UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT 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)

SunPower Corporation 2015 Omnibus Incentive Plan (Full title of the plan)

Kenneth Mahaffey, 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:

Timothy G. Hoxie **Jones Day** 555 California Street San Francisco, California 94104 (415) 875-5810

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 x Accelerated filer o

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

CALCULATION OF REGISTRATION FEE

Title of Securities To Be Registered	Amount To Be Registered (1)]	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, par value \$0.001					
per share	4,155,310	\$	\$6.900	\$ \$28,671,639	\$ \$3,323.04

- (1) Represents shares of common stock, par value \$0.001 per share (the "Common Stock"), of SunPower Corporation, a Delaware corporation (the "Registrant"), approved for issuance pursuant to the SunPower Corporation 2015 Omnibus Incentive Plan. Each share of Common Stock includes a right to purchase shares of a participating series of the Registrant's preferred stock. In the event of a stock split, stock dividend or similar transaction involving the Registrant's Common Stock, the number of shares registered hereby shall automatically be adjusted in accordance with Rule 416 under the Securities Act of 1933, as amended (the "Securities Act").
- (2) Estimated solely for purposes of calculating the amount of the registration fee, calculated pursuant to paragraphs (c) and (h) of Rule 457 of the General Rules and Regulations under the Securities Act, on the basis of the average of the high and low sales prices of the Common Stock on February 16, 2017 as reported on the NASDAQ Global Select Market.

EXPLANATORY NOTE

This Registration Statement (the "Registration Statement") on Form S-8 is being filed for the purpose of registering shares of common stock, par value \$0.001 per share (the "Common Stock") of SunPower Corporation (the "Registrant"), that may be issued to participants under the SunPower Corporation 2015 Omnibus Incentive Plan (the "2015 Plan"), which was approved by the Registrant's stockholders on June 3, 2015.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement on Form S-8 in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"), and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants in the equity benefit plan covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents have been filed by the Registrant with the Securities and Exchange Commission (the "SEC" or "Commission") and are incorporated herein by reference:

- (a) The Registrant's Annual Report on Form 10-K for the fiscal year ended January 1, 2017 filed February 17, 2017;
- (b) The Registrant's Current Reports on Form 8-K filed on January 24, 2017, February 9, 2017 and February 15, 2017 (excluding any information furnished and not filed pursuant to Item 2.02 or Item 7.01);
- (c) The description of the Registrant's Common Stock included in the Registrant's Form 8-A (File No. 001-34166) filed on November 16, 2011, the Registrant's Form 8-A/A filed on May 10, 2012, and any amendment or report the Registrant may file with the SEC for the purpose of updating such description; and
- (d) The description of the rights issued pursuant to the Amended and Restated Rights Agreement, dated as of September 29, 2008 (as amended), between the Registrant and Computershare Trust Company, N.A., as rights agent, included in the Registrant's Form 8-A (File No. 001-34166) filed on August 25, 2008, the Registrant's Form 8-A/As filed on May 6, 2011, June 15, 2011, November 16, 2011 and May 10, 2012, and any amendment or report the Registrant may file with the SEC for the purpose of updating such description.

All documents filed by the Registrant with the SEC pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any current report on Form 8-K), subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment indicating that all securities offered have been sold or deregistering all securities then remaining unsold, will be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of

such documents. Any statement contained in any document incorporated or deemed to be incorporated by reference herein will be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded will not be deemed, except as modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

None.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the "DGCL") authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnification to officers, directors and other corporate agents. The Registrant's restated certificate of incorporation (the "Certificate") and amended and restated bylaws (the "By-Laws") provide that the Registrant will indemnify its directors and executive officers to the fullest extent permitted by the Delaware General Corporation Law, which prohibits the Certificate from limiting the liability of the Registrant's directors for the following:

- breach of the director's duty of loyalty to the corporation or its stockholders;
- · acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock purchases or redemptions; and
- any transaction from which a director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of the Registrant's directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. The Certificate does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of nonmonetary relief, remain available under Delaware law. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under the Certificate and the By-Laws, the Registrant is empowered to enter into indemnification agreements with its directors, officers, employees and other agents and to purchase insurance on behalf of any person whom the Registrant is required or permitted to indemnify.

In addition to the indemnification required in the Certificate and the By-Laws, the Registrant has entered into agreements to indemnify its directors and executive officers, and other employees as determined by the Registrant's board of directors, against expenses and liabilities to the fullest extent permitted by Delaware law. These agreements also provide, subject to certain exceptions, for indemnification for related expenses including, among others, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. The Registrant believes that the provisions in the Certificate, the By-Laws and the indemnification agreements are necessary to attract and retain qualified persons as directors and executive officers. The Registrant also maintains directors' and officers' liability insurance to cover liabilities its directors and officers may incur in connection with their services to the Registrant.

