UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

SOLAREDGE TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

20-5338862

(State of incorporation or organization)

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

1 HaMada Street Herziliya Pituach 4673335, Israel (Address of principal executive offices)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to be so registered

Name of each exchange on which each class is to be registered

Common Stock, par value \$0.0001 per share

The NASDAQ Stock Market LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A. (c), check the following box. x

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A. (d), check the following box. o

Securities Act registration statement file number to which this form relates: 333-202159

Securities to be registered pursuant to Section 12(g) of the Act: None

Item 1. Description of Registrant's Securities to be Registered

A description of the Common Stock, par value \$0.0001 per share (the "Common Stock"), of SolarEdge Technologies, Inc., a Delaware corporation (the "Registrant"), is set forth under the caption "Description of Capital Stock" in the prospectus constituting a part of the Registrant's Registration Statement on Form S-1 (Registration No. 333-202159), initially filed with the Securities and Exchange Commission on February 18, 2015, as amended by any amendments to such Registration Statement, which description is incorporated herein by reference. The description of the Common Stock included in any form of prospectus subsequently filed by the Registrant pursuant to Section 424(b) of the Securities Act of 1933, as amended, shall also be deemed to be incorporated herein by reference.

Item 2. Exhibits

Pursuant to the Instructions as to Exhibits with respect to Form 8-A, no exhibits are required to be filed because no other securities of the Registrant are registered on the NASDAQ Stock Market LLC, and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934.

2

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereto duly authorized.

Dated: March 24, 2015

By: /s/ Rachel Prishkolnik

Rachel Prishkolnik

Vice President, General Counsel & Corporate Secretary