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

POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3 (333-220402)
POST-EFFECTIVE AMENDMENT NO. 1 TO FORM S-3 (333-211072)

REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

ECO-STIM ENERGY SOLUTIONS, INC.

(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of incorporation
or organization)

20-8203420
(IRS Employer
Identification No.)

**2930 W. Sam Houston Pkwy N., Suite 275
Houston, Texas 77043
(281) 531-7200**

(Address, including zip code, and telephone number, including area code, of Registrants' principal executive offices)

**Alexander Nickolatos
2930 W. Sam Houston Pkwy N., Suite 275
Houston, Texas 77043
(281) 531-7200**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications, including communications sent to agent for service, should be sent to:

**Andrew W. Smetana
W. Matthew Stroock
Vinson & Elkins L.L.P.
1001 Fannin, Suite 2500
Houston, TX 77002
(713) 758-2222**

Approximate date of commencement of proposed sale to the public: *Not applicable.*

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. []

If any of the securities being registered on this Form are being offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, please check the following box. []

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. []

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. []

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer []

Accelerated filer []

Non-accelerated filer []

Smaller reporting company [X]

Emerging growth company []

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. []

DEREGISTRATION OF SECURITIES

These Post-Effective Amendments (“Post-Effective Amendments”) are being filed by Eco-Stim Energy Solutions, Inc. (the “Company” or “Registrant”) to deregister all unsold securities of the Company remaining under the following Registration Statements on Form S-3 (each, a “Registration Statement” and collectively, the “Registration Statements”) filed by the Company with the Securities and Exchange Commission:

- Registration Statement on Form S-3 (No. 333-220402), filed on September 8, 2017, as amended on September 25, 2017 and declared effective on September 27, 2017, pertaining to the registration of an aggregate 19,580,420 shares of common stock, par value \$0.001 per share, of the Company (the “Common Stock”); and
- Registration Statement on Form S-3 (No. 333-211072), filed on May 3, 2016, as declared effective on June 20, 2016, pertaining to (i) the registration of an unspecified number of shares of Common Stock, shares of preferred stock, par value \$0.001 per share, (“Preferred Stock”), debt securities (“Debt Securities”), and an unspecified number of warrants for the purchase of Common Stock, Preferred Stock, or Debt Securities, up to a maximum aggregate offering price of \$100,000,000 and (ii) the registration of Common Stock up to a maximum aggregate offering price of \$6.2 million.

The Company seeks to deregister all of the securities that remain unsold under the Registration Statements as of the date hereof because it no longer has an obligation to keep the Registration Statements effective pursuant to the terms of its registration rights agreement with the selling stockholders. Accordingly, the Company is filing these Post-Effective Amendments to terminate the effectiveness of the Registration Statements.

In accordance with an undertaking made by the Company in Part II of the Registration Statements to remove from registration by means of a post-effective amendment any of the securities registered which remain unsold at the termination of the offering, these Post-Effective Amendments are being filed to remove from registration any and all securities registered but unsold under the Registration Statements as of the date hereof.

Subsequent to the effectiveness of these Post-Effective Amendments, the Registrant intends to terminate the registration of its Common Stock, and suspend its reporting obligations under the Securities Exchange Act of 1934, as amended, through the filing of a Form 15 with the Securities and Exchange Commission.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all the requirements for filing on Form S-3 and has duly caused these Post-Effective Amendments to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on the 26th day of February, 2019.

ECO-STIM ENERGY SOLUTIONS, INC.

By: /s/ Alexander Nickolatos

Alexander Nickolatos
Interim President and Chief Executive Officer
and Chief Financial Officer

Pursuant to the requirements of the Securities Act of 1933, these Post-Effective Amendments to the Registration Statements have been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 26, 2019.

| <u>Signature</u> | <u>Capacity</u> | <u>Date</u> |
|---|--|-------------------|
| <u>/s/ Alexander Nickolatos</u> Alexander Nickolatos | Director, Interim President and Chief Executive Officer and Chief Financial Officer | February 26, 2019 |
| <u>/s/ Brian R. Stewart</u> Brian R. Stewart | Director | February 26, 2019 |
| <u>/s/ John Hageman</u> John Hageman | Director | February 26, 2019 |
| <u>/s/ Christopher Krummel</u> Christopher Krummel | Director | February 26, 2019 |

