

May 4, 2006

Mail Stop 6010

Mr. Thomas A. Polich
General Counsel and Assistant Secretary
DayStar Technologies, Inc.
13 Corporate Drive
Halfmoon, New York 12065

**Re: DayStar Technologies, Inc.
Preliminary Proxy Statement on Form 14A
Filed April 20, 2006
File No. 000-50508**

Dear Mr. Polich:

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.

Proxy Cover Page

1. Please expand your description of proposal three to be voted on at the annual meeting to explain that you are increasing the number of shares of authorized stock from 20,000,000 to 60,000,000.

Proposal 3: Amendment and Restatement of the Company's Certificate of Incorporation

2. Expand the discussion in this proposal to indicate, as of the most recent date practicable:
 - the number of outstanding shares of common stock;
 - the number of authorized shares of common stock reserved for issuance pursuant to options, warrants, contractual commitments or for which you have other plans or arrangements, including the new 2006 Plan; and

- the number of authorized and unissued shares that are not reserved for any specific use and are available for future issuances, before and after the increase in authorized shares.
3. We note your discussion regarding dilution at the end of the fifth paragraph. Disclose that the equity interests of current stockholders may be significantly diluted if the additional authorized common stock is issued. You should describe briefly the circumstances in which stockholder approval of issuances of the additional shares would be required.
 4. Expand the disclosure to conform with the guidelines set forth in SEC Release No. 34-15230 (October 13, 1978), Disclosure in Proxy or Information Statements; Anti-Takeover or Similar Proposals. Briefly discuss the effects on stockholders of the proposed increase in the number of authorized shares of common stock, from an anti-takeover perspective. For example, discuss existing provisions of the articles of incorporation, bylaws and agreements which have material anti-takeover effects.

You should file a revised preliminary proxy statement. Please clearly and precisely mark the changes to the preliminary proxy statement effected by the revision, as required by Rule 14a-6(h) and Rule 310 of Regulation S-T. We may have further comments upon receipt of such revision; therefore, please allow adequate time after the filing of the revised proxy statement for further staff 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.

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 Exchange Act of 1934 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.

In connection with responding to our comments, please provide, in writing, a 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

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- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Jay Mumford at (202) 551-3637 or me at (202) 551-3800 with any other questions.

Sincerely,

Russell Mancuso
Branch Chief