

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549**

SCHEDULE 14A

**(RULE 14a-101)
INFORMATION REQUIRED IN PROXY STATEMENT**

SCHEDULE 14A INFORMATION

**Proxy Statement Pursuant to Section 14(a)
of the Securities Exchange Act of 1934**

Filed by the Registrant
Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to § 240.14a-12

VARIAN SEMICONDUCTOR EQUIPMENT ASSOCIATES, INC.

(Name of Registrant as Specified in its Charter)

APPLIED MATERIALS, INC.

(Name of Person(s) Filing Proxy Statement, if other than Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies: N/A

(2) Aggregate number of securities to which transaction applies: N/A

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the filing fee is calculated and state how it was determined): N/A

(4) Proposed maximum aggregate value of transaction: N/A

(5) Total fee paid: N/A

Fee paid previously with preliminary materials.

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount Previously Paid: N/A

(2) Form, Schedule or Registration Statement No.: N/A

(3) Filing Party: N/A

(4) Date Filed: N/A

Important Information

On May 4, 2011, Applied Materials, Inc. ("Applied") distributed emails to certain customers of Applied in the form set forth below. Such form is filed herewith pursuant to Rule 14a-12.

Additional Information and Where to Find It

Varian Semiconductor Equipment Associates, Inc. ("Varian") intends to file with the Securities and Exchange Commission (the "SEC") a proxy statement in connection with the proposed acquisition. The definitive proxy statement will be sent or given to the stockholders of Varian and will contain important information about the proposed acquisition and related matters. SECURITY HOLDERS ARE URGED TO READ THE PROXY STATEMENT CAREFULLY WHEN IT BECOMES AVAILABLE. The proxy statement and other relevant materials (when they become available), and any other documents filed by Varian with the SEC, may be obtained free of charge at the SEC's website, at www.sec.gov. In addition, security holders will be able to obtain free copies of the proxy statement from Varian by contacting Investor Relations by mail at Varian Semiconductor, 35 Dory Road, Gloucester, MA 01930, Attn: Investor Relations Department; or by telephone at 978-282-2000.

Participants in the Solicitation

Varian and Applied and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from Varian's stockholders in connection with the proposed transaction. Information about Varian's directors and executive officers is set forth in Varian's proxy statement for its 2011 Annual Meeting of Stockholders, which was filed with the SEC on December 1, 2010, and its Annual Report on Form 10-K for the year ended October 1, 2010, which was filed with the SEC on November 22, 2010. These documents are available free of charge at the SEC's web site at www.sec.gov, and from Varian by contacting Investor Relations by mail at Varian Semiconductor, 35 Dory Road, Gloucester, MA 01930, Attn: Investor Relations Department; or by telephone at 978-282-2000, or by going to Varian's Investor Relations page on its corporate web site at www.vsea.com. Information about Applied's directors and executive officers is set forth in Applied's proxy statement for its 2011 Annual Meeting of Stockholders, which was filed with the SEC on January 27, 2011, and its Annual Report on Form 10-K for the year ended October 31, 2010, which was filed with the SEC on December 10, 2010. These documents are available free of charge at the SEC's web site at www.sec.gov, and from Applied by contacting Investor Relations by mail at Applied Materials, 3050 Bowers Avenue M/S 1261, P.O. Box 58039, Santa Clara, CA 95052-8039, Attn: Investor Relations Department, or by going to Applied's Investor Relations page on its corporate web site at www.appliedmaterials.com. Additional information regarding the interests of participants in the solicitation of proxies in connection with the transaction will be included in the proxy statement that Varian intends to file with the SEC.

Forward Looking Statements

These documents contain forward-looking statements, including those related to Applied's proposed acquisition of Varian and the expected benefits of the transaction. These statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements, including but not limited to: satisfaction of conditions to closing of the transaction, including the ability to secure regulatory approvals in a timely manner or at all, and approval by Varian's stockholders; and other risks described in Applied's SEC filings. All forward-looking statements are based on management's estimates, projections and assumptions as of the date hereof, and Applied undertakes no obligation to update any forward-looking statements.

Form of E-mail Message to Certain Applied Customers

Applied is pleased to announce that we have signed a definitive agreement to acquire Varian Semiconductor Equipment Associates. This is an exciting day for both companies, as we believe that this acquisition will bring together some of the best minds in the semiconductor equipment sector and create an organization with a powerful set of capabilities to support our customers. We expect the acquisition will be finalized in the coming months.

Applied and Varian share a passion to innovate at the leading edge and to work with our customers to solve their toughest challenges. It is important to us that Varian is a company that places the highest priority on customer satisfaction, and we expect that we will learn significantly from each other as we combine the best practices of both organizations.

This acquisition comes at the right time for our companies and for the industry. Keeping Moore's Law on track has become a multifaceted challenge, requiring new materials, new chip architectures and new approaches to transistor formation. Pushing the boundaries of innovation will require a new era of collaboration and partnership throughout the semiconductor supply chain. By combining the strengths of Applied and Varian, we can work hand-in-hand with your development teams to optimize the critical implant, epitaxy, and anneal process steps needed to accelerate the industry's technology roadmap.

We are pleased that Varian will become a business unit of Applied's Silicon Systems Group reporting to Randhir Thakur. It will be run by the existing Varian leadership team from its headquarters in Gloucester, Massachusetts. We have great respect for what the Varian team has achieved in recent years. We look forward to building on their reputation for providing innovative products and outstanding customer experience.

I will be scheduling time to discuss this acquisition 1:1 over the phone within the next couple of days.

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