



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

October 5, 2016

Via E-mail

Arthur D. Sams
Chief Executive Officer
Polar Power, Inc.
249 E. Gardena Boulevard
Gardena, California 90248

**Re: Polar Power, Inc.
Registration Statement on Form S-1
Filed September 9, 2016
File No. 333-213572**

Dear Mr. Sams:

We have reviewed your registration statement 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 this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Graphics

1. Please tell us why you believe the images you have included are illustrative of your operations, given your disclosure in the second risk factor on page 13 regarding your concentration in the telecommunications market. It also appears you do not make boats, planes, communication systems and military vehicles. Please revise accordingly.
2. Please tell us the portion of sales you derive from the products you mention in each bullet point in your graphics. If one type of product, such as DC power systems, accounts for a significant portion of your revenue, as indicated by the disclosure on pages 12-13 and F-20, please revise to avoid the implication that the other products you list constitute a material part of your sales.

Overview, page 1

3. Please balance your disclosure in this section with disclosure regarding your dependence on the telecommunications industry and the percentage of revenue derived from each product category listed in the bullet points and the fuel source for those products.

Our Competitive Strengths, page 2

4. Please tell us why you believe it is appropriate to list specific telecommunications providers, other than your largest customer, given your disclosure in your first full risk factor on page 12.
5. Please balance your disclosure in the last bullet point of this section with your disclosure in the last risk factor on page 15 and the first risk factor on page 16 that you do not have any long-term contracts with your key suppliers.

Implications of Being an Emerging Growth Company, page 4

6. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

Summary Financial Information, page 8

7. Please revise the “Total stockholders’ equity” amounts as of June 30, 2016, December 31, 2015 and 2014 that are disclosed on page 9 to agree with the total stockholders’ equity amounts disclosed in your balance sheets at page F-3.

To date, we have derived a significant percentage of our revenue . . . , page 12

8. Please revise to clarify the “limited number of products and markets” to which you refer, so investors have a better understanding of the risks you face.

We are dependent on relationships with our key material suppliers, . . . , page 15

9. It appears that the entities you list provided you with only 30% of the engines used in the power systems you sold during 2015. Please clarify where you obtained the remaining engines and, in light of the number of engines they provided, why you refer only to these three “key engine suppliers.”

Use of Proceeds, page 34

10. We note the multiple uses listed here and the amount of proceeds you intend to raise. If any material amount of other funds are necessary to accomplish the specified purposes for which the proceeds are to be obtained, state the amounts and sources of such other funds needed for each such specified purpose and the sources thereof. Refer to Instruction 3 to Item 504 of Regulation S-K.

Dilution, page 35

11. Please revise to include the disclosure required by the first sentence of Item 506 of Regulation S-K.

Capitalization, page 36

12. We note your disclosures here, on page 7 and throughout the filing that you will be effecting a reverse stock split prior to the completion of your initial public offering. Please explain to us why you plan to present this pending reverse stock split as a pro forma adjustment within your capitalization table based on the guidance at SAB Topic 4.C and ASC 260-10-55-12.

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

Overview, page 38

13. We note your disclosure at the bottom of page 38 that you are "currently focused on the global telecommunications tower market which is undergoing a rapid transition from AC power systems to DC power systems globally." Please revise to clarify the extent to which AC power systems are currently used. Also, to the extent known, please clarify the extent of this transition and discuss the reasons underlying AC power's historical predominance and the reasons underlying the transition. Supplementally provide information that supports your basis.

Results of Operations, page 39

14. When individual line items disclosed in your statements of operations significantly fluctuate in comparison to the comparable prior period, management should quantify and disclose the nature of each item that caused the significant change. Please revise the filing to quantify whether the changes in your net sales during the periods presented were due to changes in prices, volumes or a combination of both items. Refer to Item 303 of Regulation S-K.

Liquidity and Capital Resources, page 43

15. Please revise to discuss the limitations on your ability to raise additional debt financing, given Section 8.1 of Exhibit 10.6.

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

16. We note your disclosure that, according to the report you cite, capital expenditures in the mobile network industry declined in 2015 compared to 2014. Please clarify the cause of that decline and impact on your business.

