FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of February 2012 No. 7

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 S 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 S

On February 20, 2012, the registrant announces Successful Institutional Tender Results for the Expansion of Its Existing Series F Bonds.

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: February 20, 2012 By: /s/ Nati Somekh Gilboa

Name: Nati Somekh

Gilboa

Title: Corporate

Secretary

Towerjazz Announces Successful Institutional Tender Results for the Expansion of Its Existing Series F Bonds

Received Binding Commitments of \$64 Million from Institutional Investors for Bonds Maturing 2015-2016

Migdal Haemek, Israel, February 20, 2012– TowerJazz, the global specialty foundry leader, announced today that the Company received binding commitments from Israeli institutional investors for investments of approximately NIS 240 million (approximately \$64 million) in an expansion of an existing series of long-term bonds issued in 2010 ('Series F Bonds'), maturing in two equal installments in December 2015 and December 2016. The Series F Bonds are denominated in NIS and linked to the US dollar. The bonds carry an interest rate of 7.8 percent per annum, payable semi-annually on June 30 and on December 31 of each year through maturity.

During 2011, TowerJazz redeemed and repaid debt in an aggregate amount of approximately \$140 million, most of which carried interest rates of 8% or more.

In the tender, institutional investors committed to purchase 207,927 units, each comprised of (i) NIS 1,250 aggregate principal amount of Series F Bonds, maturing in December 2015 and 2016, convertible into ordinary shares commencing September 2012 at an approximate premium of 20 percent over the average market price during the period described in the offering documents filed in October 2010 in connection with the issuance of Series F Bonds; and (ii) 100 warrants to purchase ordinary shares, with a vesting schedule of two years, which may only be exercised between March 2014 and March 2016 at an approximate 20 percent premium over the average market price during a fifteen day period prior thereto, resulting in a total warrant coverage ratio of 8% of the total bond par value.

The institutional tender was held on February 20, 2012 and commitments granted to the Company pursuant to the tender are binding. The Israeli public tender for the expansion of the Series F Bonds is expected to be held on or about February 23, 2012, subject to TASE approval.

The Series F Bonds are listed for trading on the TASE, offered in Israel only, and are not registered under the U.S. Securities Act of 1933, as amended (the "Securities Act"), and may not be offered or sold in the United States or to U.S. Persons (as defined in Regulation "S" promulgated under the Securities Act) without registration under the Securities Act or an exemption from the registration requirements of the Securities Act.

This press release shall not be deemed to be an offer to sell or a solicitation of an offer to buy any of the securities.

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.

Safe Harbor Regarding Forward-Looking Statements

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 Tower and/or Jazz's business is included under the heading "Risk Factors" in Tower's most recent filings on Forms 20-F, F-3, F-4 and 6-K, as were filed with the Securities and Exchange Commission (the "SEC") and the Israel Securities Authority and Jazz's most recent filings on Forms 10-K and 10-Q, as were filed with the SEC, respectively. Tower and Jazz do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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