Registration No. 333-186821 Registration No. 333-195608

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Post-Effective Amendment No. 1 to Registration Statement on Form S-8 (No. 333-186821) Post-Effective Amendment No. 1 to Registration Statement on Form S-8 (No. 333-195608)

UNDER THE SECURITIES ACT OF 1933

SunPower Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)
77 Rio Robles

San Jose, California (Address of Principal Executive Offices) 94-3008969

(I.R.S. Employer Identification No.)

95134

(Zip Code)

Third Amended and Restated SunPower Corporation 2005 Stock Incentive Plan (Full title of the plan)

Lisa Bodensteiner, Esq.
Executive Vice President and General Counsel
SunPower Corporation
77 Rio Robles
San Jose, California 95134
(Name and address of agent for service)

(408) 240-5500

(Telephone number, including area code, of agent for service)

Copies to:

Martin A. Wellington, Esq. Davis Polk & Wardwell LLP 1600 El Camino Real Menlo Park, California 94025 (650) 752-2018

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company.

Large accelerated filer ${\bf x}$ Accelerated filer ${\bf o}$

Non-accelerated filer o (Do not check if a smaller reporting company) Smaller reporting company o

EXPLANATORY NOTE

Deregistration of Securities

On June 3, 2015, the stockholders of SunPower Corporation (the "Registrant") approved the SunPower Corporation 2015 Omnibus Incentive Plan (the "2015 Plan") and, in connection therewith, no further awards will be made under the Third Amended and Restated SunPower Corporation 2005 Stock Incentive Plan (the "2005 Plan").

The registration statements on Form S-8 listed immediately below are no longer required for the registration of shares issuable pursuant to awards granted under the 2005 Plan. Furthermore, no shares have been issued pursuant to these registration statements. Accordingly, the Registrant is hereby filing post-effective amendments to the registration statements on Form S-8 filed with the Securities and Exchange Commission (the "SEC"), listed below, to deregister all of the shares under these registration statements and to terminate the offerings thereunder as of the date hereof:

- Registration Statement on Form S-8 (File No. 333-186821), filed with the SEC on February 22, 2013, registering 3,577,028 shares of the Registrant's common stock, par value \$0.001 per share (the "Common Stock"), issuable pursuant to awards granted under the 2005 Plan; and
- Registration Statement on Form S-8 (File No. 333-195608), filed with the SEC on April 30, 2014, registering 3,646,077 shares of Common Stock issuable pursuant to awards granted under the 2005 Plan.

The maximum number of shares of Common Stock reserved for issuance under the 2015 Plan includes shares available for issuance but not issued or subject to outstanding awards under the 2005 Plan as of June 3, 2015, plus any shares that would otherwise revert to the 2005 Plan (i.e., as a result of the forfeiture or cancellation of an award). As of June 3, 2015, 7,565,182 shares remained available for issuance under the 2005 Plan that were not subject to outstanding awards (the "Carryover Shares").

Contemporaneously with the filing of these post-effective amendments to the Registration Statements, the Registrant is filing a Registration Statement on Form S-8 with the SEC to register the Carryover Shares authorized for issuance pursuant to the 2015 Plan.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, and Rule 478 thereunder, the Registrant has duly caused this Post-Effective Amendment to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Jose, State of California, on this 24th day of June, 2015.

SUNPOWER CORPORATION

By: /s/ CHARLES D. BOYNTON

Name: Charles D. Boynton
Title: Executive Vice President and

Chief Financial Officer