FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month June 2019 No. 1

TOWER SEMICONDUCTOR LTD.

(Translation of registrant's name into English)

Ramat Gavriel Industrial Park
P.O. Box 619, Migdal Haemek, Israel 2310502
(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 ☒

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: June 17, 2019

By: /s/ Nati Somekh
Name: Nati Somekh
Title: Corporate Secretary

NEWS ANNOUNCEMENT **FOR IMMEDIATE RELEASE**

TowerJazz Expands its Leading-Edge High Voltage Low RDSON Power Platform

Enabling applications with a voltage range of up to 140V

Addressing the fast-growing demand for higher voltage power management ICs in the consumer, industrial, computer and automotive markets

MIGDAL HAEMEK, Israel, June 17, 2019 – TowerJazz, the global specialty foundry leader, today announced the release of its leading edge 140V low Rdson power platform, providing significant high power efficiency at high voltages. This advanced offering expands the Company's 90V technology platform, specifically designed to address the increasing demand for cost-competitive, higher voltage integrated power management solutions for the consumer, industrial, computer, and automotive markets.

"We are excited to announce the availability of our unique 140V RESURF low Rdson platform, targeted toward the expanding 48V ecosystem, serving multitude of market segments with numerous strategic customers already in early design stages, planning to ramp up to mass production in 2020," said Shimon Greenberg, Vice President of Power Management & Mixed-Signal/CMOS Business Unit, TowerJazz.

TowerJazz's 140V RESURF (Reduced Surface Field) technology is based on its mature high volume 0.18um power management platform and provides significant competitive features such as low-side and high-side low Rdson LDMOS, bootstrap diodes and floating capabilities, all with up to 140V breakdown voltages. With low layer count and use of bulk wafers, this platform is highly cost-effective, and therefore ideally suited for gate drivers, motor drivers, DC-DC converters and battery management ICs used for consumer and industrial products such as drones, robots, power and garden tools.

"With this advanced platform expansion, we are particularly excited to serve the rapidly growing automotive electrification market," said Dr. Amol Kalburge, head of the automotive program, TowerJazz. "We are already in volume production for battery management system for electrified vehicles using our current 140V DrainISO floating process. This new 140V RESURF platform provides all the features needed for our customers to improve even further the power efficiency of several best-in-class products and do so in an even smaller footprint."

In addition, this new platform addresses the 48V DC-DC converters in data centers and high voltage power over Ethernet ICs. It also supports a wide range of automotive applications such as motor controllers and drivers, LED headlights, eFuses and 48V power architecture in hybrid and electric vehicles.

For additional information on TowerJazz's advanced power management technology, please visit here. For additional information on TowerJazz's technology offering, please visit here.

About TowerJazz

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) and its subsidiaries operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz manufactures next-generation integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, medical and aerospace and defense. TowerJazz's advanced technology is comprised of a broad range of customizable process platforms such as SiGe, BiCMOS, mixed-signal/CMOS, RF CMOS, CMOS image sensor, integrated power management (BCD and 700V), and MEMS. TowerJazz also provides world-class design enablement for a quick and accurate design cycle as well as Transfer Optimization and development Process Services (TOPS) to IDMs and fabless companies that need to expand capacity. To provide multi-fab sourcing and extended capacity for its customers, TowerJazz operates two manufacturing facilities in Israel (150mm and 200mm), two in the U.S. (200mm) and three facilities in Japan (two 200mm and one 300mm) through its partnership with Panasonic Semiconductor Solutions Co. LTD. For more information, please visit www.towerjazz.com.

Safe Harbor Regarding Forward-Looking Statements

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 TowerJazz's business is included under the heading "Risk Factors" in Tower's most recent filings on Forms 20-F, F-3, F-4 and 6-K, as were filed with the Securities and Exchange Commission (the "SEC") and the Israel Securities Authority and Jazz's most recent filings on Forms 10-K and 10-Q, as were filed with the SEC, respectively. Tower and Jazz do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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