an approximately 197,000 square foot manufacturing and distribution facility located in Manitowoc, Wisconsin, where substantially all of our products are manufactured.

We generally maintain a significant supply of raw material and purchased and manufactured component inventory. We contract with transportation companies to ship our products and manage all aspects of distribution logistics. We generally ship our products directly to the end user.

Research and Development

Our research and development efforts are centered on developing new LED products and technologies and enhancing existing products. The products, technologies and services we are developing are focused on increasing end user energy efficiency and enhancing lighting output. Over the last three fiscal years, we have focused our development on additional LED products, resulting in our development and commercialization of several new suites of LED interior high bay products.

We operate research and development lab and test facilities in our Jacksonville, Florida and Manitowoc, Wisconsin locations.

Regulatory Matters

Our operations are subject to federal, state, and local laws and regulations governing, among other things, emissions to air, discharge to water, the remediation of contaminated properties and the generation, handling, storage, transportation, treatment, and disposal of, and exposure to, waste and other materials, as well as laws and regulations relating to occupational health and safety. We believe that our business, operations, and facilities are being operated in compliance in all material respects with applicable environmental and health and safety laws and regulations.

State, county or municipal statutes often require that a licensed electrician be present and supervise each retrofit project. Further, all installations of electrical fixtures are subject to compliance with electrical codes in virtually all jurisdictions in the United States. In cases where we engage independent contractors to perform our retrofit projects, we believe that compliance with these laws and regulations is the responsibility of the applicable contractor.

Our Corporate and Other Available Information

We were incorporated as a Wisconsin corporation in April 1996 and our corporate headquarters are located at 2210 Woodland Drive, Manitowoc, Wisconsin 54220. Our Internet website address is www.orionlighting.com. Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available through the investor relations page of our internet website free of charge as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission, or the SEC. We are not including the information contained on our website as part of, or incorporating it by reference into, this report.

Employees

As of March 31, 2019, we had approximately 186 full-time and 135 temporary employees, of which 202 work in manufacturing. Our employees are not represented by any labor union, and we have never experienced a work stoppage or strike. We consider our relations with our employees to be good.

ITEM 1A.RISK FACTORS

You should carefully consider the risk factors set forth below and in other reports that we file from time to time with the Securities and Exchange Commission and the other information in this Annual Report on Form 10-K. The matters discussed in the following risk factors, and additional risks and uncertainties not currently known to us or that we currently deem immaterial, could have a material adverse effect on our business, financial condition, results of operations and future growth prospects and could cause the trading price of our common stock to decline.

We have had a history of losses and we may be unable to achieve profitability or positive cash flows in the future.

We have experienced net losses for the past five fiscal years. Generating net income and positive cash flows in the future will depend on our ability to successfully complete and execute our strategic plan and continue to control costs pursuant to our cost reduction initiatives. The continued implementation of our cost reduction initiatives may negatively impact our sales. In addition, our cost reduction initiatives may not be sufficient to offset our negative cash flows and may plateau over time, reducing our ability to further offset negative cash flows. There is no guarantee that we will be able to achieve profitability or positive cash flows in the future. Our inability to successfully achieve profitability and positive cash flows will likely result in our experiencing a serious liquidity deficiency and could threaten our viability.

Our financial performance is dependent on our ability to execute on our strategy and achieve profitability.

Our ability to achieve our desired growth and profitability goals depends on our ability to effectively manage our turnkey LED retrofit capabilities to large national account customers, engage distribution and sales agents, develop recurring revenue streams, expand our customer base and improve our marketing, new product development, project execution, customer service, margin enhancement and operating expense management, as well as other factors. If we are unable to successfully execute in any of these areas or on our growth and profitability strategy, then our business and financial performance will likely be materially adversely affected.

We may not be able to obtain equity capital or debt financing necessary to fund our ongoing operations, effectively pursue our strategy and sustain our growth initiatives.

Our existing liquidity and capital resources may not be sufficient to allow us to fund our ongoing operations, effectively pursue our strategy or sustain our growth initiatives. As of March 31, 2019, we had $8.7 million of cash and approximately $9.2 million of outstanding borrowings and $1.4 million of remaining borrowing capacity available under our revolving credit facility, compared to $9.4 million of cash and approximately $3.9 million of outstanding borrowings and $0.1 million of remaining borrowing availability as of March 31, 2018. If we require additional capital resources, we may not be able to obtain sufficient equity capital and/or debt financing to allow us to continue our normal course of operations or we may not be able to obtain such equity capital or debt financing on acceptable terms or conditions. Factors affecting the availability to us of equity capital or debt financing on acceptable terms and conditions include:

- Our current and future financial results and position.
- The collateral availability and softening of our otherwise unsecured assets.
- The market’s, investors and lenders' view of our company, industry and products.
- The perception in the equity and debt markets of our ability to execute our business plan or achieve our operating results expectations.
- The price, volatility and trading volume and history of our common stock.

Our inability to obtain the equity capital or debt financing necessary to fund our ongoing operations or pursue our strategies could force us to scale back our operations or our sales initiatives. If we are unable to pursue our strategy and sustain our growth initiatives, our business and operating results will be materially adversely affected.

We do not have major sources of recurring revenue and depend upon a limited number of customers in any given period to generate a substantial portion of our revenue. The loss of significant customers or a major customer could have an adverse effect on our operations.

We do not have long-term contracts with our customers that provide us with recurring revenue from period to period. As a result, we generate a substantial portion of our revenue by securing large retrofit and multi-facility roll-out projects from new and existing customers and our dependence on individual key customers can vary from period to period as a result of the significant size of some of our retrofit and multi-facility roll-out projects. Our top 10 customers accounted for approximately 48%, 42%, and 33% respectively, of our total revenue for fiscal 2019, 2018 and 2017. In fiscal 2019, one customer accounted for 20.7% of total revenue. We expect this customer will continue to account for even a substantially higher percentage of our fiscal 2020 revenue. As a result, we will continue to experience significant customer concentration in fiscal 2020. The loss of this customer or our failure to satisfy its installation requirements in fiscal 2020 could have a material adverse effect on our results of operations and financial condition. In fiscal 2018, two customers accounted for 11.7% and 10.8% of total revenue. In fiscal 2017, there was no single customer that accounted for more than 10% of our revenue. We expect large retrofit and rollout projects to continue to remain a significant component of our total revenue.

The agreements we enter into with several of our key customers (including our largest customer) provide that we will provide products and services on a work order or purchase order basis. These agreements do not guarantee that our key customers will make purchases from us and provide that any purchase order or work order may be terminated prior to shipment. As a result, the amount and concentration of our revenues may fluctuate year over year depending on the number of purchase orders or work orders issued by our customers, which may fluctuate due to factors such as our customers' capital expenditure budgets and general economic conditions. Additionally, commercial office lighting retrofits provide for single large project opportunities. The loss of, or substantial reduction in sales to, any of our significant customers, or a major customer, or the termination or delay of a significant volume of purchase orders by one or more key customers, could have a material adverse effect on our results of operations in any given future period.

The success of our business depends upon market acceptance of our energy management products and services.

Our future success depends on continued commercial acceptance of our energy management products and services and obtaining additional project management retrofit contracts to supplement our contract for our single largest customer in fiscal 2019 and fiscal 2020. If we are unable to convince current and potential customers of the advantages of our lighting systems and energy management products and services, then our ability to sell our lighting systems and energy management products and services will be limited. In addition, because the market for energy management products and services is rapidly evolving, we may not be able to accurately assess the size of the market, and we may have limited insight into trends that may emerge and affect our business. If the market for our lighting systems and energy management products and services does not continue to develop, or if the market does not accept our products, then our ability to grow our business could be limited and we may not be able to increase our revenue or achieve profitability.

Adverse conditions in the global economy have negatively impacted, and could in the future negatively impact, our customers, suppliers and business.

Our operations and performance are impacted by worldwide economic conditions. Uncertainty about global economic conditions could result in customers postponing purchases of our products and services in response to tighter credit, unemployment, negative financial news and/or declines in income or asset values and other macroeconomic factors, which could have a material negative effect on demand for our products and services and, accordingly, on our business, results of operations or financial condition. For example, any economic and political uncertainty caused by the United States tariffs imposed on other countries, and any corresponding tariffs from such other countries in response, may negatively impact demand and/or increase the cost for our products and components used in our products.

There continues to be a great amount of debate regarding a wide range of policy options with respect to monetary, regulatory, and trade, amongst others, that the U.S. federal government has and may pursue, including the recent imposition of tariffs on certain imports. Certain sourced finished products and certain of the components used in our products are impacted by the recently imposed tariffs on China imports. Our efforts to mitigate the impact of added costs include a variety of activities, such as sourcing from non-tariff impacted countries and raising prices. If we are unable to successfully mitigate the impacts of these tariffs and other trade policies, our results of operations may be adversely affected.

In addition, global economic and political uncertainty has led many customers to adopt strategies for conserving cash, including limits on capital spending. Our lighting systems are often purchased as capital assets and therefore are subject to capital availability. Uncertainty around such availability has led customers to delay purchase decisions, which has elongated the duration of our sales cycles. Weak economic conditions in the past have adversely affected our customers' capital budgets, purchasing decisions and facilities managers and, therefore, have adversely affected our results of operations. The return to a recessionary state of the global economy could potentially have negative effects on our near-term liquidity and capital resources, including slower collections of receivables, delays of existing order deliveries, postponements of incoming orders and reductions in the number and volume of purchase orders received from key customers as a result of reduced capital expenditure budgets. Our business and results of operations will be adversely affected to the extent these adverse economic conditions affect our customers' purchasing decisions.

The success of our LED lighting retrofit solutions depend, in part, on our ability to claim market share ahead of our competitors. If we are unable to expand our customer base and increase sales in our targeted markets, our revenues and profitability will be adversely affected.

Participants in the LED market who are able to quickly establish customer relationships and achieve market penetration are likely to gain a competitive advantage as the lighting retrofit solutions offered by us and our competitors generally have a product life of several years following installation. If we are unable to broaden our customer base and achieve greater market penetration in the LED market in a timely manner, we may lose the opportunity to market our LED products and services to significant portions of the lighting systems retrofit market for several years and may be at a disadvantage in securing future business opportunities from customers that have previously established relationships with one or more of our competitors. These circumstances could reduce our revenue and profitability, which could have a material adverse effect on our results of operations and financial condition.

In addition, as we continue to seek to expand our customer base within agent/distribution channels, national accounts and ESCOs, our success will depend in part on our ability to attract and retain talent to execute on our sales model. If we are unable to attract and retain sufficient talent, we may be unable to broaden our customer base, which will adversely affect our revenue and profitability.

We are increasing our emphasis on indirect distribution channels to sell our products and services. If we are unable to attract, incentivize and retain our third-party distributors and sales agents, or our distributors and sales agents do not sell our products and services at the levels expected, our revenues could decline and our costs could increase.

We have significantly expanded the number of our manufacturer representative agencies that sell our products through distributors, many of which are not exclusive, which means that these sales agents and distributors may sell other third-party products and services in direct competition with us. Since many of our competitors use sales agents and distributors to sell their products and services, competition for such agents and distributors is intense and may adversely affect our product pricing and gross margins. Additionally, due to mismanagement, industry trends, macro-economic developments, or other reasons, our sales agents and distributors may be unable to effectively sell our products at the levels desired or anticipated. In addition, we have historically relied on direct sales to sell our products, which were often made in competition with sales agents and distributors. In order to attract and form lasting partnerships with sales agents and distributors, we will be required to overcome our historical perception as a direct sales competitor. As a result, we may have difficulty attracting and retaining sales agents and distributors and any inability to do so could have a negative effect on our ability to attract and obtain customers, which could have an adverse impact on our business.

Our financial performance is dependent on our ability to achieve growth in our average sales margins on our products.

The gross margins of our products can vary significantly, with margins ranging from 10% to 50%. While we continue to implement our strategy of transitioning to higher-margin products and reducing the material cost of our products, a change in the total mix of our sales toward lower margin products, a decrease in the margins on our products as a result of competitive pressures driving down the average selling price of our products, lower sales volumes and promotional programs to increase sales volumes could reduce our profitability and result in a material adverse effect on our business and financial performance. Furthermore, average selling prices may be negatively impacted by market over-supply conditions, product feature cannibalization by competitors or component providers, low-cost non-traditional sales methods by new market entrants, and comparison of our retrofit fixture products with replacement lamp equivalents. In a competitive lighting industry, we must be able to innovate and release new products on a regular basis with features and benefits that generate increases in average selling price or average margins.

We operate in a highly competitive industry and, if we are unable to compete successfully, our revenue and profitability will be adversely affected.

We face strong competition primarily from manufacturers and distributors of energy management products and services, as well as from electrical contractors. We are also facing increased competition from manufacturers in low-cost countries. We compete primarily on the basis of customer relationships, price, quality, energy efficiency, customer service and marketing support. Our products are in direct competition with the expanding availability of LED products, HID technology, as well as HIF products and older fluorescent technology in the lighting systems retrofit market.

Many of our competitors are better capitalized than we are, have strong customer relationships, greater name recognition, and more extensive engineering, manufacturing, sales and marketing capabilities. In addition, the LED market has seen increased convergence in recent years, resulting in our competition gaining increased market share and resources. Competitors could focus their substantial resources on developing a competing business model or energy management products or services that may be potentially more attractive to customers than our products or services. In addition, we may face competition from other products or technologies that reduce demand for electricity. Our competitors may also offer energy management products and services at reduced prices in order to improve their competitive positions. Any of these competitive factors could make it more difficult for us to attract and retain customers, require us to lower our average selling prices in order to remain competitive, and reduce our revenue and profitability, any of which could have a material adverse effect on our results of operations and financial condition.

The success of our business depends upon our adaptation to the quickly changing market conditions in the lighting industry and on market acceptance of our lighting retrofit solutions using new LED technologies.

The market for lighting products has experienced a significant technology shift to LED lighting systems. In addition, we continue to explore utilizing our system platform as a “connected ceiling” or “smart ceiling”, or a framework or network that can support the installation and integration of other business solutions on our digital platform.

As a result, our future success depends significantly upon the adoption rate of LED products within our primary markets and our ability to participate in this ongoing market trend. To be an effective participant in the LED market, we must keep up with the evolution of LED technology, which continues to move at a fast pace. We may be unable to successfully develop and market new LED products or services that keep pace with technological or industry changes, differentiate ourselves from our competition, satisfy changes in customer demands or comply with present or emerging government and industry regulations and technology standards. The development and introduction of new LED products may result in increased warranty expenses and other new product introduction expenses. In addition, we will likely continue to incur substantial costs to research and develop new LED products, which will increase our expenses, without guarantee that our new products and services will be commercially viable. We may also spend time and resources to develop and release new LED products only to discover that a competitor has also introduced similar new products with superior performance. Moreover, if new sources of lighting are developed, our current products and technologies could become less competitive or obsolete, which could result in reduced revenue, reduced earnings or increased losses and/or inventory and other impairment charges.

As we attempt to adapt and respond to this quickly evolving market, we have been managing through significant change in our vendor supply chain as we place most of our focus on this LED product line. We currently believe that our continuing efforts to negotiate further lower material input costs will help maintain or improve our LED product gross margins. However, we may not be able to realize the gross margin benefits in the amounts or on the timetable anticipated and we may experience higher warranty expenses in the future as we implement our manufacturing and assembly process changes. It is also possible that, as we continue to focus our sales efforts on our LED product lines, we may increase our risk of inventory obsolescence for our legacy lighting product lines or even for outmoded LED products.

Finally, in connection with our primary focus on selling our LED products, we expect our results of operations to continue to fluctuate from quarter to quarter as customers may continue to delay purchasing decisions as they evaluate their return on investment from purchasing new LED products compared to alternative lighting solutions, the pricing of LED products continues to fall and LED products continue to gain more widespread customer acceptance. Similarly, these circumstances have impacted, and may continue to adversely impact, our product gross margins and our profitability from quarter to quarter.

If we are unable to achieve market acceptance of our lighting retrofit solutions using new LED technologies or realize the expected benefits from our focus on promoting our LED technologies, our results of operations and financial condition will likely be materially adversely affected.

The reduction or elimination of investments in, or incentives to adopt, LED lighting or the elimination of, or changes in, policies, incentives or rebates in certain states or countries that encourage the use of LEDs over some traditional lighting technologies could cause the growth in demand for our products to slow, which could materially and adversely affect our revenues, profits and margins.

Reductions in (including as a result of any budgetary constraints), or the elimination of, government investment and favorable energy policies designed to accelerate the adoption of LED lighting could result in decreased demand for our products and decrease our revenues, profits and margins. Further, if our products fail to qualify for any financial incentives or rebates provided by governmental agencies or utilities for which our competitors' products qualify, such programs may diminish or eliminate our ability to compete by offering products at lower prices than ours.

We increasingly rely on third-party manufacturers for the manufacture and development of our products and product components.

We have increased our utilization of third-party manufacturers for the manufacture and development of our products and product components. Our business, prospects, results of operations, financial condition or cash flows could be materially adversely affected if our manufacturers were to experience problems with product quality, credit or liquidity issues, or disruptions or delays in the manufacturing process or delivery of the finished products and components or the raw materials used to make such products and components.

Changes in government budget priorities and political gridlock could negatively impact our sales and profitability.

Actual and perceived changes in governmental budget priorities could adversely affect our business and results of operations. Government agencies purchase product directly from us. When the government changes budget priorities, such as in times of war or financial crisis, or reallocates spending to areas unrelated to our business, our sales and profitability can be negatively impacted. For example, demand and payment for our products and services may be affected by public sector budgetary cycles, funding authorizations or rebates. Funding reductions or delays, including delays caused by political gridlock, could negatively impact demand and payment for our products and services.

Our products use components and raw materials that may be subject to price fluctuations, shortages or interruptions of supply.

We may be vulnerable to price increases for components or raw materials that we require for our products, including aluminum, copper, certain rare earth minerals, electronic drivers, chips, ballasts, power supplies and lamps. In particular, our cost of aluminum can be subject to commodity price fluctuation. We also source certain finished goods externally. Limitations inherent within the supply chain of certain of these component parts, including competitive, governmental, and legal limitations, natural disasters, and

other events, could impact costs, and future increases in the costs of these items, including through the adoption of new tariffs by the United States and other countries, could adversely affect our profitability, as there can be no assurance that future price increases will be successfully passed through to customers. Further, suppliers' inventories of certain components that our products require may be limited and are subject to acquisition by others. In the past, we have had to purchase quantities of certain components that are critical to our product manufacturing and were in excess of our estimated near-term requirements as a result of supplier delivery constraints and concerns over component availability, and we may need to do so in the future. As a result, we have had, and may need to continue, to devote additional working capital to support component and raw material inventory that may not be used over a reasonable period to produce saleable products, and we may be required to increase our excess and obsolete inventory reserves to provide for these excess quantities, particularly if demand for our products does not meet our expectations. Also, any shortages or interruptions in supply of our components or raw materials could disrupt our operations. If any of these events occur, our results of operations and financial condition could be materially adversely affected.

Our ability to balance customer demand and capacity and increased employee turnover could negatively impact our business.

In addition, as customer demand for our products changes, we must be able to adjust our production capacity, including increasing or decreasing our employee workforce, to meet demand. We are continually taking steps to address our manufacturing capacity needs for our products. If we are not able to increase or decrease our production capacity at our targeted rate or if there are unforeseen costs associated with adjusting our capacity levels, our ability to execute our operating plan could be adversely affected.

We have, from time to time, experienced increased employee turnover. The increased turnover has resulted in the loss of numerous long-term employees, along with their institutional knowledge and expertise, and the reallocation of certain employment responsibilities, all of which could adversely affect operational efficiencies, employee performance and retention. Such turnover has also placed a significant burden on our continuing employees, has resulted in higher recruiting expenses as we have sought to recruit and train employees, and introduced increased instability in our operations as responsibilities were reallocated to new or different employees. To the extent that we are unable to effectively reallocate employee responsibilities, retain key employees and reduce employee turnover, our operations and our ability to execute our operating plan could be adversely affected.

Our inability to attract and retain key employees, our reseller network members or manufacturer representative agencies could adversely affect our operations and our ability to execute on our operating plan and growth strategy.

We rely upon the knowledge, experience and skills of key employees throughout our organization, particularly our senior management team, our sales group that require technical knowledge or contacts in, and knowledge of, the LED industry and our innovation and engineering team. In addition, our ability to attract talented new employees, particularly in our sales group and our innovation and engineering team, is also critical to our success. We also depend on our distribution channels and network of manufacturer representative agencies. If we are unable to attract and retain key employees, resellers, and manufacturer representative agencies because of competition or, in the case of employees, inadequate compensation or other factors, our results of operations and our ability to execute our operating plan could be adversely affected.

If our information technology systems security measures are breached or fail, our products may be perceived as not being secure, customers may curtail or stop buying our products, we may incur significant legal and financial exposure, our business, results of operations and financial condition could be materially adversely affected.

Our information technology systems involve the storage of our confidential information and trade secrets as well as our customers’ personal and proprietary information in our equipment, networks and corporate systems. Security breaches expose us to a risk of loss of this information, litigation and increased costs for security measures, loss of revenue, damage to our reputation and potential liability. Security breaches or unauthorized access may in the future result in a combination of significant legal and financial exposure, increased remediation and other costs, theft and/or unauthorized use or publication of our trade secrets and other confidential business information, damage to our reputation and a loss of confidence in the security of our products, services and networks that could have an adverse effect upon our business. We take steps to prevent unauthorized access to our corporate systems, however, because the techniques used to obtain unauthorized access, disable or sabotage systems change frequently or may be designed to remain dormant until a triggering event, we may be unable to anticipate these techniques or implement adequate preventative measures. Further, the risk of a security breach or disruption, particularly through cyber-attacks, or cyber intrusion,

including by computer hackers, foreign governments, and cyber terrorists, has generally increased as cyber-attacks have become more prevalent and harder to detect and fight against. In addition, hardware, software or applications we procure from third parties may contain defects in design or manufacture or other problems that could unexpectedly compromise network and data security.

If our information technology systems fail, or if we experience an interruption in their operation, then our business, results of operations and financial condition could be materially adversely affected.

The efficient operation of our business is dependent on our information technology systems. We rely on those systems generally to manage the day-to-day operation of our business, manage relationships with our customers, maintain our research and development data and maintain our financial and accounting records. The failure of our information technology systems, our inability to successfully maintain, enhance and/or replace our information technology systems, or any compromise of the integrity or security of the data we generate from our information technology systems, could adversely affect our results of operations, disrupt our business and product development and make us unable, or severely limit our ability, to respond to customer demands. In addition, our information technology systems are vulnerable to damage or interruption from:

- earthquake, fire, flood and other natural disasters;
- employee or other theft;
- attacks by computer viruses or hackers;
- power outages; and
- computer systems, internet, telecommunications or data network failure.

Any interruption of our information technology systems could result in decreased revenue, increased expenses, increased capital expenditures, customer dissatisfaction and potential lawsuits, any of which could have a material adverse effect on our results of operations or financial condition.

Product liability claims could adversely affect our business, results of operations and financial condition.

We face exposure to product liability claims in the event that our energy management products fail to perform as expected or cause bodily injury or property damage. Since virtually all of our products use electricity, it is possible that our products could result in injury, whether by product malfunctions, defects, improper installation or other causes. Particularly because our products often incorporate new technologies or designs, we cannot predict whether or not product liability claims will be brought against us in the future or result in negative publicity about our business or adversely affect our customer relations. Moreover, we may not have adequate resources in the event of a successful claim against us. A successful product liability claim against us that is not covered by insurance or is in excess of our available insurance limits could require us to make significant payments of damages and could materially adversely affect our results of operations and financial condition.

Our inability to protect our intellectual property, or our involvement in damaging and disruptive intellectual property litigation, could adversely affect our business, results of operations and financial condition or result in the loss of use of the product or service.

We attempt to protect our intellectual property rights through a combination of patent, trademark, copyright and trade secret laws, as well as employee and third-party nondisclosure and assignment agreements. Our failure to obtain or maintain adequate protection of our intellectual property rights for any reason could have a material adverse effect on our business, results of operations and financial condition.

We own United States patents and patent applications for some of our products, systems, business methods and technologies. We offer no assurance about the degree of protection which existing or future patents may afford us. Likewise, we offer no assurance that our patent applications will result in issued patents, that our patents will be upheld if challenged, that competitors will not develop similar or superior business methods or products outside the protection of our patents, that competitors will not infringe upon our patents, or that we will have adequate resources to enforce our patents. Effective protection of our United States patents may be unavailable or limited in jurisdictions outside the United States, as the intellectual property laws of foreign countries sometimes offer

less protection or have onerous filing requirements. In addition, because some patent applications are maintained in secrecy for a period of time, we could adopt a technology without knowledge of a pending patent application, and such technology could infringe a third party's patent.

We also rely on unpatented proprietary technology. It is possible that others will independently develop the same or similar technology or otherwise learn of our unpatented technology. To protect our trade secrets and other proprietary information, we generally require employees, consultants, advisors and collaborators to enter into confidentiality agreements. We cannot assure you that these agreements will provide meaningful protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use, misappropriation or disclosure of such trade secrets, know-how or other proprietary information. If we are unable to maintain the proprietary nature of our technologies, our business could be materially adversely affected.

We rely on our trademarks, trade names, and brand names to distinguish our company and our products and services from our competitors. Some of our trademarks may conflict with trademarks of other companies. Failure to obtain trademark registrations could limit our ability to protect our trademarks and impede our sales and marketing efforts. Further, we cannot assure you that competitors will not infringe our trademarks, or that we will have adequate resources to enforce our trademarks.

In addition, third parties may bring infringement and other claims that could be time-consuming and expensive to defend. Also, parties making infringement and other claims may be able to obtain injunctive or other equitable relief that could effectively block our ability to provide our products, services or business methods and could cause us to pay substantial damages. In the event of a successful claim of infringement, we may need to obtain one or more licenses from third parties, which may not be available at a reasonable cost, or at all. It is possible that our intellectual property rights may not be valid or that we may infringe upon existing or future proprietary rights of others. Any successful infringement claims could subject us to significant liabilities, require us to seek licenses on unfavorable terms, prevent us from manufacturing or selling products, services and business methods and require us to redesign or, in the case of trademark claims, re-brand our company or products, any of which could have a material adverse effect on our business, results of operations or financial condition.

We are subject to financial and operating covenants in our credit agreement and any failure to comply with such covenants, or obtain waivers in the event of non-compliance, could limit our borrowing availability under the credit agreement, resulting in our being unable to borrow under our credit agreement and materially adversely impact our liquidity.

Our credit agreement with Western Alliance Bank contains provisions that limit our future borrowing availability and require us to maintain a minimum amount of cash on deposit and available borrowing capacity under such credit agreement as of the end of each month. The credit agreement also contains other customary covenants, including certain restrictions on our ability to incur additional indebtedness, consolidate or merge, enter into acquisitions, make investments, pay any dividend or distribution on our stock, redeem, repurchase or retire shares of our stock, or pledge or dispose of assets.

There can be no assurance that we will be able to comply with the financial and other covenants in our credit agreement. Our failure to comply with these covenants could cause us to be unable to borrow under the credit agreement and may constitute an event of default which, if not cured or waived, could result in the acceleration of the maturity of any indebtedness then outstanding under the credit agreement, which would require us to pay all amounts then outstanding. Such an event could materially adversely affect our financial condition and liquidity. Additionally, such events of non-compliance could impact the terms of any additional borrowings and/or any credit renewal terms. Any failure to comply with such covenants may be a disclosable event and may be perceived negatively. Such perception could adversely affect the market price for our common stock and our ability to obtain financing in the future.

Our retrofitting process frequently involves responsibility for the removal and disposal of components containing hazardous materials.

When we retrofit a customer's facility, we typically assume responsibility for removing and disposing of its existing lighting fixtures. Certain components of these fixtures typically contain trace amounts of mercury and other hazardous materials. Older components may also contain trace amounts of polychlorinated biphenyls, or PCBs. We currently rely on contractors to remove the components containing such hazardous materials at the customer job site. The contractors then arrange for the disposal of such

components at a licensed disposal facility. Failure by such contractors to remove or dispose of the components containing these hazardous materials in a safe, effective and lawful manner could give rise to liability for us, or could expose our workers or other persons to these hazardous materials, which could result in claims against us which may have a material adverse effect on our results of operations, financial condition, cash flows or reputation.

