

ORION ENERGY SYSTEMS, INC.

2210 Woodland Drive
Manitowoc, Wisconsin 54220

April 4, 2011

VIA EDGAR SYSTEM AND OVERNIGHT MAIL

Mr. Larry Spigel
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. Spigel:

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 March 23, 2011 (the "Comment Letter"), provides the following responses with respect to the above-referenced filings (the "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. Provide us with a detailed analysis of your Orion Virtual Power Plant Agreements (OVPP) and Orion Throughput Agreements (OTA) financing programs. Tell us how you applied the guidance in ASC 840 or other accounting guidance in determining the appropriate accounting treatment for these transactions, including the sale of future cash flows and residual rights to equipment to an unrelated third party. In your response, please describe the material terms of the agreements, including the following:***
 - your obligations under the agreements and how you evaluated the impact of these obligations in recording the sale of future payment streams or contract rights to third parties,***
 - the term of the agreements, including renewal periods,***
 - the details of the right of return, and***
 - the details of the early buyout provisions.***
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We respectfully advise the Staff that the Company sells products to our customers on a cash basis, but also offers a financing program called Orion Throughput Agreements (OTAs) or Orion Virtual Power Plant (OVPP) Agreements. We use the terms OTA and OVPP synonymously, and the terms and conditions for each type of agreement are identical. Hereafter, in this response, we will use the term OTA as a reference to both types of aforementioned agreements.

Our obligation under the OTA contract is to manufacture and install any combination of high intensity fluorescent (HIF) lighting fixtures and energy management wireless controls on behalf of our customers. The financing program in substance is a lease agreement which covers an initial period of 12 months, during which time the customer makes fixed monthly rental payments. At the end of the initial 12-month period, the customer may either return the product or renew the OTA agreement for the next 12-month period. There are no return provisions during the 12-month contract term. The full term of the agreement, which includes four renewable 12-month terms, is typically five years, but may be less dependent upon a customer's facility lease terms or as a result of our credit underwriting decisions. At the end of the final 12-month term, the rights of ownership of the lighting system automatically transfer to the customer. The OTA agreement includes a predetermined early buyout schedule, which is an estimate of the fair value of the equipment that allows the customer to purchase the HIF system at any time during the contract term.

For revenue recognition purposes, we treat OTA contracts as operating leases and recognize revenue on a monthly basis over the 12-month term of the agreement. The renewal terms are not considered part of the initial lease term as renewal is strictly within the control of the customer and the Company cannot conclude whether such renewals are assured. Contracts in the final renewal year are treated as capital leases as ownership of the HIF lighting system transfers to the customer. Due to the timeframe in which we have used OTA contracts, contracts in their final renewal year have not been significant.

For all OTA contracts, we do not begin the revenue recognition process until the customer has signed an OTA acceptance certificate providing their acknowledgement and agreement that the system has been installed and is operating as designed. Our revenue from OTA agreements is based upon a fixed monthly price and is not dependent upon the amount of energy savings generated. Under Generally Accepted Accounting Principles (GAAP) and Accounting Standards Codification (ASC) 840, the OTA agreement is treated as an operating lease for revenue recognition purposes for the following reasons: during the 12-month contractual term, no transfer of ownership occurs; no bargain purchase price exists; the estimated economic life of an HIF system is substantially longer than the 12-month terms of the OTA agreement; and the present value at the beginning of the lease term of the minimum lease payments does not exceed 90% of the fair value of the leased HIF system. Additionally, collectability of the monthly lease payments is reasonably predictable and, due to the fact that the customer must agree in writing that the system has been installed and is operating as designed, there are no important uncertainties related to unreimbursable costs yet to be incurred by us under the lease.