The foregoing is only a general summary of certain aspects of Delaware law and the Registrant's Certificate and By-Laws dealing with indemnification of directors and officers, and does not purport to be complete. It is qualified in its entirety by reference to the detailed provisions of Section 145 of the DGCL and the Certificate and By-Laws.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

See the attached Exhibit Index, which is incorporated herein by reference.

Item 9. Undertakings.

- (a) The undersigned Registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this Item 9 do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference herein.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this 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 17th day of February, 2017.

SUNPOWER CORPORATION

By: /S/ CHARLES D. BOYNTON

Name: Charles D. Boynton

Title: Executive Vice President and
Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Thomas H. Werner, Charles D. Boynton and Kenneth Mahaffey, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Registration Statement on Form S-8 (including post-effective amendments), and to file the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact, proxy and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully and for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his or her substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-8 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date		
/S/ THOMAS H. WERNER	President, Chief Executive Officer and Chairman of the Board of Directors	February 17, 2017		
Thomas H. Werner	(Principal Executive Officer)			
/S/ CHARLES D. BOYNTON Charles D. Boynton	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 17, 2017		
/S/ HELLE KRISTOFFERSEN	g ,			
, o, fielder rado for renderv	Director	February 17, 2017		
Helle Kristoffersen				
/S/ DANIEL LAURE	Director	February 17, 2017		
Daniel Lauré				
/S/ CATHERINE A. LESJAK	Director	February 17, 2017		
Catherine A. Lesjak	_			
/S/ THOMAS R. MCDANIEL	Director	February 17, 2017		
Thomas R. McDaniel	_			
/S/ LADISLAS PASZKIEWICZ	Director	February 17, 2017		
Ladislas Paszkiewicz	_			
/S/ JULIEN POUGET	Director	February 17, 2017		
Julien Pouget	_			
/S/ LAURENT WOLFFSHEIM	Director	February 17, 2017		
Laurent Wolffsheim	_			
/S/ PATRICK WOOD III	Director	February 17, 2017		
Patrick Wood III				

Exhibit Index

Exhibit	
Number	Description of Exhibit
5.1*	Opinion of Jones Day
10.1	SunPower Corporation 2015 Omnibus Incentive Plan and forms of agreements thereunder (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on June 25, 2015).
10.2	Forms of agreements under SunPower Corporation 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.60 to the Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 6, 2016).
23.1*	Consent of Ernst & Young LLP, independent registered public accounting firm
23.2*	Consent of Jones Day (included in Exhibit 5.1)
24.1*	Powers of Attorney (included on the signature page to this Registration Statement)

^{*} Filed herewith.

JONES DAY

555 CALIFORNIA STREET, 26TH FLOOR • SAN FRANCISCO, CALIFORNIA 94104
TELEPHONE: (415) 626-3939 • FACSIMILE: (415) 875.5700

February 17, 2017

SunPower Corporation 77 Rio Robles San Jose, California 95134

Re: Registration Statement on Form S-8 Filed by SunPower Corporation

Ladies and Gentlemen:

We have acted as counsel for SunPower Corporation, a Delaware corporation (the "*Company*"), in connection with the registration of 4,155,310 shares (the "*Shares*") of the Company's Common Stock, par value \$0.001 per share, issuable pursuant to the SunPower Corporation 2015 Omnibus Incentive Plan (the "*Plan*"). In connection with the opinion expressed herein, we have examined such documents, records and matters of law as we have deemed relevant or necessary for purposes of this opinion. Based on the foregoing, and subject to the further limitations, qualifications and assumptions set forth herein, we are of the opinion that the Shares that may be issued or delivered and sold pursuant to the Plan and the authorized forms of stock option, restricted stock or other applicable award agreements thereunder will be, when issued or delivered and sold in accordance with the Plan and such agreements, validly issued, fully paid and nonassessable, provided that the consideration for such shares is at least equal to the stated par value thereof.

The opinion expressed herein is limited to the General Corporation Law of the State of Delaware, as currently in effect, and we express no opinion as to the effect of the laws of any other jurisdiction. In addition, we have assumed that the resolutions authorizing the Company to issue or deliver and sell the Shares pursuant to the Plan and the applicable award agreements will be in full force and effect at all times at which the Shares are issued or delivered or sold by the Company, and the Company will take no action inconsistent with such resolutions.

In rendering the opinion above, we have assumed that each award under the Plan will be approved by the Board of Directors of the Company or an authorized committee of the Board of Directors.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement on Form S-8 filed by the Company to effect registration of the Shares to be issued and sold pursuant to the Plan under the Securities Act of 1933 (the "*Act*"). In giving such consent, we do not thereby admit that we are included in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ JONES DAY

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the SunPower Corporation 2015 Omnibus Incentive Plan of our reports dated February 17, 2017, with respect to the consolidated financial statements of SunPower Corporation and the effectiveness of internal control over financial reporting of SunPower Corporation included in its Annual Report (Form 10-K) for the year ended January 1, 2017, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Jose, California February 17, 2017