The cost of compliance with environmental laws and regulations and any related environmental liabilities could adversely affect our results of operations or financial condition.

Our operations are subject to federal, state and local laws and regulations governing, among other things, emissions to air, discharge to water, the remediation of contaminated properties and the generation, handling, storage, transportation, treatment and disposal of, and exposure to, waste and other materials, as well as laws and regulations relating to occupational health and safety. These laws and regulations frequently change, and the violation of these laws or regulations can lead to substantial fines, penalties and other liabilities. The operation of our manufacturing facility entails risks in these areas and there can be no assurance that we will not incur material costs or liabilities in the future that could adversely affect our results of operations or financial condition.

Our corporate office building is currently listed for sale or lease; any sale of our building will likely result in a non-cash impairment charge.

We currently own, but have listed for sale or lease, our corporate office building in Manitowoc, Wisconsin. We evaluate long-lived assets, including property, plant, and equipment, for impairment whenever events or circumstances indicate that the carrying value of the assets recognized in our financial statements may not be recoverable; as of March 31, 2019, the value of our long-lived assets was deemed recoverable. However, any sale of our building will likely result in a non-cash impairment charge, as the building is currently listed for below its net book value and, as a result, will have an adverse impact on our results of operations during the period the impairment charge is incurred.

We expect our quarterly revenue and operating results to fluctuate. If we fail to meet the expectations of market analysts or investors, the market price of our common stock could decline substantially, and we could become subject to securities litigation.

Our quarterly revenue and operating results have fluctuated in the past and will likely vary from quarter to quarter in the future. The results of one quarter are not an indication of our future performance. Our revenue and operating results may fall below the expectations of market analysts or investors in some future quarter or quarters. Our failure to meet these expectations could cause the market price of our common stock to decline substantially. If the price of our common stock is volatile or falls significantly below our current price, we may be the target of securities litigation. If we become involved in this type of litigation, regardless of the outcome, we could incur substantial legal costs, management’s attention could be diverted from the operation of our business, and our reputation could be damaged, which could adversely affect our business, results of operations or financial condition.

Our net operating loss carry-forwards provide a future benefit only if we are profitable and may be subject to limitation based upon ownership changes.

We have significant federal net operating loss carry-forwards and state net operating loss carry-forwards. While our federal and state net operating loss carry-forwards are fully reserved for, if we are unable to return to and maintain profitability, we may not be able to fully utilize these tax benefits. Furthermore, generally a change of more than 50% in the ownership of a company’s stock, by value, over a three-year period constitutes an ownership change for federal income tax purposes. An ownership change may limit a company’s ability to use its net operating loss carry-forwards attributable to the period prior to such change. As a result, our ability to use our net operating loss carry-forwards attributable to the period prior to such ownership change to offset taxable income will be subject to limitations in a particular year, which could potentially result in increased future tax liability for us.

If we fail to establish and maintain effective internal controls over financial reporting, our business and financial results could be harmed.

Our management is responsible for establishing and maintaining effective internal control over financial reporting. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of financial reporting for external purposes in accordance with accounting principles generally accepted in the United States. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that we would prevent or detect a misstatement of our financial statements or fraud. As of March 31, 2019, our Chief Executive Officer and Chief Financial Officer concluded that our internal controls were designed and operating effectively. The material weaknesses previously identified as of March 31, 2017 and March 31, 2018 were the result of operating ineffectiveness of controls related to management's review over the accounting close process, contract costs, and forecasts used to support certain fair value estimates. The material weaknesses were not fully remedied as of March 31, 2018, but were remediated as of March 31, 2019. There can be no assurance that we will not experience another material weakness in the future. A material weakness is defined as a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. A failure to maintain an effective system of internal control over financial reporting could limit our ability to report our financial results accurately and in a timely manner or to detect and prevent fraud, could result in a restatement of our financial statements, and could also cause a loss of investor confidence and decline in the market price of our common stock.

If securities or industry analysts do not continue to publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will continue to depend in part on the research and reports that securities or industry analysts publish about our business or us. If these analysts do not continue to provide adequate research coverage or if one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price and trading volume to decline.

The market price of our common stock could be adversely affected by future sales of our common stock in the public market by us or our executive officers and directors.

We and our executive officers and directors may from time to time sell shares of our common stock in the public market or otherwise. We cannot predict the size or the effect, if any, that future sales of shares of our common stock by us or our executive officers and directors, or the perception of such sales, would have on the market price of our common stock.

We are not currently paying dividends and will likely continue not paying dividends for the foreseeable future.

We have never paid or declared any cash dividends on our common stock. We currently intend to retain all available funds and any future earnings to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. In addition, the terms of our existing revolving credit agreement restrict the payment of cash dividends on our common stock. Any future determination to pay dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, contractual restrictions and other factors that our board of directors deems relevant. The restriction on and decision not to pay dividends may impact our ability to attract investors and raise funds, if necessary, in the capital markets.

Anti-takeover provisions included in the Wisconsin Business Corporation Law, provisions in our amended and restated articles of incorporation or bylaws and the common share purchase rights that accompany shares of our common stock could delay or prevent a change of control of our company, which could adversely impact the value of our common stock and may prevent or frustrate attempts by our shareholders to replace or remove our current board of directors or management.

A change of control of our company may be discouraged, delayed or prevented by certain provisions of the Wisconsin Business Corporation Law. These provisions generally restrict a broad range of business combinations between a Wisconsin corporation and a shareholder owning 15% or more of our outstanding common stock. These and other provisions in our amended and restated articles of incorporation, including our staggered board of directors and our ability to issue “blank check” preferred stock, as well as the

provisions of our amended and restated bylaws and Wisconsin law, could make it more difficult for shareholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors, including to delay or impede a merger, tender offer or proxy contest involving our company.

Each currently outstanding share of our common stock includes, and each newly issued share of our common stock will include, a common share purchase right. The rights are attached to, and trade with, the shares of common stock and generally are not exercisable. The rights will become exercisable if a person or group acquires, or announces an intention to acquire, 20% or more of our outstanding common stock. The rights have some anti-takeover effects and generally will cause substantial dilution to a person or group that attempts to acquire control of us without conditioning the offer on either redemption of the rights or amendment of the rights to prevent this dilution. The rights could have the effect of delaying, deferring or preventing a change of control.

In addition, our employment arrangements with senior management provide for severance payments and accelerated vesting of benefits, including accelerated vesting of stock options and restricted stock awards, upon a change of control and a subsequent qualifying termination. These provisions could limit the price that investors might be willing to pay in the future for shares of our common stock, thereby adversely affecting the market price of our common stock. These provisions may also discourage or prevent a change of control or result in a lower price per share paid to our shareholders.

ITEM 1B.UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

On March 31, 2016, we entered into a purchase and sale agreement with a third party to sell and leaseback our manufacturing and distribution facility located in Manitowoc, Wisconsin. The transaction closed on June 30, 2016. Pursuant to the agreement, a lease was entered into on June 30, 2016, in which we are leasing approximately 197,000 square feet of the building for not less than three years. The lease contains options by either party to reduce the amount of leased space after March 1, 2017. On March 22, 2018, we renewed the lease for our manufacturing and distribution facility for an additional 18 months until December 31, 2020.

We own our approximately 70,000 square foot technology center and corporate headquarters adjacent to our leased Manitowoc manufacturing and distribution facility, of which we sub-lease a portion to third parties. We also lease 10,500 square feet of office space in Jacksonville, Florida.

In fiscal 2018, we did not renew the leases for our 5,600 square foot of office space in Houston, Texas and our 3,100 square foot of office space in Chicago, Illinois. The leases terminated as of April 30, 2018 and May 31, 2018, respectively.

The facilities noted above are utilized by all our business segments.

ITEM 3. LEGAL PROCEEDINGS

We are subject to various claims and legal proceedings arising in the ordinary course of business. As of the date of this report, we are unable to currently assess whether the final resolution of any of such claims or legal proceedings may have a material adverse effect on our future results of operations. In addition to ordinary-course litigation, we were a party to the proceedings described below.

On November 10, 2017, a purported shareholder, Stephen Narten, filed a civil lawsuit in the Circuit Court for Manitowoc County against those individuals who served on our board of directors during fiscal years 2015, 2016, and 2017 and certain current and former officers during the same period. The plaintiff, who purported to bring the suit derivatively on behalf of us, alleged that the director defendants breached their fiduciary duties in connection with granting certain stock-based incentive awards under our 2004 Stock and Incentive Awards Plan and that the directors and current and former officers breached their fiduciary duties by accepting those awards. During the first quarter of fiscal 2019, the parties reached a settlement of the claims and the case was dismissed. The settlement did not have a material impact on our results of operations, cash flows or financial condition.

ITEM 4. MINE SAFETY DISCLOSURES

None.

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

Shares of our common stock are traded on the NASDAQ Capital Market under the symbol "OESX".

Shareholders

As of May 31, 2019, there were approximately 210 record holders of the 29,601,669 outstanding shares of our common stock. The number of record holders does not include shareholders for whom shares are held in a "nominee" or "street" name.

Dividend Policy

We have never paid or declared any cash dividends on our common stock. We currently intend to retain all available funds and any future earnings to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. In addition, the terms of our existing credit agreement restrict the payment of cash dividends on our common stock. Any future determination to pay dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, contractual restrictions (including those under our loan agreements) and other factors that our board of directors deems relevant.

Securities Authorized for Issuance under Equity Compensation Plans

The following table represents shares outstanding under our 2003 Stock Option Plan, our 2004 Stock and Incentive Awards Incentive Plan, and our 2016 Omnibus Incentive Plan as of March 31, 2019.

Equity Compensation Plan Information

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options and Vesting of Restricted Shares	Weighted Average Exercise Price of Outstanding Options and Restricted Shares	Number of Securities Remaining Available for Future Issuances Under the Equity Compensation Plans (1)
Equity Compensation plans approved by security holders	1,780,429	$ 1.64	107,860
Equity Compensation plans not approved by security holders	—	—	—
Total	1,780,429	$ 1.64	107,860

(1) Excludes shares reflected in the column titled "Number of Securities to be Issued Upon Exercise of Outstanding Options and Vesting of Restricted Shares".

Issuer Purchase of Equity Securities

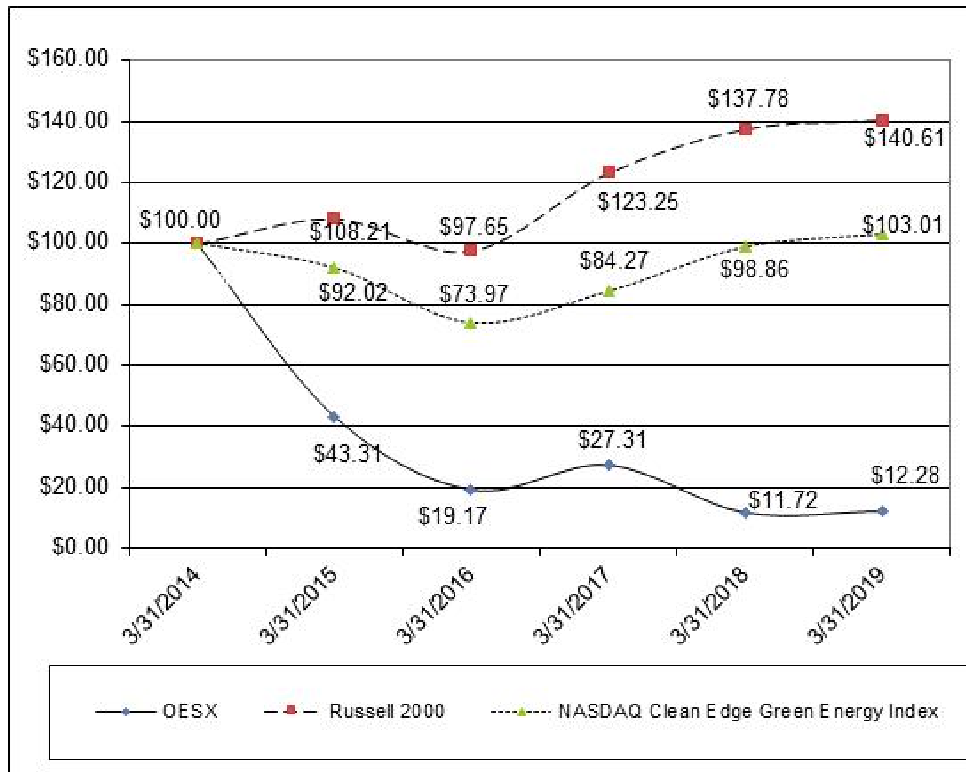
We did not purchase shares of our common stock during the fiscal year ended March 31, 2019.

Unregistered Sales of Securities

We did not make any unregistered sales of our common stock during the year ended March 31, 2019 that were not previously disclosed in a Quarterly Report on form 10-Q or a current report on Form 8-K during such period.

Stock Price Performance Graph

The following graph shows the total shareholder return of an investment of $100 in cash on March 31, 2014 through March 31, 2019, for (1) our common stock, (2) the Russell 2000 Index and (3) The NASDAQ Clean Edge Green Energy Index. Data for the Russell 2000 Index and the NASDAQ Clean Edge Green Energy Index assume reinvestment of dividends. The stock price performance graph should not be deemed filed or incorporated by reference into any other filing made by us under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that we specifically incorporate the stock performance graph by reference in another filing.



ITEM 6. SELECTED FINANCIAL DATA

You should read the following selected consolidated financial data in conjunction with Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes included in Item 8. "Financial Statements and Supplementary Data" of this report. The selected historical consolidated financial data are not necessarily indicative of future results.

	Fiscal Year Ended March 31,				
	2019	2018	2017	2016	2015
	(in thousands, except per share amounts)				
Consolidated statements of operations data:					
Product revenue	$ 56,261	$ 55,595	$ 66,224	$ 64,897	$ 65,881
Service revenue	9,493	4,705	3,987	2,745	6,329
Total revenue	65,754	60,300	70,211	67,642	72,210
Cost of product revenue (1)(2)	44,111	41,415	49,630	49,630	68,388
Cost of service revenue	7,091	4,213	3,244	2,015	4,959
Total cost of revenue	51,202	45,628	52,874	51,645	73,347
Gross profit	14,552	14,672	17,337	15,997	(1,137)
General and administrative expenses (1)(3)	10,231	13,159	14,777	16,884	14,908
Impairment of assets (4)	—	710	250	6,023	—
Acquisition and integration related expenses (5)	—	—	—	—	47
Sales and marketing expenses (1) (5)	9,104	11,879	12,833	11,343	13,290
Research and development expenses (1) (6)	1,374	1,905	2,004	1,668	2,554
Loss from operations	(6,157)	(12,981)	(12,527)	(19,921)	(31,936)
Other income	80	248	215	—	—
Interest expense	(493)	(333)	(163)	(297)	(376)
Amortization of debt issue costs	(101)	(92)	(110)	—	—
Dividend and interest income	11	15	36	128	300
Loss before income tax	(6,660)	(13,143)	(12,549)	(20,090)	(32,012)
Income tax expense (benefit)	14	(15)	(261)	36	49
Net loss	$ (6,674)	$ (13,128)	$ (12,288)	$ (20,126)	$ (32,061)
Net loss per share attributable to common shareholders:					
Basic	$ (0.23)	$ (0.46)	$ (0.44)	$ (0.73)	$ (1.43)
Diluted	$ (0.23)	$ (0.46)	$ (0.44)	$ (0.73)	$ (1.43)
Weighted-average shares outstanding:					
Basic	29,430	28,784	28,156	27,628	22,353
Diluted	29,430	28,784	28,156	27,628	22,353

(1) Includes stock-based compensation expense recognized under Financial Accounting Standards Board Accounting Standards Codification Topic 718, or ASC Topic 718, as follows:

	Fiscal Year Ended March 31,				
	2019	2018	2017	2016	2015
	(in thousands)				
Cost of product revenue	$ 2	$ 12	$ 30	$ 36	$ 50
Cost of service revenue	3	—	—	—	—
General and administrative expenses	764	929	1,337	1,148	1,056
Sales and marketing expenses	54	155	139	235	360
Research and development expenses	2	6	99	43	33
Total stock-based compensation expense	$ 825	$ 1,102	$ 1,605	$ 1,462	$ 1,499

(2) Fiscal 2018 includes expenses of $34 thousand related to restructuring expense. Fiscal 2017 includes expenses of $2.2 million related to an increase in inventory reserves and other inventory adjustments. Fiscal 2015 includes expenses of $12.1 million related to the impairment of wireless control inventory, fixed assets and intangible assets.

(3) Fiscal 2018 includes $1.8 million of restructuring expense and $1.4 million benefit on the reversal of an accrual for a loss contingency. Fiscal 2016 includes a $1.4 million loss contingency accrual.

(4) Fiscal 2018 includes an intangible asset impairment of $0.7 million. Fiscal 2017 includes an intangible asset impairment of $0.3 million. Fiscal 2016 includes expenses of $4.4 million related to the impairment of goodwill and $1.6 million related to the write-down to fair value of the manufacturing facility.

(5) Fiscal 2018 includes expenses of $0.2 million related to restructuring.

(6) Fiscal 2018 includes expenses of $0.1 million related to restructuring.

	As of March 31,				
	2019	2018	2017	2016	2015
			(in thousands)		
Consolidated balance sheet data:					
Cash and cash equivalents	$ 8,729	$ 9,424	$ 17,307	$ 15,542	$ 20,002
Total assets	56,021	45,325	62,051	70,875	87,805
Long term borrowings	9,283	4,013	6,819	4,021	3,222
Shareholder notes receivable	—	—	(4)	(4)	(4)
Total shareholders’ equity	17,970	23,424	35,450	45,983	64,511

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

The following discussion and analysis of our financial condition and results of operations should be read together with our audited consolidated financial statements and related notes included in this Annual Report on Form 10-K for the fiscal year ended March 31, 2019. See also "Forward-Looking Statements" and Item 1A "Risk Factors".

Overview

We provide state-of-the-art LED lighting, wireless Internet of Things ("IoT") enabled control solutions, and energy project management. We research, design, develop, manufacture, market, sell, install, and implement energy management systems consisting primarily of high-performance, energy-efficient commercial and industrial interior and exterior lighting systems and related services. Our products are targeted for applications in three primary market segments: commercial office and retail, area lighting, and industrial applications, although we do sell and install products into other markets. Virtually all of our sales occur within North America.

Our lighting products consist primarily of light emitting diode ("LED") lighting fixtures, many of which include IoT enabled control systems. Our principal customers include large national account end-users, electrical distributors and energy service companies ("ESCOs"). Currently, substantially all of our products are manufactured at our leased production facility located in Manitowoc, Wisconsin, although as the LED market continues to evolve, we are increasingly sourcing products and components from third parties in order to provide versatility in our product development.

We have experienced recent success offering our comprehensive project management services to national account customers to retrofit their multiple locations. Our comprehensive services include initial site surveys and audits, utility incentive and government subsidy management, engineering design, and project management from delivery through to installation and controls integration.

We believe the market for LED lighting products continues to grow. Due to their size and flexibility in application, we also believe that LED lighting systems can address opportunities for retrofit applications that cannot be satisfied by other lighting technologies. Our LED lighting technologies have become the primary component of our revenue as we continue to strive to be a leader in the LED market.

We generally do not have long-term contracts with our customers that provide us with recurring revenue from period to period and we typically generate substantially all of our revenue from sales of lighting systems and related services to governmental, commercial and industrial customers on a project-by-project basis. We also perform work under global services or product purchasing agreements with major customers with sales completed on a purchase order basis. The loss of, or substantial reduction in sales to, any of our significant customers, or our current single largest customer, or the termination or delay of a significant volume of purchase orders by one or more key customers, could have a material adverse effect on our results of operations in any given future period.

We typically sell our lighting systems in replacement of our customers' existing fixtures. We call this replacement process a "retrofit". We frequently engage our customer's existing electrical contractor to provide installation and project management services. We also sell our lighting systems on a wholesale basis, principally to electrical distributors and ESCOs to sell to their own customer bases.

The gross margins of our products can vary significantly depending upon the types of products we sell, with margins typically ranging from 10% to 50%. As a result, a change in the total mix of our sales among higher or lower margin products can cause our profitability to fluctuate from period to period.

Our fiscal year ends on March 31. We refer to our just completed fiscal year, which ended on March 31, 2019, as "fiscal 2019", and our prior fiscal year which ended on March 31, 2018 as "fiscal 2018". Our fiscal first quarter of each fiscal year ends on June 30, our fiscal second quarter ends on September 30, our fiscal third quarter ends on December 31 and our fiscal fourth quarter ends on March 31.

Reportable segments are components of an entity that have separate financial data that the entity's chief operating decision maker ("CODM") regularly reviews when allocating resources and assessing performance. Our CODM is our chief executive officer.

Orion has three reportable segments: Orion Engineered Systems Division ("OES"), and Orion Distribution Services Division ("ODS"), and Orion U.S. Markets Division (“USM”).

Market Shift to Light Emitting Diode Products

The market shift in the past several years in the lighting industry from legacy lighting products to LED lighting products has caused us to adopt new strategies, approaches and processes in order to respond proactively to this industry transition. These changing underlying business fundamentals in this transition include:

- Mitigating LED product end user customer pricing pressure.
- Improving LED product performance and reducing customer return on investment payback periods resulting in increased customer preference for LED lighting products compared to legacy HIF lighting products.
- Increasing LED lighting product customer sales compared to decreasing HIF product sales.
- Developing IoT enabled control solutions.
- Replacing earlier generation LED products.
- A broader and more diverse customer base and market opportunities compared to our historical commercial and industrial facility customers.
- Increased importance of highly innovative product designs and features and enhanced product research and development capabilities requiring rapid new product introduction and new methods of product and company differentiation.
- Significantly reduced product technology life cycles, significantly shorter product inventory shelf lives and the related increased risk of rapidly occurring product technology obsolescence.
- Increased reliance on international component sources.
- Less internal product fabrication and production capabilities needed to support LED product assembly.
- Different and broader types of components, fabrication and assembly processes needed to support LED product assembly compared to our legacy products.
- Expanding customer bases and sales channels.
- Significantly longer end user product warranty requirements for LED products compared to our legacy products.

As we continue to focus our primary business on selling our LED product lines to respond to the rapidly changing market dynamics in the lighting industry, we face intense competition from an increased number of other LED product companies, a number of which have substantially greater resources and more experience and history with LED lighting products than we do.

Major Developments in Fiscal 2019

During fiscal 2019, we signed a series of contracts to retrofit multiple locations for a major national account customer with our state-of-the-art LED lighting systems and wireless IoT enabled control solutions at locations nationwide. We currently expect total revenue from the customer to be approximately $110 million, dependent on purchase orders, the majority of which we expect to be recognized during fiscal 2020.

Fiscal 2020 Outlook

Our ability to achieve our desired revenue growth and profitability goals depends on our ability to effectively execute on the following key strategic initiatives:

Focus on executing and marketing our turnkey LED retrofit capabilities to large national account customers. We believe one of our competitive advantages is our ability to deliver full turnkey LED lighting project capabilities. These turnkey services were the principal reason we obtained our $110 million revenue commitment to retrofit multiple locations for a major national account customer. Our success in the national account market segment centers on our turnkey design, engineering, manufacturing and project

management capabilities, which represent a very clear competitive advantage for us among large enterprises seeking to benefit from the illumination benefits and energy savings of LED lighting across locations nationwide. Few LED lighting providers are organized to serve every step of a custom retrofit project in a comprehensive, non-disruptive and timely fashion, from custom fixture design and initial site surveys to final installations. Incrementally, we are also able to help customers deploy state-of-the-art control systems that provide even greater long-term value from their lighting system investments.

Looking forward, we are focused on continuing to successfully execute on existing national account opportunities while also actively pursuing new national account opportunities that leverage our customized, comprehensive turnkey project solutions, and expanding our addressable market with high-quality, basic lighting systems to meet the needs of value-oriented customer segments served by our other market channels. Given our unique value proposition, capabilities and focus on customer service, we are optimistic about our business prospects and working to build sales momentum with existing and new customers.

Support success of our ESCO and agent-driven distribution sales channels. We continue to focus on building our relationships and product and sales support for our ESCO and agent driven distribution channels. These efforts include an array of product and sales training efforts as well as the development of new products to cater to the unique needs of these sales channels.

Continued Product Innovation. We continue to innovate, developing lighting fixtures and features that address specific customer requirements, while also working to maintain a leadership position in energy efficiency, smart product design and installation benefits. We also continue to deepen our capabilities in the integration of smart lighting controls. Our goal is to provide state-of-the-art lighting products with modular plug-and-play designs to enable lighting system customization from basic controls to advanced IoT capabilities.

Leveraging of Orion's Smart Lighting Systems to Support Internet of Things Applications. We believe we are ideally positioned to help customers to efficiently deploy new IoT controls and applications by leveraging the "Smart Ceiling" capabilities of their Orion solid state lighting system. IoT capabilities can include the management and tracking of facilities, personnel, resources and customer behavior, driving both sales and lowering costs. As a result, these added capabilities provide customers an even greater return on investment from their lighting system and make us an even more attractive partner.

Tariffs and Trade Policies. The United States government has been implementing various monetary, regulatory, and trade importation restraints, penalties, and tariffs. Certain sourced finished products and certain of the components used in our products have been impacted by the recently imposed tariffs on China imports. Our efforts to mitigate the impact of added costs resulting from these government actions include a variety of activities, such as sourcing from non-tariff impacted countries and raising prices. If we are unable to successfully mitigate the impacts of these tariffs and other trade policies, our results of operations may be adversely affected. We believe that these mitigation activities will assist to offset added costs, and we currently believe that such tariffs will have a limited adverse financial effect on our results of operations. Any future policy changes that may be implemented could have a positive or negative consequence on our financial performance depending on how the changes would influence many factors, including business and consumer sentiment.

Results of Operations: Fiscal 2019 versus Fiscal 2018

The following table sets forth the line items of our consolidated statements of operations and as a relative percentage of our total revenue for each applicable period, together with the relative percentage change in such line item between applicable comparable periods (in thousands, except percentages):

	Fiscal Year Ended March 31,				
	2019	2018		2019	2018
	Amount	Amount	% Change	% of Revenue	% of Revenue
Product revenue	$ 56,261	$ 55,595	1.2%	85.6%	92.2%
Service revenue	9,493	4,705	101.8%	14.4%	7.8%
Total revenue	65,754	60,300	9.0%	100.0%	100.0%
Cost of product revenue	44,111	41,415	6.5%	67.1%	68.7%
Cost of service revenue	7,091	4,213	68.3%	10.8%	7.0%
Total cost of revenue	51,202	45,628	12.2%	77.9%	75.7%
Gross profit	14,552	14,672	(0.8)%	22.1%	24.3%
General and administrative expenses	10,231	13,159	(22.3)%	15.6%	21.8%
Impairment of intangible assets	—	710	NM	0.0%	1.2%
Sales and marketing expenses	9,104	11,879	(23.4)%	13.8%	19.7%
Research and development expenses	1,374	1,905	(27.9)%	2.1%	3.1%
Loss from operations	(6,157)	(12,981)	(52.6)%	(9.4)%	(21.5)%
Other income	80	248	(67.7)%	0.1%	0.4%
Interest expense	(493)	(333)	48.0%	(0.7)%	(0.6)%
Amortization of debt issue costs	(101)	(92)	9.8%	(0.2)%	(0.2)%
Interest income	11	15	(26.7)%	0.0%	—%
Loss before income tax	(6,660)	(13,143)	49.3%	(10.0)%	(21.7)%
Income tax expense (benefit)	14	(15)	NM	0.1%	—%
Net loss and comprehensive loss	$ (6,674)	$ (13,128)	49.2%	(10.1)%	(21.7)%

* NM = Not Meaningful

Revenue. Product revenue increased 1.2%, or $0.7 million, for fiscal 2019 versus fiscal 2018. The increase in product revenue was primarily a result of higher sales volume through our national account channel, and primarily the result of a major retrofit project for multiple locations for one of our national account customers. The contractual commitments from this customer will result in substantially higher revenue for us in fiscal 2020. Service revenue increased 101.8%, or $4.8 million, primarily due to higher sales volume through our national account channel and the timing of project installations. Total revenue increased by 9.0%, or $5.5 million, due to the items discussed above. Excluding the impact of the adoption of ASC 606, Product revenue increased 5.1%, or $2.9 million, Service revenue increased 56.2%, or $2.6 million, and Total revenue increased 9.1%, or $5.5 million, compared to fiscal year 2018.

