

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of May 2007 (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  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 May 1, 2007, the Registrant announced its financial results for the three months ended March 31, 2007. Attached hereto are the following exhibits

Exhibit 99.1 Press release dated May 1, 2007

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: May 1, 2007

By: /s/ Nati Somekh Gilboa  
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Nati Somekh Gilboa  
Corporate Secretary

TOWER SEMICONDUCTOR FIRST QUARTER 2007 REVENUES  
INCREASED 55 PERCENT YEAR-OVER-YEAR

COMPANY MAINTAINS POSITIVE CASH FLOW FROM OPERATIONS AND POSITIVE  
EBITDA AND GUIDES FOR EIGHTH SEQUENTIAL QUARTER OF REVENUE GROWTH

MIGDAL HAEMEK, Israel - May 1, 2007 - Tower Semiconductor Ltd. (Nasdaq: TSEM, TASE: TSEM), an independent specialty foundry, today announced first quarter 2007 financial results.

FINANCIAL HIGHLIGHTS:

- o Reported quarterly revenues of \$55.6 million, meeting previously stated guidance, and representing year-over-year growth of approximately 55 percent
- o Recorded positive cash flow from operations for the second consecutive quarter and achieved positive EBITDA for the sixth consecutive quarter
- o Expecting continued revenue growth in the second quarter of 2007 to be between \$56 and \$60 million, which will represent the eighth sequential quarter of revenue growth, and will represent between 26 and 35 percent year-over-year revenue growth.

For the first quarter of 2007, the Company reported total revenues of \$55.6 million, representing a 55 percent increase as compared to \$35.9 million reported in the first quarter of 2006. Net Loss in accordance with generally accepted accounting principles (GAAP) for the first quarter of 2007 was \$37.4 million, or \$0.36 per share, as compared to a GAAP net loss of \$45.1 million, or \$0.63 per share, for the first quarter of 2006. Non-GAAP operating profit (as described and reconciled below) for the first quarter of 2007 was \$11.8 million, as compared to non-GAAP operating profit for the first quarter of 2006 of \$5.2 million.

"We take satisfaction that in Q1, which saw a world-wide foundry revenue drop exceeding ten percent, we achieved the upper range of an aggressive guidance and are able to guide Q2 to be our eighth consecutive quarter of revenue growth", said Russell Ellwanger, chief executive officer of Tower Semiconductor. "Driven by strong customer demand both Fabs ran at above 90 percent utilization rates during the quarter. As we near the completion of our 50 percent Fab2 capacity expansion, we believe we are well positioned to continue growth in the second half of 2007, fueled by multiyear contracts from new and existing customers. This quarter's results reaffirm our confidence in our business model and demonstrate the benefits of serving a customer base representing multiple segments and specialty products in order to enable growth despite the industry cycles".

BUSINESS OUTLOOK:

Tower expects continued growth in the second quarter of 2007 and forecasts revenue to be between \$56 and \$60 million, which will represent between 26 and 35 percent year-over-year revenue growth.

FIRST QUARTER 2007 FINANCIAL RESULTS CONFERENCE CALL AND WEB CAST:

Tower will host a conference call to discuss these results on Tuesday, May 1, 2007, at 12:00 p.m. Eastern Standard Time / 7:00 p.m. Israel time. To participate, please call: 1-888-668-9141 (U.S. toll-free number) or 972-3-918-0609 (international) and mention ID code: TOWER. Callers in Israel are invited to call locally by dialing 03-918-0609. The conference call will also be Web cast live at <http://www.earnings.com> and at [www.towersemi.com](http://www.towersemi.com) and will be available thereafter on both Web sites for replay for 90 days, starting at approximately 2:00 p.m. Eastern Standard Time on the day of the call.

