FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of December 2011 No. 1

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 x Form 40-F o

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 o No x

On December 07, 2011, the registrant announces that TowerJazz will Present at the Needham Growth Conference in New York on January 10, 2012.

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: December 07, 2011

TOWER SEMICONDUCTOR LTD.

By: /s/ Nati Somekh Gilboa

Name: Nati Somekh Gilboa Title: Corporate Secretary

TowerJazz to Present at the Needham Growth Conference in New York on January 10, 2012

MIGDAL HAEMEK, Israel – December 7, 2011– TowerJazz (NASDAQ: TSEM), the global specialty foundry leader, today announced that its Chief Executive Officer, Mr. Russell Ellwanger, will present at the 14th Annual Needham Growth Conference.

The 14th Annual Needham Growth Conference will be taking place at the New York Palace Hotel. TowerJazz is scheduled to present in the Henry Room at 9:20am Eastern Time on Tuesday, January 10, 2012.

At the conference there will be an opportunity for investors to meet one-on-one with Russell Ellwanger, CEO. Interested investors should contact either the conference organizers or the Investor Relations team at TowerJazz at towerjazz@ccgisrael.com.

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the global specialty foundry leader, its fully owned U.S. subsidiary Jazz Semiconductor Ltd., and its fully owned Japanese subsidiary TowerJazz Japan, LTD, operate collectively under the brand name TowerJazz, manufacturing integrated circuits with geometries ranging from 1.0 to 0.13-micron. TowerJazz provides industry leading design enablement tools to allow complex designs to be achieved quickly and more accurately and offers a broad range of customizable process technologies including SiGe, BiCMOS, Mixed-Signal and RFCMOS, CMOS Image Sensor, Power Management (BCD), and Non-Volatile Memory (NVM) as well as MEMS capabilities. To provide multi-fab sourcing, TowerJazz maintains two manufacturing facilities in Israel, one in the U.S., and one in Japan with additional capacity available in China through manufacturing partnerships. For more information, please visit www.towerjazz.com.

Contact:

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