FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of September 2009 (No. 2)

TOWER SEMICONDUCTOR LTD.

(Translation of registrant's name into English)

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 September 2, 2009, the registrant, Tower Semiconductor Ltd. (the "Company"), agreed to issue and sell to certain institutional investors in Israel 15.8 million shares (the "Shares") of the Company's ordinary shares, nominal value NIS 1 per share, at a price of NIS 3.80 (equivalent to approximately \$1.00) per share and Series 6 Warrants to purchase 3.95 million ordinary shares at an exercise price of \$1.06 per share, exercisable through August 2011 (the "Warrants"). The Shares will be listed on the Nasdaq Global Market and the Tel Aviv Stock Exchange. The Warrants will be listed only on the Tel Aviv Stock Exchange.

Clal Finance Underwriters Ltd. acted as placement agent for the offering and in consideration for its services as placement agent is entitled to a placement agent fee of approximately \$800,000.

Gross proceeds from the sale of the Shares and Warrants are approximately \$15.8 million. The Company intends to use the net proceeds it receives (after payment of fees to the placement agent for the offering) to purchase materials and supplies needed for production to satisfy its increased customer demand, as well as for working capital and general corporate purposes.

The number of shares issuable to the investors is subject to increase if the closing price of the Shares on the date the Shares are delivered to the investors is less than NIS 3.59. In such event, the Company will issue additional ordinary shares to the investors in an aggregate amount equal to: (A) the difference between NIS 3.59 and such closing price, multiplied by 15.8 million (the number of Shares originally issuable to the purchasers), divided by (B) NIS 3.78 (which was the closing price of the ordinary shares of the Company in TASE on September 2, 2009).

The Shares and Warrants were offered under the Company's previously filed and effective shelf Registration Statement on Form F-3 (Registration No. 333-148747). The Company intends to file a prospectus supplement relating to the offering with the Securities and Exchange Commission within the period required by law.

The completion of the issuance and delivery of the Shares to the institutional investors is expected to occur on or before September 4, 2009, and is subject to customary approvals and permits, including the approval of the Tel Aviv Stock Exchange.

On September 3, 2009, the Company announced the abovementioned fundraising. Attached please find the press release.

This Report is hereby incorporated by reference into our Registration Statement No. 333-148747 on Form F-3, as amended or supplemented, and our other effective registration statements.

EXHIBIT NO. DESCRIPTION

99.1 Press release

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: September 3, 2009 By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa Corporate Secretary



Tower Semiconductor Raises \$16 Million from Institutional Investors

Shares Priced at a 4 Percent Premium on NASDAQ Closing Price

MIGDAL HAEMEK, Israel – September 3, 2009 – Tower Semiconductor Ltd. (NASDAQ: TSEM; TASE: TSEM), an independent specialty foundry, announced today that it received and accepted orders from Israeli institutional investors of approximately \$15.8 million for cash investment in the Company's equity. In consideration for this cash investment, the Company has committed to issue to the investors 15.8 million ordinary shares, based on a price of NIS 3.80 (approximately \$1.00) per share, which is a 4 percent premium on the closing price of the Company's ordinary shares in NASDAQ on the day the orders were accepted (September 2, 2009), as well as warrants to purchase 3.95 million ordinary shares which will have the same terms as the Company's series 6 warrants already traded on the Tel Aviv Stock Exchange. Additional information regarding the terms of the offering is included in the Company's Report on Form 6-K as filed today with the SEC and available at www.sec.gov.

Total immediate proceeds amounted to approximately NIS 60 million (approximately \$15.8 million). The sale of the shares and warrants is being made under the previously filed shelf registration statement as was approved and declared effective by the SEC on February 15, 2008. A prospectus supplement related to the offering will be filed with the SEC on or before September 4, 2009 and will be available at www.sec.gov.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy the securities described herein.

All figures in dollars are presented herein for convenience only, based on September 2, 2009 exchange rates of 3.807 NIS for every \$1.00.

About Tower Semiconductor, Ltd.

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), a global specialty foundry leader, manufactures integrated circuits with geometries ranging from 1.0 to 0.13-micron and provides complementary technical services and design support. Tower, along with its fully owned U.S. subsidiary, Jazz Semiconductor, Inc., offers a broad range of process technologies including Digital, Mixed-Signal and RFCMOS, HV CMOS, Power Management, Non-Volatile Memory (NVM), Embedded NVM, MEMS, and CMOS Image Sensors. Tower provides world-class customer service and maintains two fabrication facilities in Israel and a fab in Newport Beach, CA, with manufacturing capacity available in China through partnerships with ASMC and HHNEC. For more information, please visit www.towersemi.com and www.jazzsemi.com.

Forward Looking Statements

This press release includes forward-looking statements, which are subject to risks and uncertainties. You should not place any undue reliance on such forwardlooking statements. Potential risks and uncertainties include, without limitation, risks and uncertainties associated with: (i) maintaining existing customers and attracting additional customers, (ii) not receiving orders from our customers, which can result in unutilized capacity, (iii) the cyclical nature of the semiconductor industry and the resulting periodic overcapacity, fluctuations in operating results and future average selling price erosion, (iv) the large amount of debt and liabilities and having sufficient funds to satisfy our short-term and long-term debt obligations and other liabilities on a timely basis, (v) operating our facilities at high utilization rates which is critical in order to defray the high level of fixed costs associated with operating a foundry and reduce our losses, (vi) our ability to satisfy the covenants stipulated in our agreements with our lenders, banks and bond holders, (vii) our ability to capitalize on potential increases in demand for foundry services, (viii) meeting the conditions to receive Israeli government grants and tax benefits approved for Fab2, the possibility of the government requiring us to repay all or a portion of the grants already received and obtaining the approval of the Israeli Investment Center for an expansion program, (ix) our ability to accurately forecast financial performance, which is affected by limited order backlog and lengthy sales cycles, (x) the purchase of equipment to increase capacity, the completion of the equipment installation, technology transfer and raising the funds therefor, (xi) our dependence on a relatively small number of products for a significant portion of our revenue, (xii) a substantial portion of our revenues being accounted for by a small number of customers, (xiii) the concentration of our business in the semiconductor industry, (xiv) credits to customers due to product returns and other reasons, (xv) our ability to maintain and develop our technology processes and services to keep pace with new technology, evolving standards, changing customer and end-user requirements, new product introductions and short product life cycles, (xvi) competing effectively, (xvii) achieving acceptable device yields, product performance and delivery times, (xviii) our ability to manufacture products on a timely basis, (xix) our dependence on intellectual property rights of others, our ability to operate our business without infringing others' intellectual property rights and our ability to enforce our intellectual property against infringement, (xx) pending resolution of patent infringement claim against the Company, (xxi) retention of key employees and retention and recruitment of skilled qualified personnel, (xxii) exposure to inflation, currency exchange and interest rate fluctuations and risks associated with doing business internationally and in Israel, (xxiii) the current global economic downturn, the prevailing market conditions in the semiconductor industry (including global decreased demand, reduced prices, excess inventory and unutilized capacity) and the lack of availability of funding sources in light of the prevailing financial markets situation, which may adversely affect the future financial results and position of the Company, including its ability to continue to support its ongoing operations, (xxiv) completing the issuance under the shelf registration statement to the institutional investors and (xxv) business interruption due to fire, the security situation in Israel and other events beyond our control.

A more 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 filings on Forms 20-F, F-3, F-4, S-8 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. Future results may differ materially from those previously reported. The Company does not intend to update, and expressly disclaims any obligation to update, the information contained in this release.

Contact:

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