ORION ENERGY SYSTEMS, INC.

2210 Woodland Drive Manitowoc, Wisconsin 54220

May 13, 2011

VIA EDGAR SYSTEM AND OVERNIGHT MAIL

Mr. Larry Spirgel Assistant Director U.S. Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Mail Stop 3561 Washington, D.C. 20549-3561

Re: Orion Energy Systems, Inc.
Form 10-K for the fiscal year ended March 31, 2010
Filed June 14, 2010
Form 10-Q for the quarter ended December 31, 2010
File No. 001-33887

Dear Mr. Spirgel:

Orion Energy Systems, Inc. (the "Company"), a Wisconsin corporation (File No. 001-33887), in response to the comments of the Staff of the Securities and Exchange Commission (the "Staff") set forth in the Staff's letter, dated April 28, 2011 (the "Comment Letter"), provides the following responses with respect to the above-referenced filings. The numbered items set forth below repeat (in bold italics) the comments of the Staff reflected in the Comment Letter, and following such comments are the Company's responses (in regular type).

Form 10-K for the fiscal year ended March 31, 2010 Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies and Estimates, page 44

1. We note your response to comments one and three from our letter dated March 23, 2011. Tell us how you determined the appropriate depreciation period for the equipment under both your OTA and PPA agreements. We note that under both agreements the useful life of the underlying assets exceeds the contract life. Also if the contract is not renewed after one year tell us how you account for the assets and how this factors into your evaluation of the depreciation period.

We respectfully advise the Staff that we have determined the depreciation period for the energy management systems under an OTA agreement in accordance with ASC 360-10 taking

into consideration our historical experience with OTA customers by determining the residual value at the end of each 12-month renewal period and depreciating the expense related to the current 12-month OTA term. Our assessment assumes that the equipment will have a service period not exceeding the initial 12-month term and the four successive renewal terms. Management has reached this conclusion based upon our continual product developments and improvements of energy management systems to the point where the older technologies have limited residual value to us and we have estimated that it would be more costly to repossess the old product. For example, in the last six months, we retrofitted 10,000 of our legacy lighting platforms at five facilities for an existing customer, replacing our legacy product with improved lighting platforms and energy management controls systems. The original product had been in service for approximately 5 years. Additionally, the Company is involved with researching and using various light emitting diode (LED) technologies as a light source for our lighting platforms. While LED up to this point has been highly costly, the technology continues to evolve and has the potential for future exchanges of our legacy lighting platforms.

Upon the final renewal term, the customer has exceeded 75% of our estimate of the equipment's economic life and the transfer of ownership at the end of the final 12-month term is clear. At the end of the final 12-month term, the Company abandons the underlying asset and ownership of the underlying asset transfers to the customer. In the event that a customer would ever choose not to renew its OTA contract, the Company would repossess the underlying lighting and energy management system, classify it as inventory on our financial statements and value the inventory at its lower of cost or market in accordance with ASC 330-10-35-1, and remarket the system. Any difference from the net book value of the system at the time of non-renewal and the determination of lower of cost or market value would be reported as a loss in the current period.

The depreciation period for the equipment under a PPA agreement is depreciated over our assessment of the useful life of the asset in accordance with ASC 360-10 taking into consideration the equipment manufacturer's estimates and engineering evaluations. In the event that a customer would ever choose to terminate its PPA contract, the Company would repossess the underlying equipment, classify it as inventory on our financial statements and value the inventory at its lower of cost or market in accordance with ASC 330-10-35-1, and remarket the system. Any difference from the net book value of the system at the time of non-renewal and the determination of lower of cost or market value would be reported as a loss in the current period.

2. We note your response to comment one from our letter dated March 23, 2011. Please address the following items:

• Tell us who retains title to the assets in the OTA and PPA agreements sold to the equipment financing company.

To clarify, we have never sold a PPA agreement to an equipment finance company. In the event that the Company sells the OTA equipment and assigns the contractual rights to the operating lease payments to an equipment finance company, title to the underlying energy management assets transfers to the equipment finance company at the time the bill of sale is executed by both parties.

• Describe what happens to the assets and who retains ownership if the agreement is not renewed.

In the event that a customer would not renew an OTA contract that has been sold by us on a non-recourse basis to a third party finance company, the finance company would have the

right to repossess the assets and remarket the system. The finance company acquired the assets at the time the bill of sale was executed.

• You indicate that payments are received from the equipment financing company over a four-year period. Tell us if you receive payments before the monthly payments are collected from your customers and describe the timing of payments.

The Company does receive proceeds upon the sale of the OTA equipment and the assignment of the operating lease payments in advance of the finance company's receipt of payments from the end customers. The Company sells the equipment to the finance company and receives 60% of the contract value at the time the bill of sale is executed. The remaining cash is received by the Company in the following manner: 12.5% at the end of the second year, 12.5% at the end of the third year, 10.0% at the end of the fourth year and the remaining balance at the end of the customer's final contract term.