Cost of Revenue and Gross Margin. Cost of product revenue increased 6.5%, or $2.7 million, in fiscal 2019 versus the comparable period in fiscal 2018 primarily due to the increase in sales. Cost of service revenue increased 68.3%, or $2.9 million, in fiscal 2019 versus fiscal 2018 primarily due to the increase in service revenue. Gross margin decreased from 24.3% of revenue in fiscal 2018 to 22.1% in fiscal 2019, primarily due to our product mix on higher sales to one large national account customer. Excluding the impact of the adoption of ASC 606, gross margin for fiscal 2019 was 24.4%.

Operating Expenses

General and Administrative. General and administrative expenses decreased 22.3%, or $2.9 million, in fiscal 2019 compared to fiscal 2018, primarily due to $1.8 million in employee separation costs incurred in fiscal 2018, offset by the release of a $1.4 million loss contingency accrual, which did not recur in fiscal 2019, as well as reduced employee costs and consulting expense as a result of our prior year cost reduction plan.

Impairment of assets. No impairment charge was recorded in fiscal 2019. During fiscal 2018, we performed a review of our definite and indefinite-lived tangible and intangible assets for impairment. In conjunction with this review, we determined that the carrying value of our Harris trade name intangible asset exceeded its fair value. As a result, we recorded an impairment charge of $0.7 million in fiscal 2018.

Sales and Marketing. Our sales and marketing expenses decreased 23.4%, or $2.8 million, in fiscal 2019 compared to fiscal 2018. Excluding the impact of the adoption of ASC 606, Sales and marketing expenses decreased 11.1%, or $1.3 million, in fiscal 2019 compared to fiscal 2018. The decrease year over year was primarily due to reduced employee costs due to the impact of our prior year cost reduction plan, and lower travel and entertainment and marketing expenses.

Research and Development. Research and development expenses decreased by 27.9%, or $0.5 million in fiscal 2019 compared to fiscal 2018 primarily due to lower employee costs as a result of our prior year cost reduction plan, as well as a decrease in testing costs based on timing of new product rollouts and reduced consulting expenses.

Other income. Other income in fiscal 2019 and fiscal 2018 represented product royalties received from licensing agreements for our patents.

Interest Expense. Interest expense in fiscal 2019 increased by 48.0%, or $0.2 million, from fiscal 2018. The increase in interest expense was due to increased third party financing costs related to the sale of receivables.

Amortization of debt issue costs. Amortization of debt issue costs in fiscal 2019 increased 9.8%, or $9 thousand from fiscal 2018. The increase is due to the execution of our new revolving credit facility.

Interest Income. Interest income in fiscal 2019 remained relatively flat compared to fiscal 2018. Interest income relates to interest earned on sweep bank accounts.

Income Taxes. Income tax expense in fiscal 2019 increased immaterially from fiscal 2018. Both periods include income tax expense for minimum state tax liabilities. In fiscal 2018 we received refunds from previously filed tax returns. In both periods, the impact of the Tax Cuts and Jobs Act on tax expense was immaterial due to the full valuation allowance.

Results of Operations: Fiscal 2018 versus Fiscal 2017

The following table sets forth the line items of our consolidated statements of operations and as a relative percentage of our total revenue for each applicable period, together with the relative percentage change in such line item between applicable comparable periods (in thousands, except percentages):

	Fiscal Year Ended March 31,				
	2018	2017		2018	2017
	Amount	Amount	% Change	% of Revenue	% of Revenue
Product revenue	$ 55,595	$ 66,224	(16.1)%	92.2%	94.3%
Service revenue	4,705	3,987	18.0%	7.8%	5.7%
Total revenue	60,300	70,211	(14.1)%	100.0%	100.0%
Cost of product revenue	41,415	49,630	(16.6)%	68.7%	70.7%
Cost of service revenue	4,213	3,244	29.9%	7.0%	4.6%
Total cost of revenue	45,628	52,874	(13.7)%	75.7%	75.3%
Gross profit	14,672	17,337	(15.4)%	24.3%	24.7%
General and administrative expenses	13,159	14,777	(10.9)%	21.8%	21.0%
Impairment of assets	710	250	NM	1.2%	0.3%
Sales and marketing expenses	11,879	12,833	(7.4)%	19.7%	18.3%
Research and development expenses	1,905	2,004	(4.9)%	3.1%	2.9%
Loss from operations	(12,981)	(12,527)	(3.6)%	(21.5)%	(17.8)%
Other income	248	215	15.3%	0.4%	0.3%
Interest expense	(333)	(163)	104.3%	(0.6)%	(0.2)%
Amortization of debt issue costs	(92)	(110)	(16.4)%	(0.1)%	(0.1)%
Interest income	15	36	(58.3)%	—%	—%
Loss before income tax	(13,143)	(12,549)	(4.7)%	(21.8)%	(17.9)%
Income tax benefit	(15)	(261)	NM	—%	(0.4)%
Net loss and comprehensive loss	$ (13,128)	$ (12,288)	(6.8)%	(21.8)%	(17.5)%

Revenue. Product revenue decreased 16.1%, or $10.6 million, for fiscal 2018 versus fiscal 2017. The decrease in product revenue was primarily a result of the continued decline in fluorescent product sales, $6.5 million year over year, and a decrease of $3.9 million in LED lighting revenue. LED lighting revenue decreased 6.2% from $53.1 million in fiscal 2017 to $49.8 million in fiscal 2018, primarily as a result of a decrease in our LED Troffer Door Retrofit product as well as the impact of our transition of our distribution sales channel to an agent driven model. Service revenue increased 18.0%, or $0.7 million, primarily due to the timing of installation projects in fiscal 2018 compared to fiscal 2017. Total revenue decreased by 14.1%, or $9.9 million, due to the items discussed above.

Cost of Revenue and Gross Margin. Cost of product revenue decreased 16.6%, or $8.2 million, in fiscal 2018 versus the comparable period in fiscal 2017 primarily due to the decline in sales and the resulting lower overhead absorption compared to the prior year period. Cost of service revenue increased 29.9%, or $1.0 million, in fiscal 2018 versus fiscal 2017 primarily due to the timing of completion and costs on large projects. Gross margin decreased from 24.7% of revenue in fiscal 2017 to 24.3% in fiscal 2018. Our product gross margin decreased as a result of under-absorption within our manufacturing facility and an increase in sales of products sourced from third party manufacturers.

Operating Expenses

General and Administrative. General and administrative expenses decreased 10.9%, or $1.6 million, in fiscal 2018 compared to fiscal 2017, primarily due to decreases in employee costs of $1.6 million due to headcount reductions, the release of a loss contingency reserve for $1.4 million, and a decrease in amortization of $0.3 due to a lower intangible balance, partially offset by employee separation costs of $1.8 million. The decrease in employee costs of $1.6 million included the reduction of stock-based compensation expense of $0.4 million. Excluding the employee separation costs and the loss contingency release, general and administrative expenses decreased $2.0 million, or 13.8%.

Impairment of assets. During fiscal 2018 and fiscal 2017, we performed a review of our definite and indefinite-lived tangible and intangible assets for impairment. In conjunction with this review, we determined that the carrying value of our Harris trade name intangible asset exceeded its fair value. As a result, we recorded an impairment charge of $0.7 million and $0.3 million, respectively in fiscal 2018 and fiscal 2017.

Sales and Marketing. Our sales and marketing expenses decreased 7.4%, or $0.9 million, in fiscal 2018 compared to fiscal 2017. The decrease was primarily due to lower employee costs and reduced consulting and professional fees related to special events and field sales, partially offset by $0.2 million in employee separation costs.

Research and Development. Research and development expenses decreased by 4.9%, or $0.1 million in fiscal 2018 compared to fiscal 2017 primarily due to a decreased testing and supply costs, partially offset by $0.1 million in employee separation costs.

Other income. Other income in fiscal 2018 and fiscal 2017 represented product royalties received from licensing agreements for our patents.

Interest Expense. Interest expense in fiscal 2018 increased by 55.7%, or $0.1 million, from fiscal 2017. The increase in interest expense was due to increased third party financing costs.

Amortization of debt issue costs. Amortization of debt issue costs in fiscal 2018 decreased 16.4%, or $9 thousand from fiscal 2017. The decrease is due to the revolving credit facility.

Interest Income. Interest income in fiscal 2018 decreased by 58.3%, or $21 thousand, from fiscal 2017. Our interest income decreased as a result of the continued run-off legacy customer financed projects.

Income Taxes. Income tax benefit in fiscal 2018 decreased $0.2 million from fiscal 2017. In fiscal 2017, we received refunds from previously filed tax returns and reversed a valuation allowance resulting in a tax benefit in fiscal 2017. In fiscal 2018 we received refunds from previously filed tax returns. Both periods include income tax expense for minimum state tax liabilities. In fiscal 2018, the impact of the Tax Cuts and Jobs Act on tax expense was immaterial due to the full valuation allowance.

Orion Engineered Systems Division

The OES segment develops and sells lighting products and provides construction and engineering services for our commercial lighting and energy management systems. OES provides turnkey solutions for large national accounts, governments, municipalities and schools.

The following table summarizes our OES segment operating results (dollars in thousands):

	Fiscal year ended March 31,		
	2019	2018	2017
Revenues	$ 30,925	$ 23,827	$ 29,501
Operating loss	$ (1,237)	$ (3,792)	$ (3,647)
Operating margin	(4.0)%	(15.9)%	(12.4)%

Fiscal 2019 Compared to Fiscal 2018

OES revenue increased in fiscal 2019 by 29.8%, or $7.1 million, compared to fiscal 2018 primarily as a result of the increase in volume of turnkey projects, specifically to one large national account customer, which will continue in fiscal 2020.

OES segment operating loss in fiscal 2019 was $1.2 million, an improvement of $2.6 million from fiscal 2018. The improvement in the segment's operating loss was the result of increased sales, the benefit of lower corporate allocated costs due to the impact of cost reduction initiatives, and a non-recurring asset impairment charge of $0.5 million in fiscal 2018.

Fiscal 2018 Compared to Fiscal 2017

OES revenue decreased in fiscal 2018 by 19.2%, or $5.7 million, compared to fiscal 2017 primarily as a result of the timing of delivery of our turnkey projects and reduced florescent purchases by a large retail customer.

OES segment operating loss in fiscal 2018 increased by $0.1 million from fiscal 2017. The segment's operating loss was the result of the decline in sales resulting in lost operating leverage and an intangible asset impairment in the second quarter of fiscal 2018 of $0.5 million.

Orion Distribution Services Division

The ODS segment focuses on selling lighting products through manufacturer representative agencies and a network of broadline North American distributors.

The following table summarizes our ODS segment operating results (dollars in thousands):

	Fiscal year ended March 31,		
	2019	2018	2017
Revenues	$ 24,173	$ 27,906	$ 22,858
Operating loss	$ (1,742)	$ (325)	$ (927)
Operating margin	(7.2)%	(1.2)%	(4.1)%

Fiscal 2019 Compared to Fiscal 2018

ODS segment revenue decreased in fiscal 2019 by 13.4%, or $3.7 million, compared to fiscal 2018, primarily due to a decrease in sales volume through our distribution channel.

ODS segment operating loss in fiscal 2019 was $1.7 million, an increase of $1.4 million from fiscal 2018. The increase in segment operating loss was primarily due to decreased sales.

Fiscal 2018 Compared to Fiscal 2017

ODS segment revenue increased in fiscal 2018 from fiscal 2017 by $5.0 million. The increase in revenue was primarily due to our transition to a distribution channel sales model migrating direct sales through our manufacturer representative agents. In addition, ODS revenue grew as a result of our expanding manufacturer representative agencies and the continued ramp up of sales through these agencies.

ODS segment operating loss decreased by $0.6 million in fiscal 2018 compared to fiscal 2017, primarily due to a decrease in selling expenses.

Orion U.S. Markets Division

The USM segment sells commercial lighting systems and energy management systems to the wholesale contractor markets. USM customers are primarily comprised of ESCOs.

The following table summarizes our USM segment operating results (dollars in thousands):

	Fiscal year ended March 31,		
	2019	2018	2017
Revenues	$ 10,656	$ 8,567	$ 17,852
Operating income (loss)	$ 1,132	$ (3,123)	$ (1,357)
Operating margin	10.6%	(36.5)%	(7.6)%

Fiscal 2019 Compared to Fiscal 2018

USM segment revenue increased in fiscal 2019 by 24.3%, or $2.1 million, compared to fiscal 2018, primarily due to an increase in sales volume as a result of our reengagement in the sales channel.

ODS segment operating income in fiscal 2019 was $1.1 million, an improvement of $4.3 million over the operating loss in fiscal 2018. The improvement was primarily due to better operating leverage on lower allocated corporate costs, as well as a non-recurring asset impairment charge of $0.2 million in fiscal 2018.

Fiscal 2018 Compared to Fiscal 2017

USM segment revenue decreased from fiscal 2017 by 52.0%, or $9.3 million. The decrease in revenue during fiscal 2018 compared to fiscal 2017 included the continued transition to our distribution sales model through the migration of sales to our ODS segment. Sales made through independent manufacturer representative agents are reflected within our ODS segment. The decrease also reflects a $1.3 million decline in sales to select large direct customers.

The USM segment's operating loss increased $1.8 million in fiscal 2018 as compared to fiscal 2017. The segment's operating loss was the result of the significant decline in sales due to the migration of customers to the distribution sales channel resulting in lost operating expense leverage and an intangible asset impairment in the second quarter of fiscal 2018 of $0.2 million.

Liquidity and Capital Resources

Overview

We had $8.7 million in cash and cash equivalents as of March 31, 2019, compared to $9.4 million at March 31, 2018. Our cash position decreased primarily as a result of our net loss and the timing of working capital changes, offset by net proceeds of $5.3 million from our revolving credit facility.

On October 26, 2018, we entered into a new secured revolving Business Financing Agreement with Western Alliance Bank, as lender (the "New Credit Agreement"). The New Credit Agreement replaced our existing Credit Agreement.

On June 3, 2019, we amended the New Credit Agreement to increase the maximum borrowing base credit available for certain of the customer receivables included in the borrowing base and provide for a borrowing base credit of up to $3.0 million based on inventory, in each case, subject to certain conditions. The amendment provides for additional availability under the New Credit Agreement; the impact of which, as of March 31, 2019, would have been to increase availability by $4.0 million, bringing unused borrowing capacity to $5.4 million.

Additional information on our New Credit Agreement can be found in the "Indebtedness" section located below.

Our future liquidity needs and forecasted cash flows are dependent upon many factors, including our relative revenue, gross margins, cash management practices, cost reduction initiatives, working capital management, capital expenditures, pending or future litigation results and cost containment measures. In addition, we tend to experience higher working capital costs when we increase sales from existing levels. Based on our current expectations, we believe we have adequate availability to service our increasing working capital costs with regards to recently signed contracts, including with a large national account customer.

While we anticipate realizing improved operating results in the future, we also currently believe that we may experience negative working capital cash flows during some interim periods.

While we believe that we will likely have adequate available cash and equivalents and credit availability under our New Credit Agreement to satisfy our currently anticipated working capital and liquidity requirements during the next 12 months based on our current cash flow forecast, there can be no assurance to that effect. We are pursuing various alternative sources of liquidity, including exploring a sale or mortgage of our tech center office building, to help ensure that we will have the best allocation of investing capital to satisfy our working capital needs. We have also amended our New Credit Agreement to expand our borrowing base and provide more available liquidity including increasing our borrowing availability by approximately $4 million. We are also implementing certain inventory management practices that we anticipate will help to reduce our inventory levels and enhance our cash position. If we experience significant liquidity constraints, we may be required to reduce our sales efforts, implement additional cost savings initiatives or undertake other efforts to conserve our cash.

In February 2017, we filed a universal shelf registration statement with the Securities and Exchange Commission. Under our shelf registration statement, we currently have the flexibility to publicly offer and sell from time to time up to $75.0 million of debt and/or equity securities, although, we are currently limited to selling an amount of securities equal to one-third of our public float on such registration statement over a 12 month period. The filing of the shelf registration statement may help facilitate our ability to raise public equity or debt capital to expand existing businesses, fund potential acquisitions, invest in other growth opportunities, repay existing debt, or for other general corporate purposes.

Cash Flows

The following table summarizes our cash flows for our fiscal 2019, fiscal 2018 and fiscal 2017:

	Fiscal Year Ended March 31,		
	2019	2018	2017
	(in thousands)		
Operating activities	$ (5,058)	$ (4,415)	$ (1,903)
Investing activities	(449)	(585)	1,649
Financing activities	4,812	(2,883)	2,019
(Decrease) increase in cash and cash equivalents	$ (695)	$ (7,883)	$ 1,765

Cash Flows Related to Operating Activities. Cash used in operating activities primarily consisted of a net loss adjusted for certain non-cash items including depreciation and amortization, stock-based compensation expenses, provisions for reserves, and the effect of changes in working capital and other activities.

Cash used in operating activities for fiscal 2019 was $5.1 million and consisted of a net loss adjusted for non-cash expense items of $4.1 million and net cash used in changes in operating assets and liabilities of $1.0 million. Cash used by changes in operating assets and liabilities consisted of an increase of $5.8 million in Accounts receivable due to the timing of billing and customer collections on comparatively higher fourth quarter sales, an increase in Inventory of $4.7 million due to higher backlog for anticipated first quarter fiscal 2020 sales, and an increase of $1.4 million in Revenue earned but not billed due to timing on revenue recognition compared to invoicing. Cash provided by changes in operating assets and liabilities included an increase of $8.9 million in Accounts payable based on timing of payments and an increase of $2.0 million in Accrued expenses and other primarily due to increased accrued project costs on higher installation volume.

Cash used in operating activities for fiscal 2018 was $4.4 million and consisted of a net loss adjusted for non-cash expense items of $8.0 million and net cash provided by changes in operating assets and liabilities of $3.6 million. Cash used by changes in operating assets and liabilities consisted of a decrease of $1.7 million in Accrued expenses and other primarily due to the timing of payment of commissions and lower accrued bonuses in the current fiscal year, a decrease of $0.1 million in Deferred revenue, current and long term due to the timing of project completion and a decrease of $0.1 million in Deferred contract costs due to the timing of project completions. Cash provided by changes in operating assets and liabilities included a decrease of $0.4 million in Accounts receivable due to the decline in sales and the timing of customer collections, a decrease in Inventory of $4.7 million as a result of increased focus on inventory management in consideration of the lower sales volume, a decrease of $0.5 million in Prepaid and other current assets primarily due to the timing of project billings, and a negligible decrease in accounts payable.

Cash used in operating activities for fiscal 2017 was $1.9 million and consisted of net cash provided by changes in operating assets and liabilities of $3.7 million and a net loss adjusted for non-cash expense items of $5.6 million. Cash provided by changes in operating assets and liabilities consisted of a decrease of $1.7 million in Accounts receivable due to the timing of collections from customers, a decrease in Inventory of $1.2 million due to decreasing inventory prices, a decrease in Prepaid expenses and other current assets of $2.1 million due to project billings that decreased unbilled revenue and an increase in Deferred revenue, current and long-term of $0.3 million. Cash used by changes in operating assets and liabilities included an increase in Deferred contract costs of $0.9 million due to projects still in process, a decrease in Accounts payable of $0.1 million due to the increase in purchases to support our anticipated growth in lighting product revenue, and decrease in Accrued expenses and other of $0.6 million for increased commissions as a result of Orion’s distribution model changes.

Cash Flows Related to Investing Activities. Cash used in investing activities was $0.4 million in fiscal 2019 and consisted primarily of purchases of property and equipment of $0.4 million.

Cash used in investing activities was $0.6 million in fiscal 2018 and consisted of purchases of property and equipment of $0.5 million and investment in patents and licenses of $0.1 million.

Cash provided by investing activities was $1.6 million in fiscal 2017 and consisted of spend of $0.7 million for capital expenditures and $0.3 million of investment in patents, offset by $2.6 million of proceeds from the sale of the Manitowoc manufacturing facility.

Cash Flows Related to Financing Activities. Cash provided by financing activities was $4.8 million for fiscal 2019. This cash provided consisted primarily of net proceeds of $5.3 million from our revolving credit facility, offset by $0.4 million in debt issue costs due to the new revolving credit facility and $0.1 million of payment of long-term debt.

Cash used in financing activities was $2.9 million for fiscal 2018 and was due almost entirely to the net repayment of our revolving credit facility.

Cash provided by financing activities was $2.0 million for fiscal 2017. This included net proceeds from the revolving credit facility of $2.9 million, offset by $0.9 million in cash used for the repayment of long-term debt and $11,000 for stock option related tax settlements.

Working Capital

Our net working capital as of March 31, 2019 was $14.0 million, consisting of $41.4 million in current assets and $27.3 million in current liabilities. Our net working capital as of March 31, 2018 was $13.0 million, consisting of $29.4 million in current assets and $16.4 in current liabilities. Our current Accounts receivable, net balance increased by $6.1 million from the fiscal 2018 year-end due to the timing of billing and customer collections on comparatively higher fourth quarter sales. Our Revenue earned but not billed balance increased by $3.7 million from the fiscal 2018 year-end; the change included $2.4 million of reclassifications recorded April 1, 2018 in conjunction with the adoption of ASC 606. Our Inventories, net increased $5.6 million from the fiscal 2018 year-end due to higher backlog as of March 31, 2019 on anticipated fiscal 2020 sales to a large national account customer. Our Prepaid expenses and other current assets decreased $1.8 million from the fiscal 2018 year-end primarily due to the reclassification of Revenue earned but not billed of $1.9 million to its own balance sheet line item in conjunction with the adoption of ASC 606. Our Deferred contract costs

decreased $1.0 million from the fiscal 2018 year-end due to the adoption of ASC 606 and reclassification of these costs to either equity or inventory as part of the transition adjustment on April 1, 2018. Deferred contract costs is not used subsequent to the adoption of ASC 606. Our Accounts payable increased $8.0 million due to the timing of purchases during the quarter, offset by the reclassifications of $0.9 million as of April 1, 2018 in conjunction with the adoption of ASC 606. Our Accrued expenses increased $3.2 million from our fiscal 2018 year-end due to increased accrued project costs on higher installation volume, and as well as reclassifications of $1.3 million as of April 1, 2018 in conjunction with the adoption of ASC 606.

We generally attempt to maintain at least a three-month supply of on-hand inventory of purchased components and raw materials to meet anticipated demand, as well as to reduce our risk of unexpected raw material or component shortages or supply interruptions. Our accounts receivables, inventory and payables may increase to the extent our revenue and order levels increase.

Indebtedness

Revolving Credit Agreement

On October 26, 2018, we entered into the New Credit Agreement, which replaced our existing Credit Agreement.

The New Credit Agreement provides for a two-year revolving credit facility (the "New Credit Facility") that matures on October 26, 2020. Borrowings under the New Credit Facility are initially limited to $20.15 million subject to a borrowing base requirement based on eligible receivables and inventory. The New Credit Agreement includes a $2.0 million sublimit for the issuance of letters of credit. As of March 31, 2019, our borrowing base was $10.6 million, and we had $9.2 million in borrowings outstanding which were included in non-current liabilities in the accompanying Consolidated Balance Sheets. As of March 31, 2019, we had no outstanding letters of credit leaving additional borrowing availability of $1.4 million.

The New Credit Agreement is secured by a security interest in substantially all of our and our subsidiaries' personal property.

Borrowings under the New Credit Agreement generally bear interest at floating rates based upon the prime rate (but not be less than 5.00% per year) plus an applicable margin determined by reference to our quick ratio (defined as the aggregate amount of unrestricted cash, unrestricted marketable securities and, with certain adjustments, receivables convertible into cash divided by the total current liabilities, including the obligations under the New Credit Agreement). As of March 31, 2019, the interest rate was 6.0%. Among other fees, we are required to pay an annual facility fee equal to 0.45% of the credit limit under the New Credit Agreement due on October 26, 2018 and on each anniversary thereof. With certain exceptions, if the New Credit Agreement is terminated prior to the first anniversary of the closing date of the New Credit Agreement, we are required to pay a termination fee equal to 0.50% of the credit limit under the New Credit Agreement.

The New Credit Agreement requires us to maintain nine months' of "RML" as of the end of each month. For purposes of the New Credit Agreement, RML is defined as, as of the applicable determination date, unrestricted cash on deposit with Western Alliance Bank plus availability under the New Credit Agreement divided by an amount equal to, for the applicable trailing three-month period, consolidated net profit before tax, plus depreciation expense, amortization expense and stock-based compensation, minus capital lease principal payments, tested as of the end of each month.

The New Credit Agreement also contains customary events of default and other covenants, including certain restrictions on our ability to incur additional indebtedness, consolidate or merge, enter into acquisitions, pay any dividend or distribution on our stock, redeem, retire or purchase shares of our stock, make investments or pledge or transfer assets. If an event of default under the New Credit Agreement occurs and is continuing, then Western Alliance Bank may cease making advances under the New Credit Agreement and declare any outstanding obligations under the New Credit Agreement to be immediately due and payable. In addition, we become the subject of voluntary or involuntary proceedings under any bankruptcy or similar law, then any outstanding obligations under the New Credit Agreement will automatically become immediately due and payable.

On June 3, 2019, we and certain of our subsidiaries entered into an amendment (the "First Amendment") to the New Credit Agreement. The First Amendment amended the New Credit Agreement to increase the maximum borrowing base credit available for certain of the customer receivables included in the borrowing base and to provide for a borrowing base credit of up to $3.0 million based on inventory, in each case, subject to certain conditions. The amendment provides for additional availability under the New

Credit Agreement; the impact of which, as of March 31, 2019, would have been to increase availability by $4.0 million, bringing unused borrowing capacity to $5.4 million.

The foregoing is a summary of the First Amendment and is qualified in its entirety by reference to the full text of the First Amendment, a copy of which is filed herewith as Exhibit 10.2 and incorporated herein by reference.

Capital Spending

Over the past three fiscal years, we have made capital expenditures primarily for production equipment and tooling, for information technology systems, and for general corporate purposes for our corporate headquarters and technology center. Our capital expenditures totaled $0.5 million in fiscal 2019 and fiscal 2018 and $0.7 million in fiscal 2017. We plan to incur approximately $0.6 million in capital expenditures in fiscal 2020. Our capital spending plans predominantly consist of investments related to new product development tooling and investments in information technology systems. We expect to finance these capital expenditures primarily through our existing cash, equipment secured loans and leases, to the extent needed, long-term debt financing, or by using our New Credit Facility.

Contractual Obligations

Information regarding our known contractual obligations of the types described below as of March 31, 2019 is set forth in the following table (dollars in thousands):

	Payments Due By Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
			(in thousands)		
Bank debt obligations	$ 9,202	$ —	$ 9,202	$ —	$ —
Other debt obligations	177	96	51	30	—
Cash interest payments on debt	18	9	7	2	—
Operating lease obligations	829	506	323	—	—
Purchase order and capital expenditure commitments (1)	13,592	13,592	—	—	—
Total	$ 23,818	$ 14,203	$ 9,583	$ 32	$ —

(1) Reflects non-cancellable purchase commitments primarily for certain inventory items entered into in order to secure better pricing and ensure materials on hand.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements.

Inflation

Our results from operations have not been, and we do not expect them to be, materially affected by inflation.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of our consolidated financial statements requires us to make certain estimates and judgments that affect our reported assets, liabilities, revenue and expenses, and our related disclosure of contingent assets and liabilities. We re-evaluate our estimates on an ongoing basis, including those related to revenue recognition, inventory valuation, collectability of receivables, stock-based compensation, warranty reserves and income taxes. We base our estimates on historical experience and on various assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates. A summary of our critical accounting policies is set forth below.

