FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of February 2004

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 [X] 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 [X]

On February 2, 2004, the Registrant announced its financial results for the fourth quarter and year ended December 31, 2003. Attached hereto is the press release announcing the results.

This Form 6-K is being filed and incorporated by reference in all effective registration statements filed by the Registrant 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: February 2, 2004 By: /s/ Tamar Cohen

Tamar Cohen

Corporate Secretary and General

Counsel

TOWER SEMICONDUCTOR LTD. ANNOUNCES

FOURTH QUARTER AND YEAR-END 2003 RESULTS

MIGDAL HAEMEK, Israel - February 2, 2004. Tower Semiconductor Ltd. (NASDAQ: TSEM; TASE: TSEM) today announced results for the fourth quarter and 12 months ended December 31, 2003.

Revenues for the fourth quarter of 2003 were \$19.8 million, an increase of 23 percent over revenues of \$16.1 million in the prior quarter. In the fourth quarter of 2002, the company reported revenues of \$15.6 million, including \$4.0 million from a technology-related agreement.

Total fourth quarter loss was \$ 46.0 million, or \$0.91 per share, compared with a loss of \$37.1 million, or \$0.77 per share, for the third quarter of 2003 and a loss of \$13.6 million, or \$0.33 per share, in the fourth quarter of 2002. The increased loss in the fourth and third quarters of 2003, as compared to the respective period of 2002, results mainly from the commencement of Fab 2 depreciation and amortization expenses, which were \$20.0 million and \$17.3 million for the fourth and third quarters of 2003, respectively.

Revenues for the 12 months ended December 31, 2003 were \$61.4 million, compared with revenues of \$51.8 million for the 12 months ended December 31, 2002, which included \$8.1 million from a technology-related agreement.

The company reported a loss of \$114.3 million, or \$2.40 per share, for the 12 months ended December 31, 2003, compared with a loss of \$51.4 million, or \$1.63 per share in the 12 months ended December 31, 2002. The increased loss resulted primarily from the commencement of Fab 2 depreciation and amortization expenses, which totaled \$37.3 million for the 12 months ended December 31, 2003.

The company expects Q-1 2004 consolidated revenues to be in the range of \$23 million and \$25 million. Depreciation expenses for that period are expected to be in the range of \$26 million and \$28 million.

"Strong demand from our Fab 2 existing and new customers enables us to continue to focus on our ramp execution," said Carmel Vernia, Tower's chairman and chief executive officer. "By December 31, 2003, Fab 2 had installed equipment capacity of 8,500 wafer starts per month using 0.18-micron process technology. We currently expect to have installed equipment capacity of between 13,000 and 15,000 wafers per month by the end of 2004."

"Our Fab 2 financing package with our banks and major investors was completed, as well as our underwritten equity offering of 11 million of our ordinary shares at a price to the public of \$7.00 per share. With these financing deals behind us, we can now focus on our business operations," continued Vernia.

"In addition, Fab 1 had positive cash flow from operations for the seventh consecutive quarter. The memorandum of understanding recently signed with Siliconix calls for placing orders valued at approximately \$200 million for the purchase of products to be manufactured in Fab 1 over a seven to ten years period."

During January the company's share count increased mainly as a result of the follow-on public offering and issuance of 2.3 million shares to its strategic partners in connection with the final payment of Fab 2's fifth milestone, at \$7 per share. The number of Tower's outstanding shares as of February 2, 2004 is 65,137,883.

Tower will host a conference call to discuss these results on Monday, February 2, 2004 at 11:00 a.m. Eastern time / 18:00 Israel time. To participate, call 1-800-915-4836 (U.S. toll-free number) or 1-973-317-5319 (international) and mention ID code: TOWER. Callers in Israel are invited to call local 03-925-5910. The conference call also will be webcast live at www.companyboardroom.com and at www.towersemi.com and will be available thereafter on both Web sites for replay for 90 days, starting at 2:00 p.m. Eastern time on the day of the call.

ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor Ltd. is a pure-play independent wafer foundry established in 1993. The company manufactures integrated circuits with geometries ranging from 1.0 to 0.18 microns; it also provides complementary manufacturing services and design support. In addition to digital CMOS process technology, Tower offers advanced non-volatile memory solutions, mixed-signal and CMOS image-sensor technologies. To provide world-class customer service, the company maintains two manufacturing facilities: Fab 1 has process technologies from 1.0 to 0.35 microns and can produce up to 16,000 150mm wafers per month. Fab 2 features 0.18-micron and below process technologies, including foundry-standard technology, and will offer full production capacity of 33,000 200mm wafers per month. The Tower Web site is located at www.towersemi.com.

SAFE HARBOR

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, (II) HAVING SUFFICIENT FUNDS TO COMPLETE THE FAB 2 PROJECT, (III) THE CYCLICAL NATURE OF THE SEMICONDUCTOR INDUSTRY AND THE RESULTING PERIODIC OVERCAPACITY, (IV) OPERATING OUR FACILITIES AT SATISFACTORY UTILIZATION RATES, (V) OUR ABILITY TO CAPITALIZE ON INCREASES IN DEMAND FOR FOUNDRY SERVICES, (VI) MEETING THE CONDITIONS TO RECEIVE ISRAELI GOVERNMENT GRANTS AND TAX BENEFITS APPROVED FOR FAB 2 AND OBTAINING THE APPROVAL OF THE ISRAELI INVESTMENT CENTER TO EXTEND THE FIVE-YEAR INVESTMENT PERIOD UNDER OUR FAB 2 APPROVED ENTERPRISE PROGRAM AND OF AMENDMENTS TO OUR MODIFIED BUSINESS PLAN, (VII) ATTRACTING ADDITIONAL CUSTOMERS, (VIII) NOT RECEIVING ORDERS FROM OUR WAFER PARTNERS AND TECHNOLOGY PROVIDERS, (IX) FAILING TO MAINTAIN AND DEVELOP OUR TECHNOLOGY PROCESSES AND SERVICES, (X) COMPETING EFFECTIVELY, (XI) OUR LARGE AMOUNT OF DEBT AND OUR SATISFYING THE COVENANTS SET FORTH IN OUR AMENDED FACILITY AGREEMENT, AND (XII) ACHIEVING ACCEPTABLE DEVICE YIELDS, PRODUCT PERFORMANCE AND DELIVERY TIMES (XIII) THE COMPLETION OF THE DOCUMENTATION FOR THE SILICONIX AGREEMENT. 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 ANNUAL REPORT ON FORM 20-F AND IN OUR FORM F-3, AS AMENDED, AS WERE FILED WITH THE SECURITIES AND EXCHANGE COMMISSION AND THE ISRAEL SECURITIES AUTHORITY.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY CONSOLIDATED BALANCE SHEETS (DOLLARS IN THOUSANDS, EXCEPT SHARE DATA AND PER SHARE DATA)