As disclosed in our critical accounting policies for revenue recognition in our Annual Report on Form 10-K, we have sold certain OTA contracts and the related future cash flows on a non-recourse basis to an unrelated third party equipment finance company. Any risk of non-renewal lies with the purchaser of the OTA contracts. The terms of the sales provide for a discount to the gross value of the remaining OTA payments. Payments on the net price of the sale to the third party finance company are typically received over a four-year period and revenue is

recorded based upon the net present value of the future payments using the Company's weighted average cost of capital. Under the provisions of ASC 860 a transfer of financial assets in which the transferor surrenders control over those financial assets shall be accounted for as a sale to the extent that consideration other than beneficial interests in the transferred assets is received in exchange. The transferor has surrendered control over financial assets if the following conditions have been met: the transferred assets have been isolated from the transferor beyond the reach of the transferor and its creditors, the transferee has the right to pledge or exchange the assets it received and no condition both constrains the transferee from taking advantage of its right to pledge or exchange and provides more than trivial benefit to the transferor, the transferor does not maintain effective control over the transferred assets through either (1) an agreement that both entitles and obligates the transferor to repurchase or redeem them before their maturity or (2) the ability to unilaterally cause the holder to return specific assets, other than through a cleanup call. All of these criteria have been met and the only continuing involvement relates to our fulfillment of warranty obligations to the system which are covered by the original equipment manufacturers of the HIF bulbs and electronic ballasts.

2. ***Describe in your response the selling and administrative costs and expenses you are deferring under the OTA and OVPP agreements and your basis for deferral. In this regard we note that in some instances you disclose that all costs are expensed up front and in other instances you state that most are expensed up front. Also describe the costs of revenues that you are deferring, your basis for the deferral, and your basis for the amortization period for the related deferred costs.***

We respectfully advise the staff that all costs for OTA projects related to selling and administrative are expensed as incurred. These costs include all compensation, travel and related salesperson costs to present proposals to our customers along with all administrative costs for compensation related to contract development, contract legal review and credit underwriting. We capitalize our manufacturing product costs for HIF and energy management controls, and the contracted costs of installation and the disposal of the old lighting systems. The final capitalized cost of the HIF product is recorded within property and equipment on our balance sheet. The OTA equipment is amortized over the expected full term of the underlying OTA contract to match expense and revenue based upon our experience that practically all customers exercise the renewal option after each 12-month term. We will clarify in future filings which costs are expensed and which are capitalized.

Form 10-Q for the quarterly period ended December 31, 2010

Note B — Summary of Significant Accounting Policies

Revenue Recognition, page 9

3. ***Please address comments one and two above, as applicable, in regards to your solar power purchase (PPA) financing program.***

We respectfully advise the Staff that the Company provides a financing program, called a Power Purchase Agreement (PPA), for electricity generated from solar photovoltaic panels that convert sunlight into electricity. The Company acts as a distributor for solar panel suppliers and does not manufacture any of the solar technologies. The terms of the PPAs are either 10 or 15 years. The PPA agreements define a fixed rate per Kilowatt (KW) that the customer will pay. The rate can be fixed for the duration of the contract or may include an escalator clause for pricing that resets annually based upon the customer's market retail electric rate. At the end of the PPA contract term, the customer has (1) the option to terminate the contract, at which time we would reclaim the solar system from the customer's site, (2) the option to continue the contract for an additional period of time to be negotiated or (3) the option to purchase the system at fair market

value. The agreements meet the classification of operating leases under the provisions of ASC 840 as the customer has the ability or right to control access to the solar panels while obtaining more than a minor amount of the output. Accordingly, revenue is recognized on a monthly basis based upon the KW electricity generated. There is no transfer of ownership of the solar panels. We currently have two PPAs in place. We have not sold any of our PPAs to third party finance companies.

Costs related to materials, engineering and project management design to get the system operational and installation expenses are capitalized and recorded as property and equipment on the Company's balance sheet. These costs are amortized over the term of the PPA contract to match expenses with revenues. The terms of the contracts are less than 75% of the estimated useful life. Expenses related to selling, including compensation and travel costs for salespersons engaged in presenting customer proposals and administrative expenses related to compensation costs for contract administration, legal review and accounting support are expensed as incurred.

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Additionally, as requested, the Company hereby acknowledges that:

1. The Company is responsible for the adequacy and accuracy of the disclosure in the Filings;
2. Staff comments or changes to disclosure in response to Staff comments in the Filings do not foreclose the Securities and Exchange Commission from taking any action with respect to the Filings; and
3. The Company may not assert Staff comments as a defense in any proceedings initiated by the Securities and Exchange Commission or any person under the federal securities laws of the United States.

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 Financial Officer

cc: Michael Henderson
Terry French
Securities and Exchange Commission