Revenue Recognition. We generate revenue primarily by selling commercial lighting fixtures and components and by installing these fixtures in our customer's facilities. We recognize revenue in accordance with the guidance in "Revenue from Contracts with Customers" (Topic 606) ("ASC 606") when control of the goods or services being provided (which we refer to as a performance obligation) is transferred to a customer at an amount that reflects the consideration we expect to receive in exchange for those goods or services. Prices are generally fixed at the time of order confirmation. The amount of expected consideration includes estimated deductions and early payment discounts calculated based on historical experience, customer rebates based on agreed upon terms applied to actual and projected sales levels over the rebate period, and any amounts paid to customers in conjunction with fulfilling a performance obligation.

If there are multiple performance obligations in a single contract, the contract's total sales price is allocated to each individual performance obligation based on their relative standalone selling price. A performance obligation's standalone selling price is the price at which we would sell such promised good or service separately to a customer. We use an observable price to determine the stand-alone selling price for separate performance obligations or a cost-plus margin approach when one is not available. The cost-plus margin approach is used to determine the stand-alone selling price for the installation performance obligation and is based on average historical installation margin.

Revenue derived from customer contracts which include only performance obligation(s) for the sale of lighting fixtures and components is classified as Product revenue in the Consolidated Statements of Operations. The revenue for these transactions is recorded at the point in time when management believes that the customer obtains control of the products, generally either upon shipment or upon delivery to the customer's facility. This point in time is determined separately for each contract and requires judgment by management of the contract terms and the specific facts and circumstances concerning the transaction.

Revenue from a customer contract which includes both the sale of fixtures and the installation of such fixtures (which we refer to as a turnkey project) is allocated between each lighting fixture and the installation performance obligation based on relative standalone selling prices.

Revenue from turnkey projects that is allocated to the sale of the lighting fixtures is recorded at the point in time when management believes the customer obtains control of the product(s) and is reflected in Product revenue. This point in time is determined separately for each customer contract based upon the terms of the contract and the nature and extent of our control of the light fixtures during the installation. Product revenue associated with turnkey projects can be recorded (a) upon shipment or delivery, (b) subsequent to shipment or delivery and upon customer payments for the light fixtures, (c) when an individual light fixture is installed and working correctly, or (d) when the customer acknowledges that the entire installation project is substantially complete. Determining the point in time when a customer obtains control of the lighting fixtures in a turnkey project can be a complex judgment and is applied separately for each individual light fixture included in a contract. In making this judgment, management considers the timing of various factors, including, but not limited to, those detailed below:

- when there is a legal transfer of ownership;
- when the customer obtains physical possession of the products;
- when the customer starts to receive the benefit of the products;
- the amount and duration of physical control that we maintain on the products after they are shipped to, and received at, the customer's facility;
- whether we are required to maintain insurance on the lighting fixtures when they are in transit and after they are delivered to the customer's facility;
- when each light fixture is physically installed and working correctly;
- when the customer formally accepts the product; and
- when we receive payment from the customer for the light fixtures.

Revenue from turnkey projects that is allocated to the single installation performance obligation is reflected in Service revenue. Service revenue is recorded over-time as we fulfill our obligation to install the light fixtures. We measure our performance toward fulfilling our performance obligations for installations using an output method that calculates the number of light fixtures completely installed as of the measurement date in comparison to the total number of light fixtures to be installed under the contract.

Most products are manufactured in accordance with our standard specifications. However, some products are manufactured to a customer's specific requirements with no alternative use to us. In such cases, and when we have an enforceable right to payment, Product revenue is recorded on an over-time basis measured using an input methodology that calculates the costs incurred to date as compared to total expected costs. There was no over-time revenue related to custom products recognized in fiscal year 2019.

We offer a financing program, called an Orion Throughput Agreement, or OTA, for a customer's lease of our energy management systems. The OTA is structured as a sales-type lease and upon successful installation of the system and customer acknowledgment that the system is operating as specified, revenue is recognized at our net investment in the lease, which typically is the net present value of the future cash flows.

We also record revenue in conjunction with several limited power purchase agreements ("PPAs") still outstanding. Those PPAs are supply-side agreements for the generation of electricity. Our last PPA expires in 2031. Revenue associated with the sale of energy generated by the solar facilities under these PPAs is within the scope of ASC 606. Revenues are recognized over-time and are equal to the amount billed to the customer, which is calculated by applying the fixed rate designated in the PPAs to the variable amount of electricity generated each month. This approach is in accordance with the "right to invoice" practical expedient provided for in ASC 606. We also recognize revenue upon the sale to third parties of tax credits received from operating the solar facilities and from amortizing a grant received from the federal government during the period starting when the power generating facilities were constructed until the expiration of the PPAs; these revenues are not derived from contracts with customers and therefore not under the scope of ASC 606.

Inventories. Inventories are stated at the lower of cost or net realizable value and include raw materials, work in process and finished goods. Items are removed from inventory using the first-in, first-out method. Work in process inventories are comprised of raw materials that have been converted into components for final assembly. Inventory amounts include the cost to manufacture the item, such as the cost of raw materials and related freight, labor and other applied overhead costs. We review our inventory for obsolescence. If the net realizable value, which is based upon the estimated selling price, less estimated costs of completion, disposal, and transportation, falls below cost, then the inventory value is reduced to its net realizable value. Our inventory obsolescence reserves at March 31, 2019 were $2.8 million, or 17.4% of gross inventory, and $3.4 million, or 30.1% of gross inventory, at March 31, 2018.

Allowance for Doubtful Accounts. We perform ongoing evaluations of our customers and continuously monitor collections and payments and estimate an allowance for doubtful accounts based upon the aging of the underlying receivables, our historical experience with write-offs and specific customer collection issues that we have identified. While such credit losses have historically been within our expectations, and we believe appropriate reserves have been established, we may not adequately predict future credit losses. If the financial condition of our customers were to deteriorate and result in an impairment of their ability to make payments, additional allowances might be required which would result in additional general and administrative expense in the period such determination is made. Our allowance for doubtful accounts was $0.2 million, or 1.4% of gross receivables, at March 31, 2019 and $0.2 million, or 1.7% of gross receivables, at March 31, 2018.

Recoverability of Long-Lived Assets. We evaluate long-lived assets such as property, equipment and definite lived intangible assets, such as patents, customer relationships, developed technology, and non-competition agreements, for impairment whenever events or circumstances indicate that the carrying value of the assets recognized in our financial statements may not be recoverable. Factors that we consider include whether there has been a significant decrease in the market value of an asset, a significant change in the way an asset is being utilized, or a significant change, delay or departure in our strategy for that asset, such as the loss of a customer in the case of customer relationships. Our assessment of the recoverability of long-lived assets involves significant judgment and estimation. These assessments reflect our assumptions, which, we believe, are consistent with the assumptions hypothetical marketplace participants use. Factors that we must estimate when performing recoverability and impairment tests include, among others, forecasted revenue, margin costs and the economic life of the asset. If impairment is indicated, we first determine if the total estimated future cash flows on an undiscounted basis are less than the carrying amounts of the asset or assets. If so, an impairment loss is measured and recognized.

During the second quarter of fiscal 2019, a triggering event occurred requiring us to evaluate our long-lived assets for impairment. Due to the central nature of our operations, our tangible and intangible definite-lived assets support our full operations, are utilized by all three of our reportable segments, and do not generate separately identifiable cash flows. As such, these assets together represent a single asset group. In reviewing the asset group for impairment, we elected to bypass the qualitative impairment assessment and went directly to performing the Step 1 recoverability test. We performed the Step 1 recoverability test for the asset group by calculating the carrying value to the group's expected future undiscounted cash flows. We concluded that the undiscounted cash flows of the definite lived asset group exceeded the carrying value. As such the asset group was deemed recoverable and no impairment was recorded.

During the second quarter of fiscal 2019, we listed our corporate office building in Manitowoc, Wisconsin for sale or lease to increase liquidity through the divestiture of a non-core asset. Because of the uncertainty of a sale of our building, management concluded that the sale is not probable within the next twelve months, therefore the building continues to be classified as held for use as of March 31, 2019. The building is included in our long-lived asset group, which was evaluated for impairment during the second quarter of fiscal 2019; the asset group was deemed recoverable and no impairment was recorded. However, as the building is currently listed for below its net book value, the sale of our building could result in a non-cash impairment charge.

Our impairment loss calculations require that we apply judgment in identifying asset groups, estimating future cash flows, determining asset fair values, and estimating asset's useful lives. To make these judgments, we may use internal discounted cash flow estimates, quoted market prices, when available, and independent appraisals, as appropriate, to determine fair value.

If actual results are not consistent with our assumptions and judgments used in estimating future cash flows and asset fair values, we may be required to recognize future impairment losses which could be material to our results of operations.

Indefinite Lived Intangible Assets. We test indefinite lived intangible assets for impairment at least annually on the first day of our fiscal fourth quarter, or when indications of potential impairment exist. We monitor for the existence of potential impairment indicators throughout the fiscal year. Our annual impairment test may begin with a qualitative test to determine whether it is more likely than not that an indefinite lived intangible asset's carrying value is greater than its fair value. If our qualitative assessment reveals that asset impairment is more likely than not, we perform a quantitative impairment test by comparing the fair value of the indefinite lived intangible asset to its carrying value. Alternatively, we may bypass the qualitative test and initiate impairment testing with the quantitative impairment test.

We performed a qualitative assessment in conjunction with our annual impairment test of our indefinite lived intangible assets as of January 1, 2019. This qualitative assessment considered our operating results for the first nine months of fiscal 2019 in comparison to prior years as well as its anticipated fourth quarter results and fiscal 2019 plan. As a result of the conditions that existed as of the assessment date, an asset impairment was not deemed to be more likely than not and a quantitative analysis was not required.

Stock-Based Compensation. We currently issue restricted stock awards to our employees, executive officers and directors. Prior to fiscal 2015, we also issued stock options to these individuals. We apply the provisions of ASC 718, *Compensation - Stock Compensation*, to these restricted stock and stock option awards which requires us to expense the estimated fair value of stock options and similar awards based on the fair value of the award on the date of grant. Compensation costs for equity incentives are recognized in earnings, on a straight-line basis over the requisite service period.

Accounting for Income Taxes. As part of the process of preparing our consolidated financial statements, we are required to determine our income taxes in each of the jurisdictions in which we operate. This process involves estimating our actual current tax expenses, together with assessing temporary differences resulting from recognition of items for income tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheet. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe that recovery is not likely, establish a valuation allowance. To the extent we establish a valuation allowance or increase this allowance in a period, we must reflect this increase as an expense within the tax provision in our statements of operations.

Our judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities, and any valuation allowance recorded against our net deferred tax assets. We continue to monitor the realizability of our deferred tax assets and adjust the valuation allowance accordingly. For fiscal 2019, 2018, and 2017 we have recorded a full valuation allowance against our net

federal and net state deferred tax assets due to our cumulative three-year taxable losses. In making these determinations, we considered all available positive and negative evidence, including projected future taxable income, tax planning strategies, recent financial performance and ownership changes.

We believe that past issuances and transfers of our stock caused an ownership change in fiscal 2007 that affected the timing of the use of our net operating loss carry-forwards, but we do not believe the ownership change affects the use of the full amount of the net operating loss carry-forwards. As a result, our ability to use our net operating loss carry-forwards attributable to the period prior to such ownership change to offset taxable income will be subject to limitations in a particular year, which could potentially result in increased future tax liability for us.

As of March 31, 2019, we had net operating loss carry-forwards of approximately $88.1 million for federal tax purposes and $74.1 million for state tax purposes. As of the prior fiscal year, this amount is representative of the entire loss carryforward on the filed returns.

We also had federal tax credit carry-forwards of $1.3 million and state tax credit carry-forwards of $0.8 million, which are fully reserved for as part of our valuation allowance. Of these tax attributes, $7.1 million of the federal and state net operating loss carry-forwards are not subject to time restrictions on use but may only be used to offset 80% of future adjusted taxable income. The $155.1 federal and state net operating loss and tax credit carry-forwards will begin to expire in varying amounts between 2020 and 2039.

We recognize penalties and interest related to uncertain tax liabilities in income tax expense. Penalties and interest were immaterial as of the date of adoption and are included in unrecognized tax benefits.

By their nature, tax laws are often subject to interpretation. Further complicating matters is that in those cases where a tax position is open to interpretation, differences of opinion can result in differing conclusions as to the amount of tax benefits to be recognized under Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 740, Income Taxes. ASC 740 utilizes a two-step approach for evaluating tax positions. Recognition (Step 1) occurs when an enterprise concludes that a tax position, based solely on its technical merits, is more likely than not to be sustained upon examination. Measurement (Step 2) is only addressed if Step 1 has been satisfied. Under Step 2, the tax benefit is measured as the largest amount of benefit, determined on a cumulative probability basis that is more likely than not to be realized upon ultimate settlement. Consequently, the level of evidence and documentation necessary to support a position prior to being given recognition and measurement within the financial statements is a matter of judgment that depends on all available evidence. As of March 31, 2019, the balance of gross unrecognized tax benefits was approximately $0.1 million, all of which would reduce our effective tax rate if recognized. We believe that our estimates and judgments discussed herein are reasonable, however, actual results could differ, which could result in gains or losses that could be material.

The Tax Cut and Jobs Act ("Act") was enacted on December 22, 2017. The Act significantly changes U.S. tax law by, among other things, reducing the U.S. federal corporate tax rate from 35% to 21%, imposing a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred, and creating new taxes on certain foreign sourced earnings. On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to address accounting for income tax effects of the Tax Reform Act. As of December 31, 2018, Orion did not adjust its estimates and considers all changes due to the Act final.

Recent Accounting Pronouncements

See Note 2 —Summary of Significant Accounting Policies to our accompanying audited consolidated financial statements for a full description of recent accounting pronouncements including the respective expected dates of adoption and expected effects on results of operations and financial condition.

Item 7A. Quantitative and Qualitative Disclosure About Market Risk

Market risk is the risk of loss related to changes in market prices, including interest rates, foreign exchange rates and commodity pricing that may adversely impact our consolidated financial position, results of operations or cash flows.

Inflation. Our results from operations have not historically been, and we do not expect them to be, materially affected by inflation.

Foreign Exchange Risk. We face minimal exposure to adverse movements in foreign currency exchange rates. Our foreign currency losses for all reporting periods have been nominal.

Interest Rate Risk. Our investments consist primarily of investments in money market funds. While the instruments we hold are subject to changes in the financial standing of the issuer of such securities, we do not believe that we are subject to any material risks arising from changes in interest rates, foreign currency exchange rates, commodity prices, equity prices or other market changes that affect market risk sensitive instruments. It is our policy not to enter into interest rate derivative financial instruments. As a result, we do not currently have any significant interest rate exposure.

As of March 31, 2019, $9.1 million of our $9.2 million of outstanding debt was at floating interest rates. An increase of 1.0% in the prime rate would result in an increase in our interest expense of approximately $0.1 million.

Commodity Price Risk. We are exposed to certain commodity price risks associated with our purchases of raw materials, most significantly our aluminum purchases. A hypothetical 20% fluctuation in aluminum prices would have an impact of $0.4 million on earnings in fiscal 2020.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors

Orion Energy Systems, Inc.

Manitowoc, Wisconsin

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Orion Energy Systems, Inc. (the "Company") as of March 31, 2019 and 2018, the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended March 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at March 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended March 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of March 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") and our report dated June 4, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

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

/s/ BDO USA, LLP

We have served as the Company's auditor since 2012.

Milwaukee, Wisconsin

June 4, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Directors

Orion Energy Systems, Inc.

Manitowoc, Wisconsin

Opinion on Internal Control over Financial Reporting

We have audited Orion Energy Systems, Inc.'s (the "Company's") internal control over financial reporting as of March 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of March 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of March 31, 2019 and 2018, the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended March 31, 2019, and the related notes and our report dated June 4, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/BDO USA, LLP

Milwaukee, Wisconsin

June 4, 2019

ORION ENERGY SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share amounts)

	March 31,	
	2019	2018
Assets		
Cash and cash equivalents	$ 8,729	$ 9,424
Accounts receivable, net	14,804	8,736
Revenue earned but not billed	3,746	—
Inventories, net	13,403	7,826
Deferred contract costs	—	1,000
Prepaid expenses and other current assets	695	2,467
Total current assets	41,377	29,453
Property and equipment, net	12,010	12,894
Other intangible assets, net	2,469	2,868
Other long-term assets	165	110
Total assets	$ 56,021	$ 45,325
Liabilities and Shareholders' Equity		
Accounts payable	$ 19,706	$ 11,675
Accrued expenses and other	7,410	4,171
Deferred revenue, current	123	499
Current maturities of long-term debt	96	79
Total current liabilities	27,335	16,424
Revolving credit facility	9,202	3,908
Long-term debt, less current maturities	81	105
Deferred revenue, long-term	791	940
Other long-term liabilities	642	524
Total liabilities	38,051	21,901
Commitments and contingencies (Note 13)		
Shareholders' equity:		
Preferred stock, $0.01 par value: Shares authorized: 30,000,000 shares at March 31, 2019 and 2018; no shares issued and outstanding at March 31, 2019 and 2018	—	—
Common stock, no par value: Shares authorized: 200,000,000 at March 31, 2019 and 2018; shares issued: 39,037,969 and 38,384,575 at March 31, 2019 and 2018; shares outstanding: 29,600,158 and 28,953,183 at March 31, 2019 and 2018	—	—
Additional paid-in capital	155,828	155,003
Treasury stock: 9,437,811 and 9,431,392 common shares at March 31, 2019 and 2018	(36,091)	(36,085)
Retained deficit	(101,767)	(95,494)
Total shareholders' equity	17,970	23,424
Total liabilities and shareholders' equity	$ 56,021	$ 45,325

ORION ENERGY SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except share and per share amounts)

	Fiscal Year Ended March 31,		
	2019	2018	2017
Product revenue	$ 56,261	$ 55,595	$ 66,224
Service revenue	9,493	4,705	3,987
Total revenue	65,754	60,300	70,211
Cost of product revenue	44,111	41,415	49,630
Cost of service revenue	7,091	4,213	3,244
Total cost of revenue	51,202	45,628	52,874
Gross profit	14,552	14,672	17,337
Operating expenses:			
General and administrative	10,231	13,159	14,777
Impairment of intangible assets	—	710	250
Sales and marketing	9,104	11,879	12,833
Research and development	1,374	1,905	2,004
Total operating expenses	20,709	27,653	29,864
Loss from operations	(6,157)	(12,981)	(12,527)
Other income (expense):			
Other income	80	248	215
Interest expense	(493)	(333)	(163)
Amortization of debt issue costs	(101)	(92)	(110)
Interest income	11	15	36
Total other expense	(503)	(162)	(22)
Loss before income tax	(6,660)	(13,143)	(12,549)
Income tax expense (benefit)	14	(15)	(261)
Net loss	$ (6,674)	$ (13,128)	$ (12,288)
Basic net loss per share attributable to common shareholders	$ (0.23)	$ (0.46)	$ (0.44)
Weighted-average common shares outstanding	29,429,540	28,783,830	28,156,382
Diluted net loss per share	$ (0.23)	$ (0.46)	$ (0.44)
Weighted-average common shares and share equivalents outstanding	29,429,540	28,783,830	28,156,382

ORION ENERGY SYSTEMS, INC. AND SUBSIDIARIES
STATEMENTS OF SHAREHOLDERS' EQUITY
(in thousands, except share amounts)

	Shareholders' Equity					
	Common Stock					
	Shares	Additional Paid-in Capital	Treasury Stock	Shareholder Notes Receivable	Retained Earnings (Deficit)	Total Shareholders' Equity
Balance, March 31, 2016	27,767,138	$ 152,140	$ (36,075)	$ (4)	$ (70,078)	$ 45,983
Issuance of stock for services	110,566	156	—	—	—	156
Shares issued under Employee Stock Purchase Plan	5,156	—	8	—	—	8
Stock-based compensation	444,102	1,605	—	—	—	1,605
Employee tax withholdings on stock-based compensation	(9,472)	—	(14)	—	—	(14)
Net loss	—	—	—	—	(12,288)	(12,288)
Balance, March 31, 2017	28,317,490	153,901	(36,081)	(4)	(82,366)	35,450
Issuance of stock for services	24,747	—	—	—	—	—
Shares issued under Employee Stock Purchase Plan	10,057	—	11	—	—	11
Stock-based compensation	612,601	1,102	—	—	—	1,102
Employee tax withholdings on stock-based compensation	(10,482)	—	(11)	—	—	(11)
Collections on stockholder notes	(1,230)		(4)	4		—
Net loss	—	—	—	—	(13,128)	(13,128)
Balance, March 31, 2018	28,953,183	155,003	(36,085)	—	(95,494)	23,424
Shares issued under Employee Stock Purchase Plan	4,642	—	4	—	—	4
Stock-based compensation	653,394	825	—	—	—	825
Collections on stockholder notes	(11,061)	—	(10)	—	—	(10)
Cumulative effect of accounting change due to adoption of ASC 606	—	—	—	—	401	401
Net loss	—	—	—	—	(6,674)	(6,674)
Balance, March 31, 2019	29,600,158	155,828	(36,091)	—	(101,767)	17,970

ORION ENERGY SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Fiscal Year Ended March 31,		
	2019	2018	2017
Operating activities			
Net loss	$ (6,674)	$ (13,128)	$ (12,288)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	1,339	1,404	1,451
Amortization of intangible assets	444	607	881
Stock-based compensation	825	1,102	1,605
Amortization of debt issue costs	101	92	110
Impairment of intangible assets	—	710	250
Provision for inventory reserves	(202)	1,261	2,212
Provision for bad debts	56	22	132
Other	57	(94)	178
Changes in operating assets and liabilities:			
Accounts receivable	(5,840)	419	1,687
Revenue earned but not billed	(1,390)	—	—
Inventories	(4,689)	4,706	1,220
Deferred contract costs	—	(65)	(899)
Prepaid expenses and other current assets	68	391	1,974
Accounts payable	8,916	20	(81)
Accrued expenses and other	1,975	(1,736)	(635)
Deferred revenue, current and long-term	(44)	(126)	300
Net cash used in operating activities	(5,058)	(4,415)	(1,903)
Investing activities			
Purchase of property and equipment	(381)	(512)	(660)
Additions to patents and licenses	(68)	(73)	(291)
Proceeds from sales of property, plant and equipment	—	—	2,600
Net cash (used in) provided by investing activities	(449)	(585)	1,649
Financing activities			
Payment of long-term debt	(80)	(158)	(880)
Proceeds from revolving credit facility	60,270	68,734	87,935
Payment of revolving credit facility	(54,976)	(71,456)	(85,025)
Payments to settle employee tax withholdings on stock-based compensation	(10)	(9)	(19)
Debt issue costs	(396)	—	—
Net proceeds from employee equity exercises	4	6	8
Net cash provided by (used in) financing activities	4,812	(2,883)	2,019
Net (decrease) increase in cash and cash equivalents	(695)	(7,883)	1,765
Cash and cash equivalents at beginning of period	9,424	17,307	15,542
Cash and cash equivalents at end of period	$ 8,729	$ 9,424	$ 17,307
Supplemental cash flow information:			
Cash paid for interest	$ (176)	$ (147)	$ (164)
Cash received for income taxes	$ 12	$ 17	$ 153
Supplemental disclosure of non-cash investing and financing activities:			
Purchase of property, plant and equipment by issuing a debt	$ 74	$ —	$ 175

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 — DESCRIPTION OF BUSINESS

Organization

Orion includes Orion Energy Systems, Inc., a Wisconsin corporation, and all consolidated subsidiaries. Orion is a developer, manufacturer and seller of lighting and energy management systems to commercial and industrial businesses, and federal and local governments, predominantly in North America.

Orion's corporate offices and leased primary manufacturing operations are located in Manitowoc, Wisconsin. Orion also leases office space in Jacksonville, Florida and warehouse space in Manitowoc, Wisconsin. During fiscal 2018 and fiscal 2017 Orion had leased warehouse space in Augusta, Georgia, but as of March 31, 2018, Orion had vacated this storage location.

In fiscal 2018, we did not renew the leases for our 5,600 square foot of office space in Houston, Texas and our 3,100 square foot of office space in Chicago, Illinois. The leases terminated as of April 30, 2018 and May 31, 2018, respectively.

NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The consolidated financial statements include the accounts of Orion Energy Systems, Inc. and its wholly-owned subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation.

Reclassifications

In the warranty rollforward in Note 9 – Accrued Expenses and Other, certain prior period balances have been reclassified to conform to current period presentation. The reclassifications were immaterial to the financial statements.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during that reporting period. Areas that require the use of significant management estimates include revenue recognition, inventory obsolescence and allowance for doubtful accounts, accruals for warranty and loss contingencies, income taxes, impairment analyses, and certain equity transactions. Accordingly, actual results could differ from those estimates.

Cash and Cash Equivalents

Orion considers all highly liquid, short-term investments with original maturities of three months or less to be cash equivalents.

Fair Value of Financial Instruments

Orion's financial instruments consist of cash and cash equivalents, accounts receivable, accounts payable, accrued expenses and other, revolving credit facility and long-term debt. The carrying amounts of Orion's financial instruments approximate their respective fair values due to the relatively short-term nature of these instruments, or in the case of long-term debt and revolving credit facility, because of the interest rates currently available to Orion for similar obligations. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. GAAP describes a fair value hierarchy based on the following three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

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.

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.

Allowance for Doubtful Accounts

Orion performs ongoing evaluations of its customers and continuously monitors collections and payments. Orion estimates an allowance for doubtful accounts based upon the aging of the underlying receivables, historical experience with write-offs and specific customer collection issues that have been identified. See Note 4 - Accounts Receivable for further discussion of the allowance for doubtful accounts.

Deferred Contract Costs

Deferred contract costs consist primarily of the costs of products delivered, and services performed, that are subject to additional performance obligations or customer acceptance. In the prior year, these deferred contract costs were expensed at the time the related revenue was recognized. Upon adoption of "Revenue from Contracts with Customers" (Topic 606) on April 1, 2018, this account was no longer used; there were no Deferred costs as of March 31, 2019. Deferred costs amounted to $1.0 million as of March 31, 2018.

Incentive Plan

Orion's compensation committee approved an Executive Fiscal Year 2019 Annual Cash Incentive Program. The program provided for performance cash bonus payments ranging from 50-100% of the fiscal 2019 base salaries of Orion's named executive officers and other key employees. The program provided for bonuses to be paid out on the basis of achieving positive net income in fiscal 2019. Based upon the results for the year ended March 31, 2019, Orion did not accrue any expense related to this plan.

Orion's compensation committee approved an Executive Fiscal Year 2018 Annual Cash Incentive Program. The program provided for performance cash bonus payments ranging from 50-100% of the fiscal 2018 base salaries of Orion's named executive officers and other key employees. The program provided for bonuses to be paid out on the basis of achieving positive EBITDA in fiscal 2018. Based upon the results for the year ended March 31, 2018, Orion did not accrue any expense related to this plan.

Orion's compensation committee approved an Executive Fiscal Year 2017 Annual Cash Incentive Program. The program provided for performance cash bonus payments ranging from 35-100% of the fiscal 2017 base salaries of Orion's named executive officers and other key employees. The program provided for bonuses to be paid out on the basis of the achievement in fiscal 2018 of at least (i) $0.5 million of profit before taxes and (ii) revenue growth of 10% more than fiscal year 2016. Based upon the results for the year ended March 31, 2017, Orion did not accrue any expense related to this plan.

Revenue Recognition

Periods prior to April 1, 2018

Revenue was recognized in accordance with the revenue recognition requirements in “Revenue Recognition” (Topic 605) (“ASC 605”) when the following criteria were met:

1. persuasive evidence of an arrangement exists;
2. delivery has occurred and title has passed to the customer;
3. the sales price is fixed and determinable and no further obligation exists; and
4. collectability is reasonably assured.

