



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 3030

August 23, 2017

Via E-mail

James A. Simms  
Chief Financial Officer  
Vicor Corporation  
25 Frontage Road  
Andover, Massachusetts 01810

**Re: Vicor Corporation  
Form 10-K for the Fiscal Year Ended December 31, 2016  
Filed March 7, 2017  
File No. 000-18277**

Dear Mr. Simms:

We have limited our review of your filing to the financial statements and related disclosures and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2016

Consolidated Financial Statements

Note 17. Segment Information, page 79

1. We note from pages 12 and 54 that international revenues approximated 60% in 2016. Revise this note in future filings to include the geographic information relating to revenues and long-lived assets required by ASC 280-10-50-41.
2. We note on pages 12 and 54 the discussion of the revenues you earned from your five largest customers in 2016. Please revise this note in future filings to include the information relating to your major customers, including identifying the segments reporting the revenues, as required by ASC 280-10-50-42.

James A. Simms  
Vicor Corporation  
August 23, 2017  
Page 2

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Dennis Hult at (202) 551-3618 or me at (202) 551-3671 with any questions.

Sincerely,

/s/ Martin James

Martin James  
Senior Assistant Chief Accountant  
Office of Electronics and Machinery