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September 17, 2010

Pepco Holdings, Inc.
701 Ninth Street, NW
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Ladies and Gentlemen:

I am Senior Vice President and General Counsel of Pepco Holdings, Inc., a Delaware corporation (the "Company"), and have acted as counsel to the Company in connection with the filing by the Company of the Registration Statement on Form S-3 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act"), with the Securities and Exchange Commission (the "Commission") to which this opinion is attached as an exhibit. The Registration Statement is for the registration of (a) shares of the Company's common stock, par value \$0.01 per share (the "Common Stock"), and (b) debt securities of the Company (the "Debt Securities"). The shares of Common Stock and Debt Securities are referred to herein collectively as the "Offered Securities." The Offered Securities being registered under the Registration Statement will be offered on a continuous or delayed basis pursuant to Rule 415 under the Act. The Debt Securities will be issued pursuant to the Indenture, dated as of September 6, 2002 (the "Indenture"), between the Company and The Bank of New York Mellon, as trustee (the "Trustee"), which is incorporated by reference as an exhibit to the Registration Statement.

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 or they 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 to me or them 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, inquiries of the Company's representatives and information obtained from public officials and other sources I believe to be responsible.

Based upon the foregoing and assuming that (i) the Registration Statement and any required post-effective amendments thereto have all become effective under the Act and comply with all applicable laws at the time the Offered Securities are offered and sold as contemplated by the Registration Statement; (ii) a prospectus supplement and any pricing supplement will have been prepared, delivered and filed with the Commission describing the Offered Securities offered thereby and will comply with all applicable laws; and (iii) all Offered Securities will be offered and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and the appropriate prospectus supplement and any pricing supplement, I am of the opinion that:

1. With respect to the Common Stock, assuming (a) the Company has taken all necessary corporate action to authorize and approve the issuance of any Common Stock and to fix or to otherwise determine the consideration to be received for the shares of Common Stock, and the terms of the offer and sale thereof, (b) any legally required consents, approvals, authorizations and other orders of the Commission and other regulatory authorities have been obtained, (c) the Common Stock as issued and delivered complies with all requirements and restrictions, if any, applicable to the Company, whether imposed by any agreement or instrument to which the Company is a party or by which it is bound or any court or other governmental or regulatory body having jurisdiction over the Company or otherwise and (d) the Common Stock is duly issued and delivered against payment of the consideration therefor in accordance with such corporate action and applicable law and as contemplated in the Registration Statement and the prospectus supplement and any pricing supplement setting forth the terms of the Common Stock and the plan of distribution, the Common Stock will be validly issued, fully paid and nonassessable.
2. With respect to the Debt Securities, assuming (a) the Company has taken all necessary corporate action to authorize and approve the form, terms, execution and delivery of the Debt Securities and the terms of the offer and sale thereof, (b) the Indenture has been duly qualified under the Trust Indenture Act of 1939, as amended, (c) the Debt Securities have been duly executed by the Company and authenticated by the Trustee in accordance with the provisions of the Indenture and have been duly issued and delivered against payment of the consideration therefor in accordance with such corporate action and as contemplated in the Registration Statement and the prospectus supplement and the pricing supplement setting forth the terms of the Debt Securities and the plan of distribution, (d) any legally required consents, approvals, authorizations and other orders of the Commission and other regulatory authorities have been obtained and (e) the Debt Securities as issued and delivered comply with all requirements and restrictions, if any, applicable to the Company, whether imposed by any agreement or instrument to which the Company is a party or by which it is bound or any court or other governmental or regulatory body having jurisdiction over the Company or otherwise, then, upon the happening of such events, the Debt Securities 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 the Registration Statement and to the use of my name under the caption "Legal Matters" therein and in the related prospectus, and in any supplement thereto or amendments thereof. My consent to such reference does not constitute a consent under Section 7 of the Act, and in consenting to such reference I have not certified any part of the Registration Statement and do not otherwise come within the categories of persons whose consent is required under Section 7 or under the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ KIRK J. EMGE

Kirk J. Emge