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November 18, 2016

BY EDGAR AND FEDEX

Ms. Amanda Ravitz
Assistant Director
Office of Electronics and Machinery
Division of Corporation Finance
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

**Re: Polar Power, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed October 20, 2016
File No. 333-213572**

Dear Ms. Ravitz:

On behalf of Polar Power, Inc. (the "Company"), the undersigned has set forth below the responses of the Company to the comments of the staff (the "Staff") of the United States Securities and Exchange Commission (the "Commission") contained in the Staff's comment letter dated October 28, 2016. For ease of reference, the text of each of the Staff's comments is reproduced in italics in numerical sequence in this letter, with the response of the Company immediately following each comment.

Concurrently with the submission of this letter, the Company has filed Amendment No. 2 to the above-referenced Registration Statement on Form S-1 (the "Registration Statement") with the Commission on EDGAR, reflecting the revisions described in this letter as well as certain other updated information.

For your convenience, the Company is supplementally providing to the Staff; a copy of Amendment No. 2 to the Registration Statement, which has been marked to indicate the changes from Amendment No. 1 to the Registration Statement, as filed with the Commission on October 20, 2016, and (ii) copies of The Mobile Economy 2015 report and The Mobile Economy 2016 report as requested in the Staff's Comment No. 2.

ATLANTA BEIJING CHARLOTTE CHICAGO HONG KONG NEW YORK ORANGE COUNTY PORTLAND RALEIGH
RICHMOND SAN DIEGO SAN FRANCISCO SHANGHAI TYSONS CORNER VIRGINIA BEACH WASHINGTON, DC

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Capitalized terms that are used but not defined in this letter shall have the meanings ascribed to them in the Registration Statement. All responses provided herein are based solely on information provided by the Company.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview, page 38

1. *Please expand your response to prior comment 13 to clarify why you deleted the disclosure referenced in that comment. Please also clarify the extent to which AC power systems are currently used, the reasons underlying AC power's historical predominance and the reasons underlying a shift towards DC power.*

Response to Comment 1:

The Company's prior disclosure stating that the "global telecommunications tower market is undergoing a rapid transition from AC power systems to DC power systems globally" was deleted from the Registration Statement because the Company was unable to obtain any independent data in support of such statement. The statement should have been qualified as to the Company's belief, which belief is based upon (i) the recent demand for the Company's DC base power systems from the Company's largest customer, Verizon Wireless, (ii) expressions of interest in the Company's products from other telecommunications companies, both domestically and internationally, and (iii) the information set forth on page 50 of Amendment No. 2 to the Registration Statement as described below. Instead of qualifying the language as being to the Company's belief, the Company decided to remove the prior disclosure.

The Company has revised the disclosure on page 50 of Amendment No. 2 to the Registration Statement to clarify the extent to which AC power systems are currently used, the reasons underlying AC power's historical predominance and the reasons underlying a shift towards DC power.

Increased data traffic has resulted in increased investments.... page 51

2. *We note your response to prior comment 16. Please supplementally provide the report that you cite. Also, we note your revisions regarding wireless expenditures relates only to 2014. Please expand to address 2015.*
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Response to Comment 2:

We have enclosed copies of The Mobile Economy 2015 report and The Mobile Economy 2016 report, each published by GSMA Association. In addition, the Company has revised the disclosure on page 51 of Amendment No. 2 to the Registration Statement to clarify the extent of wireless expenditures by telecommunications companies.

A 2012 report...., page 53

3. *We note your added disclosure in response to prior comment 54 that divesting real estate assets has allowed your major customer to reinvest capital into upgrading equipment at cell tower sites, including power generating equipment. Please clarify whether those upgrades are occurring at the remaining cell tower sites owned by your major customer and whether your major customer continues to make improvements to towers it leases from tower companies.*

Response to Comment 3:

The Company has revised the disclosure on page 54 of Amendment No. 2 to the Registration Statement to disclose Verizon Wireless' network densification plan that has been described in Verizon Wireless' filings with the Securities and Exchange Commission, press releases and on earnings calls.

