



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

September 30, 2009

Via U.S. Mail and Facsimile to (310) 527-7888

Jarett Fenton
Chief Financial Officer
Enova Systems, Inc.
1560 West 190th Street
Torrance, CA 90501

**Re: Enova Systems, Inc.
Form 10-K for the Fiscal Year ended December 31, 2008
Filed March 31, 2009
Form 10-Q for the Fiscal Quarter ended June 30, 2009
File No. 001-33001**

Dear Mr. Fenton:

We have reviewed your filings and have the following comments. Where indicated, we think you should revise your documents 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.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. 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.

Form 10-K for the Fiscal Year ended December 31, 2008

Financial Statements

Item 1. Business, page 3 and 4

1. We note from your disclosures on page 4 that in January 2009 you completed a series of reorganization efforts, which included, among other things, implementing a 48% reduction in your workforce company wide. Also, from the disclosures on page 29, it appears that you had a decrease in personnel costs in light of the Company's reorganization efforts during 2008. In this regard, please tell us if a liability for costs associated with exit or disposal activities was recognized and measured initially at its fair value in the period in which the liability was incurred, as outlined in paragraphs 3 through 17 of SFAS No. 146. Also, please provide us with and revise the notes to your financial statements in future filings to include the disclosures in paragraph 20 of SFAS No. 146.

Note 3. Inventory, page 44

2. We note from your disclosures on pages 29 and 44 that your inventory increased 115% year-over year, between 2007 and 2008, as a result of inventory purchases through the third quarter of 2008 in anticipation of sales volume from key customers. Also, we note from your disclosure on page 27 that the primary reason for the 30% decrease year-over-year in net revenue, between 2007 and 2008, was due to a 60% reduction in sales to Tanfield, your largest customer. Additionally, we note from your disclosure on page 16 that you expect fewer orders from Tanfield for 2009. Furthermore, we note from your disclosure on page 27 that your gross margin continues to decline from negative 12 % in 2007 to negative 28% in 2008. Finally, we note from your Form 10-Q for the quarterly period ended June 30, 2009 that net revenue decreased by 78% for the six months ended June 30, 2009 and your inventory reserves decreased by approximately 15 %. Considering the significant decline in net revenue experienced in fiscal year 2008 and your interim period ended June 30, 2009, the significant increase in inventory balance at December 31, 2008 and June 30, 2009 compared to the corresponding prior periods, your significant declining gross margin during your fiscal year ended December 31, 2008 and the significant reduction in sales to Tanfield (your largest customer), please explain to us in detail how the aforementioned factors were considered in establishing your inventory reserves at December 31, 2008 and June 30, 2009. As part of your response, please provide us with the method(s) and assumptions used in estimating the net realizable value of your inventories at December 31, 2008 and June 30, 2009.

Exhibit 32

3. We note that your Section 906 certification furnished in accordance with Item 601(b)(32) of Regulation S-K improperly refers to the period ended December 31, 2007. Please file an amendment to your Form 10-K that includes the entire filing together with a Section 906 certification that correctly refers to the period ended December 31, 2008. This comment also applies to your Forms 10-Q for the fiscal quarters ended March 31, 2009 and June 30, 2009 as the Section 906 certifications furnished in these filings improperly refer to the period ended March 31, 2008.

Form 10-Q for the Fiscal Quarter ended June 30, 2009

Exhibit 31

4. We note that that you replaced the word “report” with “quarterly report” in paragraphs 2, 3, and 4(a) of the certification and removed the phrase “(the registrant’s fourth fiscal quarter in the case of an annual report)” from paragraph 4(d). In future filings, including the requested amendment, please revise the certifications to present them in the exact form as set forth in Item 601(b)(31) of Regulation S-K with no modifications.

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. 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 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 Exchange Act of 1934 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 connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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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 our review of your filing or in response to our comments on your filing.

You may contact Kevin Kuhar, Staff Accountant, at (202) 551-3662 or me at (202) 551-3212 if you have questions regarding these comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any questions.

Sincerely,

Jeffrey Jaramillo
Accounting Branch Chief