



A PHI Company

KIRK J. EMGE
General Counsel

701 NINTH STREET, N.W.
Suite 1100, 10th Floor
WASHINGTON, D.C. 20068

202 872-3252
202 872-3281
kjemge@pepcoholdings.com

Exhibit 5.1

December 8, 2008

Potomac Electric Power Company
701 Ninth Street, N.W.
Washington, DC 20068

Ladies and Gentlemen:

I am General Counsel of Potomac Electric Power Company, a District of Columbia and Virginia corporation (the "Company"), and have acted as counsel to the Company in connection with the offer and sale by the Company of \$250,000,000 in aggregate principal amount of First Mortgage Bonds, 7.90% Series due December 15, 2038 (the "Securities") under and pursuant to:

- (i) a Registration Statement on Form S-3 (Registration No. 333-145691-03) under the Securities Act of 1933, as amended (the "Act"), which was automatically effective upon filing with the United States Securities and Exchange Commission (the "Commission") on August 24, 2007;
- (ii) the base prospectus, dated as of August 24, 2007 (the "Base Prospectus");
- (iii) the preliminary prospectus, consisting of the Base Prospectus, as supplemented by a prospectus supplement, dated December 3, 2008, with respect to the offer and sale of the Securities, filed with the Commission on December 3, 2008, pursuant to Rule 424(b) under the Act;
- (iv) the final prospectus, dated December 3, 2008, consisting of the Base Prospectus, as supplemented by a prospectus supplement, dated December 3, 2008, with respect to the offer and sale of the Securities, filed with the Commission on December 4, 2008, pursuant to Rule 424(b) under the Act; and
- (v) the Purchase Agreement, dated December 3, 2008, among the Company and J.P. Morgan Securities Inc., Morgan Stanley & Co. Incorporated, Scotia Capital (USA) Inc., SunTrust Robinson Humphrey, Inc. and Wachovia Capital Markets, LLC (the "Purchase Agreement").

The Securities will be issued pursuant to the Mortgage and Deed of Trust, dated as of July 1, 1936, from the Company to The Bank of New York Mellon, as trustee (as successor in such capacity to The Riggs National Bank of Washington, D.C.) (the "Trustee"), as amended and supplemented by various supplemental indentures (such Mortgage and Deed of Trust, as so amended and supplemented, the "Mortgage").

In connection with this opinion, I, or my representatives, have examined originals, or copies certified or otherwise identified to my or their satisfaction, of such instruments, certificates, records and documents, and have reviewed such questions of law, as I have deemed necessary or appropriate for purposes of this opinion. In such examination, I or my representatives have assumed the genuineness of all signatures, the authenticity of all documents submitted to me or them as originals, the conformity to the original documents of all documents

submitted as copies and the authenticity of the originals of such latter documents. As to any facts material to my opinion, I have relied upon the aforesaid instruments, certificates, records and documents and inquiries of the Company's representatives.

Based upon the foregoing I am of the opinion that the Securities have been duly authorized for issuance and, when executed by the Company and authenticated by the Trustee in the manner provided in the Mortgage and delivered against payment of the purchase price therefor set forth in the Purchase Agreement, will be duly and validly issued and will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and other laws of general applicability relating to or affecting creditors' rights and to general equity principles.

I hereby consent to the filing of this opinion as an exhibit to a Current Report on Form 8-K that will be incorporated by reference into the Registration Statement.

Very truly yours,

/s/ KIRK J.EMGE

Kirk J. Emge, Esq.