

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of November 2009 No. 6

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 November 23, 2009, the registrant announces Signing Definitive Agreement with Asian Entity to Provide Know-How, Training, and Turnkey Manufacturing Solutions at a Revenue of US \$130 Million.

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: November 23, 2009

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

TowerJazz Signs Definitive Agreement with Asian Entity to Provide Know-How, Training, and Turnkey Manufacturing Solutions at a Revenue of US \$130 Million

Contract accretive to company's strategy for growth in Asian markets

MIGDAL HA'EMEK, Israel, November 23, 2009 –TowerJazz, the global specialty foundry leader, today announced the signing of a definitive agreement with an Asian entity, in furtherance of the company's corporate strategy to penetrate the Asian markets and to leverage its manufacturing know-how and assets to expand its business in this region. Under the agreement, TowerJazz will arrange for the required manufacturing know-how and certain equipment required for successful capacity ramp-up.

The deal will realize TowerJazz revenue of approximately US \$130 million, largely during the first contract year of 2010. This agreement allows TowerJazz to realize profits from its valuable manufacturing expertise and asset base, and to enlarge its sphere of activity in Asia alongside the recently announced customer agreements with GrandTek, C&S Technology, TAEJIN Technology, Dongwoon Anatech, Cesign, SWID and 3PEAKIC Microelectronics. In addition to the substantial cash-in generated by this engagement, TowerJazz expects that this project will lead to additional business opportunities through new customers and ventures.

"It is a notable achievement and acknowledgement of our capabilities that TowerJazz was chosen to provide the know-how, training, and turnkey manufacturing solutions to a project of this scope and significance," said Russell Ellwanger, Chief Executive Officer of TowerJazz. "This project is accretive to our strategy to grow market share within Asia, as evidenced by the opening of a sales and technical support office in Korea this year with multiple design wins and customer announcements in that region, particularly within Power Management. Additionally, our ownership percentage, Board representation and manufacturing agreement with HHNEC in Shanghai, China is further affirmation of our commitment to growth in Asia. We expect that this project will strengthen our traction in this geographic area and trust that our Asian customer base will multiply as a result."

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), the global specialty foundry leader and its fully owned U.S. subsidiary Jazz Semiconductor, 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 world-class customer service, TowerJazz maintains two manufacturing facilities in Israel and one in the U.S. 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 the business of Tower and Jazz 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 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 filed with the SEC. 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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