As used in this release, the term EBITDA consists of loss, according to GAAP (Generally Accepted Accounting Principles), excluding interest and financing expenses (net), tax and depreciation and amortization expenses. EBITDA is not a required GAAP financial measure and may not be comparable to a similarly titled measure employed by other companies. EBITDA should not be considered in isolation or as a substitute for operating income, net income or loss, cash flows provided by operating, investing and financing activities, or other income or cash flow statement data prepared in accordance with GAAP.

This release, including the financial tables below, presents other financial information that may be considered "non-GAAP financial measures" under Regulation G and related reporting requirements promulgated by the Securities and Exchange Commission as they apply to our company. These non-GAAP financial measures exclude (1) depreciation and amortization expenses and (2) compensation expenses in respect of options granted to directors, officers and employees. Non-GAAP financial measures should be evaluated in conjunction with, and are not a substitute for, GAAP financial measures. The tables also present the GAAP financial measures which are most comparable to the non-GAAP financial measures, as well as a reconciliation between the non-GAAP financial measures and the most comparable GAAP financial measures. The non-GAAP financial information presented herein should not be considered in isolation from or as a substitute for operating income, net income or loss, cash flows provided by operating, investing and financing activities, or other income or cash flow statement data prepared in accordance with GAAP.

ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor Ltd. (Nasdaq: TSEM, TASE: TSEM) is an independent specialty foundry that delivers customized solutions in a variety of advanced CMOS technologies, including digital CMOS, mixed-signal and RF (radio frequency) CMOS, CMOS image sensors, power management devices, and embedded non-volatile memory solutions. Tower's customer orientation is complemented by its uncompromising attention to quality and service. Its specialized processes and engineering expertise provides highly flexible, customized manufacturing solutions to fulfill the increasing variety of customer needs worldwide. Boasting two world-class manufacturing facilities with standard and specialized process technologies ranging from 1.0- to 0.13-micron, Tower Semiconductor provides exceptional design support and technical services to help customers sustain long-term, reliable product performance, while delivering on-time and on-budget results. More information can be found at <http://www.towersemi.com>.

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. Potential risks and uncertainties include, without limitation, risks and uncertainties associated with: (i) the completion of the equipment installation, technology transfer and ramp-up of production in Fab 2 and raising the funds therefor, (ii) the cyclical nature of the semiconductor industry and the resulting periodic overcapacity, fluctuations in operating results, future average selling price erosion that may be more severe than our expectations, (iii) having sufficient funds to operate the company in the short-term and the funding needs for its ramp-up plan, (iv) operating our facilities at satisfactory utilization rates which is critical in order to defray the high level of fixed costs associated with operating a foundry and reduce our losses, (v) our ability to satisfy the covenants stipulated in our amended credit facility agreement, (vi) our ability to capitalize on increases in demand for foundry services, (vii) meeting the conditions to receive Israeli government grants and tax benefits approved for Fab 2 and obtaining the approval of the Israeli Investment Center for a new expansion program, (viii) attracting additional customers, (ix) not receiving orders from our wafer partners and customers, (x) failing to maintain and develop our technology processes and services, (xi) competing effectively, (xii) our large amount of debt and our ability to repay our short-term and long-term debt on a timely basis, (xiii) achieving acceptable device yields, product performance and delivery times, (xiv) the timely development, internal qualification and customer acceptance of new processes and products and (xv) business interruption due to terror attacks, earthquakes, other acts of God and the security situation in Israel.

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 and 6-K, as were filed with the Securities and Exchange Commission and the Israel Securities Authority. Future results may differ materially from those previously reported. We do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

## Contact:

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
CONSOLIDATED BALANCE SHEETS  
(DOLLARS IN THOUSANDS)

