Filed by ON Semiconductor Corporation Pursuant to Rule 425 under the Securities Act of 1933 and deemed filed pursuant to Rule 14a-12 of the Securities Exchange Act of 1934 Subject Company: Catalyst Semiconductor, Inc.

This document contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, statements related to the benefits of the proposed transaction between ON Semiconductor Corporation ("ON") and Catalyst Semiconductor ("Catalyst Semiconductor") and the future financial performance of ON. These forward-looking statements are based on information available to ON and Catalyst Semiconductor as of the date of this release and current expectations, forecasts and assumptions and involve a number of risks and uncertainties that could cause actual results to differ materially from those anticipated by these forward-looking statements. Such risks and uncertainties include a variety of factors, some of which are beyond ON's or Catalyst Semiconductor's control. In particular, such risks and uncertainties include difficulties encountered in integrating merged businesses; the risk that the transaction does not close, including the risk that the requisite stockholder and regulatory approvals may not be obtained; the variable demand and the aggressive pricing environment for semiconductor products; dependence on each company's ability to successfully manufacture in increasing volumes on a cost-effective basis and with acceptable quality its current products; the adverse impact of competitive product announcements; revenues and operating performance, changes in overall economic conditions, the cyclical nature of the semiconductor industry, changes in demand for our products, changes in inventories at customers and distributors, technological and product development risks, availability of raw materials, competitors' actions, pricing and gross margin pressures, loss of key customers, order cancellations or reduced bookings, changes in manufacturing yields, control of costs and expenses, significant litigation, risks associated with acquisitions and dispositions, risks associated with leverage and restrictive covenants in debt agreements, risks associated with international operations, the threat or occurrence of international armed conflict and terrorist activities both in the United States and internationally, risks and costs associated with increased and new regulation of corporate governance and disclosure standards (including pursuant to Section 404 of the Sarbanes-Oxlev Act of 2002), and risks involving environmental or other governmental regulation. Information concerning additional factors that could cause results to differ materially from those projected in the forward-looking statements is contained in ON's Annual Report on Form 10-K as filed with the Securities and Exchange Commission (the "SEC") on February 12, 2008, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other of ON's SEC filings, and Catalyst Semiconductor's Annual Report on Form 10-K as filed with the SEC on July 3, 2008, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other of Catalyst Semiconductor SEC filings. These forward-looking statements should not be relied upon as representing ON's or Catalyst Semiconductor's views as of any subsequent date and neither undertake any obligation to update forward-looking statements to reflect events or circumstances after the date they were made.

This communication is being made in respect of the proposed transaction involving ON and Catalyst Semiconductor. In connection with the proposed transaction, ON plans to file with the SEC a Registration Statement on Form S-4 containing a Proxy Statement of Catalyst Semiconductor and a Prospectus of ON, and each of ON and Catalyst Semiconductor plan to file with the SEC other documents regarding the proposed transaction. The definitive Proxy Statement/Prospectus will be mailed to stockholders of Catalyst Semiconductor. INVESTORS AND SECURITY HOLDERS ARE URGED TO READ THE PROXY STATEMENT/PROSPECTUS AND OTHER DOCUMENTS FILED WITH THE SEC CAREFULLY IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION.

Investors and security holders will be able to obtain free copies of the Registration Statement and the Proxy Statement/Prospectus (when available) and other documents filed with the SEC by ON and Catalyst Semiconductor through the web site maintained by the SEC at www.sec.gov. In addition, investors and security holders will be able to obtain free copies of the Registration Statement and the Proxy Statement/Prospectus (when available) and other documents filed with the SEC from ON by directing a request to ON Semiconductor Corporation, 5005 East McDowell Road, Phoenix, AZ, 85008, Attention: Investor Relations (telephone: (602) 244-3437) or going to ON's corporate website at www.onsemi.com, or from Catalyst Semiconductor by directing a request to Catalyst Semiconductor, Inc., 2975 Stender Way, Santa Clara, CA 95054, Attention: Investor Relations (telephone: (408) 542-1200) or going to Catalyst Semiconductor's corporate website at www.catsemi.com.

ON and Catalyst Semiconductor and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies in respect of the proposed transaction. Information regarding ON's directors and executive officers is contained in ON's annual proxy statement filed with the SEC on April 4, 2008, as supplemented a Current Report on Form 8-K filed with the SEC on March 17, 2008. Information regarding Catalyst Semiconductor's directors and executive officers is contained in Catalyst Semiconductor's annual proxy statement filed with the SEC on August 24, 2007. Additional information regarding the interests of such potential participants will be included in the Proxy Statement/Prospectus and the other relevant documents filed with the SEC (when available).

Filed below is a Q&A provided by ON Semiconductor Corporation on its website on July 17, 2008 regarding ON's proposed acquisition of Catalyst.

Frequently Asked Questions for Catalyst and ON Semiconductor as of July 17, 2008

Transaction Summary

What does the announcement mean?

