

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of December 2007

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 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 December 04, 2007, the Registrant announced that it Implements a Cost Reduction Plan. Attached hereto is a copy of the press release.

This Form 6-K is being incorporated by reference into all effective registration statements filed by us 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: December 04, 2007

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

TOWER SEMICONDUCTOR IMPLEMENTS A COST REDUCTION PLAN

ACTIONS TAKEN TO IMPROVE TOWER'S MARGINS ON ITS ROAD TO PROFITABILITY

MIGDAL HAEMEK, Israel, December 4, 2007 - Tower Semiconductor Ltd. (NASDAQ: TSEM; TASE: TSEM), an independent specialty foundry, today announced it has initiated a cost-reduction plan designed to improve its future gross, operating and net margins in fiscal year 2008 and beyond.

Tower has expanded its manufacturing capacity by more than 50 percent over the past several quarters and has increased its customer base and product portfolio, resulting in a quarterly sales run rate of nearly three times the mid 2005 run rate. Furthermore, production volumes have been growing consistently. Thus, in order to satisfy exceeding demand from its customers, the company recently announced a further expansion of its Fab2 capacity to be completed in 2008. In addition to the expected financial margins improvement from this growth plan, the company also drives a comprehensive, proactive cost-reduction plan that should result in approximately \$20 million annual cost savings.

During fiscal year 2007, Tower already executed a number of cost-reduction activities that drove down the Fab2 production cost per wafer by 25%, primarily due to the volume ramp that was accomplished while maintaining non-operational headcount almost flat, coupled by operational efficiency improvements. Furthermore, Tower implemented a plan to outsource the management of spare parts inventories to EMA, as announced in August 2007. These cost reduction measures, coupled with the three times growth in sales, enabled Tower to record positive EBITDA for the past 8 quarters and positive cash from operations for the past 4 quarters. Furthermore, Tower's improved financial and cash situation enables greater operational flexibility as well as funding of its capacity ramp-up.

On an immediate basis, in order to maximize the financial benefits in fiscal year 2008 and beyond, Tower is to take the following additional cost saving measures:

- o Payroll cost savings of greater than \$5 million per annum are expected to be accomplished through a combination of reduction in jobs, primarily in non-operational and service related functions, outsourcing non core functions, as well as internal transitions and organizational changes. Such actions should result in stronger focus on close customer support.

- o Materials costs savings of greater than \$10 million per annum are expected to be accomplished through multiple sourcing of materials and spare parts by several vendors, substitution of expensive materials and parts by less expensive alternatives as well as price negotiations with suppliers.
- o Sustained capital expenditures are expected to be reduced through better program efficiencies and longer term win-win alignments with key suppliers.
- o Major saving in period cost by acquiring used tools from winding-down Fabs of Intel and AMD for the capacity expansion. These tools are bought at prices which are significantly below new tools prices, thereby allowing short period of return on investment from these tools acquisitions.

"While we continue our expansion and project further growth in sales, we are mindful to continuously promote and improve corporate efficiencies", said Russell Ellwanger, CEO of Tower Semiconductor. "Every measure is taken to accomplish the aggressive cost reduction goals whilst improving Tower's ability to perform and deliver. We are confident that these measures, coupled with the business expansion initiatives, result in a stronger and more competitive Tower and hence help accelerate our move to profitability."

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>.

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. A 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 Forms 20-F, F-1, F-3 and 6-K, as were filed with the Securities and Exchange Commission and the Israel Securities Authority. We do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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