NOVELLUS EXTENDS 300-MM HDP CVD TO 65 NM WITH NEW SPEED® NExT™ SYSTEM

SAN JOSE, Calif., July 12, 2004--Novellus Systems, Inc. (Nasdaq NM: NVLS), the productivity and innovation leader in advanced deposition, surface preparation and chemical mechanical planarization processes for the global semiconductor industry, today announced a significant enhancement to its chemical vapor deposition (CVD) SPEED platform. The new SPEED NExT is the result of a joint development effort between Novellus and a major Korean DRAM manufacturer, and is designed to provide the industry with the first robust high-density plasma (HDP) gap fill technology for volume production at the 65-nm node.

The challenges of gap fill at 65 nm and beyond

The move to 65-nm volume production tests the ability of HDP technology to consistently generate good gap fill performance over an entire 300-mm wafer. With aggressive device structures, typical process conditions often result in either edge voids or excessive sputter at the center due to plasma non-uniformity. In addition, deposition rates are often reduced to meet fill requirements with each new device technology node. SPEED NExT ends the tradeoff between gap fill and productivity for advanced technology nodes.

SPEED NExT: A blend of productivity and technology

To address the challenges of high aspect ratio gap fill at the 65-nm node, SPEED NExT builds upon the superior high conductance chamber design of the existing SPEED platform with an innovative source technology that enables repeatable gap fill across a 300-mm wafer. In addition, the unique ability to control the wafer position relative to the source allows SPEED NExT to have a wider gap fill process window.

These gap fill improvements are not made at the expense of throughput or particle performance. Innovation in the clean technology results in a differentiated ability to significantly increase the batch size between plasma cleans, thereby reducing clean time per wafer. The result is higher throughput with excellent particle control.

A number of SPEED NExT beta units have been shipped, and results have shown productivity improvements of up to 30 percent for some film applications.

Said Dr. Michael S. Barnes, vice president and general manager of Novellus' HDP Business Unit, "We are encouraged by the customer results we're seeing with the SPEED NExT system. We have designed this capability to allow our customers to successfully migrate their existing SPEED system to the 65-nm node. Novellus commands a sizable share of the global HDP market, with significant gains occurring in the last two years. We anticipate that SPEED NExT will further bolster this market momentum," added Barnes.

The HDP segment continues to be a growth market. Recent estimates from market research firm VLSI Research Inc predict that this segment will experience a year-over-year leap from $468 million in 2003 to $766.4 million in 2004. In the last year alone, Novellus posted a 10 percent gain in this area.

"Safe Harbor" Statement Under the Private Securities Litigation Reform Act of 1995:

The statements regarding (i) SPEED NExT's ability to end the tradeoff between gap fill and productivity for advanced technology nodes; (ii) SPEED NExT's repeatable gap fill across a 300-mm wafer; (iii) SPEED NExT's wider gap fill process window; (iv) SPEED NExT's ability to reduce clean time per wafer, resulting in higher throughput with excellent particle control; (v) SPEED NExT's potential to enhance Novellus' share of the HDP market; and (vi) the growth rate of the HDP market, as well as other matters discussed in this news release that do not concern purely historical data, are forward-looking statements. The forward-looking statements involve risks and uncertainties, including, but not limited to, unforeseen technical difficulties with SPEED NExT's ability to promote favorable gap fill as well as productivity; unforeseen technical difficulties with SPEED NExT's ability to produce repeatable gap fill across a 300-mm wafer and reduce clean time per wafer while retaining excellent particle control; competitor introduction of an HDP system superior to SPEED NExT; and a slowdown in the rate of growth of the HDP market, as well as other risks and uncertainties discussed in Novellus' filings with the Securities and Exchange Commission (SEC). Actual results could differ materially. Novellus assumes no obligation to update this information. For more details relating to risks and uncertainties that could cause actual results to differ from those anticipated in the forward-looking statements, and risks to Novellus' business in general, please refer to Novellus' SEC filings, including its Annual Report on Form 10-K for the fiscal year ended December 31, 2003 and its Quarterly Report on Form 10-Q for the quarter ended March 27, 2004.

About Novellus:

Novellus Systems, Inc., an S&P 500 company, manufactures, markets and services advanced deposition, surface preparation

and chemical mechanical planarization equipment for today's advanced integrated circuits. Our products are designed for high-volume production of advanced, leading-edge semiconductor devices at the lowest possible cost. Headquartered in San Jose, Calif., with subsidiaries throughout the United States, as well as in the United Kingdom, France, Germany, the Netherlands, Ireland, Italy, Israel, India, China, Japan, Korea, Malaysia, Singapore and Taiwan, we are a publicly traded company on the Nasdaq stock exchange (Nasdaq: NVLS) and a component of the Nasdaq-100 Index®. Additional information about Novellus is available on our home page at www.novellus.com.

SPEED is a registered trademark and NExT is a trademark of Novellus Systems, Inc.

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