Revenue was recorded net of estimated provisions for returns, early payment discounts and rebates and other consideration paid to Orion’s customers. Revenues were presented net of sales tax and other sales related taxes.

For sales of Orion’s lighting and energy management technologies under multiple element arrangements, consisting of a combination of product sales and services, Orion determines revenue by allocating the total contract revenue to each element based on their relative selling prices in accordance with ASC 605-25, Revenue Recognition - Multiple Element Arrangements. In such circumstances, Orion uses a hierarchy to determine the selling price to be used for allocating revenue to deliverables: (1) vendor-specific objective evidence ("VSOE") of fair value, if available, (2) third-party evidence ("TPE") of selling price if VSOE is not available, and (3) best estimate of the selling price if neither VSOE nor TPE is available (a description as to how Orion determines estimated selling price is provided below).

The nature of Orion’s multiple element arrangements for the sale of its lighting and energy management technologies is similar to a construction project, with materials being delivered and contracting and project management activities occurring according to an installation schedule. The significant deliverables include the shipment of products and related transfer of title and the installation.

To determine the selling price in multiple-element arrangements, Orion establishes the selling price for its energy management system products using management's best estimate of the selling price, as VSOE and TPE do not exist. Product revenue is recognized when title and risk of loss for the products transfers. For product revenue, management's best estimate of selling price is determined using a cost plus gross profit margin method.

In addition, Orion records in service revenue the selling price for its installation and recycling services using management’s best estimate of selling price, as VSOE and TPE do not exist. Service revenue is recognized when services are completed and customer acceptance has been received. Recycling services provided in connection with installation entail the disposal of the customer’s legacy lighting fixtures. Orion’s service revenues, other than for installation and recycling that are completed prior to delivery of the product, are included in product revenue using management’s best estimate of selling price, as VSOE and TPE do not exist. These services include comprehensive site assessment, site field verification, utility incentive and government subsidy management, engineering design, and project management. For these services, along with Orion's installation and recycling services, under a multiple-element arrangement, management’s best estimate of selling price is determined using a cost plus gross profit margin method with consideration given to other relevant economic conditions and trends, customer demand, pricing practices, and margin objectives. The determination of an estimated selling price is made through consultation with and approval by management, taking into account the preceding factors.

Deferred revenue relates to advance customer billings, investment tax grants received related to PPAs and long term maintenance contracts on OTAs and is classified as a liability on the consolidated balance sheet. The fair value of the maintenance is readily determinable based upon pricing from third-party vendors. Deferred revenue related to maintenance services is recognized when the services are delivered, which occurs in excess of a year after the original OTA contract is executed.

Period Commencing April 1, 2018

General Information

Orion generates revenues primarily by selling commercial lighting fixtures and components and by installing these fixtures in its customer's facilities. Orion recognizes revenue in accordance with the guidance in "Revenue from Contracts with Customers" (Topic 606) ("ASC 606") when control of the goods or services being provided (which Orion refers to as a performance obligation) is transferred to a customer at an amount that reflects the consideration that management expects to receive in exchange for those goods or services. Prices are generally fixed at the time of order confirmation. The amount of expected consideration includes estimated deductions and early payment discounts calculated based on historical experience, customer rebates based on agreed upon terms applied to actual and projected sales levels over the rebate period, and any amounts paid to customers in conjunction with fulfilling a performance obligation.

If there are multiple performance obligations in a single contract, the contract's total sales price is allocated to each individual performance obligation based on their relative standalone selling price. A performance obligation's standalone selling price is the price at which Orion would sell such promised good or service separately to a customer. Orion uses an observable price to determine the stand-alone selling price for separate performance obligations or a cost-plus margin approach when one is not available. The cost-plus margin approach is used to determine the stand-alone selling price for the installation performance obligation and is based on average historical installation margin.

Revenue derived from customer contracts which include only performance obligation(s) for the sale of lighting fixtures and components is classified as Product revenue in the Consolidated Statements of Operations. The revenue for these transactions is recorded at the point in time when management believes that the customer obtains control of the products, generally either upon shipment or upon delivery to the customer's facility. This point in time is determined separately for each contract and requires judgment by management of the contract terms and the specific facts and circumstances concerning the transaction.

Revenue from a customer contract which includes both the sale of fixtures and the installation of such fixtures (which Orion refers to as a turnkey project) is allocated between each lighting fixture and the installation performance obligation based on relative standalone selling prices.

Revenue from turnkey projects that is allocated to the sale of the lighting fixtures is recorded at the point in time when management believes the customer obtains control of the product(s) and is reflected in Product revenue. This point in time is determined separately for each customer contract based upon the terms of the contract and the nature and extent of Orion's control of the light fixtures during the installation. Product revenue associated with turnkey projects can be recorded (a) upon shipment or delivery, (b) subsequent to shipment or delivery and upon customer payments for the light fixtures, (c) when an individual light fixture is installed and working correctly, or (d) when the customer acknowledges that the entire installation project is substantially complete. Determining the point in time when a customer obtains control of the lighting fixtures in a turnkey project can be a complex judgment and is applied separately for each individual light fixture included in a contract. In making this judgment, management considers the timing of various factors, including, but not limited to, those detailed below:

- when there is a legal transfer of ownership;
- when the customer obtains physical possession of the products;
- when the customer starts to receive the benefit of the products;
- the amount and duration of physical control that Orion maintains on the products after they are shipped to, and received at, the customer's facility;
- whether Orion is required to maintain insurance on the lighting fixtures when they are in transit and after they are delivered to the customer's facility;
- when each light fixture is physically installed and working correctly;
- when the customer formally accepts the product; and
- when Orion receives payment from the customer for the light fixtures.

Revenue from turnkey projects that is allocated to the single installation performance obligation is reflected in Service revenue. Service revenue is recorded over-time as Orion fulfills its obligation to install the light fixtures. Orion measures its performance toward fulfilling its performance obligations for installations using an output method that calculates the number of light fixtures completely installed as of the measurement date in comparison to the total number of light fixtures to be installed under the contract.

Most products are manufactured in accordance with Orion's standard specifications. However, some products are manufactured to a customer's specific requirements with no alternative use to Orion. In such cases, and when Orion has an enforceable right to payment, Product revenue is recorded on an over-time basis measured using an input methodology that calculates the costs incurred to date as compared to total expected costs. There was no over-time revenue related to custom products recognized in fiscal year 2019.

Orion offers a financing program, called an Orion Throughput Agreement, or OTA, for a customer's lease of Orion's energy management systems. The OTA is structured as a sales-type lease and upon successful installation of the system and customer acknowledgment that the system is operating as specified, revenue is recognized at Orion's net investment in the lease, which typically is the net present value of the future cash flows.

Orion also records revenue in conjunction with several limited power purchase agreements ("PPAs") still outstanding. Those PPAs are supply-side agreements for the generation of electricity. Orion's last PPA expires in 2031. Revenue associated with the sale of energy generated by the solar facilities under these PPAs is within the scope of ASC 606. Revenues are recognized over-time and are equal to the amount billed to the customer, which is calculated by applying the fixed rate designated in the PPAs to the variable amount of electricity generated each month. This approach is in accordance with the "right to invoice" practical expedient provided for in ASC 606. Orion also recognizes revenue upon the sale to third parties of tax credits received from operating the solar facilities and from amortizing a grant received from the federal government during the period starting when the power generating facilities were constructed until the expiration of the PPAs; these revenues are not derived from contracts with customers and therefore not under the scope of ASC 606.

When shipping and handling activities are performed after a customer obtains control of the product, Orion has elected to treat shipping and handling costs as an activity necessary to fulfill the performance obligation to transfer product to the customer and not as a separate performance obligation. Any shipping and handling costs charged to customers are recorded in Product revenue. Shipping and handling costs are accrued and included in Cost of product revenue.

See Note 9, Accrued Expenses and Other for a discussion of Orion's accounting for the warranty it provides to customers for its products and services.

Sales taxes collected from customers and remitted to governmental authorities are accounted for on a net (excluded from revenues) basis.

Shipping and Handling Costs

Orion records costs incurred in connection with shipping and handling of products as cost of product revenue. Amounts billed to customers in connection with these costs are included in product revenue.

Research and Development

Orion expenses research and development costs as incurred. Amounts are included in the Statement of Operations and Comprehensive Income on the line item Research and development.

Income Taxes

Orion recognizes deferred tax assets and liabilities for the future tax consequences of temporary differences between financial reporting and income tax basis of assets and liabilities, measured using the enacted tax rates and laws expected to be in effect when the temporary differences reverse. Deferred income taxes also arise from the future tax benefits of operating loss and tax credit carry-forwards. A valuation allowance is established when management determines that it is more likely than not that all or a portion of a deferred tax asset will not be realized. For the fiscal year ended March 31, 2019, Orion increased its full valuation allowance by $1.6 million against its deferred tax assets due to the increase in its deferred tax assets.

ASC 740, *Income Taxes*, also prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination. Orion has classified the amounts recorded for uncertain tax benefits in the balance sheet as other liabilities (non-current) to the extent that payment is not anticipated within one year. Orion recognizes penalties and interest related to uncertain tax liabilities in income tax expense. Penalties and interest are immaterial and are included in the unrecognized tax benefits.

The Tax Cut and Jobs Act ("ACT") was enacted December 22, 2017. Further information on the impacts of the Act can be found in Note 13, Income Taxes.

Stock Based Compensation

Orion's share-based payments to employees are measured at fair value and are recognized in earnings, on a straight-line basis over the requisite service period.

Orion accounts for stock-based compensation in accordance with ASC 718, Compensation - Stock Compensation. Under the fair value recognition provisions of ASC 718, stock-based compensation is measured at the grant date based on the fair value of the award and is recognized as expense ratably over the requisite service period. As more fully described in Note 15 - Stock Options and Restricted Shares, Orion currently awards non-vested restricted stock to employees, executive officers and directors. Orion did not issue any stock options during fiscal 2019, fiscal 2018 or fiscal 2017.

Orion has not paid dividends in the past and does not plan to pay any dividends in the foreseeable future. Orion estimates its forfeiture rate of unvested stock awards based on historical experience.

Concentration of Credit Risk and Other Risks and Uncertainties

Orion's cash is deposited with two financial institutions. At times, deposits in these institutions exceed the amount of insurance provided on such deposits. Orion has not experienced any losses in such accounts and believes that it is not exposed to any significant financial institution viability risk on these balances.

Orion purchases components necessary for its lighting products, including ballasts, lamps and LED components, from multiple suppliers. For fiscal 2019, 2018 and 2017, no supplier accounted for more than 10% of total cost of revenue.

In fiscal 2019, one customer accounted for 20.7% of total revenue. In fiscal 2018, two customers accounted for 11.7% and 10.8% of total revenue. In fiscal 2017, no customer accounted for 10% of revenue.

As of March 31, 2019, one customer accounted for 56.2% of accounts receivable and as of March 31, 2018, one customer accounted for 13.2% of accounts receivable.

Recent Accounting Pronouncements

Issued: Not Yet Adopted

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02, "Leases" (Subtopic 842). The pronouncement, and subsequent amendments, is included in the Accounting Standards Codification as Subtopic 842 ("ASC 842"). For Orion, the primary impact of the adoption of ASC 842 will be the recognition of right-of-use assets and liabilities on the balance sheet for the rights and obligations created by contracts where Orion is leasing assets from third parties for periods in excess of one year. Previously, the financial impact associated with such contracts was recorded only in Orion's statement of operations. Additional quantitative and qualitative disclosures about Orion's lease arrangements are also required.

Orion implemented ASC 842 at the start of the first quarter of the fiscal year ending March 31, 2020 using the optional transition method under which the new standard is applied only to the most current period presented and the cumulative effect of applying the new standards to existing lease agreements is recognized at the date of initial application. Adoption of ASC 842 resulted in the recording of additional right-of-use lease assets and lease liabilities of approximately $0.2 million for operating lease agreements associated with assets used by Orion but owned by a third party. There was no adjustment to retained deficit. Orion also leases assets to third parties under capital and sales-type leases. There was no financial statement impact from the adoption of ASC 842 on the contracts where Orion leases assets to third parties.

Determining whether a contract includes a lease, and assessing whether the lease should be accounted for as a finance lease or an operating lease, is a matter of judgment based on whether the risks and rewards as well as substantive control of the associated with the assets specified in the contract have been transferred from the lessor to the lessee. Orion implemented the appropriate changes to business processes and controls to support recognition and disclosure under the new standard, including the new qualitative and quantitative disclosures that will include information on the nature, amount, timing and significant judgments impacting revenue from contracts with customers.

Orion management believes that the adoption of ASC 842 will not materially impact Orion's future consolidated results of operations and will have no impact on Orion's future cash flows.

Recently Adopted Standards

On April 1, 2018, Orion adopted ASU 2014-09 and subsequent amendments, which is included in the Accounting Standards Codification as "Revenue from Contracts with Customers" (Topic 606) ("ASC 606") and Sub-Topic 340-40 ("ASC 340-40"), using the modified retrospective approach. ASC 606 superseded the revenue recognition requirements in "Revenue Recognition" (Topic 605) ("ASC 605") and provides guidance on the accounting for other assets and deferred costs associated with contracts with customers. ASC 606 requires entities to recognize revenue when control of the promised goods or services is transferred to customers at an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. ASC 340-40 limits the circumstances that an entity can recognize an asset from the costs incurred to obtain or fulfill a contract that are not subject to the guidance in other portions in the Accounting Standards Codification, such as those related to inventory. The provisions of ASC 606 and ASC 340-40 require entities to use more judgments and estimates than under previous guidance when allocating the total consideration in a contract to the individual promises to customers ("performance obligations") and determining when a performance obligation has been satisfied and revenue can be recognized. Orion's adoption of ASC 606 did not have a material effect on Orion's financial statements. Orion has updated its processes and controls necessary for implementing ASC 606, including the increased footnote disclosure requirements.

In August 2016, the FASB issued ASU 2016-15, "Classification of Certain Cash Receipts and Cash Payments," which provided clarification and additional guidance as to the presentation and classification of certain cash receipts and cash payments in the statement of cash flows. This ASU provided guidance as to the classification of a number of transactions including: contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims, proceeds from the settlement of corporate-owned life insurance policies, and distributions received from equity method investees. This new ASU was effective for Orion beginning in the first quarter of fiscal 2019 and has been applied through retrospective adjustment to all periods presented. The adoption of this ASU did not have a material impact on Orion's consolidated financial statements.

In May 2017, the FASB issued ASU 2017-09, "Compensation-Stock Compensation: Scope of Modification Accounting" which provides guidance about which changes to the terms or conditions of a share-based payment award would require an entity to apply modification accounting. The provisions of this ASU were effective for Orion beginning on April 1, 2018. The adoption of this ASU did not have a material impact on Orion's consolidated financial statements.

NOTE 3 — REVENUE

Changes in Accounting Policies

Orion adopted ASC 606 and ASC 340-40 (the “new standards”) as of April 1, 2018 for contracts with customers that were not fully complete as of April 1, 2018 using the modified retrospective transition method. The cumulative effect of initially applying the new standards was recorded as a $0.4 million adjustment to the opening balance of retained deficit within Orion’s Consolidated Statement of Shareholders’ Equity.

The new standards are applied separately for each contract between Orion and a customer. While the impact of the new standards vary for each contract based on its specific terms, in general, the new standards result in Orion (a) delaying the recognition of some of its Product revenue from the point of shipment until a later date during the installation period, (b) recording Service revenue associated with installing lighting fixtures as such fixtures are installed instead of recording all Service revenue at the completion of the installation, and (c) recording costs associated with installing lighting fixtures as they are incurred instead of deferring such costs and recognizing them at the time Service revenue was recorded.

The adoption of the new standards also resulted in reclassifications (a) between Product revenue and Service revenue, and between Cost of service revenue and Sales and marketing expenses in Orion’s Consolidated Statements of Operations, and (b) between Accounts receivable, net, Revenue earned but not billed, Inventories, net, Deferred contract costs, Prepaid expenses and other current assets, Accounts payable, Accrued expenses and other, Deferred revenue, current, Deferred revenue, long-term, and Other long-term liabilities in Orion’s Consolidated Balance Sheets.

For all adjustments and changes as a result of adopting the new standards for the current period, refer to the section “Impacts on Financial Statements” below. In accordance with the modified retrospective transition method, the historical information within Orion’s financial statements has not been restated and continues to be reported under the accounting standard in effect for those periods. As a result, Orion has disclosed the accounting policies in effect prior to April 1, 2018, as well as the policies applied starting April 1, 2018.

Revenue Recognition

See Note 2, Summary of Significant Accounting Policies for a discussion of Orion’s accounting policies in effect prior to April 1, 2018, as well as the policies applied starting April 1, 2018 in regards to revenue recognition.

Contract Fulfillment Costs

Costs associated with product sales are accumulated in inventory as the fixtures are manufactured and are transferred to Cost of product revenue at the time revenue is recorded. See Note 5, Inventories, Net. Costs associated with installation sales are expensed as incurred.

Disaggregation of Revenue

Orion’s Product revenue includes revenue from contracts with customers accounted for under the scope of ASC 606 and revenue which is accounted for under other guidance. For fiscal year 2019, Product revenue included $3.4 million derived from sales-type leases for light fixtures, $0.2 million derived from the sale of tax credits generated from Orion’s legacy operation for distributing solar energy, and $0.1 million derived from the amortization of federal grants received in 2010 and 2011 as reimbursement for a portion of the costs to construct the legacy solar facilities which are not under the scope of ASC 606. All remaining Product revenue, and all Service revenue, are derived from contracts with customers as defined in ASC 606.

The primary end-users of Orion’s lighting products and services are (a) the federal government, and (b) commercial or industrial companies.

The federal government obtains Orion products and services primarily through turnkey project sales that Orion makes to a select group of contractors who focus on the federal government. Revenues associated with government end-users are primarily included in the Orion Engineered Systems Division segment.

Commercial or industrial end-users obtain Orion products and services through turnkey project sales or by purchasing products either direct from Orion or through distributors or energy service companies ("ESCOs"). Revenues associated with commercial and industrial end-users are included within each of Orion's segments, dependent on the sales channel.

See Footnote 16, Segment Data, for additional discussion concerning Orion's reportable segments.

The following table provides detail of Orion's total revenues for the year ended March 31, 2019 (dollars in thousands):

	Year Ended March 31, 2019		
	Product	**Services**	**Total**
Revenue from contracts with customers:			
Lighting revenues, by end user			
Federal government	$ 2,579	$ 642	$ 3,221
Commercial and industrial	49,963	8,851	58,814
Total lighting	52,542	9,493	62,035
Solar energy related revenues	57	—	57
Total revenues from contracts with customers	52,599	9,493	62,092
Revenue accounted for under other guidance	3,662	—	3,662
Total revenue	$ 56,261	$ 9,493	$ 65,754

Cash Flow Considerations

Customer payments for material only orders are due shortly after shipment.

Turnkey projects where the end-user is the federal government typically span a three to six-month period. The contracts for these sales often provide for monthly progress payments equal to ninety percent (90%) of the value provided by Orion during the month.

Turnkey projects where the end-user is a commercial or industrial company typically span between two weeks to three months. Customer payment requirements for these projects vary by contract. Some contracts provide for customer payments for products and services as they are delivered, other contracts specify that the customer will pay for the project in its entirety upon completion of the installation.

Orion provides long-term financing to one customer who frequently engages Orion in large turnkey projects that span between three and nine months. The customer executes an agreement providing for monthly payments of the contract price, plus interest, over a five-year period. The total transaction price in these contracts is allocated between product and services in the same manner as all other turnkey projects. The portion of the transaction associated with the installation is accounted for consistently with all other installation related performance obligations. The portion of the transaction associated with the sale of the multiple individual light fixtures is accounted for as sales-type leases in accordance with ASC 840, "Leases". Revenues associated with the sales-type leases are included in Product revenue and recorded for each fixture separately based on the customer's monthly acknowledgment that specified fixtures have been installed and are operating as specified.

The payments associated with these transactions that are due during the twelve months subsequent to March 31, 2019 are included in Accounts receivable, net in Orion's Consolidated Balance Sheets. The remaining amounts due that are associated with these transactions are included in Other long-term assets in Orion's Consolidated Balance Sheets.

The customer's monthly payment obligation commences after completion of the turnkey project. Orion generally sells the receivable from the customer to an independent financial institution either during, or shortly after completion of, the installation period. Upon execution of the receivables purchase / sales agreement, all amounts due from the customer are included in Revenues earned but not billed on Orion's Consolidated Balance Sheets until cash is received from the financial institution. The financial institution releases funds to Orion based on the customer's monthly acknowledgment of the progress Orion has achieved in fulfilling its installation obligation. Orion provides the progress certifications to the financial institution one month in arrears.

The total amount received from the sales of these receivables during the twelve months ended March 31, 2019 was $6.9 million. Orion's losses on these sales aggregated to $0.3 million for the twelve months ended March 31, 2019 and is included in Interest expense in the Consolidated Statements of Operations.

Practical Expedients and Exemptions

Orion expenses sales commissions when incurred because the amortization period is one year or less. These costs are recorded within Sales and marketing expense. There are no other capitalizable costs associated with obtaining contracts with customers.

Orion's performance obligations related to lighting fixtures typically do not exceed nine months in duration. As a result, Orion has elected the practical expedient that provides an exemption to the disclosure requirements regarding information about value assigned to remaining performance obligations on contracts that have original expected durations of one year or less.

Orion has also adopted the practical expedient that provides an exemption to the disclosure requirement of the value assigned to performance obligations associated with contracts that were not complete as of April 1, 2018.

Orion also elected the practical expedient that permits companies to not disclose quantitative information about the future revenue when revenue is recognized as invoices are issued to customers for services performed.

Other than the turnkey projects which result in sales-type leases discussed above, Orion generally receives full payment for satisfied performance obligations in less than one year. Accordingly, Orion does not adjust revenues for the impact of any potential significant financing component as permitted by the practical expedients provided in ASC 606.

Contract Balances

A receivable is recognized when Orion has an enforceable right to payment in accordance with contract terms and an invoice has been issued to the customer. Payment terms on invoiced amounts are typically 30 days from the invoice date.

Revenue earned but not billed represents revenue that has been recognized in advance of billing the customer, which is a common practice in Orion turnkey contracts. Once Orion has an unconditional right to consideration under a turnkey contract, Orion typically bills the customer accordingly and reclassifies the amount to Accounts receivable, net. Revenue earned but not billed as of March 31, 2019 and April 1, 2018 includes $0.7 million and $0.6 million, respectively, which was not derived from contracts with customers and therefore not classified as a contract asset as defined by the new standards.

Deferred revenue, current as of March 31, 2019, included $48 thousand of contract liabilities which represented consideration received from customers prior to the point that Orion has fulfilled the promises included in a performance obligation and recorded revenue.

Deferred revenue, long-term consists of the unamortized portion of the funds received from the federal government in 2010 and 2011 as reimbursement for the costs to build the two facilities related to the PPAs. As the transaction is not considered a contract with a customer, this value is not a contract liability as defined by the new standards.

The following chart shows the balance of Orion's receivables arising from contracts with customers, contract assets and contract liabilities as of March 31, 2019, and April 1, 2018, after the adoption of the new standards (dollars in thousands):

	March 31, 2019	April 1, 2018
Accounts receivable, net	$ 14,804	$ 9,020
Contract assets	$ 3,005	$ 1,773
Contract liabilities	$ 48	$ 13

There were no significant changes in the contract assets outside of standard reclassifications to Accounts receivable, net upon billing. There were no significant changes to contract liabilities.

Impact on Financial Statements (in thousands)

	As Reported March 31, 2019	Adjustments	Balances without application of ASC 606 As of March 31, 2019
Assets			
Cash and cash equivalents	$ 8,729	$ —	$ 8,729
Accounts receivable, net	14,804	(67)	14,737
Revenue earned but not billed	3,746	(3,746)	—
Inventories, net	13,403	(351)	13,052
Deferred contract costs	0	396	396
Prepaid expenses and other current assets	695	3,419	4,114
Total current assets	41,377	(349)	41,028
Property and equipment, net	12,010	—	12,010
Other intangible assets, net	2,469	—	2,469
Other long-term assets	165	—	165
Total assets	$ 56,021	$ (349)	$ 55,672
Liabilities and Shareholders' Equity			
Accounts payable	$ 19,706	$ 987	$ 20,693
Accrued expenses and other	7,410	(1,193)	6,217
Deferred revenue, current	123	51	174
Current maturities of long-term debt	96	—	96
Total current liabilities	27,335	(155)	27,180
Revolving credit facility	9,202	—	9,202
Long-term debt, less current maturities	81	—	81
Deferred revenue, long-term	791	104	895
Other long-term liabilities	642	(104)	538
Total liabilities	38,051	(155)	37,896
Commitments and contingencies			
Shareholders' equity:			
Preferred stock	—	—	—
Common stock	—	—	—
Additional paid-in capital	155,828	—	155,828
Treasury stock	(36,091)	—	(36,091)
Retained deficit	(101,767)	(194)	(101,961)
Total shareholders' equity	17,970	(194)	17,776
Total liabilities and shareholders' equity	$ 56,021	$ (349)	$ 55,672

	Year Ended March 31, 2019 (in thousands)		
	As Reported	Adjustments	Balances without application of ASC 606
Product revenue	$ 56,261	$ 2,191	$ 58,452
Service revenue	9,493	(2,143)	7,350
Total revenue	65,754	48	65,802
Cost of product revenue	44,111	1	44,112
Cost of service revenue	7,091	(1,472)	5,619
Total cost of revenue	51,202	(1,471)	49,731
Gross profit	14,552	1,519	16,071
Operating expenses:			
General and administrative	10,231	—	10,231
Sales and marketing	9,104	1,459	10,563
Research and development	1,374	—	1,374
Total operating expenses	20,709	1,459	22,168
Loss from operations	(6,157)	60	(6,097)
Other income (expense):			
Other income	80	—	80
Interest expense	(493)	19	(474)
Amortization of debt issue costs	(101)		(101)
Interest income	11	—	11
Total other expense	(503)	19	(484)
Loss before income tax	(6,660)	79	(6,581)
Income tax expense	14	—	14
Net loss	$ (6,674)	$ 79	$ (6,595)

	Year Ended March 31, 2019 (in thousands)		
	As Reported	Adjustments	Balances without application of ASC 606
Operating activities			
Net loss	$ (6,674)	$ 79	$ (6,595)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	1,339	—	1,339
Amortization of intangible assets	444	—	444
Stock-based compensation	825	—	825
Amortization of debt issue costs	101	—	101
Provision for inventory reserves	(202)	—	(202)
Provision for bad debts	56	—	56
Other	57	—	57
Changes in operating assets and liabilities:			
Accounts receivable	(5,840)	(217)	(6,057)
Revenue earned but not billed	(1,390)	1,390	—
Inventories	(4,689)	(335)	(5,024)
Deferred contract costs	0	599	599
Prepaid expenses and other assets	68	(1,512)	(1,444)
Accounts payable	8,916	102	9,018
Accrued expenses and other	1,975	84	2,059
Deferred revenue, current and long-term	(44)	(190)	(234)
Net cash used in operating activities	(5,058)	—	(5,058)
Investing activities			
Purchases of property and equipment	(381)	—	(381)
Additions to patents and licenses	(68)	—	(68)
Net cash used in investing activities	(449)	—	(449)
Financing activities			
Payment of long-term debt	(80)	—	(80)
Proceeds from revolving credit facility	60,270	—	60,270
Payment of revolving credit facility	(54,976)	—	(54,976)
Payments to settle employee tax withholdings on stock-based compensation	(10)	—	(10)
Debt issue costs	(396)	—	(396)
Net proceeds from employee equity exercises	4	—	4
Net cash used in financing activities	4,812	—	4,812
Net decrease in cash and cash equivalents	(695)	—	(695)
Cash and cash equivalents at beginning of period	9,424	—	9,424
Cash and cash equivalents at end of period	$ 8,729	$ —	$ 8,729

NOTE 4 — ACCOUNTS RECEIVABLE

Orion’s accounts receivable are due from companies in the commercial, governmental, industrial and agricultural industries, as well as wholesalers. Credit is extended based on an evaluation of a customer’s financial condition. Generally, collateral is not required for end users; however, the payment of certain trade accounts receivable from wholesalers is secured by irrevocable standby letters of credit and/or guarantees. Accounts receivable are generally due within 30-60 days. Accounts receivable are stated at the amount Orion expects to collect from outstanding balances. Orion provides for probable uncollectible amounts through a charge to earnings and a credit to an allowance for doubtful accounts based on its assessment of the current status of individual accounts. Balances that are still outstanding after Orion has used reasonable collection efforts are written off through a charge to the allowance for doubtful accounts and a credit to accounts receivable. Orion's accounts receivable and allowance for doubtful accounts balances were as follows (dollars in thousands):

	2019	2018
Accounts receivable, gross	$ 15,011	$ 8,886
Allowance for doubtful accounts	(207)	(150)
Accounts receivable, net	$ 14,804	$ 8,736

NOTE 5 — INVENTORIES

Inventories consist of raw materials and components, such as drivers, metal sheet and coil stock and molded parts; work in process inventories, such as frames and reflectors; and finished goods, including completed fixtures and systems, and accessories. All inventories are stated at the lower of cost or net realizable value with cost determined using the first-in, first-out (FIFO) method. Orion reduces the carrying value of its inventories for differences between the cost and estimated net realizable value, taking into consideration usage in the preceding 9 to 12 months, expected demand, and other information indicating obsolescence. Orion records, as a charge to cost of product revenue, the amount required to reduce the carrying value of inventory to net realizable value. As of March 31, 2019 and 2018, Orion's inventory balances were as follows (dollars in thousands):

	Cost	Excess and Obsolescence Reserve	Net
As of March 31, 2019			
Raw materials and components	$ 9,161	$ (1,393)	$ 7,768
Work in process	1,010	(269)	741
Finished goods	6,056	(1,162)	4,894
Total	$ 16,227	$ (2,824)	$ 13,403
As of March 31, 2018			
Raw materials and components	$ 6,073	$ (1,363)	$ 4,710
Work in process	1,190	(263)	927
Finished goods	3,934	(1,745)	2,189
Total	$ 11,197	$ (3,371)	$ 7,826

Costs associated with the procurement and warehousing of inventories, such as inbound freight charges and purchasing and receiving costs, are also included in cost of product revenue.

