

Mail Stop 4561

September 30, 2009

Mr. Manouch Moshayedi
Chief Executive Officer
STEC, Inc.
3001 Daimler Street
Santa Ana, CA 92705-5812

**Re: STEC, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008
Filed March 12, 2009
Form 10-Q for the Quarterly Period Ended March 31, 2009
Filed May 11, 2009
Form 10-Q for the Quarterly Period Ended June 30, 2009
Filed August 3, 2009
File No. 000-31623**

Dear Mr. Moshayedi:

We have reviewed your response letter dated September 10, 2009 in connection with the above-referenced filings and have the following comment. If indicated, we think you should revise your document in response to this comment. 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 our comment, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may raise additional comments. Unless otherwise noted, where prior comments are referred to they refer to our letter dated August 28, 2009.

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

Item 15. Exhibits and Financial Statement Schedules

1. We note your response to prior comment 8. Given the substantial revenues generated pursuant to your agreements with SMART Modular and EMC Corporation, respectively, and your disclosure that the loss of any key customer would materially reduce your revenues, it remains unclear to us how you have concluded that you are not substantially dependent upon any of your agreements with SMART Modular or EMC Corporation, such that they are not required to be

Mr. Manouch Moshayedi
STEC, Inc.
September 30, 2009
Page 2

filed pursuant to Item 601(b)(10)(ii)(B) of Regulation S-K. We note your statements that STEC's master agreements typically are non-exclusive and that they do not contain any binding long-term volume commitments, and that actual sales are made through more specific sales agreements such as purchase orders. Please also tell us whether your master agreements with Smart Modular and EMC differ in any material way from each other or from your master agreements with other customers. In addition, please advise, in quantitative terms, whether sales to these customers for fiscal year 2008 were based on a few large purchase orders or multiple small ones. With respect to any individual purchase order that accounted for a significant amount of the company's revenues, please advise how you concluded that any such purchase order is not required to be filed as a material contract under Item 601(b)(10). Finally, with respect to your assertion that the composition of your major customer base changes from quarter to quarter, we note that you may nonetheless be substantially dependent on your relationship and agreement(s) with SMART Modular, given that this major customer has consistently generated material revenues for the company in recent years, accounting for 37.3%, 50.1% and 34.4% of your total revenues for fiscal 2006, 2007 and 2008.

* * * * *

Please respond to this comment within 10 business days or tell us when you will provide us with a response. Please submit all correspondence and supplemental materials on EDGAR as required by Rule 101 of Regulation S-T. If you amend your filing(s), you may wish to provide us with marked copies of any amendment to expedite our review. Please furnish a cover letter that keys your response to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing any amendment and your response to our comment.

You may contact Ryan Rohn, Staff Accountant, at (202) 551-3739 if you have any questions regarding comments on the financial statements and related matters. Please address questions regarding all other comments to Katherine Wray, Staff Attorney, at (202) 551-3483 or Mark Shuman, Legal Branch Chief, at (202) 551-3462. If you need further assistance, you may contact me at (202) 551-3730.

Sincerely,

Stephen Krikorian
Accounting Branch Chief