As filed with the Securities and Exchange Commission on May 10, 2019

Registration No. 333-77887

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

POST-EFFECTIVE AMENDMENT NO. 1

то FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ESCO TECHNOLOGIES INC.

(Exact name of registrant as specified in its charter)

Missouri

(State or other jurisdiction of incorporation or organization)

43-1554045 (I.R.S. Employer Identification No.)

9900A Clayton Road St. Louis, Missouri 63124 (Address of principal executive offices, including zip code)

EMPLOYEE STOCK PURCHASE PLAN OF ESCO ELECTRONICS CORPORATION

(Full title of the plan)

Alyson S. Barclay, Esq. Senior Vice President, Secretary and General Counsel 9900A Clayton Road St. Louis, Missouri 63124 (314) 213-7200

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

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

Large accelerated filer

Non-accelerated filer \Box

Accelerated filer \square

Smaller reporting company \Box

Emerging growth company \Box

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.

EXPLANATORY NOTE

ESCO Technologies Inc. (the "Registrant") is filing this Post-Effective Amendment No. 1 to Registration Statement on Form S-8 to report the sale of all securities registered by the Registrant (then named ESCO Electronics Corporation) pursuant to Registration Statement No. 333-77887 filed with the Securities and Exchange Commission on May 6, 1999.

The securities originally registered consisted of 1,500,000 shares of the Registrant's Common Stock, par value \$0.01 per share, to be offered under the Registrant's Employee Stock Purchase Plan (the "Plan"), together with ancillary Preferred Stock Purchase Rights. Pursuant to anti-dilution provisions in the Plan, the registered number of shares of Common Stock was adjusted as a result of the Company's 2:1 stock split effected in the form of a 100% stock dividend paid on September 23, 2005. All Preferred Stock Purchase Rights associated with the Common Stock expired in 2010.

All shares subject to the Registration Statement have been sold. However, the Plan continues in existence, and additional shares have been registered for sale under the Plan pursuant to Form S-8 Registration Statements Nos. 333-192663 and 333-231364 filed with the Commission on December 5, 2013 and May 10, 2019, respectively.

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 Post-Effective Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Ladue, State of Missouri, on May 10, 2019.

ESCO TECHNOLOGIES INC.

By: /s/ Alyson S. Barclay

Alyson S. Barclay Senior Vice President, General Counsel and Secretary

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby severally constitutes and appoints Gary E. Muenster, Alyson S. Barclay and Jeffrey D. Fisher, and each of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities to sign any and all amendments (including post-effective amendments) to this registration statement, 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 attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that each said attorneys-in-fact and agents or any of them or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 1 to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	<u>Date</u>
/s/ Victor L. Richey Victor L. Richey	Chairman, Chief Executive Officer and President and Director (Principal Executive Officer)	May 10, 2019
/s/ Gary E. Muenster Gary E. Muenster	Executive Vice President and Chief Financial Officer and Director (Principal Financial Officer)	May 10, 2019
/s/ Patrick M. Dewar Patrick M. Dewar	Director	May 10, 2019
/s/ Vinod M. Khilnani Vinod M. Khilnani	Director	May 10, 2019
/s/ Leon J. Olivier Leon J. Olivier	Director	May 10, 2019
/s/ Robert J. Phillippy Robert J. Phillippy	Director	May 10, 2019
/s/ Larry W. Solley Larry W. Solley	Director	May 10, 2019
/s/ James M. Stolze James M. Stolze	Director	May 10, 2019