



DIVISION OF
CORPORATION FINANCE

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

July 10, 2014

Via E-mail

Mark R. Tauscher
Chief Executive Officer
PLC Systems Inc.
459 Fortune Boulevard
Milford, Massachusetts 01757

**Re: PLC Systems Inc.
Revised Preliminary Proxy Statement on Schedule 14A
Filed June 27, 2014
File No. 001-11388**

Dear Mr. Tauscher:

We have limited our review of your filing to those issues we have addressed in our 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 within ten business days by amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

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

Background of the Proposed Transaction, page 44

1. We note your response to prior comment 2. Please expand the disclosure in the fifth paragraph on page 45 to identify the “certain potential investors in the Offering” and disclose how the discussions with those investors were considered in determining the valuation of \$4 million. Also, please clarify whether those investors were affiliated with you or Viveve.
2. We note your response to prior comment 4. Please expand the disclosure in the first paragraph on page 46 to quantify the “larger equity ownership percentage.” Also, expand the disclosure in the second paragraph on page 46 to quantify the “further increase” of the equity ownership percentage.

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3. We note your response to prior comment 5. Please expand the disclosure in this section to identify the “Certain investors,” “certain other PLC investors” and the “new third party investor.”

Beneficial Ownership of Securities, page 123

4. We note your response to prior comment 3. It does not appear that the disclosure of the number of shares to be issued pursuant to the merger agreement is consistent with the disclosure on page 44 that you will issue 4,718,009 shares as consideration for the merger. Please advise or revise.

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.

Please contact Tom Jones at (202) 551-3602 if you have any questions.

Sincerely,

/s/ Tom Jones for

Amanda Ravitz
Assistant Director

cc (via e-mail): Rick A. Werner, Esq.