	MARCH 31,	DECEMBER 31,
	2007	2006
	-----	-----
	(UNAUDITED)	
	-----	

## A S S E T S

CURRENT ASSETS		
CASH, CASH EQUIVALENTS AND DEPOSITS	\$ 43,592	\$ 40,940
TRADE ACCOUNTS RECEIVABLE	36,127	31,498
OTHER RECEIVABLES	5,174	5,425
INVENTORIES	38,245	34,763
OTHER CURRENT ASSETS	1,676	1,473
	-----	-----
TOTAL CURRENT ASSETS	124,814	114,099
	-----	-----
PROPERTY AND EQUIPMENT, NET	519,876	539,292
	-----	-----
INTANGIBLE ASSETS, NET	42,590	44,981
	-----	-----
OTHER ASSETS, NET	1,320	1,346
	=====	=====
TOTAL ASSETS	\$688,600	\$699,718
	=====	=====

## LIABILITIES AND SHAREHOLDERS' EQUITY

CURRENT LIABILITIES		
CURRENT MATURITIES OF CONVERTIBLE DEBENTURES	\$ 6,597	\$ 6,632
TRADE ACCOUNTS PAYABLE	57,922	55,128
OTHER CURRENT LIABILITIES	20,188	22,096
	-----	-----
TOTAL CURRENT LIABILITIES	84,707	83,856
	-----	-----
LONG-TERM DEBT FROM BANKS	358,798	356,947
	-----	-----
CONVERTIBLE DEBENTURES	57,853	62,175
	-----	-----
LONG-TERM CUSTOMERS' ADVANCES	44,050	46,042
	-----	-----
OTHER LONG-TERM LIABILITIES	21,353	17,708
	-----	-----
TOTAL LIABILITIES	566,761	566,728
	-----	-----
SHAREHOLDERS' EQUITY	121,839	132,990
	=====	=====
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$688,600	\$699,718
	=====	=====

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)  
(DOLLARS IN THOUSANDS, EXCEPT SHARE DATA AND PER SHARE DATA)

	THREE MONTHS ENDED MARCH 31,		
	2007	2006	2005
	-----	-----	-----
REVENUES	\$ 55,604	\$ 35,875	\$ 23,167
COST OF SALES	71,494	61,280	61,214
	-----	-----	-----
GROSS PROFIT (LOSS)	(15,890)	(25,405)	(38,047)
	-----	-----	-----
OPERATING COSTS AND EXPENSES			
RESEARCH AND DEVELOPMENT	3,597	3,354	4,763
MARKETING, GENERAL&ADMINISTRATIVE	7,825	5,324	4,528
	-----	-----	-----
	11,422	8,678	9,291
	=====	=====	=====
OPERATING PROFIT (LOSS)	(27,312)	(34,083)	(47,338)
FINANCING INCOME (EXPENSE), NET	(10,148)	(11,524)	(8,175)
OTHER INCOME, NET	69	551	193
	-----	-----	-----
NET PROFIT (LOSS) FOR THE PERIOD	\$ (37,391)	\$ (45,056)	\$ (55,320)
	=====	=====	=====
EARNING (LOSS) PER ORDINARY SHARE			
(*) BASIC AND DILUTED EARNING (LOSS) PER SHARE	\$ (0.36)	\$ (0.63)	\$ (0.84)
	=====	=====	=====
WEIGHTED AVERAGE NUMBER OF ORDINARY SHARES OUTSTANDING - IN THOUSANDS	105,060	71,872	65,700
	=====	=====	=====

(\*) BASIC AND DILUTED LOSS PER SHARE IN ACCORDANCE WITH U.S. GAAP FOR THE THREE MONTHS PERIODS ENDED MARCH 31, 2007, MARCH 31, 2006 AND MARCH 31, 2005 ARE \$0.38, \$0.56 AND \$0.84, RESPECTIVELY.

