

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of February 2008 (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 February 6, 2008, the Registrant announced its financial results for the fourth quarter and fiscal year ended December 31, 2007. Attached hereto is a copy of the press release.

Exhibit 99.1 Press release dated February 6, 2008

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 6, 2008

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

TOWER SEMICONDUCTOR REPORTS RECORD QUARTERLY AND
ANNUAL REVENUE

INCREASED ANNUAL REVENUE BY \$43.4 MILLION, REPRESENTING 23 PERCENT
YEAR-OVER-YEAR GROWTH

MIGDAL HAEMEK, Israel - February 6, 2008 - Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), an independent specialty foundry, today announced financial results for the fourth quarter and full year ended December 31, 2007.

HIGHLIGHTS

- o Record annual revenue of \$230.9 million, representing year-over-year growth of approximately 23 percent and two-year growth of 126 percent
- o Record fourth quarter revenue of \$61.6 million, representing 11 percent growth as compared to the same period in 2006
- o Achieved annual positive cash flow from operations for the first time since Fab2 was established; recorded positive cash flow from operations for the fifth consecutive quarter and positive EBITDA for the ninth consecutive quarter
- o Commenced execution of its Fab2 capacity ramp-up plan targeted at beyond 30,000 wafers-per-month
- o Formed Partnership with CMT Medical Technologies to develop and sell flat panel x-ray detectors for medical applications with a targeted market of over \$500 million per year
- o Executing cost reduction initiatives and efficiency measures, which will result in a decrease of more than \$20 million in 2008 operating expenses

Revenue for the fourth quarter of 2007 was \$61.6 million, representing an increase of 11 percent when compared to revenue of \$55.5 million in the fourth quarter of 2006 and an increase of 9 percent compared to \$56.6 million in the third quarter of 2007. For the full year of 2007 revenue increased by \$43.4 million to \$230.9 million as compared to \$187.4 million in 2006 and \$102 million in 2005, representing an increase of 23 percent and 126 percent, respectively.

Fourth quarter 2007 non-GAAP gross profit and operating profit, as described and reconciled below, totaled \$23 million and \$14 million, respectively, which represent 37 percent gross margin and 23 percent operating margin. Calculated in accordance with GAAP, net loss for the fourth quarter was \$25.3 million, or \$0.20 per share, an improvement of \$11 million as compared to \$36.3 million, or \$0.38 per share, for the same period in 2006. For the full year of 2007, non-GAAP gross and operating profit, as described and reconciled below, were \$83.5 million and \$48.9 million, respectively, which represent 36 percent gross margin and 21 percent operating margin. Calculated in accordance with GAAP, net loss for the year improved by \$33.7 million against a revenue increase of \$43.4 million, which represents 78 percent incremental net margin.

"Our record revenue performance during the fourth quarter not only surpassed the \$60 million milestone for the first time, but also exceeded the semiconductor industry's average growth rate in regards to both quarterly and annual sales," commented Russell Ellwanger, Chief Executive Officer of Tower Semiconductor, Ltd. "Furthermore, during the quarter we formed a partnership with CMT Medical Technologies for the development of flat panel X-ray detectors, targeting a market of over \$500 million a year. This relationship, based upon Tower's proprietary image sensor device and process technologies, represents a new business model for Tower that will generate revenue through both the production of high value, single die 8 inch wafers as well as through sharing the profits of the end product."

Ellwanger also commented, "During 2007, we built upon the 84 percent revenue growth recorded in 2006 by growing revenue an additional 23 percent, achieving annual positive cash flow from operations results for the first time since Fab2 was established, as well as significantly improving the bottom line. In addition, we laid the foundation for future growth by securing the equipment necessary to expand capacity in Fab2 to beyond 30,000 wafer starts per month, while improving operational efficiencies to enable \$20 million in cost reductions in 2008, and also securing several significant customers agreements and partnerships that we expect will positively impact our financial results in 2008 and beyond."

Ellwanger concluded, "In the fourth quarter of 2007, we achieved another record in revenue and wafer shipments. In the midst of an uncertain global economy, our customer demand has remained strong, and we expect our first quarter of 2008 to be in line with normal seasonality. We anticipate that our 2008 first quarter revenue will range between \$57 million and \$62 million, representing a 3 to 11 percent increase from the \$55.6 million in the first quarter of 2007. Furthermore, we anticipate continued growth in 2008 as we install, qualify and release for production our current 0.13 micron capacity ramp."