A 2012 report..., page 53

17. We note your disclosure regarding the trend that a significant number of mobile network providers are contemplating selling off tower assets to independent tower service companies. Please revise to clarify how this trend has impacted and may impact your business. We note, for example, the amount of revenues you derive from telecommunication service providers, such as Verizon.

Strong Customer Base, page 59

18. Please clarify your disclosure that you “work directly with” those entities listed in the last sentence of this bullet point.

Our Technologies, page 62

19. Please provide us support for your belief that your technology has “significant advantages” over your competitors. Supplementally provide any information supporting your basis.

Executive Officers, page 73

20. Please revise to clarify the “extensive business experience” Mr. Masina has in “providing passive infrastructure for the telecommunications towers operators [in India].” Please also revise to clarify the dates of Mr. Masina’s business experience. From your current disclosure, it appears Mr. Masina began serving as “the Supply Chain Consultant” when he was 16 years old.

Non-Employee Directors, page 74

21. We note your disclosure that Mr. Goldman serves on the board of directors for “several of the Polaris portfolio companies.” Please name any company with a class of securities registered pursuant to section 12 of the Exchange Act or subject to the requirements of section 15(d) of such Act or any company registered as an investment company under the

Investment Company Act of 1940 to which Mr. Goldman currently serves or has served in the past five years on the board. Refer to Item 401(e)(2) of Regulation S-K. Please also clarify whether Mr. Goldman continues to be employed by Polaris. Your disclosure here indicates his employment ended in 2015; however, note 6 on page 96 indicates he continues to be its “sole member.”

Executive and Director Compensation, page 80

22. It appears from your disclosures on pages F-6 and F-14 that Mr. Ulinksi received at least \$180,000 from you during 2015. If so, please tell us why you did not disclose the information required by Item 402 of Regulation S-K regarding the compensation received by him. See Regulation S-K Item 402(m)(2)(ii) and (iii). Please also revise your disclosure on page 95, as appropriate.

Related Party Transactions, page 91

23. Please disclose all required information for any related party transaction occurring or outstanding during your disclosed time frame. In this regard, we note that you are currently indebted to one of your employees for technology you purchased, as discussed on page F-14, and you issued shares in exchange for services to one employee, as discussed on page F-15. Also, the disclosure on page F-14 indicates the technology development period ended in 2012; however, Exhibit 10.7 indicates that such period ended in 2014. Please revise as appropriate.

Sales of Common Stock to Officers and Directors, page 92

24. Please disclose which members of your board of directors participated in this private placement, the number of shares each purchased, and the number of additional shares each received.

Index to Financial Statements

Notes to Financial Statements

Note 1. Nature of Business and Significant Accounting Policies

-Revenue, page F-7

25. We note that you recognize revenue for your products generally upon shipment or upon delivery of the product to the destination specified by your customer. Please tell us when and why you recognize revenue other than upon shipment or upon delivery of the product to your customers. Within your discussion, please explain and revise the filing to disclose whether you have any installation or post-delivery obligations. Refer to the guidance in ASC 605.

-Product Warranties, page F-8

26. Please revise your filing to provide the disclosures required by ASC 460-10 paragraphs 50-7 and 50-8.

-Income Taxes, page F-9

27. We noted the disclosures 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 be realized”. Please tell us how the referenced policy complies with ASC 740-10-30-5(e).

Note 6. Shareholders’ Equity, page F-14

28. We note on page F-15 that you recognized \$581,895 of stock compensation expense during fiscal 2015 related to the difference between the sales price of your common stock sold to Smartgen and your common stock sold to other investors in August 2014. Please tell us how you calculated the amount of stock compensation expense recognized related to this transaction for the discount between the stock issued to Smartgen and the other investors.
29. We note on page F-15 that you issued 50,000 shares of common stock to an employee in exchange for \$37,500 in wages payable due to the employee. Please tell us and revise your filing to explain how you are accounting for and valuing the shares issued to your employees for services in accordance with ASC 718.

Arthur D. Sams
Polar Power, Inc.
October 5, 2016
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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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Tara Harkins at (202) 551-3639 or Jay Webb, Senior Accountant, at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please contact Heather Percival at (202) 551-3498 or Geoff Kruczek, Senior Attorney, at (202) 551-3641 with any other questions.

Sincerely,

/s/ Geoff Kruczek for

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Larry A. Cerutti, Esq.
Troutman Sanders LLP