

SunEdison Semiconductor Ltd  
 Form 3  
 May 21, 2014

**FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

OMB APPROVAL

OMB Number: 3235-0104  
 Expires: January 31, 2015  
 Estimated average burden hours per response... 0.5

**INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,  
 Section 17(a) of the Public Utility Holding Company Act of 1935 or Section  
 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

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|--|---|--|--|---|---|
| <p>1. Name and Address of Reporting Person *</p> <p>Â SUNEDISON, INC.</p> <p>(Last) (First) (Middle)</p> <p>501 PEARL DRIVE (CITY OF O?FALLON)</p> <p>(Street)</p> <p>ST. PETERS,Â MOÂ 63376</p> <p>(City) (State) (Zip)</p> | <p>2. Date of Event Requiring Statement</p> <p>(Month/Day/Year)</p> <p>05/21/2014</p> | <p>3. Issuer Name and Ticker or Trading Symbol</p> <p>SunEdison Semiconductor Ltd [SEMI]</p> | <p>4. Relationship of Reporting Person(s) to Issuer</p> <p>(Check all applicable)</p> <p>___ Director ___X_ 10% Owner<br/>                 ___ Officer ___ Other<br/>                 (give title below) (specify below)</p> | <p>5. If Amendment, Date Original Filed(Month/Day/Year)</p> | <p>6. Individual or Joint/Group Filing(Check Applicable Line)</p> <p>_X_ Form filed by One Reporting Person<br/>                 ___ Form filed by More than One Reporting Person</p> |
|--|---|--|--|---|---|

**Table I - Non-Derivative Securities Beneficially Owned**

| 1. Title of Security<br>(Instr. 4) | 2. Amount of Securities Beneficially Owned<br>(Instr. 4) | 3. Ownership Form:<br>Direct (D)<br>or Indirect (I)<br>(Instr. 5) | 4. Nature of Indirect Beneficial Ownership<br>(Instr. 5) |
|------------------------------------|--|---|--|
| Ordinary Shares, no par value      | 23,560,251   | D   | Â  |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly. SEC 1473 (7-02)

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.**

**Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

| 1. Title of Derivative Security<br>(Instr. 4) | 2. Date Exercisable and Expiration Date<br>(Month/Day/Year) | 3. Title and Amount of Securities Underlying Derivative Security<br>(Instr. 4)<br>Title | 4. Conversion or Exercise Price of Derivative Security | 5. Ownership Form of Derivative Security:<br>Direct (D) | 6. Nature of Indirect Beneficial Ownership<br>(Instr. 5) |
|---|---|---|--|---|--|
|---|---|---|--|---|--|