TRANSITION TO U.S. GAAP

Beginning with the fourth quarter of 2007, the Company elected to present its

financial statements in accordance with U.S. GAAP. The change was made as a result of Israel Accounting Standard 29, which stipulates that Israeli public companies that previously reported their financial results based on Israeli GAAP must begin reporting their financial results in accordance with International Financial Reporting Standards (IFRS) for periods beginning on or after January 1, 2008. However, Israeli public companies that are also listed on NASDAQ are allowed to report utilizing U.S. GAAP rather than IFRS.

The Company elected to use U.S. GAAP to increase transparency and comparability of the Company's financial reports and facilitate research and analysis by shareholders, analysts and other participants in the U.S. capital markets. All historical amounts presented in this release, including the financial tables below, were recast to reflect the application of U.S. GAAP.

FOURTH QUARTER AND YEAR END 2007 FINANCIAL RESULTS CONFERENCE CALL AND WEB CAST

Tower will host a conference call to discuss these results today, February 6, 2008, at 10:00 a.m. Eastern Time (ET) / 5:00 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 and will be available thereafter on both Web sites for replay for 90 days, starting at approximately 2 p.m. ET on the day of the call.

As used in this release, the term Earnings Before Interest Tax Depreciation and Amortization (EBITDA) consists of loss, according to U.S. GAAP, excluding interest and financing expenses (net), tax, depreciation and amortization and stock based compensation 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 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. Offering 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>.

FORWARD LOOKING STATEMENT

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 therefore, (ii) the cyclical nature of the semiconductor industry and the resulting periodic overcapacity, fluctuations in operating results, future average selling price erosion, (iii) having sufficient funds to satisfy our short-term and long-term debt obligations and other liabilities, (iv) 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, (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 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 a new expansion program, (viii) our ability to accurately forecast financial performance, which is affected by limited order backlog and lengthy sales cycles, (ix) maintaining existing customers and attracting additional customers, (x) not receiving orders from our wafer partners and customers, which can result in excess capacity, (xi) our dependence on a relatively small number of products for a significant portion of our revenue, (xii) product returns, (xiii) 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, (xiv) competing effectively, (xv) our large amount of debt and our ability to repay our short-term and long-term debt on a timely basis, (xvi) achieving acceptable device yields, product performance and delivery times, (xvii) our ability to manufacture products on a timely basis and to purchase the equipment to increase Fab2 capacity beyond 24,000 wafers per month and timely installation thereof, (xviii) our dependence on intellectual property rights of others and our ability to operate our business without infringing others' intellectual property rights, (xix) exposure to inflation, currency exchange and interest rate fluctuations and risks associated with doing business internationally and in Israel and (xx) 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 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. The Company does not intend to update, and expressly disclaims any obligation to update, the information contained in this release.

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

	DECEMBER 31, 2007	DECEMBER 31, 2006
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A S S E T S		
CURRENT ASSETS		
CASH, CASH EQUIVALENTS AND DEPOSITS	\$ 44,536	\$ 40,940
TRADE ACCOUNTS RECEIVABLE	44,977	31,498
OTHER RECEIVABLES	4,748	5,425
INVENTORIES	27,806	34,763
OTHER CURRENT ASSETS	1,580	1,473
	-----	-----
TOTAL CURRENT ASSETS	123,647	114,099
	-----	-----
LONG-TERM INVESTMENTS	15,093	15,325
	-----	-----
PROPERTY AND EQUIPMENT, NET	502,287	532,798
	-----	-----
INTANGIBLE ASSETS, NET	34,711	44,981
	-----	-----
OTHER ASSETS, NET	11,044	6,929
	=====	=====
TOTAL ASSETS	\$686,782	\$714,132
	=====	=====
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
CURRENT MATURITIES OF CONVERTIBLE DEBENTURES	\$ 7,887	\$ 6,902
TRADE ACCOUNTS PAYABLE	49,025	55,128
OTHER CURRENT LIABILITIES	20,024	22,096
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TOTAL CURRENT LIABILITIES	76,936	84,126
LONG-TERM DEBT FROM BANKS	379,314	432,430
DEBENTURES	117,460	83,863
LONG-TERM CUSTOMERS' ADVANCES	27,983	46,042
OTHER LONG-TERM LIABILITIES	40,380	28,155
	-----	-----
TOTAL LIABILITIES	642,073	674,616
	-----	-----
SHAREHOLDERS' EQUITY	44,709	39,516
	=====	=====
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$686,782	\$714,132
	=====	=====

