

November 13, 2007

Mail Stop 6010

Neal R. Verfueth
President and Chief Executive Officer
Orion Energy Systems, Inc.
1204 Pilgrim Road
Plymouth, WI 53073

**Re: Orion Energy Systems, Inc.
Registration Statement on Form S-1/A
Filed October 30, 2007
File No. 333-145569**

Dear Mr. Verfueth:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Other Information, page 8

1. Please revise your response to comment 8 of our September 18, 2007 letter to you to reflect your revised disclosure.

Use of Proceeds, page 25

2. From your response to prior comment 3, the principal reasons for an offering of this size remain unclear. Therefore, we reissue the comment.
3. In this regard, and with a view toward clarified disclosure in an appropriate section of your document, please tell us about the purpose and total cost of the new technology center mentioned on page 46.

Products, page 61

4. Prior comment 9 sought the three-year revenue breakdown by product class as required by Regulation S-K Item 101(c)(1)(i) – not a repetition of your product and service revenue from your financial statements. Therefore, we reissue the comment. We note that you describe several classes of products in this section. From your existing disclosure, it remains unclear to what extent these classes contributed to your revenue and how the discontinuation of your distribution activities mentioned on page 65 affected the composition of your revenue.

Executive Compensation, page 70

5. We note your response to prior comment 12. If the committee has not yet made key decisions regarding the compensation of your executives, please add appropriate risk factors. Include the extent to which the current proposals would materially modify historic compensation.
6. Please disclose the results of the benchmarking analysis mentioned in your revisions on page 72.
7. With a view toward clarified disclosure, please tell us the nature of the alleged violations of the separation agreement mentioned on page 85. Also clarify whether you or Mr. Prange are making the allegations.

Executive Officer Stock Ownership Guidelines, page 80

8. Please discuss how you determined the appropriate multiples. For example, did the committee analyze the basis for the consultant's recommendation?

Payments Upon Termination, page 85

9. It appears that you have deleted some of the terms of your agreement with Mr. Prange's separation agreement. Although you may disclose subsequent actions, you should not omit material terms of the initial agreement.

New Employment Agreements, page 86

10. We note your response to prior comment 15. Please clarify what you mean by "consistent with general public company practice." For example, do you mean that every public company has the same severance terms as you? If not, how did you conclude that your terms were "consistent"?

Principal and Selling Shareholders, page 92

11. We will continue to evaluate your response to prior comment 19 when you provide the relevant disclosure, including the disclosure of transactions with the unidentified selling stockholders. Also note that the disclosure should indicate which of the selling shareholders' securities are being offered.
12. Where the selling security holders have acquired the offered shares by exercise of options or warrants within the past three years, please disclose the exercise price of the option or warrant. Also, if the selling shareholder is offering shares underlying options, warrants or convertible securities that were acquired within the past three years, please describe the transaction in which such option, warrant or convertible security was acquired, including the consideration paid.

Revenue Recognition, page F-11

13. Please refer to prior comment 22. Although we note the revised disclosure on page F-12, it is still not clear how this program operates in conjunction with your shared savings programs with customers. In prior comment 64 of our September 18, 2007 letter, we noted your disclosure that some customers finance the purchase of the system by paying you a specified amount over time based on a predetermined measure of the reduction in their electricity consumption resulting from the use of your products. As previously requested you should tell us and disclose how you account for these revenues and the associated costs.
14. Further, we note from your response to prior comment 64 from our September 18, 2007 letter that these agreements relate to your sales-type financing program. Please tell us the significant terms of the shared savings programs and how the amount owed by the customer is determined for purposes of determining the amount to recognize as revenue under the third party financing. Explain how the third party finance company determines the amount of funding to provide if the amount owed by the customer is variable based upon their savings.

Inside Back Cover of Prospectus

15. Please tell us the criteria that you used to determine that these companies are objectively representative of your customer base. Also tell us whether you presented logos for all customers that satisfy those criteria.

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As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Dennis Hult at (202) 551-3618 or Kaitlin Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Joseph McCann at (202) 551-6262 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso
Branch Chief

cc (via fax): Steven R. Barth, Esq.—Foley & Lardner LLP