

April 23, 2007

Mail Stop 6010

Mr. Stephan Deluca
Chief Executive Officer
DayStar Technologies, Inc.
13 Corporate Drive
Halfmoon, New York 12065

**Re: DayStar Technologies, Inc.
Registration Statement on Form SB-2 and Amendment No. 1 to
Registration Statement on Form SB-2
Filed February 20, 2007 and February 26, 2007
File No. 333-140803**

Dear Mr. Deluca:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. 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 some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

1. We note your response to our letter dated March 16, 2007. Two of your selling shareholders, LC Capital and Millennium Partners are selling all of their holdings in this registration statement which represent 31% and 18.6% respectively of your public float. Generally, we view resale transactions by related parties of this amount as an offering "by or on behalf of the issuer" for purposes of Rule 415(a)(4) of Regulation C. Under that rule, "equity securities" offered by or on behalf of the registrant cannot be sold as an "at the market offering" unless the offering comes within paragraph (a)(1)(x) of Rule 415. Your offering does not appear to meet that requirement. As such please revise your registration statement to price the common stock offered for resale by Millennium and LC Capital at a fixed price and disclose that they will conduct their offering at the fixed price for the duration of their offering. The prospectus should make clear that they are underwriters of the securities they are offering.

Stephan Deluca
Daystar Technologies, Inc.
April 23, 2007
Page 2

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. 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.

Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3444 with any other questions.

Sincerely,

Perry Hindin
Special Counsel

cc(via fax): Stephen T. Adams, Esq.