• Tell us who collects the cash from the customer.

Upon execution of the sale of the OTA equipment and the assignment of the operating lease payments to the third party finance company, the equipment finance company assumes full responsibility and risk for collecting customer payments under the OTA contract.

• Explain the primary business purposes for involving the financing company.

Due to management's conclusion of operating lease treatment under ASC 840-10, the Company's primary business purposes in selling the OTA equipment and the assignment of the operating lease payments to an independent finance company, without recourse, is to 1) generate revenue for the Company; 2) provide cash flow to the Company; and 3) eliminate activities that are not core competencies of the Company. Equipment finance companies already have systems and experienced personnel in place to manage equipment finance contracts. Selling the contracts allows the Company to focus on its strengths, which are manufacturing and selling energy management goods and services.

· Tell us why the finance company is willing to assume the risk that customers will not renew the agreements.

We cannot speak on behalf of the finance company. We can offer some background on the finance company that we have dealt with. Northland Capital Financial Services, LLC has been in the business of financial services for approximately 15 years, focusing on equipment finance in the agricultural, transportation, fabrication and renewable energy solutions markets. Since Northland Capital has financing and asset management experience in each of these markets, which could be perceived as higher risk markets, the 12-month nature of the OTA contract falls within the scope of their risk tolerance. Northland Capital was listed in Monitor Daily, an industry magazine, as the one of the top 15 Private Independent lessors in the country for 2010 and in the top 100 of all leasing companies nationwide. The finance company has access to capital through CoBank, a \$66 billion cooperative bank, and other sources. The Company has no ownership interest or controlling interest with any of the financing sources. The finance company is in the business of evaluating residual risk on all types of equipment finance transactions. Effectively, the finance company has priced its evaluation of risk of non-renewals into their purchase discount rate.

- If the agreement is not renewed by the customers, tell us if you still have the right to collect the payments from the financing company.
- In the event that an OTA contract would not be renewed by a customer, the finance company would not be relieved of its obligation to make future payments to the Company as the OTA equipment was sold and the assignment of the operating lease payments were made on a non-recourse basis.
- 3. You state in your response that you applied the provisions of ASC 860 in accounting for the sale of OTA contracts. We note that the scope section of ASC 860-10-15 indicates that this topic does not address the transfers of unrecognized financial assets, for example, minimum lease payments to be received under operating leases. Tell us why you believe it is appropriate to recognize revenue for future payments when OTA agreements are sold to the financing company. Please tell us the consideration you gave to treating this as a financing transaction, similar to a sale of future revenues addressed in ASC 470-10-25, Sales of Future Revenues. Also discuss the consideration given similar transactions addressed in the implementation guidance on software revenue recognition in ASC 985-605-55-31 and 32 where extended payment terms are transferred or converted to cash without recourse to the vendor. Upon satisfaction of the revenue recognition model, the underlying cash flows would constitute a receivable and would then be eliqible for sales treatment under ASC 860.

To further clarify the revenue recognition related to the sale of the OTA equipment and the assignment of the operating lease payments to an equipment finance company, the Company sells the underlying equipment and assigns the contractual rights to the operating lease payments. According to the codification on leases, ASC 840-20-40-3 allows for the sale of property subject to an operating lease as long as the seller does not retain substantial risks of ownership in the leased property. In the sale of the equipment to the finance company, the Company retains no risks of ownership as the finance company has acquired title to the equipment and the ability to pledge the underlying assets. In the event of default by the lessee, the Company has no obligation to acquire the equipment, substitute an existing lease or secure a replacement under a marketing agreement. The finance company may elect to hire the Company to remarket the product at a reasonable cost to repossess and remarket the product. The Company also is not obligated to give priority to the disposition of the product according to the terms within the bill of sale with the finance company.

Due to the transfer of title to the assets upon the execution of the bill of sale, the Company determined that the provisions of ASC 470-10-25 did not apply as the transaction does meet the requirements of a sale, including transfer of title and rights to the equipment and the OTA contracts. The Company has no continuing involvement in the finance company's generation of cash flows from the OTA contracts and there are no obligations to return proceeds received from the sale to the finance company. Effectively, the finance company's return on its investment comes directly from the collection of payments under the OTA contracts and is not impacted by the Company.

The Company does not believe the provisions of ASC 985-605-55-31 or 32 related to software revenue recognition apply as the sale proceeds are fixed at the time the bill of sale is executed and has no variable component based upon usage or a right of return provision. Additionally, the Company believes that collectability is probable based upon its experience

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related to collecting all payments due from the financing company from prior sales of OTA contracts.

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If the Staff has any questions with respect to the foregoing, please contact the undersigned at (920) 892-5454.

Very truly yours,

ORION ENERGY SYSTEMS, INC.

By: /s/ Scott R. Jensen
Scott R. Jensen
Chief Accounting Officer

cc: Michael Henderson Terry French Securities and Exchange Commission