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

Post-Effective Amendment No. 1 to FORM S-8 REGISTRATION STATEMENT NO. 333-184074

Post-Effective Amendment No. 2 to FORM S-8 REGISTRATION STATEMENT NO. 333-151736

UNDER THE SECURITIES ACT OF 1933

TRANSCANADA CORPORATION

(Exact name of registrant as specified in its charter)

Canada

Not Applicable

(State or other jurisdiction of incorporation or organization)

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

450 – 1st Street S.W. Calgary, Alberta, T2P 5H1, Canada

(Address of Principal Executive Offices) (Zip Code)

TransCanada 401(k) and Savings Plan
TransCanada 401(k) and Savings IBEW 486 Plan
TransCanada 401(k) and Savings IBEW 1245 Plan
TransCanada 401(k) and Savings Local 1-2 Plan
(Full title of the plans)

TransCanada USA Services Inc. 700 Louisiana Street, Suite 700 Houston, Texas 77002 (832) 320-5201

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

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
| Smaller reporting company
| Smaller reporting company
| Smaller reporting company
| 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.

EXPLANATORY NOTE

TransCanada Corporation (the "Registrant") is filing this Post-Effective Amendment No. 2 to its Form S-8 Registration Statement No. 333-151736 filed on June 18, 2008, as amended pursuant to Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-151736 filed on December 22, 2008 (together, the "2008 Registration Statement"), and Post-Effective Amendment No. 1 to its Form S-8 Registration Statement No. 333-184074 filed on September 25, 2012 (the "2012 Registration Statement") to remove the TransCanada 401(k) and Savings IBEW 486 Plan (the "486 Plan"), TransCanada 401(k) and Savings IBEW 1245 Plan (the "1245 Plan") and TransCanada 401(k) and Savings Local 1-2 Plan (the "Local 1-2 Plan"). The 486 Plan was terminated in connection with the sale of the Registrant's New England hydroelectric generation assets on April 20, 2017 and the Local 1-2 Plan was terminated in connection with the sale of the Registrant's U.S Northeast power assets on June 2, 2017. The 1245 Plan was merged with and into the TransCanada 401(k) and Savings Plan (the "TransCanada 401(k) Plan") effective December 31, 2017.

This Post-Effective Amendment No. 2 to Registration Statement No. 333-151736 and Post-Effective Amendment No. 1 to Registration Statement No. 333-184074 (this "Post-Effective Amendment") is also being filed to deregister the indeterminate amount of interests to be offered and sold pursuant to the 486 Plan, 1245 Plan and Local 1-2 Plan that were previously registered and remained unsold or unissued under such plans at the effective date of their termination or merger, as applicable.

No shares of the Registrant's common shares or plan interests in the TransCanada 401(k) Plan registered pursuant to the 2008 Registration Statement and the 2012 Registration Statement are deregistered by this Post-Effective Amendment. All such shares and plan interests that were previously registered and remain unsold or otherwise unissued shall remain available for issuance and sale under the TransCanada 401(k) Plan until such time as (i) all such securities are sold or otherwise issued or (ii) a post-effective amendment is filed to remove from registration all of such securities that have been registered but remain unsold or otherwise unissued under the 2008 Registration Statement and 2012 Registration Statement.

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 to the specified registration statements on Form S-8 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Calgary, in the Province of Alberta, Canada on August 30, 2018.

TRANSCANADA CORPORATION

By: /s/ Dennis Hebert

Name: Dennis Hebert

Title: Vice-President, Taxation

Pursuant to Rule 478 of the Securities Act of 1933, as amended, no other person is required to sign this Post-Effective Amendment to the specified registration statements on Form S-8 on behalf of TransCanada Corporation.

The Plans. Pursuant to the requirements of the Securities Act of 1933, the Plan Administrator has duly caused this Post-Effective Amendment to the specified registration statements to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, United States of America on August 30, 2018.

TransCanada 401(k) and Savings Plan TransCanada 401(k) and Savings IBEW 486 Plan TransCanada 401(k) and Savings IBEW 1245 Plan TransCanada 401(k) and Savings and Local 1-2 Plan

By: /s/ Jon A. Dobson

Jon A. Dobson

Member, TransCanada USA Investment Committee