

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of May 2008 (No.5)

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 May 28, 2008, the Registrant announced implementation of a cost reduction plan. 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.

Date: May 28, 2008

TOWER SEMICONDUCTOR LTD.

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

Tower Semiconductor Implements Cost Reduction Plan

MIGDAL HAEMEK, Israel, May 28, 2008 - Tower Semiconductor Ltd. (NASDAQ: TSEM; TASE: TSEM) today commenced the first steps of the recently announced \$40 million per annum cost reduction plan. Tower continues to place strong focus on cost efficiencies in order to better withstand the continuous decline in the US dollar/NIS exchange rate, foundry wafer price pressures and the overall worldwide economy. Tower additionally, has not yet received government grants relating to its cap-ex investments during 2006 through 2008, which were promised, committed and two years past due. To this end, Tower is filing a petition with the Israeli High Court of Justice targeting an approval certificate from the State of Israel for up to \$80 million of grants, approximately \$40 million of which are overdue.

The plan's key areas of focus are:

- o Immediate reduction in workforce of approximately 170 employees, primarily in managerial and support related functions, which Tower expects will result in about \$14 million per annum reduction of employment related and activity expenses
- o Changes in Tower's organizational structure to generate a wider span of control per manager
- o Continued materials and spare parts costs savings through multiple sourcing and price negotiation

Tower's recently released acquisition of Jazz Semiconductor creates additional opportunities for synergies, which Tower plans to realize through operational and purchasing efficiencies. This acquisition is targeted to result in a near doubling of revenue and EBITDA.

"These measures are needed for Tower to overcome the current unfavorable market and economic trends, hence improving Tower's financial picture", said Russell Ellwanger, CEO of Tower Semiconductor. "This leaner organizational structure will allow Tower to be stronger in the market and sets the proper foundation for the integration of activities surrounding the Jazz acquisition."

ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor Ltd. (Nasdaq: TSEM, TASE: TSEM) is an independent specialty foundry that delivers customized solutions in a variety of advanced CMOS technologies, including digital CMOS, mixed-signal and RF (radio frequency) CMOS, CMOS image sensors, power management devices, and embedded non-volatile memory solutions. Tower's customer orientation is complemented by its uncompromising attention to quality and service. Its specialized processes and engineering expertise provides highly flexible, customized manufacturing solutions to fulfill the increasing variety of customer needs worldwide. Boasting two world-class manufacturing facilities with standard and specialized process technologies ranging from 1.0- to 0.13-micron, Tower Semiconductor provides exceptional design support and technical services to help customers sustain long-term, reliable product performance, while delivering on-time and on-budget results. More information can be found 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. A 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 Annual Report on Forms 20-F, F-1, F-3 and 6-K, as were filed with the Securities and Exchange Commission and the Israel Securities Authority. We do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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