NOTE 6 — PREPAID EXPENSES AND OTHER CURRENT ASSETS

Prepaid expenses and other current assets consist primarily of prepaid insurance premiums, prepaid license fees, purchase deposits, advance payments to contractors, unbilled receivables, and prepaid taxes. Prepaid expenses and other current assets include the following (dollars in thousands):

	March 31, 2019	March 31, 2018
Unbilled accounts receivable (1)	$ —	$ 1,910
Other prepaid expenses	695	557
Total	$ 695	$ 2,467

(1) As of April 1, 2018, in conjunction with the adoption of ASC 606, the balance of Unbilled accounts receivable was included in Revenue earned but not billed on the Consolidated Balance Sheets.

NOTE 7 — PROPERTY AND EQUIPMENT

Property and equipment are stated at cost. Expenditures for additions and improvements are capitalized, while replacements, maintenance and repairs, which do not improve or extend the lives of the respective assets, are expensed as incurred. Properties and equipment sold, or otherwise disposed of, are removed from the property and equipment accounts, with gains or losses on disposal credited or charged to income from operations.

Orion periodically reviews the carrying values of property and equipment for impairment in accordance with ASC 360, Property, Plant and Equipment, if events or changes in circumstances indicate that the assets may be impaired. The estimated future undiscounted cash flows expected to result from the use of the assets and their eventual disposition are compared to the assets' carrying amount to determine if a write down to market value is required.

As of September 30, 2018, a triggering event occurred requiring Orion to evaluate its long-lived assets for impairment. Due to the central nature of its operations, Orion’s tangible and intangible definite-lived assets support its full operations, are utilized by all three of its reportable segments, and do not generate separately identifiable cash flows. As such, these assets together represent a single asset group. In reviewing the asset group for impairment, Orion elected to bypass the qualitative impairment assessment and went directly to performing the Step 1 recoverability test. Orion performed the Step 1 recoverability test for the asset group comparing its carrying value to the group’s expected future undiscounted cash flows. Orion concluded that the undiscounted cash flows of the long lived asset group exceeded its carrying value. As such the asset group was deemed recoverable and no impairment was recorded.

Property and equipment were comprised of the following (dollars in thousands):

	March 31, 2019	March 31, 2018
Land and land improvements	$ 433	$ 424
Buildings and building improvements	9,245	9,245
Furniture, fixtures and office equipment	7,238	7,096
Leasehold improvements	324	324
Equipment leased to customers	4,997	4,997
Plant equipment	12,211	12,106
Construction in progress	43	—
	34,491	34,192
Less: accumulated depreciation and amortization	(22,481)	(21,298)
Net property and equipment	$ 12,010	$ 12,894

Equipment included above under capital leases was as follows (dollars in thousands):

	March 31, 2019	March 31, 2018
Equipment	$ 581	$ 581
Less: accumulated depreciation and amortization	(486)	(344)
Net equipment	$ 95	$ 237

Depreciation is recognized over the estimated useful lives of the respective assets, using the straight-line method. Orion recorded depreciation expense of $1.3 million, $1.4 million and $1.5 million for the years ended March 31, 2019, 2018 and 2017, respectively.

Depreciable lives by asset category are as follows:

Land improvements	10-15 years
Buildings and building improvements	10-39 years
Furniture, fixtures and office equipment	2-10 years
Leasehold improvements	Shorter of asset life or life of lease
Equipment leased to customers under Power Purchase Agreements	20 years
Plant equipment	3-10 years

No interest was capitalized for construction in progress during fiscal 2019 or fiscal 2018.

NOTE 8 — OTHER INTANGIBLE ASSETS

The costs of specifically identifiable intangible assets that do not have an indefinite life are amortized over their estimated useful lives. Intangible assets with indefinite lives are not amortized.

Amortizable intangible assets are amortized over their estimated economic useful life to reflect the pattern of economic benefits consumed based upon the following lives and methods:

Patents	10-17 years	Straight-line
Licenses	7-13 years	Straight-line
Customer relationships	5-8 years	Accelerated based upon the pattern of economic benefits consumed
Developed technology	8 years	Accelerated based upon the pattern of economic benefits consumed
Non-competition agreements	5 years	Straight-line

Intangible assets that have a definite life are evaluated for potential impairment whenever events or circumstances indicate that the carrying value may not be recoverable based primarily upon whether expected future undiscounted cash flows are sufficient to support the asset recovery. If the actual useful life of the asset is shorter than the estimated life, the asset may be deemed to be impaired and accordingly a write-down of the value of the asset determined by a discounted cash flow analysis or shorter amortization period may be required.

Indefinite lived intangible assets are evaluated for impairment at least annually on the first day of Orion's fiscal fourth quarter, or when indications of potential impairment exist. This annual impairment review may begin with a qualitative test to determine whether it is more likely than not that an indefinite lived intangible asset's carrying value is greater than its fair value. If the qualitative assessment reveals that asset impairment is more likely than not, a quantitative impairment test is performed comparing the fair value of the indefinite lived intangible asset to its carrying value. Alternatively, the qualitative test may be bypassed and the quantitative impairment test may be immediately performed. If the fair value of the indefinite lived intangible asset exceeds its carrying value, the indefinite lived intangible asset is not impaired and no further review is performed. If the carrying value of the indefinite lived intangible asset exceeds its fair value, an impairment loss would be recognized in an amount equal to such excess. Once an impairment loss is recognized, the adjusted carrying value becomes the new accounting basis of the indefinite lived intangible asset.

Orion performed a qualitative assessment in conjunction with its annual impairment test of its indefinite lived intangible assets as of January 1, 2019. This qualitative assessment considered Orion's operating results for the first nine months of fiscal 2019 in comparison to prior years as well as its anticipated fourth quarter results and fiscal 2019 plan. As a result of the conditions that existed as of the assessment date, an asset impairment was not deemed to be more likely than not and a quantitative analysis was not required.

During the second quarter of fiscal 2018, as a result of lower than anticipated operating results in the first half of fiscal 2018, Orion revised its full year fiscal 2018 forecast. As such, a triggering event occurred as of September 30, 2017, requiring Orion to evaluate its long-lived assets for impairment. Orion performed a quantitative impairment review of its indefinite lived intangible assets related to the Harris trade name applying the royalty replacement method to determine the asset's fair value as of September 30, 2017. Under the royalty replacement method, the fair value of the Harris tradename was determined based on a market participant's view of the royalty that would be paid to license the right to use the tradename. This quantitative analysis incorporated several assumptions including forecasted future revenues and cash flows, estimated royalty rate, based on similar licensing transactions and market royalty rates, and discount rate, which incorporates assumptions such as weighted-average cost of capital and risk premium. As a result of this impairment test, the carrying value of the Harris trade name exceeded its estimated fair value and an impairment of $0.7 million was recorded to Impairment of intangible assets during the quarter ended September 30, 2017 to reduce the asset's carrying value to its calculated fair value. This fair value determination was categorized as Level 3 in the fair value hierarchy.

During the fourth quarter of fiscal 2017, Orion achieved lower than anticipated operating results, made a strategic shift in its manufacturing strategy and approach to the fluorescent and LED exterior lighting market, and revised its fiscal 2018 forecast. As a result, a triggering event occurred requiring the Company to reassess its indefinite lived intangible assets for impairment. As such Orion performed a quantitative impairment review of its indefinite lived intangible assets related to the Harris trade name applying the royalty replacement method to determine the asset's fair value as of March 31, 2017. Under the royalty replacement method, the fair value of the Harris tradename was determined based on a market participant's view of the royalty that would be paid to license the right to use the tradename. This quantitative analysis incorporated several assumptions including forecasted future revenues and cash flows, estimated royalty rate, based on similar licensing transactions and market royalty rates, and discount rate, which incorporates assumptions such as weighted-average cost of capital and risk premium. As a result of this impairment test, the carrying value of the Harris trade name exceeded its estimated fair value and an impairment of $0.3 million was recorded to Impairment of assets during the fourth quarter of fiscal 2017 to reduce the asset's carrying value to its calculated fair value. This fair value determination was categorized as Level 3 in the fair value hierarchy (see "Fair Value of Financial Instruments" for the definition of Level 3 inputs).

The components of, and changes in, the carrying amount of other intangible assets were as follows (dollars in thousands):

	March 31, 2019			March 31, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Patents	$ 2,667	$ (1,529)	$ 1,138	$ 2,636	$ (1,370)	$ 1,266
Licenses	58	(58)	—	58	(58)	—
Trade name and trademarks	1,007	—	1,007	1,005	—	1,005
Customer relationships	3,600	(3,459)	141	3,600	(3,326)	274
Developed technology	900	(717)	183	900	(582)	318
Non-competition agreements	—	—	—	100	(95)	5
Total	$ 8,232	$ (5,763)	$ 2,469	$ 8,299	$ (5,431)	$ 2,868

As of March 31, 2019, the weighted average useful life of intangible assets was 5.04 years. The estimated amortization expense for each of the next five years is shown below (dollars in thousands):

Fiscal 2020	$ 363
Fiscal 2021	288
Fiscal 2022	191
Fiscal 2023	100
Fiscal 2024	96
Thereafter	424
	$ 1,462

Amortization expense is set forth in the following table (dollars in thousands):

	Fiscal Year Ended March 31,		
	2019	2018	2017
Amortization included in cost of sales:			
Patents	$ 171	$ 159	$ 158
Total	$ 171	$ 159	$ 158
Amortization included in operating expenses:			
Customer relationships	$ 133	$ 272	$ 542
Developed technology	135	156	161
Non-competition agreements	5	20	20
Patents	—	—	—
Total	273	448	723
Total amortization of intangible assets	$ 444	$ 607	$ 881

Orion's management periodically reviews the carrying value of patent applications and related costs. When a patent application is probable of being unsuccessful or a patent is no longer in use, Orion writes off the remaining carrying value as a charge to general and administrative expense within its Consolidated Statement of Operations. In fiscal years 2019, 2018, and 2017, write-offs were immaterial.

Included in other income are product royalties received from licensing agreements for our patents.

NOTE 9 — ACCRUED EXPENSES AND OTHER

As of March 31, 2019 and March 31, 2018, Accrued expenses and other included the following (dollars in thousands):

	March 31, 2019	March 31, 2018
Compensation and benefits	$ 1,212	$ 1,786
Sales tax	713	237
Contract costs	3,293	985
Legal and professional fees	356	400
Warranty	282	402
Sales returns reserve (1)	141	—
Credits due to customers (1)	987	—
Other accruals	426	361
Total	$ 7,410	$ 4,171

(1) Sales returns reserve was previously classified in Accounts receivable, net and Credits due to customers was previously classified in Accounts payable. As of April 1, 2018, in conjunction with the adoption of ASC 606, these balances are now included in Accrued expenses and other on the Consolidated Balance Sheets.

Orion generally offers a limited warranty of one to ten years on its lighting products including the pass through of standard warranties offered by major original equipment component manufacturers. The manufacturers' warranties cover lamps, ballasts, LED modules, LED chips, LED drivers, control devices, and other fixture related items, which are significant components in Orion's lighting products.

Changes in Orion's warranty accrual (both current and long-term) were as follows (dollars in thousands):

	March 31,	
	2019	2018
Beginning of year	$ 673	$ 759
Reclassification on adoption of ASC 606	73	—
Accruals	158	43
Warranty claims (net of vendor reimbursements)	(247)	(129)
Ending balance	$ 657	$ 673

NOTE 10 — NET LOSS PER COMMON SHARE

Basic net loss per common share is computed by dividing net loss attributable to common shareholders by the weighted-average number of common shares outstanding for the period and does not consider common stock equivalents.

Diluted net loss per common share reflects the dilution that would occur if stock options were exercised and restricted shares vested. In the computation of diluted net loss per common share, Orion uses the treasury stock method for outstanding options, warrants and restricted shares. Diluted net loss per common share is the same as basic net loss per common share for the years ended March 31, 2019, March 31, 2018 and March 31, 2017 because the effects of potentially dilutive securities would be anti-dilutive. The effect of net loss per common share is calculated based upon the following shares:

	Fiscal Year Ended March 31,		
	2019	2018	2017
Numerator:			
Net loss (dollars in thousands)	$ (6,674)	$ (13,128)	$ (12,288)
Denominator:			
Weighted-average common shares outstanding	29,429,540	28,783,830	28,156,382
Weighted-average common shares and share equivalents outstanding	29,429,540	28,783,830	28,156,382
Net loss per common share:			
Basic	$ (0.23)	$ (0.46)	$ (0.44)
Diluted	$ (0.23)	$ (0.46)	$ (0.44)

The following table indicates the number of potentially dilutive securities as of the end of each period:

	March 31,		
	2019	2018	2017
Common stock options	467,836	629,667	1,520,953
Restricted shares	1,312,593	1,485,799	1,704,543
Total	1,780,429	2,115,466	3,225,496

NOTE 11 — LONG-TERM DEBT

Long-term debt as of March 31, 2019 and 2018 consisted of the following (dollars in thousands):

	March 31,	
	2019	2018
Revolving credit facility	$ 9,202	$ 3,908
Equipment debt obligations	177	184
Total long-term debt	9,379	4,092
Less current maturities	(96)	(79)
Long-term debt, less current maturities	$ 9,283	$ 4,013

Revolving Credit Agreement

On October 26, 2018, Orion and its subsidiaries entered into a new secured revolving Business Financing Agreement with Western Alliance Bank, as lender (the "New Credit Agreement"). The New Credit Agreement replaced Orion's prior Credit Agreement.

The New Credit Agreement provides for a two-year revolving credit facility (the "New Credit Facility") that matures on October 26, 2020. Borrowings under the New Credit Facility are initially limited to $20.15 million, subject to a borrowing base requirement based on eligible receivables and inventory. The New Credit Agreement includes a $2.0 million sublimit for the issuance of letters of credit. As of March 31, 2019, Orion's borrowing base was $10.6 million, and Orion had $9.2 million in borrowings outstanding which were included in non-current liabilities in the accompanying Consolidated Balance Sheets. Orion had no outstanding letters of credit leaving additional borrowing availability of $1.4 million.

The New Credit Agreement is secured by a security interest in substantially all of Orion's and its subsidiaries' personal property.

Borrowings under the New Credit Agreement generally bear interest at floating rates based upon the prime rate (but not be less than 5.00% per year) plus an applicable margin determined by reference to Orion's quick ratio (defined as the aggregate amount of unrestricted cash, unrestricted marketable securities and, with certain adjustments, receivables convertible into cash divided by total current liabilities, including the obligations under the New Credit Agreement). As of March 31, 2019, the interest rate was 6.0%. Among other fees, Orion is required to pay an annual facility fee equal to 0.45% of the credit limit under the New Credit Agreement, which was paid at commencement (October 26, 2018) and is due on each anniversary thereof. With certain exceptions, if the New Credit Agreement is terminated prior to the first anniversary of the closing date of the New Credit Agreement, Orion is required to pay a termination fee equal to 0.50% of the credit limit under the New Credit Agreement.

The New Credit Agreement requires Orion to maintain nine months' of "RML" as of the end of each month. For purposes of the New Credit Agreement, RML is defined as, as of the applicable determination date, unrestricted cash on deposit with Western Alliance Bank plus availability under the New Credit Agreement divided by an amount equal to, for the applicable trailing three-month period, consolidated net profit before tax, plus depreciation expense, amortization expense and stock-based compensation, minus capital lease principal payments, tested as of the end of each month.

The New Credit Agreement also contains customary events of default and other covenants, including certain restrictions on Orion's ability to incur additional indebtedness, consolidate or merge, enter into acquisitions, pay any dividend or distribution on Orion's stock, redeem, retire or purchase shares of Orion's stock, make investments or pledge or transfer assets. If an event of default under the New Credit Agreement occurs and is continuing, then Western Alliance Bank may cease making advances under the New Credit Agreement and declare any outstanding obligations under the New Credit Agreement to be immediately due and payable. In addition, if Orion becomes the subject of voluntary or involuntary proceedings under any bankruptcy or similar law, then any outstanding obligations under the New Credit Agreement will automatically become immediately due and payable. As of March 31, 2019, Orion was in compliance with all covenants under the New Credit Agreement.

The prior Credit Agreement ("Prior Credit Agreement") with Wells Fargo Bank, NA, as lender, provided for a revolving credit facility ("Prior Credit Facility") subject to a borrowing base requirement based on eligible receivables and inventory. Subject in each case to Orion's applicable borrowing base limitations, the Prior Credit Agreement otherwise provided for a $15.0 million Prior Credit Facility.

The Prior Credit Agreement contained additional customary covenants, including certain restrictions on Orion's ability to incur additional indebtedness, consolidate or merge, enter into acquisitions, guarantee obligations of third parties, make loans or advances, declare or pay any dividend or distribution on Orion's stock, redeem or repurchase shares of Orion's stock, or pledge or dispose of assets.

Each subsidiary of Orion was a joint and several co-borrower or guarantor under the Prior Credit Agreement, and the Prior Credit Agreement was secured by a security interest in substantially all of Orion's and each subsidiary's personal property (excluding various assets relating to customer Orion Throughput Agreements ("OTAs") and a mortgage on certain real property.

Borrowings under the Prior Credit Agreement bore interest at the daily three-month LIBOR plus 3.0% per annum, with a minimum interest charge for each year or portion of a year during the term of the Credit Agreement of $0.1 million, regardless of usage. Orion was required to pay an unused line fee of 0.25% per annum of the daily average unused amount of the Prior Credit Facility and a letter of credit fee at the rate of 3.0% per annum on the undrawn amount of letters of credit outstanding from time to time under the Prior Credit Facility.

Equipment Debt Obligation

In June 2015, Orion entered into an agreement with a financing company in the principal amount of $ $0.4 million to fund the purchase of certain equipment. The debt is secured by the related equipment. The debt bears interest at a rate of 5.94% and matures in June 2020.

In February 2019, Orion entered into additional debt agreements with a financing company in the principal amount of $44 thousand and $30 thousand fund certain equipment. The debts are secured by the related equipment. The debts bear interest at a rate of 6.43% and 8.77% respectively and both debts mature in January 2024.

Customer Equipment Finance Notes Payable

In December 2014, Orion entered into a secured borrowing agreement with a financing company in the principal amount of $0.4 million to fund completed customer contracts under its OTA finance program that were previously funded under a different OTA credit agreement. The loan amount was secured by the OTA-related equipment and the expected future monthly payments under the supporting 25 individual OTA customer contracts. The borrowing agreement bore interest at a rate of 8.36% and matured in April 2018.

Aggregate Maturities

As of March 31, 2019, aggregate maturities of long-term debt were as follows (dollars in thousands):

Fiscal 2020	$	96
Fiscal 2021		9,238
Fiscal 2022		15
Fiscal 2023		16
Fiscal 2024		14
	$	9,379

NOTE 12 — INCOME TAXES

The total provision (benefit) for income taxes consists of the following for the fiscal years ended (dollars in thousands):

	Fiscal Year Ended March 31,		
	2019	2018	2017
Current	$ (5)	$ 4	$ (261)
Deferred	19	(19)	—
Total	$ 14	$ (15)	$ (261)

	2019	2018	2017
Federal	$ 3	$ (28)	$ (283)
State	11	13	22
Total	$ 14	$ (15)	$ (261)

A reconciliation of the statutory federal income tax rate and effective income tax rate is as follows:

	Fiscal Year Ended March 31,		
	2019	2018	2017
Statutory federal tax rate	21.0%	30.8%	34.0%
State taxes, net	5.6%	2.2%	3.5%
Federal tax credit	(0.3)%	(0.3)%	—%
Change in valuation reserve	(23.8)%	51.4%	(37.6)%
Permanent items	(1.1)%	(1.4)%	(0.5)%
Change in tax contingency reserve	—%	(0.1)%	1.0%
Federal refunds	0.3%	0.3%	1.4%
U.S. tax reform, corporate rate reduction	—%	(75.2)%	—%
Equity compensation cancellations	(1.0)%	(15.7)%	—%
Federal loss, ASU 2016-09	—%	7.7%	—%
Other, net	(0.9)%	0.4%	0.3%
Effective income tax rate	(0.2)%	0.1%	2.1%

The net deferred tax assets and liabilities reported in the accompanying consolidated financial statements include the following components (dollars in thousands):

	March 31,	
	2019	2018
Inventory, accruals and reserves	1,118	1,316
Interest deduction carry-forward	127	—
Federal and state operating loss carry-forwards	22,909	21,333
Tax credit carry-forwards	1,921	1,939
Equity compensation	288	402
Deferred revenue	(90)	(81)
Fixed assets	(781)	(878)
Intangible assets	(300)	(363)
Other	194	154
Valuation allowance	(25,386)	(23,803)
Total net deferred tax assets	$ —	$ 19

The Tax Cut and Jobs Act ("Act") was enacted December 22, 2017. The Act significantly changes U.S tax law by, among other things, reducing the U.S. federal corporate tax rate from 35% to 21%, imposing a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred, and creating new taxes on certain foreign sourced earnings.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”) to address accounting for income tax effects of the Tax Reform Act. At March 31, 2018, Orion had not completed its accounting for the tax effects of enactment of the Act; however, as described below, Orion had made a reasonable estimate of the effects on its existing deferred tax balances and the one-time transition tax.

Orion remeasured its deferred tax assets based on the rates at which they are expected to reverse in the future, which is generally the 21% federal corporate tax rate. The provisional amount recorded related to the remeasurement of its deferred tax balance decreased deferred tax assets by $9.9 million in fiscal 2018. Substantially all of this decrease to deferred tax assets was offset by a corresponding decrease to the valuation allowance. There was no impact on the prior year income tax expense for the federal corporate tax rate change due to Orion's prior year taxable loss.

The Act also required companies to pay a one-time transition tax on Orion's total post-1986 earnings and profits ("E&P") of its foreign subsidiary that were previously tax deferred from US income taxes. Since Orion's foreign subsidiary had negative E&P, the company estimated there was no transition tax to be reported in income tax expense. As of December 31, 2018, Orion did not adjust its estimates and considered all changes due to the Act final.

As of March 31, 2019, Orion has federal net operating loss carryforwards of approximately $88.1 million, and state net operating loss carry-forwards of approximately $74.1 million. Upon adoption of ASU 2016-09, *Compensation-Stock Compensation (Topic 718) Improvements to Employee Share-Based Payment Accounting*, in the prior fiscal year, the federal and state loss carryforwards associated with historic exercises of NQSOs have been recorded as deferred tax assets. Orion also has federal tax credit carry-forwards of approximately $1.3 million and state tax credits of $0.8 million. All of Orion's tax credit carry-forwards and $155.1 million of its net operating loss carry-forwards will begin to expire in varying amounts between 2020 and 2039. The remaining $7.1 million of its federal and state loss carry-forwards are not subject to time restrictions but may only be used to offset 80% of adjusted taxable income. Additionally, Orion has approximately $0.5 million of interest expense carry-forward that is not subject to time restrictions but subject to a 30% adjusted taxable income limitation. All of its carry-forwards are offset by a valuation allowance

For the fiscal year ended March 31, 2019, Orion has recorded a valuation allowance of $25.4 million against its net deferred tax assets due to the uncertainty of its realization value in the future. For the fiscal year ended March 31, 2019, the valuation allowance against Orion's net federal and net state deferred tax assets increased $1.6 million, primarily due to the current year loss. For the fiscal year ended March 31, 2018, the valuation allowance decreased $6.8 million, primarily because of the reduction in the corporate tax rate. Orion considers future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance. In the event that Orion determines that the deferred tax assets are able to be realized, an adjustment to the deferred tax asset would increase income in the period such determination is made.

Generally, a change of more than 50% in the ownership of Orion's stock, by value, over a three-year period constitutes an ownership change for federal income tax purposes as defined under Section 382 of the Internal Revenue Code. As a result, Orion's ability to use its net operating loss carry-forwards, attributable to the period prior to such ownership change, to offset taxable income can be subject to limitations in a particular year, which could potentially result in increased future tax liability for Orion. There was no limitation of net operating loss carry-forwards that occurred for fiscal 2019, fiscal 2018, or fiscal 2017.

Orion records its tax provision based on the respective tax rules and regulations for the jurisdictions in which it operates. Where Orion believes that a tax position is supportable for income tax purposes, the item is included in their income tax returns. Where treatment of a position is uncertain, a liability is recorded based upon the expected most likely outcome taking into consideration the technical merits of the position based on specific tax regulations and facts of each matter. These liabilities may be affected by changing interpretations of laws, rulings by tax authorities, or the expiration of the statute of limitations.

Orion files income tax returns in the United States federal jurisdiction and in several state jurisdictions. The Company's federal tax returns for tax years beginning April 1, 2015 or later are open. For states in which Orion files state income tax returns, the statute of limitations is generally open for tax years ended March 31, 2015 and forward.

State income tax returns are generally subject to examination for a period of 3 to 5 years after filing of the respective return. The state effect of any federal changes remains subject to examination by various states for a period of up to two years after formal notification to the states. Orion currently has no state income tax return positions in the process of examination, administrative appeals or litigation.

Uncertain tax positions

As of March 31, 2019, the balance of gross unrecognized tax benefits was approximately $0.1 million, all of which would affect Orion’s effective tax rate if recognized.

Orion has classified the amounts recorded for uncertain tax benefits in the balance sheet as other liabilities (non-current) to the extent that payment is not anticipated within one year. Orion recognizes penalties and interest related to uncertain tax liabilities in income tax expense. Penalties and interest are included in the unrecognized tax benefits. Orion had the following unrecognized tax benefit activity (dollars in thousands):

	Fiscal Year Ended March 31,		
	2019	2018	2017
Unrecognized tax benefits as of beginning of fiscal year	$ 129	$ 113	$ 227
Additions based on tax positions related to the current period positions	1	2	2
Additions/(Reductions) for tax positions of prior years	—	14	(116)
Unrecognized tax benefits as of end of fiscal year	$ 130	$ 129	$ 113

NOTE 13 — COMMITMENTS AND CONTINGENCIES

Operating Leases

Orion leases office space and equipment under operating leases expiring at various dates through 2021. Rent expense under operating leases was $0.7, $0.9 and $0.9 for fiscal 2019, 2018 and 2017, respectively. Total annual commitments under non-cancelable operating leases with terms in excess of one year at March 31, 2019 are as follows (dollars in thousands):

Fiscal 2020	$ 506
Fiscal 2021	323
	$ 829

On April 28, 2017, Orion renewed the lease for its Jacksonville, Florida office space for an additional three-year term with annual rent expense of approximately $0.1 million.

