

**ORION ENERGY SYSTEMS, INC.**  
2210 Woodland Drive  
Manitowoc, Wisconsin 54220

May 11, 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), has received the comment letter from the Staff of the Securities and Exchange Commission (the "Staff"), dated April 28, 2011, in response to the Company's reply letter, dated April 4, 2011, to the comment letter from the Staff dated March 23, 2011.

Both comment letters were related to the above-referenced filings. We wish to thank you and the other members of the Staff for providing us with your further comments. The Company notes that the Staff has requested that the Company either (i) respond to the Staff's comments within ten business days or (ii) inform the Staff as to when the Company will provide a response to the comments. The Company has carefully reviewed and considered the Staff's comments and is in the process of preparing a response to the comments. The Company contacted Mr. Michael Henderson over the phone on May 11, 2011 to discuss a time extension to file its response to the comment letter. Based on that discussion, the Staff preliminarily agreed to extend the time to respond to the Staff's comments by ten business days, to May 26, 2011.

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