

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of July 2007 No. 3

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

RAMAT GAVRIEL INDUSTRIAL PARK  
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 July 16, 2007, Tower Announces Plan to Further Ramp Up its Fab 2 Capacity, 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: July 16, 2007

By: /s/ Nati Somekh Gilboa

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Nati Somekh Gilboa  
Corporate Secretary

TOWER ANNOUNCES PLAN TO FURTHER RAMP UP ITS FAB 2 CAPACITY

THE COMPANY IS EXPLORING SPECIFIC OPPORTUNITIES TO SIGNIFICANTLY EXPAND FAB2 CAPACITY FOR ADVANCED TECHNOLOGIES AT A LOW COST MODEL;

SIGNED LOIS WITH ITS LENDER BANKS AND ISRAEL CORPORATION TO SECURE FUNDING

MIGDAL HAEMEK, Israel - July 16, 2007 - Tower Semiconductor Ltd. (NASDAQ: TSEM; TASE: TSEM), a pure-play independent specialty foundry, announced today that the Company is exploring unique tool acquisition opportunities which would significantly expand Fab2 capacity beyond 24,000 wafers per month, primarily in advanced technologies (0.13u and below), in a cost effective manner.

Further to the recently announced raising of \$40 million in long term-bonds, Tower concluded today the signatures of letters of intent ("LOIs") with its lender banks, Bank Leumi and Bank Hapoalim, and with Israel Corporation, a major shareholder, to provide credit lines totaling up to \$60 million, in order to secure the funding of the equipment required for the ramp up. Loans borrowed under the credit lines will bear interest at an annual rate of LIBOR plus 3% and will be repayable by no later than March 2010. The LOIs are subject to the signing and closing of definitive agreements and the receipt of corporate approvals. They also contemplate that the Company will pay the banks and TIC customary fees, including issuing warrants for an aggregate amount of approximately 1.5% of the Company's fully diluted share capital with an exercise price of \$2.04.

Russell Ellwanger, Tower's chief executive officer, said: "Fab2 continues to run at greater than 90% utilization with customer forecasted demand exceeding the current capacity level. In order to meet this demand, we are evaluating several cost effective opportunities to increase Fab 2's capacity beyond 24,000 wafers per month. These opportunities, if materialized, would significantly increase our sales, cash flow and operational results, with a fast pay-back-period and a high return-rate-on-investment (ROI). The LOIs signed with the banks and TIC, as well as the funds we raised in June through long-term bonds, will enable us to act quickly to leverage these opportunities."

## ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor Ltd. is a pure-play independent specialty wafer 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 & RF-CMOS, and CMOS image-sensor technologies. To provide world-class customer service, the company maintains two manufacturing facilities, each with standard and specialized process technology processes: Fab 1 ranging from 1.0 to 0.35 and Fab 2 featuring 0.18 and 0.13-micron. Tower's web site is located at <http://www.towersemi.com>.

## SAFE HARBOR

This press release includes forward-looking statements, which are subject to risks and uncertainties. Actual results may vary from those projected or implied by such forward-looking statements. Potential risks and uncertainties include, without limitation, risks and uncertainties associated with: (i) the completion of the equipment installation, technology transfer and ramp-up of production in Fab 2 and raising the funds therefor, (ii) the cyclical nature of the semiconductor industry and the resulting periodic overcapacity, fluctuations in operating results, future average selling price erosion that may be more severe than our expectations, (iii) having sufficient funds to operate the company in the short-term and the funding needs for its ramp-up plan, (iv) operating our facilities at satisfactory utilization rates which is critical in order to defray the high level of fixed costs associated with operating a foundry and reduce our losses, (v) our ability to satisfy the covenants stipulated in our credit facility agreement, as amended, (vi) our ability to capitalize on increases in demand for foundry services, (vii) meeting the conditions to receive Israeli government grants and tax benefits approved for Fab 2 and obtaining the approval of the Israeli Investment Center for a new expansion program, (viii) attracting additional customers, (ix) not receiving orders from our wafer partners and customers, (x) failing to maintain and develop our technology processes and services, (xi) competing effectively, (xii) our large amount of debt and our ability to repay our short-term and long-term debt on a timely basis, (xiii) achieving acceptable device yields, product performance and delivery times, (xiv) the timely development, internal qualification and customer acceptance of new processes and products, (xv) the entering into and the consummation of definitive agreements with TIC and the banks based on the terms of the LOIs, including the receipt of corporate and/or other approvals as required under applicable law, (xvi) the entering into and the consummation of agreements to purchase the equipment to increase Fab2 capacity beyond 24,000 wafers per month and timely installation thereof, (xvii) a prospectus relating to the bonds issued by the Company in June 2007 being declared effective by the Israel Securities Authority in a timely manner in order to release the proceeds raised currently being held in escrow, and (xviii) business interruption due to terror attacks, earthquakes, other acts of God and the security situation in Israel.

A more complete discussion of risks and uncertainties that may affect the accuracy of forward-looking statements included in this press release or which may otherwise affect our business is included under the heading "Risk Factors" in our most recent filings on Forms 20-F, F-3 and 6-K, as were filed with the Securities and Exchange Commission and the Israel Securities Authority. Future results may differ materially from those previously reported. We do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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