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
RECONCILIATION OF REPORTED GAAP TO NON-GAAP CONSOLIDATED  
STATEMENTS OF OPERATIONS (UNAUDITED)  
(DOLLARS IN THOUSANDS, EXCEPT SHARE DATA AND PER SHARE DATA)

	THREE MONTHS ENDED MARCH 31,			THREE MONTHS ENDED MARCH 31,			THREE MONTHS ENDED MARCH 31,		
	2007	2006	2005	2007	2006	2005	2007	2006	2005
	-----	-----	-----	-----	-----	-----	-----	-----	-----
				DEPRECIATION, AMORTIZATION AND STOCK BASED COMPENSATION EXPENSES (SEE A, B, C BELOW)					
							GAAP		
				-----					
REVENUES	\$ 55,604	\$ 35,875	\$ 23,167	\$ --	\$ --	\$ --	\$ 55,604	\$ 35,875	\$ 23,167
COST OF SALES	34,718	23,298	27,000	36,776(A)	37,982(A)	34,214(A)	71,494	61,280	61,214
	-----	-----	-----	-----	-----	-----	-----	-----	-----
GROSS PROFIT (LOSS)	20,886	12,577	(3,833)	(36,776)	(37,982)	(34,214)	(15,890)	(25,405)	(38,047)
	-----	-----	-----	-----	-----	-----	-----	-----	-----
OPERATING COSTS AND EXPENSES									
RESEARCH AND DEVELOPMENT	2,752	2,227	3,810	845(B)	1,127(B)	953(B)	3,597	3,354	4,763
MARKETING, GENERAL&ADMINISTRATIVE	6,304	5,154	4,513	1,521(C)	170(C)	15(C)	7,825	5,324	4,528
	-----	-----	-----	-----	-----	-----	-----	-----	-----
	9,056	7,381	8,323	2,366	1,297	968	11,422	8,678	9,291
	=====	=====	=====	=====	=====	=====	=====	=====	=====
OPERATING PROFIT (LOSS)	\$ 11,830	\$ 5,196	\$(12,156)	\$(39,142)	\$(39,279)	\$(35,182)	(27,312)	(34,083)	(47,338)
	=====	=====	=====	=====	=====	=====	-----	-----	-----
FINANCING INCOME (EXPENSE), NET							(10,148)	(11,524)	(8,175)
OTHER INCOME, NET							69	551	193
							-----	-----	-----
NET PROFIT (LOSS) FOR THE PERIOD							\$(37,391)	\$(45,056)	\$(55,320)
							=====	=====	=====
EARNING (LOSS) PER ORDINARY SHARE									
(*) BASIC AND DILUTED EARNING (LOSS) PER SHARE							\$ (0.36)	\$ (0.63)	\$ (0.84)
							=====	=====	=====
WEIGHTED AVERAGE NUMBER OF ORDINARY SHARES OUTSTANDING - IN THOUSANDS							105,060	71,872	65,700
							=====	=====	=====

(\*) BASIC AND DILUTED LOSS PER SHARE IN ACCORDANCE WITH U.S. GAAP FOR THE THREE MONTHS PERIODS ENDED MARCH 31, 2007, MARCH 31, 2006 AND MARCH 31, 2005 ARE \$0.38, \$0.56 AND \$0.84, RESPECTIVELY.

(a) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNTS OF \$36,621, \$37,835 AND \$34,214 FOR THE THREE MONTHS ENDED MARCH 31, 2007, MARCH 31, 2006 AND MARCH 31, 2005, RESPECTIVELY AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNTS OF \$155 AND \$147 FOR THE THREE MONTHS ENDED MARCH 31, 2007 AND MARCH 31, 2006, RESPECTIVELY.

- (b) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNTS OF \$706, \$1,055 AND \$953 FOR THE THREE MONTHS ENDED MARCH 31, 2007, MARCH 31, 2006 AND MARCH 31, 2005, RESPECTIVELY AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNTS OF \$139 AND \$72 FOR THE THREE MONTHS ENDED MARCH 31, 2007 AND MARCH 31, 2006, RESPECTIVELY.
- (c) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNTS OF \$3, \$10 AND \$15 FOR THE THREE MONTHS ENDED MARCH 31, 2007, MARCH 31, 2006 AND MARCH 31, 2005, RESPECTIVELY AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNTS OF \$1,518 AND \$160 FOR THE THREE MONTHS ENDED MARCH 31, 2007 AND MARCH 31, 2006, RESPECTIVELY.