
Article I. FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of April 2010 (No. 4)

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 April 22, 2010, we entered into Amendment No. 3 to the Standby Equity Purchase Agreement dated August 11, 2009 between us and YA Global Master SPV Ltd., as amended by Amendment No. 1 thereto dated August 27, 2009 and Amendment No. 2 thereto dated February 4, 2010 (the "SEPA").

Amendment No. 3 to the SEPA increases the amount of our ordinary shares that YA Global is committed to purchase under the SEPA, upon the terms and subject to the conditions set forth therein, by \$35 million. To date an aggregate of \$24,950,815 of our ordinary shares have been sold to YA Global under the SEPA. Under the terms of the SEPA, as so amended, from time to time through March 31, 2012, and at our sole and exclusive option, we may present YA Global with advance notices to purchase up to \$35,049,185 of our ordinary shares.

Amendment No. 3 provides for the payment to YA Global of an additional commitment fee of \$300,000 in connection with the amendment, of which \$150,000 is payable at the time of the delivery of the next advance notice under the SEPA and the balance of which is payable nine months thereafter. Under the terms of the SEPA, we may at our option issue additional ordinary shares in payment of all or part of the additional commitment fee.

Except as so amended, the SEPA as amended by Amendment No. 3 thereto remains in full force and effect.

Amendment No. 3 to the SEPA is attached hereto as Exhibit 99.1.

This Form 6-K is hereby incorporated by reference into our Registration Statement on Form F-3 (No. 333- 163196) and our other effective Registration Statements.

Article II. 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.

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

Date: April 23, 2010

AMENDMENT NO. 3 TO
STANDBY EQUITY PURCHASE AGREEMENT

THIS AMENDMENT NO. 3 dated April 22, 2010 (the "Amendment") to the Standby Equity Purchase Agreement dated August 11, 2009, between **YA GLOBAL MASTER SPV LTD.**, a Cayman Islands exempt limited company (the "Investor") and **TOWER SEMICONDUCTOR LTD.**, a corporation organized and existing under the laws of the State of Israel (the "Company") as amended by Amendment No. 1 dated August 27, 2009 and Amendment No. 2 dated February 4, 2010 (as so amended to date, the "Agreement"). Capitalized terms used but not defined herein shall have the meaning given thereto in the Agreement.

WHEREAS, through the date hereof, the Company has issued and sold to the Investor an aggregate of \$24,950,815 of shares pursuant to the terms and conditions of the Agreement.

WHEREAS, the Company and the Investor desire to amend the Agreement to increase the amount which the Investor has agreed to provide to the Company from time to time to purchase Shares under the Agreement by \$35,000,000 to an aggregate of \$60,000,000.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Investor and the Company hereby agree as follows:

1. **Amendments.**

- a. **Section 1.09** of the Agreement is hereby amended and restated in its entirety to read as follows:

Section 1.09 "Commitment Amount" shall mean the aggregate amount of up to \$60,000,000 which the Investor has agreed to provide to the Company in order to purchase the Shares pursuant to the terms and conditions of this Agreement.

- b. In connection with this Amendment, the Investor will earn a commitment fee of \$300,000, which shall be earned, due and payable by the Company as follows: (i) \$150,000 shall be earned, due and payable upon the first Advance Notice Date to be made after the date of this Amendment; and (ii) \$150,000 shall be due and payable on or before the 9 month anniversary of the first Advance Notice Date to be made after the date of this Amendment. The fees under this clause may be paid, at the Company's discretion, in cash, in Ordinary Shares, or some combination thereof. If any portion of the fees are to be paid in Ordinary Shares (such shares, the "Additional Commitment Shares"), the Company will issue to the Investor Ordinary Shares before, on, or promptly after, the applicable payment date in an amount equal to the portion of the fees to be paid in Ordinary Shares divided by the VWAP for the Trading Day immediately prior to the applicable payment date. The Additional Commitment Shares shall be issued pursuant to the Registration Statement and shall be Free upon issuance. The fees shall be deemed paid upon the crediting of the Investor's account or its designee's account (including, at the election of the Investor, the Investor's securities account with a TASE Member) with the Additional Commitment Shares, in accordance with delivery instructions provided by the Investor. Each portion of these fees shall be deemed fully earned by the Investor as of the date such portion becomes due regardless of the amount of Advances, if any, that the Company is able to, or chooses to, request hereunder.
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c. The definition of “Shares” in Section 1.43 of the Agreement shall be deemed to include the Additional Commitment Shares in addition to the Ordinary Shares to be issued from time to time pursuant to Advances and to the Commitment Shares.

d. Section 10.02 (a) of the Agreement is hereby amended and restated in its entirety to read as follows:

“Unless earlier terminated as provided hereunder, this Agreement shall terminate automatically on the earliest of (i) March 31, 2012, or (ii) the date on which the Investor shall have made payment of Advances pursuant to this Agreement in the aggregate amount of the Commitment Amount.

2. **Prospectus Supplement.** The Company agrees to file a prospectus supplement to the base prospectus included as part of the Registration Statement (Registration Number 333-163196) prior to issuing any additional Advance Notices to the Investor.

3. **Opinion of Counsel.** The Company shall provide an updated opinion letter from counsel to the Company in the form attached to the Agreement as Exhibit C prior to issuing any additional Advance Notices to the Investor.

4. **Miscellaneous.**

a. The parties hereto acknowledge and agree that, other than as set forth in this Amendment, the Agreement remains unchanged and in full force and effect.

b. This Amendment may be executed in several counterparts, each of which will be deemed to be an original and all of which will together constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment No. 3 to be executed by the undersigned, thereunto duly authorized, as of the date first set forth above.

COMPANY:

TOWER SEMICONDUCTOR LTD.

By: /s/ Oren Shirazi

Name: Oren Shirazi

Title: Chief Financial Officer

By: /s/ Ronit Vardi

Name: Ronit Vardi

Title: Controller

INVESTOR:

YA GLOBAL MASTER SPV LTD.

By: Yorkville Advisors, LLC

Its: Investment Manager

By: /s/ Mark Angelo

Name: Mark Angelo

Title: Portfolio Manager
