

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of April 2005 No.3

TOWER SEMICONDUCTOR LTD.  
(Translation of registrant's name into English)

P.O. BOX 619, MIGDAL HAEMEK, ISRAEL 23105  
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

On April 21, 2005, the Registrant announced that its board of directors appointed Russell Ellwanger as Chief Executive Officer. Attached hereto is a copy of the press release.

This Form 6-K is being incorporated by reference into all effective registration statements filed by us under the Securities Act of 1933.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TOWER SEMICONDUCTOR LTD.

Date: April 21, 2005

By: /s/ Nati Somekh Gilboa

-----  
Nati Somekh Gilboa  
Corporate Secretary

TOWER'S BOARD OF DIRECTORS APPOINTS RUSSELL ELLWANGER CHIEF EXECUTIVE OFFICER

Former Executive of Applied Materials Joins Tower Semiconductor

MIGDAL HAEMEK, ISRAEL - April 21, 2005 - Tower Semiconductor (NASDAQ: TSEM; TASE: TSEM) announced today the appointment of Russell Ellwanger as chief executive officer. Ellwanger will assume his new position on May 1st.

Ellwanger brings more than twenty-five years of experience leading international semiconductor and technology companies. His management responsibilities have included development, commercialization and managing enterprises through semiconductor industry cycles.

"Tower's expectations for rapid growth in specialized foundry services dictate that we bring in someone of Russell Ellwanger's experience, strategic thinking and management skills," commented Udi Hillman, Tower's acting CEO. "The appointment of Mr. Ellwanger is a significant strengthening of our senior management team. He is multifaceted with broad and deep knowledge of the semiconductor industry. He has a strong reputation for close customer interaction, product innovation and grasp of complex issues. I expect that his energy and experience will inspire the Tower team and fuel considerable future success for the company."

Most recently, Ellwanger was group vice president in Applied Materials Corporation (NASDAQ:AMAT). Ellwanger served as general manager of Applied Global Services (AGS), general manager of the CMP and Electroplating Business Group, co general manager of the Metrology and Inspection Business Group and vice president of the 300mm Program Office. Ellwanger is familiar with Israel having served as corporate vice president and general manager of a business group for Applied Materials.

Ellwanger's international career also includes time in Japan, Singapore and the Netherlands. He held executive positions at Novellus Systems (NASDAQ: NVLS), and research & development management positions at Philips Semiconductor

The appointment of Ellwanger concludes a search process that had been underway during the past several quarters and accelerated when the board appointed board member Udi Hillman as acting CEO in February.

ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor Ltd. is a pure-play independent specialty foundry established in 1993. The company manufactures integrated circuits with geometries ranging from 1.0 to 0.13 micron; it also provides complementary technical services and design support. In addition to digital CMOS process technology, Tower offers advanced non-volatile memory solutions, mixed-signal and CMOS image-sensor technologies. To provide world-class customer service, the company maintains two manufacturing facilities: Fab 1 has process technologies from 1.0 to 0.35 micron and can produce up to 16,000 150mm wafers per month. Fab 2 features 0.18 micron and below standard and specialized process technologies and has a current capacity of up to 15,000 200mm wafers per month. Tower's website is located at [www.towersemi.com](http://www.towersemi.com).

CONTACT:

Tower Semiconductor USA  
Doron Simon, +1 408 330 6888  
pr@towersemi.com

or

Pacifico Inc.  
PR Agency Contact  
Mary Curtis, +1 408 293 8600  
mcurtis@pacifico.com

or

Fusion IR & Communications  
Investor Relations Contact  
Sheldon Lutch, +1 212 268 1816  
sheldon@fusionir.com