

☐ Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| OMB APPROVAL                                 |           |
|--|-----------|
| OMB Number:                                  | 3235-0287 |
| Estimated average burden hours per response: | 0.5       |

|  |   |  |
|--|---|--|
| 1. Name and Address of Reporting Person*<br><u>WERNER THOMAS H</u><br><br>(Last) (First) (Middle)<br><u>C/O SUNPOWER CORPORATION</u><br><u>77 RIO ROBLES</u><br><br>(Street)<br><u>SAN JOSE</u> <u>CA</u> <u>95134</u><br><br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>SUNPOWER CORP [ SPWR ]</u><br><br>3. Date of Earliest Transaction (Month/Day/Year)<br><u>03/01/2014</u><br><br>4. If Amendment, Date of Original Filed (Month/Day/Year) | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br><input checked="" type="checkbox"/> Director 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><u>Director, Pres and CEO</u><br><br>6. Individual or Joint/Group Filing (Check Applicable Line)<br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br>Form filed by More than One Reporting Person |
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Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |            |         | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|---------|---|--|---|
|                                 |                                      |  | Code                           | V | Amount  | (A) or (D) | Price   |   |  |   |
| Common Stock                    | 03/01/2014                           |  | M                              |   | 33,334  | A          | \$0     | 167,205   | D  |   |
| Common Stock                    | 03/01/2014                           |  | M                              |   | 75,000  | A          | \$0     | 242,205   | D  |   |
| Common Stock                    | 03/01/2014                           |  | M                              |   | 87,833  | A          | \$0     | 330,038   | D  |   |
| Common Stock                    | 03/01/2014                           |  | M                              |   | 15,100  | A          | \$0     | 345,138   | D  |   |
| Common Stock                    | 03/01/2014                           |  | M                              |   | 92,231  | A          | \$0     | 437,369   | D  |   |
| Common Stock                    | 03/01/2014                           |  | M                              |   | 120,593   | A          | \$0     | 557,962   | D  |   |
| Common Stock                    | 03/01/2014                           |  | F <sup>(3)</sup>               |   | 17,394  | D          | \$33.13 | 540,568   | D  |   |
| Common Stock                    | 03/01/2014                           |  | F <sup>(3)</sup>               |   | 39,136  | D          | \$33.13 | 501,432   | D  |   |
| Common Stock                    | 03/01/2014                           |  | F <sup>(3)</sup>               |   | 45,832  | D          | \$33.13 | 455,600   | D  |   |
| Common Stock                    | 03/01/2014                           |  | F <sup>(3)</sup>               |   | 7,804   | D          | \$33.13 | 447,796   | D  |   |
| Common Stock                    | 03/01/2014                           |  | F <sup>(3)</sup>               |   | 48,127  | D          | \$33.13 | 399,669   | D  |   |
| Common Stock                    | 03/01/2014                           |  | F <sup>(3)</sup>               |   | 62,926  | D          | \$33.13 | 336,743   | D  |   |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3)      | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) |   | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) |         | 6. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) |                            | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---|--|--------------------------------------|--|--------------------------------|---|--|---------|--|-----------------|---|----------------------------|--|--|---|--|
|   |  |                                      |  | Code                           | V | (A)  | (D)     | Date Exercisable   | Expiration Date | Title   | Amount or Number of Shares |  |  |   |  |
| Restricted Stock Units (RSUs)                   | (1)  | 03/01/2014                           |  | M                              |   |  | 33,334  | (2)  | (2)             | Common Stock  | 33,334                     | \$0  | 0  | D   |  |
| Restricted Stock Units (RSUs)                   | (1)  | 03/01/2014                           |  | M                              |   |  | 75,000  | (4)  | (4)             | Common Stock  | 75,000                     | \$0  | 75,000   | D   |  |
| Restricted Stock Units (RSUs)                   | (1)  | 03/01/2014                           |  | M                              |   |  | 87,833  | (5)  | (5)             | Common Stock  | 87,833                     | \$0  | 175,667  | D   |  |
| Performance-Based Restricted Stock Units (PSUs) | (6)  | 03/01/2014                           |  | M                              |   |  | 15,100  | (7)  | (7)             | Common Stock  | 15,100                     | \$0  | 0  | D   |  |
| Performance-Based Restricted Stock Units (PSUs) | (6)  | 03/01/2014                           |  | M                              |   |  | 92,231  | (8)  | (8)             | Common Stock  | 92,231                     | \$0  | 92,232   | D   |  |
| Performance-Based Restricted Stock Units (PSUs) | (6)  | 03/01/2014                           |  | M                              |   |  | 120,593 | (9)  | (9)             | Common Stock  | 120,593                    | \$0  | 241,185  | D   |  |

**Explanation of Responses:**

- 1. Each RSU represents a contingent right to receive one share of the Issuer's Common Stock upon vesting.
- 2. The RSUs vest in three equal installments on each of March 1, 2012, March 1, 2013 and March 1, 2014.
- 3. Disposition of shares exempt under Rule 16b-3 as payment of tax liability to Company by delivery or withholding securities incident to vesting of restricted stock shares.
- 4. The RSUs vest in three equal installments on each of March 1, 2013, March 1, 2014 and March 1, 2015.
- 5. The RSUs vest in three equal installments on each of March 1, 2014, March 1, 2015, and March 1, 2016.
- 6. Each PSU represents a contingent right to receive one share of the Issuer's Common Stock upon vesting.
- 7. On January 31, 2011, Reporting Person was awarded a number of PSUs within a preset range, with the actual number contingent upon the achievement of certain performance criteria. The Compensation Committee of the Issuer's Board of Directors evaluated achievement of the performance criteria on March 1, 2012 and, based on that assessment, determined the actual number of PSUs. The PSUs vest in three equal installments on each of March 1, 2012, March 1, 2013 and March 1, 2014.
- 8. On March 28, 2012, Reporting Person was awarded a number of PSUs within a preset range, with the actual number contingent upon the achievement of certain performance criteria. The Compensation Committee of the Issuer's Board of Directors evaluated achievement of the performance criteria on February 19, 2013 and, based on that assessment, determined the actual number of PSUs. The PSUs vest in 3 equal installments on each of March 1, 2013, March 1, 2014 and March 1, 2015.
- 9. On February 19, 2013, Reporting Person was awarded a number of PSUs within a preset range, with the actual number contingent upon the achievement of certain performance criteria. The Compensation Committee of the Issuer's Board of Directors evaluated achievement of the performance criteria on February 19, 2014 and, based on that assessment, determined the actual number of PSUs. The PSUs vest in three equal installments on each of March 1, 2014, March 1, 2015 and March 1, 2016.

Karla Rogers, as attorney-in-fact 03/04/2014  
for Thomas H. Werner

\*\* Signature of Reporting Person                      Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- \* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
  - \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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