On March 31, 2016, Orion entered into a purchase and sale agreement ("Agreement") with third party to sell and leaseback Orion's manufacturing and distribution facility for gross cash proceeds of $2.6 million. The transaction closed on June 30, 2016. Pursuant to the Agreement, a lease was entered into on June 30, 2016, in which Orion is leasing approximately 197,000 square feet of the building for not less than three years, with rent at $2.00 per square foot per annum. Orion's monthly payment under this lease is approximately $33,000. The lease contains options by either party to reduce the amount of leased space after March 1, 2017. On March 22, 2018, both parties agreed to extend the lease until December 31, 2020. Annual rent expense is approximately $0.4 million.

Purchase Commitments

Orion enters into non-cancellable purchase commitments for certain inventory items in order to secure better pricing and ensure materials on hand. As of March 31, 2019, Orion had entered into $13.6 million of purchase commitments related to fiscal 2020 for inventory purchases.

Retirement Savings Plan

Orion sponsors a tax deferred retirement savings plan that permits eligible employees to contribute varying percentages of their compensation up to the limit allowed by the Internal Revenue Service. This plan also provides for discretionary contributions by Orion. In fiscal 2019, 2018 and 2017, Orion made matching contributions of approximately $9 thousand in each of those fiscal years.

Litigation

Orion is subject to various claims and legal proceedings arising in the ordinary course of business. As of the date of this report, Orion is unable to currently assess whether the final resolution of any of such claims or legal proceedings may have a material adverse effect on our future results of operations. In addition to ordinary-course litigation, Orion is a party to the proceedings described below.

On November 10, 2017, a purported shareholder, Stephen Narten, filed a civil lawsuit in the Circuit Court for Manitowoc County against those individuals who served on Orion's board of directors during fiscal years 2015, 2016, and 2017 and certain current and former officers during the same period. The plaintiff, who purported to bring the suit derivatively on behalf of Orion, alleged that the director defendants breached their fiduciary duties in connection with granting certain stock-based incentive awards under Orion's 2004 Stock and Incentive Awards Plan and that the directors and current and former officers breached their fiduciary duties by accepting those awards. During the first quarter of fiscal 2019, the parties reached a settlement of the claims and the case was dismissed. The settlement did not have a material impact on Orion's results of operations, cash flows or financial condition.

State Tax Assessment

In June 2016, Orion negotiated a settlement with the Wisconsin Department of Revenue with respect to an assessment regarding the proper classification of its products for tax purposes under Wisconsin law for $0.5 million.

During fiscal year 2018, Orion was notified of a pending sales and use tax audit by the Wisconsin Department of Revenue for the period covering April 1, 2013 through March 31, 2017. Although the final resolution of the Company's sales and use tax audit is uncertain, based on current information, in the opinion of the Company's management, the ultimate disposition of these matters will not have a material adverse effect on the Company's consolidated balance sheet, statements of operations, or liquidity.

During fiscal 2019, Orion was notified of a pending sales and use tax audit by the California Department of Tax and Fee Administration for the period covering April 1, 2015 through March 31, 2018. Although the final resolution of Orion's sales and use tax audit is uncertain, based on current information, in the opinion of Orion's management, the ultimate disposition of these matters will not have a material adverse effect on Orion's consolidated balance sheets, statement of operations, or liquidity.

NOTE 14 — SHAREHOLDERS' EQUITY

Share Repurchase Program and Treasury Stock

In October 2011, Orion's Board of Directors approved a share repurchase program authorizing Orion to repurchase in aggregate up to a maximum of $1,000,000 of Orion's outstanding common stock. In November 2011, Orion's Board of Directors approved an increase to the share repurchase program authorizing Orion to repurchase in aggregate up to a maximum of $2,500,000 of Orion's outstanding common stock. In April 2012, Orion's Board approved another increase to the share repurchase program authorizing Orion to repurchase in aggregate up to a maximum of $7,500,000 of Orion's outstanding common stock. As of March 31, 2019, Orion had repurchased 3,022,349 shares of common stock at a cost of $6.8 million under the program. Orion did not repurchase any shares in fiscal 2019, fiscal 2018 or fiscal 2017 and does not intend to repurchase any additional common stock under this program in the near-term.

In prior years, Orion issued loans to non-executive employees to purchase shares of its stock. The loan program has been discontinued and new loans are no longer issued. As of March 31, 2017, $4 thousand of such loans remained outstanding and were reflected on Orion's balance sheet as a contra-equity account. During the quarter ended June 30, 2017, Orion entered into agreements with the counterparties to these loans. In exchange for the forgiveness of their outstanding loan balance, the employees returned their shares to Orion. As a result of this transaction, 1,230 shares were recorded within treasury stock and the loan balances have been eliminated.

Shareholder Rights Plan

On January 3, 2019, Orion entered into Amendment No. 1 to the Rights Agreement, which amends the Rights Agreement dated as of January 7, 2009. Under the amendment, each common share purchase right, if exercisable, will initially represent the right to purchase from Orion, one share of Orion's common stock, no par value per share, for a purchase price of $7.00 per share.

The Rights will not be exercisable (and will be transferable only with Orion's common stock) until a "Distribution Date" occurs (or the Rights are earlier redeemed or expire). A Distribution Date generally will occur on the earlier of a public announcement that a person or group of affiliated or associated persons (Acquiring Person) has acquired beneficial ownership of 20% or more of Orion's outstanding common stock (Shares Acquisition Date) or 10 business days after the commencement of, or the announcement of an

intention to make, a tender offer or exchange offer that would result in any such person or group of persons acquiring such beneficial ownership.

If a person becomes an Acquiring Person, holders of Rights (except as otherwise provided in the shareholder rights plan) will have the right to receive that number of shares of Orion's common stock having a market value of two times the then-current Purchase Price, and all Rights beneficially owned by an Acquiring Person, or by certain related parties or transferees, will be null and void. If, after a Shares Acquisition Date, Orion is acquired in a merger or other business combination transaction or 50% or more of its consolidated assets or earning power are sold, proper provision will be made so that each holder of a Right (except as otherwise provided in the shareholder rights plan) will thereafter have the right to receive that number of shares of the acquiring company's common stock which at the time of such transaction will have a market value of two times the then-current Purchase Price.

Until a Right is exercised, the holder thereof, as such, will have no rights as a shareholder of Orion. At any time prior to a person becoming an Acquiring Person, the Board of Directors of Orion may redeem the Rights in whole, but not in part, at a price of $0.001 per Right. Unless they are extended or earlier redeemed or exchanged, the Rights will expire on January 7, 2022.

Employee Stock Purchase Plan

In August 2010, Orion's Board of Directors approved a non-compensatory employee stock purchase plan, or ESPP. The ESPP authorizes 2,500,000 shares to be issued from treasury or authorized shares to satisfy employee share purchases under the ESPP. All full-time employees of Orion are eligible to be granted a non-transferable purchase right each calendar quarter to purchase directly from Orion up to $20,000 of Orion's common stock at a purchase price equal to 100% of the closing sale price of Orion's common stock on The NASDAQ Capital Market on the last trading day of each quarter. In prior years, Orion issued loans to non-executive employees to purchase shares of its stock. The loan program has been discontinued and new loans are no longer issued. Orion had the following shares issued from treasury during fiscal 2019 and fiscal 2018:

	As of March 31, 2019				
	Shares Issued Under ESPP Plan	Closing Market Price	Shares Issued Under Loan Program	Dollar Value of Loans Issued	Settlement of Loans
Quarter Ended March 31, 2019	1,581	$ 0.89	—	$ —	$ —
Quarter Ended December 31, 2018	1,708	$ 0.57	—	—	—
Quarter Ended September 30, 2018	938	$ 0.96	—	—	—
Quarter Ended June 30, 2018	415	$ 1.10	—	—	—
Total	4,642	$ 0.57 - 1.10	—	—	—

	As of March 31, 2018				
	Shares Issued Under ESPP Plan	Closing Market Price	Shares Issued Under Loan Program	Dollar Value of Loans Issued	Settlement of Loans
Quarter Ended March 31, 2018	1,780	$ 0.85	—	$ —	$ —
Quarter Ended December 31, 2017	3,446	$ 0.88	—	—	—
Quarter Ended September 30, 2017	2,681	$ 1.12	—	—	—
Quarter Ended June 30, 2017	2,150	$ 1.28	—	—	4,000
Total	10,057	$ 0.85 - 1.28	—	—	$ 4,000

As of March 31, 2017, $4 thousand of such loans remained outstanding and were reflected on Orion's balance sheet as a contra-equity account. During fiscal 2018, Orion entered into agreements with the counterparties to these loans. In exchange for the forgiveness of their outstanding loan balance, the employees returned their shares to Orion. As a result of these transactions, 1,230 shares were recorded within treasury stock and the loan balances were eliminated.

NOTE 15 — STOCK OPTIONS AND RESTRICTED SHARES

At Orion's 2016 Annual Meeting of Shareholders held on August 3, 2016, Orion's shareholders approved the Orion Energy Systems, Inc. 2016 Omnibus Incentive Plan (the "Plan"). The Plan authorizes grants of equity-based and incentive cash awards to eligible participants designated by the Plan's administrator. Awards under the Plan may consist of stock options, stock appreciation

rights, performance shares, performance units, shares of Orion's common stock ("Common Stock"), restricted stock, restricted stock units, incentive awards or dividend equivalent units. An aggregate of 1,750,000 shares of Common Stock are reserved for issuance under the Plan. As of March 31, 2019, the number of shares available for grant under the plans were 107,860.

Prior to shareholder approval of the Plan, the Company maintained its 2004 Stock and Incentive Awards Plan, as amended, which authorized the grant of cash and equity awards to employees (the "Former Plan"). No new awards will be granted under the Former Plan, however, all awards granted under the Former Plan that were outstanding as of August 3, 2016 will continue to be governed by the Former Plan. Forfeited awards originally issued under the Former Plan are canceled and are not available for subsequent issuance under the 2016 Omnibus Plan.

Certain non-employee directors have elected to receive stock awards in lieu of cash compensation pursuant to elections made under Orion's non-employee director compensation program. The Plan and the Former Plan also permit accelerated vesting in the event of certain changes of control of Orion as well as under other special circumstances.

Orion historically granted stock options and restricted stock under the Former Plan. Orion has not issued stock options since fiscal 2014 and instead has issued restricted stock.

Orion accounts for stock-based compensation in accordance with ASC 718, Compensation - Stock Compensation. Under the fair value recognition provisions of ASC 718, stock-based compensation is measured at the grant date based on the fair value of the award and is recognized as expense ratably over the requisite service period.

In fiscal 2019, an aggregate of 529,000 restricted shares were granted valued at a price per share between $0.84 and $1.00, which was the closing market price as of each grant date. In fiscal 2018, an aggregate of 730,410 restricted shares were granted valued at a price per share between $0.88 and $1.95, which was the closing market price as of each grant date. In fiscal 2017, an aggregate of 1,132,392 restricted shares were granted valued at a price per share between $1.35 and $2.22, which was the closing market price as of each grant date.

In fiscal 2018, Orion granted 24,747 shares from the 2004 Stock and Incentive Awards Plan and the 2016 Omnibus Incentive Plan to certain non-employee directors who elected to receive stock awards in lieu of cash compensation. The shares were valued ranging from $0.80 to $1.28 per share, the closing market price as of the issuance dates. In fiscal 2017, Orion granted 53,501 shares from the 2004 Stock and Incentive Awards Plan to certain non-employee directors who elected to receive stock awards in lieu of cash compensation. The shares were valued ranging from $1.38 to $1.85 per share, the closing market price as of the issuance dates.

On June 7, 2016, Orion issued and sold 57,065 shares of its common stock to an executive. On August 5, 2016, Orion sold an aggregate of 63,381 shares of its common stock, in equal amounts, to three recently retired members of Orion's board of directors. In each case above, the purchase price for the shares was calculated based on the closing price of Orion's common stock on the NASDAQ Capital Market of the date of the issuance. The shares of common stock were offered and sold pursuant to an exemption from the registration requirements of the Securities Act of 1933, as amended, pursuant to Section 4(2) and Rule 701.

The following amounts of stock-based compensation expense for restricted shares and options were recorded (dollars in thousands):

	Fiscal Year Ended March 31,		
	2019	2018	2017
Cost of product revenue	$ 2	$ 12	$ 30
Cost of service revenue	3	—	—
General and administrative	764	929	1,337
Sales and marketing	54	155	139
Research and development	2	6	99
	$ 825	$ 1,102	$ 1,605

The following table summarizes information with respect to outstanding stock options:

	Number of Shares	Weighted Average Exercise Price
Outstanding at March 31, 2016	2,017,046	$ 3.32
Granted	—	$ —
Exercised	(80,000)	$ 2.20
Forfeited	(416,093)	$ 3.41
Outstanding at March 31, 2017	1,520,953	$ 3.36
Granted	—	$ —
Exercised	—	$ —
Forfeited	(891,286)	$ 3.51
Outstanding at March 31, 2018	629,667	$ 3.14
Granted	—	$ —
Exercised	—	$ —
Forfeited	(161,831)	$ 3.61
Outstanding at March 31, 2019	467,836	$ 2.98
Exercisable at March 31, 2019	463,836	

The aggregate intrinsic value represents the total pre-tax intrinsic value, which is calculated as the difference between the exercise price of the underlying stock options and the fair value of Orion's closing common stock price of $0.89 as of March 31, 2019.

The following table summarizes the range of exercise prices on outstanding stock options at March 31, 2019:

	March 31, 2019				
	Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Vested	Weighted Average Exercise Price
$1.62 - 2.20	143,292	3.51	$ 1.90	143,292	$ 1.90
$2.41 - 2.75	100,936	3.91	2.48	100,936	2.48
$2.86 - 4.28	194,308	1.51	3.68	190,308	3.68
$4.49 - 4.76	5,000	0.84	4.70	5,000	4.70
$5.35 - 5.44	24,300	0.85	5.44	24,300	5.44
	467,836	2.60	$ 2.98	463,836	$ 2.97

During fiscal 2019, Orion recognized $5,365 of stock-based compensation expense related to stock options.

During fiscal 2019, Orion granted restricted shares as follows:

Balance at March 31, 2018	1,485,799
Shares issued	529,000
Shares vested	(653,394)
Shares forfeited	(48,812)
Shares outstanding at March 31, 2019	1,312,593
Per share price on grant date	$0.84 - 1.00

During fiscal 2019, Orion recognized $0.8 million of stock-based compensation expense related to restricted shares.

As of March 31, 2019, the weighted average grant-date fair value of restricted shares granted was $0.84.

Unrecognized compensation cost related to non-vested common stock-based compensation as of March 31, 2019 is expected to be recognized as follows (dollars in thousands):

Fiscal 2020	$	535
Fiscal 2021		239
Fiscal 2022		40
Fiscal 2023		2
Fiscal 2024		—
Thereafter		—
	$	816
Remaining weighted average expected term		1.7 years

NOTE 16 — SEGMENT DATA

Orion has the following business segments: Orion Engineered Services Division ("OES"), Orion Distribution Services Division ("ODS"), and Orion U.S. Markets Division ("USM"). The accounting policies are the same for each business segment as they are on a consolidated basis.

Orion Engineered Systems Division ("OES")

The OES segment develops and sells lighting products and provides construction and engineering services for Orion's commercial lighting and energy management systems. OES provides turnkey solutions for large national accounts, governments, municipalities and schools.

Orion Distribution Services Division ("ODS")

The ODS segment focuses on selling lighting products through manufacturer representative agencies and a network of broadline North American distributors.

Orion U.S. Markets Division ("USM")

The USM segment sells commercial lighting systems and energy management systems to the wholesale contractor markets. USM customers are primarily comprised of ESCOs.

Corporate and Other

Corporate and Other is comprised of operating expenses not directly allocated to Orion's segments and adjustments to reconcile to consolidated results (dollars in thousands).

	Revenues For the year ended March 31,			Operating Loss For the year ended March 31,		
(dollars in thousands)	2019	2018	2017	2019	2018	2017
Segments:						
Engineered Systems	$ 30,925	$ 23,827	$ 29,501	$ (1,237)	$ (3,792)	$ (3,647)
Distribution Services	24,173	27,906	22,858	(1,742)	(325)	(927)
U.S. Markets	10,656	8,567	17,852	1,132	(3,123)	(1,357)
Corporate and Other	—	—	—	(4,310)	(5,741)	(6,596)
	$ 65,754	$ 60,300	$ 70,211	$ (6,157)	$ (12,981)	$ (12,527)

	Depreciation and Amortization For the year ended March 31,			Capital Expenditures For the year ended March 31,		
	2019	2018	2017	2019	2018	2017
Segments:						
Engineered Systems	$ 774	$ 988	$ 1,249	$ 165	$ 151	$ 224
Distribution Services	485	275	148	44	217	184
U.S. Markets	233	267	$ 359	$ 31	73	150
Corporate and Other	291	481	576	215	71	102
	$ 1,783	$ 2,011	$ 2,332	$ 455	$ 512	$ 660

	Total Assets	
	March 31, 2019	March 31, 2018
Segments:		
Engineered Systems	$ 28,486	$ 13,570
Distribution Services	5,704	9,315
U.S. Markets	4,578	3,354
Corporate and Other	17,253	19,086
	$ 56,021	$ 45,325

Orion's revenue outside the United States is insignificant and Orion has no long-lived assets outside the United States.

NOTE 17 — RESTRUCTURING EXPENSE

During fiscal 2018, we executed on a cost reduction plan by entering into separation agreements with multiple employees and recognized $43 thousand and $2.1 million of expense in fiscal 2019 and fiscal 2018, respectively, in employee separation related costs. Our restructuring expense for the twelve months ended March 31, 2019 and March 31, 2018 is reflected within our consolidated statements of operations as follows (dollars in thousands):

	Year Ended March 31, 2019	Year Ended March 31, 2018
Cost of product revenue	$ —	$ 34
General and administrative	26	1,822
Sales and marketing	17	211
Research and development	—	79
Total	$ 43	$ 2,146

Total restructuring expense by segment was recorded as follows (dollars in thousands):

	Year Ended March 31, 2019	Year Ended March 31, 2018
Orion Distribution Systems	$ 12	$ 117
Corporate and Other	31	2,029
Total	$ 43	$ 2,146

We recorded no restructuring expense to the Orion U.S. Markets or Orion Engineered Systems segments.

Cash payments for employee separation costs in connection with the reorganization of business plans were $26 thousand for fiscal 2019 and $1.8 million for fiscal 2018. The remaining restructuring cost accruals as of March 31, 2019 were $0.1 million, which represents post-retirement medical benefits for one former employee which will be paid over several years.

NOTE 18 — SUBSEQUENT EVENTS

On June 3, 2019, we and certain of our subsidiaries entered into an amendment (the "First Amendment") to the New Credit Agreement. The First Amendment amended the New Credit Agreement to increase the maximum borrowing base credit available for certain of the customer receivables included in the borrowing base and provide for a borrowing base credit of up to $3.0 million based on inventory, in each case, subject to certain conditions.

NOTE 19 — QUARTERLY FINANCIAL DATA (UNAUDITED)

Summary quarterly results for the years ended March 31, 2019 and March 31, 2018 are as follows:

	Three Months Ended				
	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Total
	(in thousands, except per share amounts)				
Total revenue	$ 22,443	$ 16,291	$ 13,198	$ 13,822	$ 65,754
Gross profit	$ 4,384	$ 4,170	$ 2,542	$ 3,456	$ 14,552
Net loss	$ (882)	$ (662)	$ (2,438)	$ (2,692)	$ (6,674)
Basic net loss per share	$ (0.03)	$ (0.02)	$ (0.08)	$ (0.09)	$ (0.23)
Shares used in basic per share calculation	29,590	29,569	29,488	29,070	29,430
Diluted net loss per share	$ (0.03)	$ (0.02)	$ (0.08)	$ (0.09)	$ (0.23)
Shares used in diluted per share calculation	29,590	29,569	29,488	29,070	29,430

	Three Months Ended				
	Mar 31, 2018	Dec 31, 2017	Sep 30, 2017	Jun 30, 2017	Total
	(in thousands, except per share amounts)				
Total revenue	$ 15,057	$ 17,263	$ 15,422	$ 12,558	$ 60,300
Gross profit	$ 3,225	$ 5,116	$ 3,620	$ 2,711	$ 14,672
Net loss (1)	$ (1,462)	$ (1,433)	$ (3,669)	$ (6,564)	$ (13,128)
Basic net loss per share	$ (0.05)	$ (0.05)	$ (0.13)	$ (0.23)	$ (0.46)
Shares used in basic per share calculation	28,935	28,910	28,835	28,455	28,784
Diluted net loss per share	$ (0.05)	$ (0.05)	$ (0.13)	$ (0.23)	$ (0.46)
Shares used in diluted per share calculation	28,935	28,910	28,835	28,455	28,784

(1) Includes a $2.1 million restructuring charge, a $1.4 million loss contingency reversal, and an intangible impairment of $0.7 million.

The four quarters for net earnings per share may not add to the total year because of differences in the weighted average number of shares outstanding during the quarters and the year.

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

None

ITEM 9A.CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Rule 13a-15(f) of the Exchange Act. We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

Our management evaluated, with the participation of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures and our internal control over financial reporting as of March 31, 2019, pursuant to Exchange Act Rule 13a-15(b) and 15d-15. Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that the disclosure controls and procedures are effective at a level of reasonable assurance as of March 31, 2019.

Management, including our Chief Executive Officer and Chief Financial Officer, believes the consolidated financial statements included in this Annual Report on Form 10-K fairly represent in all material respects our financial condition, results of operations and cash flows at and for the periods presented in accordance with U.S. GAAP.

Management's Report on Internal Control Over Financial Reporting

Our management 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). Internal control over financial reporting is a process designed by, or under the supervision of, the Chief Executive Officer and Chief Financial Officer, or persons performing similar functions, and effected by the board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP and includes those policies and procedures that:

i. pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;

ii. provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and

iii. provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

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

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, our management has assessed the effectiveness of our internal control over financial reporting based on the criteria set forth in the Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

BDO USA, LLP, independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting as of March 31, 2019. Their report is in Item 8 under the heading "Reports of Independent Registered Public Accounting Firm" of this Annual Report on Form 10-K.

In connection with the assessment of our internal control over financial reporting as of March 31, 2019, management remediated the following material weaknesses that existed as of March 31, 2018:

- **Information & Communication.** We determined that our controls pertaining to information and communication did not operate effectively, resulting in a material weakness pertaining to these COSO components. Specifically, we did not have sufficient communication of the status and evolution of a project to ensure timely and accurate recognition of contract costs. In addition, we did not have sufficient communication and resolution of matters identified through management's review impacting the accounting close as noted in the Control Activities discussion below.
- **Control Activities - Accounting Close.** The operating effectiveness of our controls were inadequate related to management review controls over the accounting close process and forecasts used to support certain fair value estimates. Specifically, we did not have an accurate forecast that impacted our assessment of triggering events and potential impairment. In addition, matters identified through management review controls were not brought to a timely resolution.

A material weakness is a control deficiency or a combination of control deficiencies that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected.

We have reviewed and obtained acceptance of completion of the remediation effort by our Chief Executive Officer, our Chief Financial Officer, and the Audit & Finance Committee. Based on the remediation actions and our assessment using the COSO criteria, management believes that, as of March 31, 2019, our internal control over financial reporting was effective.

We will continue to monitor the effectiveness of our internal control over financial reporting in the areas affected by the material weaknesses identified in the prior years.

Changes in Internal Control over Financial Reporting

There were no other changes in our internal control over financial reporting during the quarter ended March 31, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting, other than with respect to the implementation of our Remediation Plans, as described above.

ITEM 9B.OTHER INFORMATION

On June 3, 2019, we and certain of our subsidiaries entered into an amendment (the “First Amendment”) to the New Credit Agreement. The First Amendment amended the New Credit Agreement to increase the maximum borrowing base credit available for certain of the customer receivables included in the borrowing base and to provide for a borrowing base credit of up to $3.0 million based on inventory, in each case, subject to certain conditions.

The foregoing is a summary of the First Amendment and is qualified in its entirety by reference to the full text of the First Amendment, a copy of which is filed herewith as Exhibit 10.2 and incorporated herein by reference.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item with respect to directors, executive officers and corporate governance is incorporated by reference to Orion's Proxy Statement for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days after the end of the fiscal year ended March 31, 2019.

Code of Conduct

We have adopted a Code of Conduct that applies to all of our directors, employees and officers, including our principal executive officer, our principal financial officer, our controller and persons performing similar functions. Our Code of Conduct is available on our web site at www.orionlighting.com. Future material amendments or waivers relating to the Code of Conduct will be disclosed on our web site referenced in this paragraph within four business days following the date of such amendment or waiver.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference to our Proxy Statement for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days after the end of the fiscal year ended March 31, 2019.

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

See Item 5, *Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchaser of Securities*, under the heading "Equity Compensation Plan Information" for information regarding our securities authorized for issuance under equity compensation plans. The additional information required by this item is incorporated by reference to Orion's Proxy Statement for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days after the end of the fiscal year ended March 31, 2019.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference to our Proxy Statement for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days after the end of the fiscal year ended March 31, 2019.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated by reference to our Proxy Statement for its 2019 Annual Meeting of Shareholders to be filed with the SEC within 120 days after the end of the fiscal year ended March 31, 2019.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements

Our financial statements are set forth in Item 8 of this Form 10-K.

