
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 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**

POTOMAC ELECTRIC POWER COMPANY

(Exact Name of Registrant as Specified in Its Charter)

District of Columbia

Virginia

(State of Incorporation
or Organization)

53-0127880

(IRS Employer
Identification No.)

701 Ninth Street, N.W.

Washington, D.C. 20068

(Address of Principal Executive Offices) (Zip Code)

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. []

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. [X]

Securities Act registration statement file number to which this form relates: _____ (if applicable).

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

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

Serial Preferred Stock, par value \$50
(Title of Class)

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

The securities being registered pursuant to this Registration Statement on Form 8-A consist of Serial Preferred Stock, par value \$50, of the Registrant. The information required by this Item 1 is incorporated by reference to the description of the Serial Preferred Stock set forth in the Registrant's Registration Statement on Form S-3 (File No. 333-106209) filed with the Securities and Exchange Commission on June 18, 2003, under the section captioned "Description of Preferred Stock."

Item 2. Exhibits

- 4.01 Restated Articles of Incorporation and Articles of Restatement of the Registrant (Filed as Exhibit 3.2 to the Registrant's Form 10-Q for the quarter ended June 30, 2003 and incorporated by reference herein).
- 4.02 By-laws of the Registrant (Filed as Exhibit 3 to the Registrant's Form 10-Q for the quarter ended March 31, 2003 and incorporated by reference herein).
- 4.03 Specimen of Certificate representing Serial Preferred Stock.

SIGNATURES

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.

POTOMAC ELECTRIC POWER COMPANY

By: /S/ A. W. WILLIAMS
Andrew W. Williams
Senior Vice President and
Chief Financial Officer

Date: August 14, 2003

SPECIMEN OF CERTIFICATE REPRESENTING PREFERRED STOCK

Certificate Number []

Number of Preferred Securities []

CUSIP No. []

Certificate of Serial Preferred Stock, par value \$50 per share

of

POTOMAC ELECTRIC POWER COMPANY,
a corporation organized under the laws of the District of Columbia and the Commonwealth of Virginia

This certificate is transferable in the City of Washington, DC

This certifies that _____ is the owner of _____ fully paid and non-assessable shares of the Serial Preferred Stock, \$50 par value, of Potomac Electric Power Company transferable on the books of the Company by the holder hereof in person or by duly authorized attorney upon surrender of this Certificate properly endorsed. A statement of the designations, preferences, limitations and relative rights of the Serial Preferred and Common Stocks of the Company and of the variations in the relative rights and preferences between the shares of each series of Serial Preferred Stock (or information as to where such a statement may be obtained) is printed upon the back hereof, and this Certificate and the shares represented hereby are issued and shall be held subject to all the provisions of the Articles of Incorporation of the Company and all amendments thereto (copies of which are on file at the office of the Transfer Agent), to all of which the holder, by acceptance hereof, assents. This Certificate is not valid unless countersigned by the Transfer Agent and registered by the Registrar.

Witness the facsimile seal of Potomac Electric Power Company and the facsimile signatures of its duly authorized officers.

Dated:

POTOMAC ELECTRIC POWER COMPANY

Secretary

President

Countersigned and Registered:

Transfer Agent and Registrar

Authorized Signature

Authorized Officer

[FORM OF REVERSE OF PREFERRED STOCK CERTIFICATE]

POTOMAC ELECTRIC POWER COMPANY

The corporation will furnish to any shareholder upon request and without charge a full statement of the designations, preferences, limitations, and relative rights of the shares of each class authorized to be issued and the variations in the relative rights and preferences between the shares of each series of its preferred stock so far as the same have been fixed and determined and the authority of the Board of Directors to fix and determine the relative rights and preferences of subsequent series. Such requests should be directed to the Treasurer of the corporation at its principal office, 701 Ninth Street, N.W., Washington, D.C. 20068.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	--	as tenants in common	UNIF GIFT MIN ACT	--	<u> </u> Custodian <u> </u> (Cust) (Minor)
TEN ENT	--	as tenants by the entireties			under Uniform Gifts to Minors Act <u> </u> (State)
JT TEN	--	as joint tenants with right of survivorship and not as tenants in common			

Additional abbreviations may also be used though not in the above list.

For Value received, _____ hereby sell, assign and transfer unto

(PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE)

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS INCLUDING POSTAL ZIP CODE OF ASSIGNEE)

_____ Shares of the Stock

represented by the within Certificate, and do hereby irrevocably constitute and appoint _____

_____ Attorney to

transfer the said stock on the books of the within named Company with full power of substitution in the premises.

Dated, _____

NOTICE: THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE, IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT, OR ANY CHANGE WHATEVER.