The Company does not have any specific knowledge as to whether upgrades are occurring at the remaining cell tower sites owned by Verizon Wireless or whether Verizon Wireless continues to make improvements to towers it leases from tower companies. However, the Company notes that Verizon Wireless continues to place orders for the Company's products and has provided the Company with its projected purchases for the remainder of 2016 and into 2017.

Executive Officers, page 73

4. *We note your response to prior comment 20. Please revise your disclosure to clarify the position Mr. Masina held in his family business.*

Response to Comment 4:

The Company has revised the disclosure on page 72 of Amendment No. 2 to the Registration Statement to include Mr. Masina's position as Business Development Manager.

Executive and Director Compensation, page 80

5. *We note your response to prior comment 22. Please clarify your statement in your response that Mr. Ulinski was at no time an employee of the company, given the title you say he had and deleted disclosure that he was a "key" employee. Please also expand to address Item 402(m)(2)(iii) of Regulation S-K and the requirement of Item 402(m)(1) that all compensation for "all services rendered in all capacities" be disclosed under that item.*
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Response to Comment 5:

On July 7, 2012, the Company and Mr. Ulinski entered into an Intellectual Property Purchase Agreement (the “IP Purchase Agreement”) pursuant to which the Company purchased from Mr. Ulinski certain intellectual property for an aggregate consideration equal to \$600,000 payable in the form of a royalty on sales by the Company of generators and/or hybrid systems. Prior to July 7, 2012, the Company and Mr. Ulinski had an oral agreement that provided Mr. Ulinski with certain payments for his efforts in designing products sold by the Company. In essence, prior to July 7, 2012, Mr. Ulinski acted as a consultant to the Company and was paid as an independent contractor. By entering into the IP Purchase Agreement, the parties terminated their prior relationship and agreed that all technology developed by Mr. Ulinski through July 7, 2012 would become the property of the Company in exchange for the payment by the Company of \$600,000. The IP Purchase Agreement was later amended and restated by that certain Memorandum of Understanding, dated December 30, 2014, by and between the Company and Mr. Ulinski (the “MOU”). As previously noted, the parties subsequently entered into the MOU for the sole purpose of establishing a new method of payment for the remaining amounts then owing under the IP Purchase Agreement (i.e., monthly payments of a fixed dollar amount irrespective of the number of generators and/or hybrid units sold by the Company – in essence, the parties moved away from the prior royalty-based purchase price payment method to a fixed purchase price payment method).

As previously noted, at no time was Mr. Ulinski an employee of the Company. He was appointed an officer of the Company as an accommodation and in recognition of the significant contributions he had made, and was continuing to make, to the Company during the period he was associated with the Company. Consistent with this approach, Mr. Ulinski resigned as an officer of the Company once all payments were made to him under the MOU. We note that there is no requirement under the California General Corporation Law that an officer of a California corporation must also be an employee of the corporation. Indeed, it is very common for emerging growth corporations to appoint senior officers (especially Chief Financial Officers) who are not employees of the corporation but rather are employees of consulting organizations that provide such services (e.g., Tatum with respect to financial personnel). Finally, we note that the heading “Key Employees” contained in initial version of the Registration Statement should have read “Other Key Officers.” This was an inadvertent mistake based solely upon the fact that in most cases registrants use a heading entitled “Key Employees” to provide disclosure regarding management personnel that are not executive officers, yet are key to the success of the registrant. The Company never intended to portray Mr. Ulinski as an employee of the Company.

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Index to Financial Statements

Notes to Financial Statements

Note 1. Nature of Business and Significant Accounting Policies

-Income Taxes, page F-9

6. *We note your response to comment 27 and that your updated disclosure herein that “Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will either expire before the Company is able to realize their benefits, or that future deductibility is uncertain.” Please tell us how the referenced policy complies with ASC 740-10-30-5(e).*

Response to Comment 6:

The Company has revised the disclosure on page F-9 of Amendment No. 2 to the Registration Statement to conform to ASC 740-10-30-5(e).

* * *

In connection with this response to the Staff’s comment letter, the Company acknowledges the following:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing; and
- 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.

Sincerely,

/s/ Larry A. Cerutti

Larry A. Cerutti

cc: Arthur D. Sams, Polar Power, Inc.