ON Semiconductor and Catalyst Semiconductor have signed a definitive merger agreement providing for the acquisition of Catalyst Semiconductor by ON Semiconductor in an all-stock transaction. At the closing date, if you own shares of Catalyst Semiconductor common stock, you would receive 0.706 shares of ON Semiconductor common stock for each shared owned of Catalyst Semiconductor. If you have Catalyst Semiconductor stock options, they will be exchanged for options which represent 0.706 shares of ON Semiconductor stock option for each Catalyst Semiconductor stock option owned. The exercise price of the options would take the original stock option grant price divided by 0.706 to calculate the new exercise price.

Why does ON Semiconductor want to acquire Catalyst Semiconductor?

- Catalyst Semiconductor adds to the high gross margin analog and mixed-signal product offerings for the digital consumer and wireless end-markets of ON Semiconductor
- Catalyst Semiconductor's analog and mixed-signal business represented more than \$11 million in sales as of their April 2008 fiscal year end a business that grew more than 90 percent versus the prior year
- Catalyst expands our product offering into the non-volatile memory market
- Catalyst Semiconductor's EEPROM technology will strengthen our custom application-specific circuits (ASIC) and power products capabilities expanding our ability to more comprehensively address our customers' needs
- Additional revenue from Catalyst Semiconductor's strong portfolio offering will benefit from ON Semiconductor's manufacturing capabilities

Does the announcement mean a deal has been finalized?

This transaction is not done. There are a number of processes and government filings that we need to complete before the deal is closed. We currently expect the deal to close in ON's fourth quarter of 2008 subject to the approval of Catalyst shareholders as well as customary closing conditions and regulatory approvals.

Do ON Semiconductor shareholders have to approve the transaction?

ON Semiconductor shareholders are not required to vote and approve the pending transaction.

Only Catalyst Semiconductor shareholders will need to vote and approve the pending transaction. A Catalyst shareholder meeting will most likely take place during the fourth quarter of 2008.

How many Catalyst employees are impacted by this decision?

All of the approximately 250 Catalyst employees will be directly impacted by this decision.

How many Catalyst employees will be offered a position at ON Semiconductor?

Substantially all of the Catalyst employees will be offered a position.

Where are the majority of the employees involved in this deal located?

The majority of employees are located in Santa Clara, California, Bucharest, Romania and Thailand with field sales and other employees dispersed throughout the world.

What resources will ON Semiconductor utilize for the purchase?

This will be an all stock transaction.

The press release mentioned enterprise value. What does that mean?

Enterprise value is a measure of a company's value. It is calculated as the market capitalization (share price x shares outstanding) plus any debt minus cash and short term investments.

What should I tell my customers about the acquisition?

If asked, tell customers that the deal is still pending subject to the official close. However, if the deal is completed, there are long-term benefits to customers including stronger product portfolio, integrated sales channels, integrated manufacturing capabilities to meet demand changes and enhanced scale.

What if customers ask me questions that I don't know the answers to?

If you don't know the answers, it's okay to say that you don't know, but that you will find out and get back to them. The best way to do this is to contact your manager.

What should I do if a journalist asks me a question?

Please direct all media inquiries to the media relations department of ON Semiconductor.

ON Semiconductor Anne Spitza Manager, media relations (602) 244-6398 anne.spitza@onsemi.com

Acquisition Background

Who is Catalyst Semiconductor?

Catalyst Semiconductor (NASDAQ:CATS) is committed to helping today's electronics designers balance system performance and board costs with a rapidly growing portfolio of analog, mixed-signal and non-volatile memory ICs for telecommunications, networking systems, computation, automotive, industrial and consumer markets.

Products include Digitally Programmable Potentiometers [DPPTM], white and color LED drivers, DC/DC converters, voltage supervisors, I/O expanders, serial and parallel EEPROMs, Flash memories, and NVRAMs. Typical applications for ICs include LCD displays, cellular phones, automotive illumination and instrumentation, optical networks, wireless LANs, network cards, DIMM modules, printers, digital satellite box receivers and set-top boxes.

The Catalyst headquarters facility is located in Santa Clara, California with regional sales operations and technical support offices in China, Korea, Taiwan, Thailand, Southeast Asia, Japan, UK, Germany and the Americas. The company's strategy is to combine a fabless business model with in-house design centers in Santa Clara, California and Bucharest, Romania to provide customers with the high-performance and low-cost required for success in today's electronics markets.

For more information visit http://www.catsemi.com/

When do you expect the deal to close?

We expect to close the deal within sometime during ON Semiconductor's fourth quarter of 2008 subject to Catalyst shareholder and regulatory approval and the satisfaction of customary closing conditions.

What happens after this initial announcement?

Work will continue on all levels to finalize details needed to close the sale.

When and where will Catalyst employees get more information about this acquisition?

Updates throughout the process will be provided to all employees via e-mail and company leaders.

Who or where should I direct questions?

Questions should be sent to your manager, your local HR representatives or employee.questions@onsemi.com

About ON Semiconductor

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Who is ON Semiconductor?