	As of December 31,		
	2003	2002	
ASSETS			
CURRENT ASSETS			
CASH AND CASH EQUIVALENTS	\$ 12,448	\$ 7,857	
SHORT-TERM INTEREST-BEARING DEPOSITS	,	10,500	
CASH AND SHORT-TERM INTEREST-BEARING DEPOSITS		,	
DESIGNATED FOR INVESTMENTS RELATING TO FAB 2 TRADE ACCOUNTS RECEIVABLE (NET OF ALLOWANCE FOR	44,042	51,338	
DOUBTFUL ACCOUNTS OF \$0 AND \$155, RESPECTIVELY)	11,631	7,456	
OTHER RECEIVABLES	11,073	21,322	
INVENTORIES	19,382	10,201	
OTHER CURRENT ASSETS	1,729	1,407	
TOTAL CURRENT ASSETS	100,305	110,081	
LONG-TERM INVESTMENTS			
LONG-TERM INTEREST-BEARING DEPOSITS			
DESIGNATED FOR INVESTMENTS RELATING TO FAB 2	4,848	11,893	
OTHER LONG-TERM INVESTMENT	6,000	6,000	
	10,848	17,893	
PROPERTY AND EQUIPMENT, NET	568,412	493,074	
OTHER ASSETS, NET	108,770	95,213	
OTHER ASSETS, NET		==========	
TOTAL ASSETS	\$ 788,335	\$ 716,261	
	=========	=========	
LIABILITIES AND SHAREHOLDERS' EQUITY			
CURRENT LIABILITIES	_		
SHORT-TERM DEBT	\$	\$ 4,000	
TRADE ACCOUNTS PAYABLE	40,249	76,083	
OTHER CURRENT LIABILITIES	9,564	8,071	
TOTAL CURRENT LIABILITIES	49,813	88,154	
TOTAL GOTTLEN LINDILITIES	10,010	00/101	
LONG-TERM DEBT	431,000	253,000	
CONVERTIBLE DEBENTURES	25,783	24,121	
OTHER LONG-TERM LIABILITIES	5,935	5,406	
OTHER CONG-TERM CIABILITIES	3, 933	3,400	
LONG-TERM LIABILITY IN RESPECT			
OF CUSTOMERS' ADVANCES	46,347	47,246	
TOTAL LIABILITIES	558,878	417,927	
SHAREHOLDERS' EQUITY			
ORDINARY SHARES	13, 150	11,294	
ADDITIONAL PAID-IN CAPITAL	427,881	400,808	
PROCEEDS ON ACCOUNT OF SHARE CAPITAL	16,428		
SHAREHOLDER RECEIVABLES AND UNEARNED COMPENSATION ACCUMULATED DEFICIT	(26) (218,904)	(53)	
ACCUMULATED DEFICIT	(218, 904)	(104,643)	
	238,529	307,406	
TREASURY STOCK, AT COST - 1,300,000 SHARES	(9,072)		
THE ROOM OF STORY AT COOL TOOLS	(9,072)	(9,072)	
TOTAL SHAREHOLDERS' EQUITY	229,457	298,334	
•	=========	========	
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 788,335	\$ 716,261	
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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY CONSOLIDATED STATEMENTS OF OPERATIONS (DOLLARS IN THOUSANDS, EXCEPT PER SHARE DATA)

	YEAR ENDED DECEMBER 31,		THREE MONTHS ENDED DECEMBER 31,	
	2003	2002	2003	2002
SALES	\$ 61,368	\$ 51,801	\$ 19,823	\$ 15,572
COST OF SALES	122,395	67,022	46,579	17,066
GROSS LOSS	(61,027)	(15,221)	(26,756)	(1,494)
OPERATING COSTS AND EXPENSES				
RESEARCH AND DEVELOPMENT MARKETING, GENERAL AND ADMINISTRATIVE			8,158 5,551	
OPERATING LOSS	(104,351)	(49,343)	(40,465)	(13,625)
FINANCING EXPENSE, NET	(9,826)	(2,104)	(5,533)	(4)
OTHER INCOME (EXPENSE), NET	(84)	45	3	45
LOSS FOR THE YEAR	\$ (114,261) ========	\$ (51,402) =======	\$ (45,995) =======	\$ (13,584) =======
BASIC LOSS PER ORDINARY SHARE				
LOSS PER SHARE	\$ (2.40) ======	\$ (1.63) ======	\$ (0.91) ======	\$ (0.33) ======

^(**) BASIC AND DILUTED LOSS PER SHARE IN ACCORDANCE WITH U.S. GAAP WOULD BE \$(2.45) AND \$(0.93) FOR THE YEAR AND THREE MONTHS ENDED DECEMBER 31, 2003 [\$(1.63) AND \$(0.33) IN THE YEAR AND THREE MONTHS ENDED DECEMBER 31, 2002, RESPECTIVELY].