

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

August 18, 2010

Via Facsimile and U.S. Mail

Mr. John Lackland Chief Financial Officer Power Efficiency Corporation 3960 Howard Hughes Pkwy, Ste 460 Las Vegas, NV 89169

Re: Power Efficiency Corporation

Form 10-K for the Fiscal Year Ended December 31, 2009

Filed March 31, 2010

Form 10-Q for the Quarter Ended June 30, 2010

File No. 000-31805

Dear Mr. Lackland:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K For the Year Ended December 31, 2009

Item 9A. Controls and Procedures, page 23

1. We note your material weakness outlined in your disclosure related to the determination of the fair value of your warrant liability and related to your accounting for deferred income taxes. Please revise future filings, including any amendment to this Form 10-K,

to disclose management's plans, if any, or actions already undertaken for remediating the deficiencies identified.

2. Further to the above, we note that your management concluded that your disclosure controls and procedures and internal controls over financial reporting were not effective as of December 31, 2009 due to these aforementioned material weaknesses. We further note from your March 31, 2010 Form 10-Q and June 30, 2010 Form 10-Q that your management concluded that your disclosures controls and procedures were effective as of March 31, 2010 and June 30, 2010. In light of the material weaknesses that existed as of December 31, 2009, please explain to us why management believes that the company's disclosure controls and procedures were effective as of March 31, 2010 and June 30, 2010. Within your discussion, please explain how management remediated the material weaknesses and how you have considered the disclosure requirements outlined in Item 308(c) of Regulation S-K.

Note 3. Summary of Significant Accounting Policies, page F-7

-Inventories, page F-8

3. We note your disclosure that your management has determined that a reserve for inventory obsolescence was not necessary as of December 31, 2009. We further note that your sales have decreased by approximately 35% from fiscal year 2009 as compared to fiscal 2008 while during the same time your inventory balance has increased. Finally, we note that your inventory balance at December 31, 2009 represents over one years worth of inventory based on 2009 sales. Considering these factors, please provide us with additional detail regarding how you evaluated your inventory for recoverability as of December 31, 2009.

-Fair Value Measurements, page F-9

4. Please revise your future filing to include the disclosures outlined in paragraph 820-10-50-2(c) of the FASB ASC related to your warrant liabilities valued using a level 3 valuation model.

-Revenue Recognition, page F-10

5. We note from page 7 that you sell your products to OEM resellers and distributors. Please revise your future filings to explain the nature and significant terms of these arrangements with distributors, including any post shipment obligations and acceptance provisions that may exist and how you account for such obligations. Within your discussion, please explain if you grant price concessions to your distributors and, if so, how you account for price concessions.

6. Further to the above, we note that you provide sales returns, discounts, and shipping credits to your customers. Please revise your disclosure in future filings to explain how you account for these sales returns, discounts, and shipping credits to your customers. Refer to the guidance in 605-50 of the FASB Accounting Standards Codification and SAB Topic 13.

-Accounting for Stock Based Compensation, page F-10

7. Please revise your future filings to explain how you determined the assumptions utilized in the Black Scholes valuation model including the volatility, risk free interest rate, expected life, etc. Refer to the guidance in 718-10-50-2 of the FASB Accounting Standard Codification.

-Product Warranties, page F-10

8. To the extent material, please revise your future filings to provide the disclosures outlined in 460-10-50-8(c) of the FASB Accounting Standard Codification.

Note 12. Commitments and Contingencies, page F-22

9. We note on page F-23 that you have entered into a manufacturing service agreement with Sanima-Sci Corporation for the production of digital units and digital circuit boards during fiscal 2007. We further note that this arrangement requires certain minimum purchase commitments. We also note the initial term of the contract was one year and then will continue on a year to year basis. Please tell us why you are unable to determine if the actual purchases under this contract will be in excess of the minimum purchase commitments considering that have passed the one-year mark on the contract. Within your discussion, please provide to us the minimum purchase commitments that you have agreed upon.

Note 18. Unaudited Selected Quarterly Financial Data, page F-31

- 10. We note your disclosures here and within your March 31, 2010 and June 30, 2010 Forms 10-Q that you identified errors related to the valuation of your warrants and related to your accounting for the deferred tax liability related to amortization of goodwill for tax purposes. You state that the errors resulted in material differences in your warranty liability and related fair value adjustments. However, you separately state that you determined that such errors were not material. Please address the following comments:
 - Explain to us how you concluded that the errors on an individual and aggregated basis were not material to your financial statements. Please provide us with a summary of your materiality analysis on a qualitative and quantitative basis related to the error identified. Refer to the guidance in SAB 99 and SAB 108. Reconcile your conclusions that such errors were not material with your separate statement here that

the errors resulted in material differences in your liability and related fair value adjustments.

- Explain if the "adjusted quarterly statement of operations" for fiscal 2009 includes the errors related to both the warrant valuation deferred tax liability related to amortization of goodwill for tax purposes.
- Explain to us why you labeled these financial statements "as adjusted" versus "as restated."
- Tell us how you evaluated the provisions of Item 4.02 of Form 8-K and discuss why you believe you have complied with those provisions.

Exhibits 31.1 and 31.2

11. We note here and within each of your March 31 and June 30, 2010 Forms 10-Q that the certifications filed as Exhibits 31.1 and 31.2 do not include all of the introductory language of paragraph 4 required by Item 601(b)(31) of Regulation S-K. Please amend this filing and each of your March 31 and June 30, 2010 Forms 10-Q to include revised certifications that conform to the requirements of Item 601(b)(31) of Regulation S-K.

Form 10-Q for the Quarter Ended June 30, 2010

Note 7. Convertible Preferred Stock, page 10

- 12. We note your disclosures related to the 313,753 units issued on June 21, 2010. Please address the following comments related to this transaction:
 - Please tell us the pertinent rights and privileges of your Series D preferred stock including the conversion terms. Refer to the guidance in paragraph 505-10-50-3 of FASB Accounting Standard Codification.
 - Please explain to us in more detail how you accounted for these units including the including the classification of the convertible Series D preferred stock, the embedded conversion feature, and the warrants issued in connection with the transaction. Cite the accounting literature relied upon and how you applied it to your situation.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3643 if you have questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Kevin L. Vaughn Accounting Branch Chief