EXHIBIT INDEX

Number	Exhibit Title
3.1	Amended and Restated Articles of Incorporation of Orion Energy Systems, Inc., filed as Exhibit 3.3 to the Registrant's Form S-1 filed August 20, 2007, is hereby incorporated by reference.
3.2	Amended and Restated Bylaws of Orion Energy Systems, Inc., filed as Exhibit 3.2 to the Registrant's Form 10-Q filed November 8, 2013, is hereby incorporated by reference.
4.1	Rights Agreement, dated as of January 7, 2009, between Orion Energy Systems, Inc. and Wells Fargo Bank, N.A., which includes as Exhibit A thereto the Form of Right Certificate and as Exhibit B thereto the Summary of Common Share Purchase Rights, filed as Exhibit 4.1 to the Registrant's Form 8-A filed January 8, 2009, is hereby incorporated by reference.
4.2	Amendment No. 1 to the Rights Agreement, dated as of January 3, 2019, between the Company and Equiniti Trust Company (as successor to Wells Fargo Bank, N.A.), as Rights Agent, filed as Exhibit 4.1 to the Registrants Form 8-K filed January 3, 2019, is hereby incorporated by reference.
4.3	Description of Orion Energy Systems, Inc. Capital Stock.±
10.1	Business Financing Agreement dated as of October 26, 2018 among Orion Energy Systems, Inc., Western Alliance Bank, as lender, and the subsidiary borrowers party thereto, filed as Exhibit 10.1 to Registrant's Form 8-K filed on October 30, 2018, is hereby incorporated by reference.
10.2	Amendment No. 1 to Business Financing Agreement, dated as of June 3, 2019 among Orion Energy Systems, Inc., Western Alliance Bank, as lender, and the subsidiary borrowers party thereto.±**
10.3	Orion Energy Systems, Inc. 2003 Stock Option Plan, as amended, filed as Exhibit 10.6 to the Registrant's Form S-1 filed August 20, 2007, is hereby incorporated by reference.*
10.4	Form of Stock Option Agreement under the Orion Energy Systems, Inc. 2003 Stock Option Plan, filed as Exhibit 10.7 to the Registrant's Form S-1 filed August 20, 2007, is hereby incorporated by reference.*
10.5	Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan, filed as Exhibit 10.9 to the Registrant's Form S-1 filed August 20, 2007, is hereby incorporated by reference.*
10.5(a)	Amendment to Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan, filed September 9, 2011 as Appendix A to the Registrant's definitive proxy statement is hereby incorporated by reference.*
10.6	Form of Stock Option Agreement under the Orion Energy Systems, Inc. 2004 Equity Incentive Plan, filed as Exhibit 10.10 to the Registrant's Form S-1 filed August 20, 2007, is hereby incorporated by reference.*
10.7	Form of Stock Option Agreement as of May 14, 2013 under the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan, filed as Exhibit 10.7 to the Registrant's Form 10-K filed on June 13, 2014, is hereby incorporated by reference.*
10.8	Form of Restricted Stock Award Agreement as of May 14, 2013 under the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan, filed as Exhibit 10.8 to the Registrant's Form 10-K filed on June 13, 2014, is hereby incorporated by reference.*
10.9	Orion Energy Systems, Inc. 2016 Omnibus Incentive Plan, filed as Annex A to the Registrant's Form 8-K filed July 8, 2016, is hereby incorporated by reference.*
10.10	Form of Non-Employee Director Tandem Restricted Stock and Cash Award Agreement under the Orion Energy Systems, Inc. 2016 Omnibus Incentive Plan, filed as Exhibit 4.5 to the Registrant's Form S-8 filed August 10, 2016, is hereby incorporated by reference.*
10.11	Form of Non-Employee Director Restricted Stock Award Agreement under the Orion Energy Systems, Inc. 2016 Omnibus Incentive Plan, filed as Exhibit 4.6 to the Registrant's Form S-8 filed August 10, 2016, is hereby incorporated by reference.*
10.12	Form of Executive Tandem Restricted Stock and Cash Award Agreement under the Orion Energy Systems, Inc. 2016 Omnibus Incentive Plan, filed as Exhibit 4.7 to the Registrant's Form S-8 filed August 10, 2016, is hereby incorporated by reference.*
10.13	Form of Executive Restricted Stock Award Agreement under the Orion Energy Systems, Inc. 2016 Omnibus Incentive Plan, filed as Exhibit 4.8 to the Registrant's Form S-8 filed August 10, 2016, is hereby incorporated by reference.*
10.14	Orion Energy Systems, Inc. Non-Employee Director Compensation Plan, updated and effective as of June 6, 2017, filed as Exhibit 10.14 to the Registrant's Form 10-K filed June 13, 2017, is hereby incorporated by reference.*
10.15	Executive Employment and Severance Agreement, dated as of June 8, 2017, by and between Orion Energy Systems, Inc. and Michael W. Altschaefl, filed as Exhibit 10.16 to the Registrant's Form 10-K filed June 13, 2017, is hereby incorporated by reference. *

10.16	Executive Employment and Severance Agreement by and between Orion Energy Systems, Inc. and William T. Hull, filed as Exhibit 10.1 to the Registrant's Form 8-K filed on October 5, 2015, is hereby incorporated by reference.*
10.17	Executive Employment and Severance Agreement, dated as of August 3, 2016, by and between Orion Energy Systems, Inc. and Scott A. Green, filed as Exhibit 10.1 to Registrant's Form 8-K filed on August 4, 2016, is hereby incorporated by reference.*
10.18	Letter Agreement effective June 13, 2017 between Orion and William T. Hull, filed as Exhibit 10.19 to the Registrant's Form 10-K filed June 13, 2017, is hereby incorporated by reference. *
10.19	Executive Employment and Severance Agreement, dated as of January 1, 2014, by and between Orion Energy Systems, Inc. and Marc Meade filed as Exhibit 10.1 to the Registrant's Form 8-K filed on January 6, 2014, is hereby incorporated by reference.*
10.20	Form of Executive Restricted Stock Award Agreement as of May 26, 2015 under the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan , filed as Exhibit 10.18 to the Registrant's Form 10-K for the year ended March 31, 2015, is hereby incorporated by reference.*
10.21	Form of Executive Tandem Restricted Stock and Cash Award Agreement as of May 26, 2015 under the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan, filed as Exhibit 10.19 to the Registrant's Form 10-K for the year ended March 31, 2015, is hereby incorporated by reference.*
10.22	Form of Non-Employee Director Restricted Stock Award Agreement as of May 26, 2015 under the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan, filed as Exhibit 10.20 to the Registrant's Form 10-K for the year ended March 31, 2015, is hereby incorporated by reference.*
10.23	Form of Non-Employee Director Tandem Restricted Stock and Cash Award Agreement as of May 26, 2015 under the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan, filed as Exhibit 10.21 to the Registrant's Form 10-K for the year ended March 31, 2015, is hereby incorporated by reference.*
10.24	Mutual Retirement and Severance Agreement, dated as of June 30, 2017, by and between Orion Energy Systems, Inc. and Michael J. Potts, filed as Exhibit 10.1 to the Registrant's Form 8-K filed on June 30, 2017, is hereby incorporated by reference. *
21.1	Subsidiaries of Orion Energy Systems, Inc.+
23.1	Consent of Independent Registered Public Accounting Firm. +
31.1	Certification of Chief Executive Officer of Orion Energy Systems, Inc. pursuant to Rule 13a-14(a) or Rule 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended. +
31.2	Certification of Chief Financial Officer of Orion Energy Systems, Inc. pursuant to Rule 13a-14(a) or Rule 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended. +
32.1	Certification of Chief Executive Officer and Chief Financial Officer of Orion Energy Systems, Inc. pursuant to Rule 13a-14(b) promulgated under the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. +
101	101.INS XBRL Instance Document+
	101.SCH Taxonomy extension schema document+
	101.CAL Taxonomy extension calculation linkbase document+
	101.DEF Taxonomy extension definition linkbase document+
	101.LAB Taxonomy extension label linkbase document+
	101.PRE Taxonomy extension presentation linkbase document+

Documents incorporated by reference by Orion Energy Systems, Inc. are filed with the Securities and Exchange Commission under File No. 001-33887.

* Management contract or compensatory plan or arrangement.
** Portions of this exhibit have been omitted pursuant to Rule 601(6)(10) of Regulation S-K. The omitted information is not material and would likely cause competitive harm to the Registrant if publicly disclosed.
\+ Filed herewith

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, on June 4, 2019.

ORION ENERGY SYSTEMS, INC.

By: /s/ MICHAEL W. ALTSCHAEFL
Michael W. Altschaefl
Chief Executive Officer and Board Chair

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed by the following persons on behalf of the Registrant in the capacities indicated on June 4, 2019.

Signature	Title
/s/ Michael W. Altschaefl Michael W. Altschaefl	Chief Executive Officer and Board Chair (Principal Executive Officer)
/s/ William T. Hull William T. Hull	Chief Financial Officer, Chief Accounting Officer and Treasurer (Principal Financial Officer)
/s/ Anthony L. Otten Anthony L. Otten	Lead Independent Director
/s/ Alan B. Howe Alan B. Howe	Director
/s/ Michael J. Potts Michael J. Potts	Director
/s/ Ellen B. Richstone Ellen B. Richstone	Director
/s/ Mark C. Williamson Mark C. Williamson	Director
/s/ Kenneth M. Young Kenneth M. Young	Director

Exhibit 4.3

ORION ENERGY SYSTEMS, INC.
DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 230,000,000 shares, consisting of 200,000,000 shares of common stock, no par value per share, and 30,000,000 shares of preferred stock, par value $0.01 per share. As of May 31, 2019, 29,601,669 shares of our common stock were outstanding and no shares of our preferred stock were outstanding.

The description below summarizes the material terms of our common stock, preferred stock and provisions of our amended and restated articles of incorporation and amended and restated bylaws. This description is only a summary. For more detailed information, you should refer to our amended and restated articles of incorporation and bylaws filed as exhibits to our most recent Annual Report on Form 10-K.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of shareholders and do not have cumulative voting rights. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of outstanding preferred stock. Upon our liquidation, dissolution or winding up, the holders of common stock are entitled to receive proportionately our net assets available after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. Our outstanding shares of common stock are fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

We have entered into a rights agreement pursuant to which each outstanding share of our common stock has attached a right to purchase one share of our common stock. A right will also attach to each share of common stock that we subsequently issue prior to the expiration of the rights agreement. Under circumstances described below, the rights will entitle the holder of the rights to purchase additional shares of common stock. In this description of our capital stock, unless the context requires otherwise, all references to our common stock include the accompanying rights.

Currently, the rights are not exercisable and trade with the common stock. If the rights become exercisable, each right, unless held by a person or group that beneficially owns more than 20% of our outstanding common stock, will initially entitle the holder to purchase one share of our common stock at a purchase price of $7 per share, subject to adjustment. The rights will become exercisable only if a person or group has acquired, or announced an intention to acquire, 20% or more of our outstanding common stock. Under some circumstances, including the existence of a 20% acquiring party, each holder of a right, other than the acquiring party, will be entitled to purchase at the right's then-current exercise price, shares of our common stock having a market value of two times the exercise price. If another corporation acquires us after a party acquires 20% or more of our common stock, each holder of a right will be entitled to receive the acquiring corporation's common shares having a market value of two times the exercise price. The rights may be redeemed at a price of $0.001 per right until a party acquires 20% or more of our common stock and, after that time, may be exchanged for one share of our common stock per right until a party acquires 50% or more of our common stock. The rights expire on January 7, 2022, subject to extension. Under the rights agreement, our board of directors may reduce the thresholds applicable to the rights from 20% to not less than 10%. The rights do not have voting or dividend rights and, until they become exercisable, have no dilutive effect on our earnings.

The rights have certain anti-takeover effects, in that they could have the effect of delaying, deferring or preventing a change of control of our company by causing substantial dilution to a person or group that attempts to acquire a significant interest in our company on terms not approved by our board of directors.

Preferred Stock

Our board of directors is authorized to issue from time to time up to 30 million shares of preferred stock in one or more series without shareholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of holders of common stock until our board of directors determines the specific rights associated with that preferred stock. The effects of issuing preferred stock could include one or more of the following:

- decreasing the amount of earnings and assets available for distribution to holders of common stock;
- restricting dividends on the common stock;
- diluting the voting power of the common stock;
- impairing the liquidation rights of the common stock; or
- delaying, deferring or preventing changes in our control or management.

As of the May 31, 2019, there were no shares of preferred stock outstanding.

Wisconsin Anti-Takeover Law and Certain Articles of Incorporation and Bylaw Provisions

Wisconsin law and our amended and restated articles of incorporation and amended and restated bylaws that will be effective upon closing of this offering contain provisions that could delay or prevent a change of control of our company or changes in our board of directors that our shareholders might consider favorable. The following is a summary of these provisions.

Amended and Restated Articles of Incorporation and Amended and Restated Bylaws

Classified board of directors; removal of directors for cause. Our amended and restated articles of incorporation and amended and restated bylaws provide that our board of directors is divided into three classes, with the term of office of each class expiring at successive annual meetings of shareholders. At each annual meeting of shareholders, each director is elected for a term ending on the date of the third annual shareholders' meeting following the annual shareholders' meeting at which such director was elected and until his or her successor shall be elected and shall qualify, subject to prior death, resignation or removal from office.

Our amended and restated articles of incorporation also provide that the affirmative vote of shareholders possessing at least 75% of the voting power of the then outstanding shares of our capital stock is required to amend, alter, change or repeal, or to adopt any provision inconsistent with, the relevant sections of the bylaws establishing the classified board. The board of directors (or its remaining members, even if less than a quorum) is also empowered to fill vacancies on the board of directors occurring for any reason for the remainder of the term of the class of directors in which the vacancy occurred, unless the vacancy was caused by the action of shareholders (in which event such vacancy will be filled by the shareholders and may not be filled by the directors).

Members of the board of directors may be removed only for cause at a meeting of the shareholders called for the purpose of removing the director, and the meeting notice must state that the purpose, or one of the purposes, of the meeting is removal of the director and must state the alleged cause upon which the director's removal would be based.

These provisions are likely to increase the time required for shareholders to change the composition of our board of directors. For example, in general, at least two annual meetings will be necessary for shareholders to effect a change in a majority of the members of our board of directors.

Advance notice provisions for shareholder proposals and shareholder nominations of directors. Our amended and restated bylaws provide that, for nominations to the board of directors or for other business to be properly brought by a shareholder before a meeting of shareholders, the shareholder must first have given timely notice of the proposal in writing to our secretary. For an annual meeting, a shareholder's notice generally must be delivered on or before December 31 of the year immediately preceding the annual meeting, unless the date of the annual meeting is

on or after May 1 in any year, in which case notice must be received not later than the close of business on the day which is determined by adding to December 31 of the year immediately preceding such annual meeting the number of days starting with May 1 and ending on the date of the annual meeting in such year. Detailed requirements as to the form of the notice and information required in the notice are specified in the amended and restated bylaws. If it is determined that business was not properly brought before a meeting in accordance with our amended and restated bylaws, such business will not be conducted at the meeting.

Wisconsin Business Corporation Law

Sections 180.1140 to 180.1144 of the Wisconsin Business Corporation Law, or the WBCL, restrict a broad range of business combinations between a Wisconsin corporation and an "interested stockholder" for a period of three years unless specified conditions are met. The WBCL defines a "business combination" as including certain mergers or share exchanges, sales of assets, issuances of stock or rights to purchase stock and other related party transactions. An "interested stockholder" is a person who beneficially owns, directly or indirectly, 10% of the outstanding voting stock of a corporation or who is an affiliate or associate of the corporation and beneficially owned 10% of the voting stock within the last three years. During the initial three-year period after a person becomes an interested stockholder in a Wisconsin corporation, with some exceptions, the WBCL prohibits a business combination with the interested stockholder unless the corporation's board of directors approved the business combination or the acquisition of the stock by the interested stockholder prior to the acquisition date. Following this three-year period, the WBCL also prohibits a business combination with an interested stockholder unless:

- the board of directors approved the acquisition of the stock prior to the acquisition date;
- the business combination is approved by a majority of the outstanding voting stock not owned by the interested stockholder;
- the consideration to be received by shareholders meets certain requirements of the statute with respect to form and amount; or
- the business combination is of a type specifically excluded from the coverage of the statute.

Sections 180.1130 to 180.1133 of the WBCL govern certain mergers or share exchanges between public Wisconsin corporations and significant shareholders, and sales of all or substantially all of the assets of public Wisconsin corporations to significant shareholders. These transactions must be approved by 80% of all shareholders and two-thirds of shareholders other than the significant shareholder, unless the shareholders receive a statutory "fair price." Section 180.1130 of the WBCL generally defines a "significant shareholder" as the beneficial owner of 10% or more of the voting power of the outstanding voting shares, or an affiliate of the corporation who beneficially owned 10% or more of the voting power of the then outstanding shares within the last two years.

Section 180.1150 of the WBCL provides that in particular circumstances the voting power of shares of a public Wisconsin corporation held by any person in excess of 20% of the voting power is limited to 10% of the voting power these excess shares would otherwise have. Full voting power may be restored if a majority of the voting power of shares represented at a meeting, including those held by the party seeking restoration, are voted in favor of the restoration. This voting restriction does not apply to shares acquired directly from the corporation.

Section 180.1134 of the WBCL requires shareholder approval for some transactions in the context of a tender offer or similar action for more than 5% of any class of a Wisconsin corporation's stock. Shareholder approval is required for the acquisition of more than 5% of the corporation's stock at a price above market value from any person who holds more than 3% of the voting shares and has held the shares for less than two years, unless the corporation makes an equal offer to acquire all shares. Shareholder approval is also required for the sale or option of assets that amount to at least 10% of the market value of the corporation, but this requirement does not apply if the corporation has at least three independent directors and a majority of the independent directors vote not to have this provision apply to the corporation.

Limitations of Directors' Liability and Indemnification

Our amended and restated bylaws provide that, to the fullest extent permitted or required by Wisconsin law, we will indemnify all of our directors and officers, any trustee of any of our employee benefit plans, and person who is serving at our request as a director, officer, employee or agent of another entity, against certain liabilities and losses incurred in connection with these positions or services. We will indemnify these parties to the extent the parties are successful in the defense of a proceeding and in proceedings in which the party is not successful in defense of the proceeding unless, in the latter case only, it is determined that the party breached or failed to perform his or her duties to us and this breach or failure constituted:

- a willful failure to deal fairly with us or our shareholders in connection with a matter in which the director or officer has a material conflict of interest;
- a violation of criminal law, unless the director or officer had reasonable cause to believe his or her conduct was unlawful;
- a transaction from which the director or officer derived an improper personal profit; or
- willful misconduct.

Our amended and restated bylaws provide that we are required to indemnify our directors and executive officers and may indemnify our employees and other agents to the fullest extent required or permitted by Wisconsin law. Additionally, our amended and restated bylaws require us under certain circumstances to advance reasonable expenses incurred by a director or officer who is a party to a proceeding for which indemnification may be available.

Wisconsin law further provides that it is the public policy of the State of Wisconsin to require or permit indemnification, allowance of expenses and insurance to the extent required or permitted under Wisconsin law for any liability incurred in connection with a proceeding involving a federal or state statute, rule or regulation regulating the offer, sale or purchase of securities.

Under Wisconsin law, a director is not personally liable for breach of any duty resulting solely from his or her status as a director, unless it is proved that the director's conduct constituted conduct described in the bullet points above. In addition, we maintain directors' and officers' liability insurance that will insure against certain liabilities, subject to applicable restrictions.

NASDAQ Capital Market Listing

Our common stock is listed on the NASDAQ Capital Market under the symbol "OESX."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is EQ Shareowner Services.

CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE REGISTRANT IF PUBLICLY DISCLOSED. [***] INDICATES THAT INFORMATION HAS BEEN REDACTED.

AMENDMENT NUMBER ONE TO BUSINESS FINANCING AGREEMENT

This AMENDMENT NUMBER ONE TO BUSINESS FINANCING AGREEMENT (this "**Amendment**"), dated as of June 3rd, 2019, is entered into by and between WESTERN ALLIANCE BANK, an Arizona corporation **Lender**"), one the one hand, and, ORION ENERGY SYSTEMS, INC., a Wisconsin corporation ("**Parent**"), the Subsidiaries of Parent listed on Schedule 1 attached to the Agreement defined below, and such other direct or indirect Subsidiaries of Parent that may hereafter become parties hereto (collectively with Parent, "**Borrowers**" and each a "**Borrower**"), on the other hand, with reference to the following facts:

A. Borrowers and Lender previously entered into that certain Business Financing Agreement, dated as of October 26, 2018 (the "**Agreement**").

B. Borrowers and Lender desire to amend the Agreement in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the foregoing, the parties hereto hereby agree as follows:

1. **Defined Terms**. All initially capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Agreement.

2. **Amendment to Section 1.12**. Section 1.12 of the Agreement is hereby amended in its entirety as follows:

> 1.12 **Overadvances**. Upon any occurrence of an Overadvance, Borrowers shall immediately pay down the Advances such that, after giving effect to such payments, no Overadvance exists; provided that if any Overadvance occurs due to the termination of the Inventory Sublimit Availability Period, then Borrowers shall pay down all Advances supported by the Inventory Sublimit on a monthly basis, commencing with the first day of the month following the termination of the Inventory Sublimit Availability Period in an amount equal to the lesser of $1,000,000 or the unpaid balance of Advances supported by the Inventory Sublimit.

3. **Amendments to Section 12.1**.

(a) The following definitions set forth in Section 12.1 of the Agreement are hereby amended in their entirety as follows:

> "**Inventory Sublimit**" means $3,000,000.
>
> "**Inventory Sublimit Availability Period**" means the period commencing on the Amendment Number One Effective Date and terminating, if ever, when Adjusted EBITDA for any fiscal quarter of Borrower is less than 75% of plan.

(b) Clause (m) of the definition of "Eligible Receivable" set forth in Section 12.1 of the Agreement is hereby amended in its entirety as follows:

(m) The Receivable is not that portion of Receivables due from an Account Debtor which is in excess of the Maximum Concentration Percentage of Borrowers' aggregate dollar amount of all outstanding Receivables.

(c) The following new defined terms are hereby added to Section 12.1 of the Agreement in alphabetical order:

"**Adjusted EBITDA**" means consolidated net profit before tax plus interest expense, depreciation expense and amortization expense, plus stock-based compensation expense.

"**Amendment Number One**" means that certain Amendment Number One to Business Financing Agreement, dated as of June 3rd, 2019, among Borrowers and Lender, amending this Agreement.

"**Amendment Number One Effective Date**" means the date when all of the conditions set forth in Section 4 of the Amendment Number One have been fulfilled to the satisfaction of Lender.

"**Maximum Concentration Percentage**" means the percentage indicated in the table below opposite the applicable Account Debtor:

Account Debtor	Maximum Concentration Percentage
[***]	50%
[***]	50%
[***]	75%
All others	35%

4. **Conditions Precedent to Effectiveness of Amendment**. The effectiveness of this Amendment is subject to and contingent upon the fulfillment of each and every one of the following conditions to the satisfaction of Lender:

(a) Lender shall have received this Amendment, duly executed by Borrowers;

(b) Lender shall have received an amendment fee in the amount of $2,000, which fee shall be fully-earned and non-refundable, part of the Obligations, and secured by the Collateral;

(c) No Event of Default or Default shall have occurred and be continuing; and

(d) All of the representations and warranties set forth herein and in the Agreement shall be true, complete and accurate in all respects as of the date hereof (except for representations and warranties which are expressly stated to be true and correct as of the date of the Agreement).

5. **Representations and Warranties**. In order to induce Lender to enter into this Amendment, each Borrower hereby represents and warrants to Lender that:

(a) No Event of Default or Default is continuing;

(b) All of the representations and warranties set forth in the Agreement and in the Agreement are true, complete and accurate in all respects (except for representations and warranties which are expressly stated to be true and correct as of the date of the Agreement); and

(c) This Amendment has been duly executed and delivered by Borrowers, and the Agreement continues to constitute the legal, valid and binding agreements and obligations of Borrowers, enforceable in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, and similar laws and equitable principles affecting the enforcement of creditors' rights generally.

6. **Counterparts; Electronic Execution**. This Amendment may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and all of which, when taken together, shall constitute but one and the same Amendment. Delivery of an executed counterpart of this Amendment electronically (including by e-mail delivery of a ".pdf" format data file) shall be equally as effective as delivery of a manually executed counterpart of this Amendment. Any party delivering an executed counterpart of this Amendment electronically also shall deliver a manually executed counterpart of this Amendment but the failure to deliver a manually executed counterpart shall not affect the validity, enforceability, and binding effect of this Amendment.

7. **Integration**. The Agreement as amended by this Amendment constitutes the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and thereof, and supersedes any and all prior agreements and understandings, oral or written, relating to the subject matter hereof and thereof.

8. **No Waiver**. The execution of this Amendment and the acceptance of all other agreements and instruments related hereto shall not be deemed to be a waiver of any Default or Event of Default, whether or not known to Lender and whether or not existing on the date of this Amendment.

9. **Release**.

(a) Each Borrower hereby absolutely and unconditionally releases and forever discharges Lender, and any and all participants, parent corporations, subsidiary corporations, affiliated corporations, insurers, indemnitors, successors and assigns thereof, together with all of the present and former directors, officers, agents and employees of any of the foregoing, from any and all claims, demands or causes of action of any kind, nature or description, whether arising in law or equity or upon contract or tort or under any state or federal law or otherwise, which such Borrower has had, now has or has made claim to have against any such person for or by reason of any act, omission, matter, cause or thing whatsoever arising from the beginning of time to and including the date of this Amendment, whether such claims, demands and causes of action are matured or unmatured or known or unknown. Each Borrower hereto certifies that it has read the following provisions of California Civil Code Section 1542:

> A general release does not extend to claims that the creditor or releasing party does not know or suspect to exist in his or her favor at the time of executing the release and that, if known by him or her, would have materially affected his or her settlement with the debtor or released party.

(b) Each Borrower understands and acknowledges that the significance and consequence of this waiver of California Civil Code Section 1542 is that even if it should eventually suffer additional damages arising out of the facts referred to above, it will not be able to make any claim for those damages. Furthermore, each Borrower acknowledges that it intends these consequences even as to claims for damages that may exist as of the date of this release but which it does not know exist, and

which, if known, would materially affect its decision to execute this Agreement, regardless of whether its lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

10. **Reaffirmation of the Agreement**. The Agreement as amended hereby and the Loan Documents remain in full force and effect.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this Amendment as of the date first hereinabove written.

BORROWERS:

ORION ENERGY SYSTEMS, INC.,
a Wisconsin corporation

By: /s/ William T. Hull
Name: William T. Hull
Title: Chief Financial Officer

CLEAN ENERGY SOLUTIONS, LLC,
a Wisconsin limited liability company

By: /s/ William T. Hull
Name: William T. Hull
Title: Chief Financial Officer

GREAT LAKES ENERGY TECHNOLOGIES, LLC,
a Wisconsin limited liability company

By: /s/ William T. Hull
Name: William T. Hull
Title: Chief Financial Officer

ORION SHARED SERVICES, LLC,
a Wisconsin limited liability company

By: /s/ William T. Hull
Name: William T. Hull
Title: Chief Financial Officer

ORION AVIATION, LLC,
a Wisconsin limited liability company

By: /s/ William T. Hull
Name: William T. Hull
Title: Chief Financial Officer

ORION TECHNOLOGY VENTURES, LLC,
a Wisconsin limited liability company

By: /s/ William T. Hull
Name: William T. Hull
Title: Chief Financial Officer

ORION ASSET MANAGEMENT, LLC,
a Wisconsin limited liability company

By: /s/ William T. Hull
Name: William T. Hull
Title: Chief Financial Officer

ORION OPERATIONS, LLC,
a Wisconsin limited liability company

By: /s/ William T. Hull
Name: William T. Hull
Title: Chief Financial Officer

LENDER:

WESTERN ALLIANCE BANK,
an Arizona corporation

By: /s/ Lisa Chang
Name: Lisa Chang
Title: Vice President

Exhibit 21.1

Subsidiaries

Entity	Jurisdiction of Organization
Great Lakes Energy Technologies, LLC	Wisconsin
Clean Energy Solutions, LLC	Wisconsin
Orion Asset Management, LLC	Wisconsin
Orion LED Canada, Inc.	British Columbia, Canada

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Orion Energy Systems, Inc.

Manitowoc, Wisconsin

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (No. 333-216324) and Form S-8 (No. 333-148401, 333-169611, 333-176176, and 333-213042) of Orion Energy Systems, Inc. of our reports dated June 4, 2019, relating to the consolidated financial statements, and the effectiveness of Orion Energy Systems, Inc.'s internal control over financial reporting, which appear in this Form 10-K.

/s/ BDO USA, LLP
Milwaukee, Wisconsin

June 4, 2019

Exhibit 31.1

Certification of Chief Executive Officer
Pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934

I, Michael W. Altschaefl, certify that:

1. I have reviewed this Annual Report on Form 10-K of Orion Energy Systems, 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 most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer 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: June 4, 2019

/s/ Michael W. Altschaefl
Michael W. Altschaefl
Chief Executive Officer

Exhibit 31.2

Certification of Chief Financial Officer
Pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934

I, William T. Hull, certify that:

1. I have reviewed this Annual Report on Form 10-K of Orion Energy Systems, 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 most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer 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: June 4, 2019

/s/ William T. Hull
William T. Hull
Chief Financial Officer, Chief Accounting Officer and Treasurer

Exhibit 32.1

Written Statement of the Chief Executive Officer and Chief Financial Officer
Pursuant to 18 U.S.C. Section 1350

Solely for the purposes of complying with 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, we, the undersigned Chief Executive Officer and Chief Financial Officer of Orion Energy Systems, Inc. (the “Company”), hereby certify, based on our knowledge, that the Annual Report on Form 10-K of the Company for the twelve-month period ended March 31, 2019 , (the "Report”) fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Michael W. Altschaefl

Michael W. Altschaefl
Chief Executive Officer

/s/ William T. Hull

William T. Hull
Chief Financial Officer,
Chief Accounting Officer and Treasurer

Date: June 4, 2019