- o ON Semiconductor (Nasdaq: ONNN) is a preferred supplier of power solutions to engineers, purchasing professional, distributors, and contract manufacturers in the computer, cell phone, portable devices, automotive and industrial markets.
 - They design, manufacture and market an extensive portfolio of semiconductor components that addresses the design needs of sophisticated electronic systems and products.
 - Their power management semiconductor components distribute and monitor the supply of power to the different elements within a wide variety of electronic devices.
 - Their data management semiconductor components provide high-performance clock management and data flow management for
 precision computing and communications systems.
 - · Their standard semiconductor components serve as "building block" components within virtually all electronic devices.
 - For more details please go to our Web site at www.onsemi.com

Where is the ON Semiconductor's headquarters?

The company is headquartered in Phoenix, Arizona, USA. The company owns and operates several development centers and several manufacturing facilities located throughout the U.S., Europe and Asia.

How many employees are employed by ON Semiconductor?

Worldwide, ON Semiconductor employs more than 14,000 employees.

What is ON Semiconductor's company mission?

To provide our customers with high quality, cost-effective solutions to solve the demanding power and signal management design challenges.

What is ON Semiconductor's company vision?

ON Semiconductor is dedicated to becoming the premier supplier of high performance energy efficient silicon solutions worldwide.

What is ON Semiconductor's business strategy?

ON Semiconductor's business strategy is to become the supplier of choice by:

- Leveraging our operational strengths
- Building intimate relationships with market-making customers
- Improving our technological capabilities to provide leadership in power and signal management solutions

To follow this strategy ON Semiconductor will continuously:

- · Dedicate resources to understand the needs of key customers and develop solutions for their key applications
- Increase rate of technological innovation
- Shorten development cycle times
- Lower manufacturing costs
- Improve quality and supply chain

Describe the ON Semiconductor culture.

ON Semiconductor prides itself on living up to its core values (integrity, respect and initiative) in every area of the company. ON Semiconductor believes their people power the future. They offer:

- Challenging Opportunities
- Global Reach, Winning Through Operational Excellence
- Performance-based Mindset
- Great People, Great Place

What is ON Semiconductor's Quality/Service philosophy/statement?

ON Semiconductor's Quality statement is: "Every ON Semiconductor employee is personally responsible for ensuring the highest quality in products and services delivered to internal and external customers. Continuous improvement in the quality of processes, products, and service is fundamental to the achievement of customer satisfaction."

Acquisition Impact

Will any products in development be cancelled?

We will review the status of products in development.

Will my work group remain intact?

No work group changes are planned in the short term. The experience and technical expertise of the Catalyst staff is a critical aspect of this transaction and stability in the transition is important to the company.

Who will I report to?

In most cases, employees will continue to report to their current manager.

Employment

Do I have a job?

Your employment will transfer over to ON Semiconductor unless you are told otherwise.

What happens to employee benefits?

Employee benefits are expected to stay the same for the near future. Employees will be notified of any upcoming changes prior to the changes being implemented.

What type of career opportunities could ON Semiconductor present for me?

Career opportunities are available on the company intranet. Employees are eligible to apply for these opportunities after 12 months of employment with ON Semiconductor.

Will years of service be retained and for how long after joining the new company?

Yes. Your years of service will be carried over to ON Semiconductor. There is no time limit.

Technology

Will my e-mail address change?

Yes, at closing your e-mail address will change to an ON Semiconductor address. You will receive information about all of the changes as we progress.

Can I keep my IT accessories such as my laptop?

We currently expect the IT and design infrastructure to remain as is.

<u>Payroll</u>

Can I keep my direct deposit accounts as they are arranged?

Yes.

Other administrative payroll changes will be outlined as the details are finalized.

What is the ON Semiconductor payroll cycle?

Bi-weekly.

How does ON do performance reviews?

The Company conducts performance reviews on annual basis during the first calendar quarter of each year. Any increase is effective the beginning of July.

Compensation

What is the compensation philosophy at ON Semiconductor?

ON Semiconductor's philosophy is to reward employees competitively based on position, performance, market data and experience.

Work Schedule

Do I lose the flexibility that I currently have at Catalyst Semiconductor?

ON Semiconductor will assess your current schedule and review with the employees. We do not anticipate any changes at this time.

I currently work out of a home office. Will I be able to continue?

ON Semiconductor offers a flexible work environment to meet business and personal needs. Your personal situation will be considered.

Will my expected working hours change?

ON Semiconductor does not anticipate any changes at this time.

Vacation

How does the vacation accrual work at ON Semiconductor?

For the foreseeable future, you will continue accruing vacation at your current level based on your years of service.

What happens to my unused accrued vacation time?

This varies by country according to specific employment laws. In some countries, your vacation/holiday balance is carried forward to the new company, while in other countries, you may be paid for your accrued and unused vacation, and start with a zero balance on your first day as an employee of ON Semiconductor.

How many public holidays will we have? Which ones?

Each year a public holiday schedule will be distributed to list all of the holidays for the coming year.

Retirement - U.S. Employees

Which financial institute administers the 401(k) plan at ON Semiconductor?

Vanguard.

Does ON Semiconductor offer 401(k) matching?

Yes. ON Semiconductor matches dollar for dollar up to 4 percent of eligible wages. For a period of time the Catalyst 401K plan will remain in place.