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

	YEAR ENDED DECEMBER 31,			THREE MONTHS ENDED DECEMBER 31,		
	2007	2006	2005	2007	2006	2005
	GAAP	GAAP	GAAP	GAAP	GAAP	GAAP
	(UNAUDITED)					
REVENUES						
SALES	\$ 230,853	\$ 187,438	\$ 93,991	\$ 61,618	\$ 55,505	\$ 31,063
REVENUES RELATED TO A JOINT DEVELOPMENT AGREEMENT	--	--	8,000	--	--	--
	230,853	187,438	101,991	61,618	55,505	31,063
COST OF SALES	284,771	267,520	238,358	73,563	72,756	58,760
GROSS LOSS	(53,918)	(80,082)	(136,367)	(11,945)	(17,251)	(27,697)
OPERATING COSTS AND EXPENSES						
RESEARCH AND DEVELOPMENT	13,790	15,048	16,029	3,499	3,893	3,180
MARKETING, GENERAL AND ADMINISTRATIVE	31,604	25,831	17,418	7,884	6,732	3,937
	45,394	40,879	33,447	11,383	10,625	7,117
OPERATING LOSS	(99,312)	(120,961)	(169,814)	(23,328)	(27,876)	(34,814)
FINANCING EXPENSE, NET	(34,976)	(47,563)	(35,651)	(1,942)	(8,450)	(10,223)
OTHER INCOME (EXPENSE), NET	92	597	2,383	19	--	(135)
LOSS FOR THE PERIOD	\$ (134,196)	\$ (167,927)	\$ (203,082)	\$ (25,251)	\$ (36,326)	\$ (45,172)
BASIC LOSS PER ORDINARY SHARE						
LOSS PER SHARE	\$ (1.13)	\$ (2.03)	\$ (3.06)	\$ (0.20)	\$ (0.38)	\$ (0.68)
WEIGHTED AVERAGE NUMBER OF ORDINARY SHARES OUTSTANDING - IN THOUSANDS	118,857	82,581	66,371	124,120	94,373	66,905

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY
RECONCILIATION OF REPORTED GAAP TO NON-GAAP
CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)
(dollars in thousands)

	YEAR ENDED DECEMBER 31, 2007			THREE MONTHS ENDED DECEMBER 31, 2007		
	NON-GAAP	DEPRECIATION, AMORTIZATION AND STOCK BASED COMPENSATION EXPENSES (SEE A, B, C BELOW)	GAAP	NON-GAAP	DEPRECIATION, AMORTIZATION AND STOCK BASED COMPENSATION EXPENSES (SEE A, B, C BELOW)	GAAP
REVENUES	\$ 230,853	\$ --	\$ 230,853	\$ 61,618	\$ --	\$ 61,618
COST OF SALES	147,380 (A)	137,391	284,771	38,665 (A)	34,898	73,563
GROSS PROFIT (LOSS)	83,473	(137,391)	(53,918)	22,953	(34,898)	(11,945)
OPERATING COSTS AND EXPENSES						
RESEARCH AND DEVELOPMENT	10,391 (B)	3,399	13,790	2,671 (B)	828	3,499
MARKETING, GENERAL & ADMINISTRATIVE	24,201 (C)	7,403	31,604	6,324 (C)	1,560	7,884
	34,592	10,802	45,394	8,995	2,388	11,383
OPERATING PROFIT (LOSS)	\$ 48,881	\$ (148,193)	\$ (99,312)	\$ 13,958	\$ (37,286)	\$ (23,328)

(a) Includes depreciation and amortization expenses in the amounts of \$136,568 and \$34,684 for the year and three months periods ended December 31, 2007, respectively and stock based compensation expenses in the amounts of \$823 and \$214 for the year and three months periods ended December 31, 2007, respectively.

(b) Includes depreciation and amortization expenses in the amounts of \$2,825 and \$719 for the year and three months periods ended December 31, 2007, respectively and stock based compensation expenses in the amounts of \$574 and \$109 for the year and three months periods ended December 31, 2007, respectively.

(c) Includes depreciation and amortization expenses in the amounts of \$69 and \$36 for the year and three months periods ended December 31, 2007, respectively and stock based compensation expenses in the amounts of \$7,334 and \$1,524 for the year and three months periods ended December 31, 2007, respectively.