

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of October 2006

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 October 18 2006, Tower Semiconductor announces it to Report Third Quarter 2006 Results, 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: October 18, 2006

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

TOWER SEMICONDUCTOR LTD. TO REPORT
THIRD QUARTER 2006 RESULTS

THIRD QUARTER 2006 RESULTS WILL INCLUDE ONE-TIME FINANCING INCOME OF
\$80 MILLION RESULTING FROM THE RECENTLY ANNOUNCED CLOSING
OF THE BANK RESTRUCTURING DEAL

MIGDAL HAEMEK, Israel - October 18, 2006 - Tower Semiconductor Ltd. (Nasdaq: TSEM; TASE: TSEM), a pure-play independent specialty foundry, will issue its third quarter earnings release on Tuesday, November 7, 2006 during pre-market hours and will hold its quarterly conference call to discuss these results at 11:00 a.m. Eastern time and 18:00 Israel time.

Tower's third quarter 2006 results will include one-time financing income of \$80 million resulting from the recently announced closing of the bank restructuring deal.

This call will be Web cast by Thomson/CCBN and can be accessed at Tower Semiconductor's Web site at <http://www.towersemi.com> or interested parties may participate in the conference by dialing:

1-866-860-9642 (U.S. Toll-Free)
03-918-0609 (Israel)
972-3-918-0609 (International)

The teleconference will be available for replay 90 days at:
<http://www.earnings.com>.

The web-cast is also being distributed through the Thomson StreetEvents Network to both institutional and individual investors. Individual investors can listen to the call at www.earnings.com, Thomson's individual investor portal, powered by StreetEvents. Institutional investors can access the call via Thomson's password-protected event management site, StreetEvents (www.streetevents.com).

ABOUT TOWER SEMICONDUCTOR:

Tower Semiconductor Ltd. is a pure-play independent 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 embedded 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: 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 and 0.13-micron, standard and specialized process technologies, and has the current capacity of up to 15,000 200mm wafers per month. Tower's Web site is located at: www.towersemi.com

CONTACT:

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