

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIALS:

The Notice of Meeting, proxy statement and proxy card are available at <http://www.amstock.com/ProxyServices/ViewMaterial.asp?CoNumber=25700>

Attendance at the meeting is limited to shareholders.

ADMISSION TICKET - Bring this with you to the meeting.

As described in the Proxy Statement, cameras, camera phones, cell phones, recording equipment, electronic devices, computers, large bags, briefcases and packages will not be permitted in the meeting room.

In order to be admitted to the meeting, you must present a valid form of government-issued picture identification, such as a driver's license, that matches your name on this admission ticket.



Pepco Holdings, Inc.
2011 Annual Meeting

May 20, 2011 at 10:00 a.m.

701 Ninth Street, N.W.
Edison Place Conference Center
(second floor)
Washington, D.C. 20068

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701 Ninth Street, N.W.
Washington, D.C. 20068

Annual Meeting of Shareholders - May 20, 2011

PROXY

The undersigned hereby appoints JOSEPH M. RIGBY, ANTHONY J. KAMERICK AND KIRK J. EMGE, and each of them, proxies of the undersigned, with power of substitution, to attend the above Annual Meeting to be held on Friday, May 20, 2011 at 10 a.m. at Pepco Holdings, Inc.'s offices located at 701 Ninth Street, N.W., Edison Place Conference Center (second floor), Washington, D.C., and all adjournments thereof, and thereat to vote all shares of Common Stock of the Company that the undersigned would be entitled to vote if personally present on matters set forth in the Proxy Statement and upon such other matters as may properly come before the meeting.

If you are a current or former employee who is a participant in the Pepco Holdings, Inc. Retirement Savings Plan, then the number of shares printed on the enclosed proxy card represents shares of Common Stock held through that plan. By completing, dating, signing and returning this proxy card, you will be providing the plan trustee with instructions on how to vote the shares held in your account. If you do not provide voting instructions for your plan shares, the plan trustee will vote your shares in proportion to the voting instructions given by the other participants in the plan.

The proxy conferred hereby will be voted in accordance with the voting instructions given on the reverse side. If no instructions are given, the proxy conferred hereby will be voted FOR Items 1, 2 and 4; for 1 YEAR on Item 3; and in the discretion of the proxy upon such other matters as may properly come before the Annual Meeting.

**This Proxy is solicited on behalf of
the Board of Directors of Pepco Holdings, Inc.**

(Continued and to be signed on the reverse side.)

ANNUAL MEETING OF SHAREHOLDERS OF



May 20, 2011

PROXY VOTING INSTRUCTIONS

MAIL - Mark, sign, and date your proxy card and return it (so that it is received on or before 5:00 p.m. Eastern Time the day before the meeting date) in the postage-paid envelope we have provided or return it to: Operations Center, American Stock Transfer & Trust Company, 6201 15th Avenue, Brooklyn, NY 11219-9821

- OR -

TELEPHONE - 1-800-PROXIES (1-800-776-9437) Use any touch-tone telephone to transmit your voting instructions up until 5:00 p.m. Eastern Time the day before the meeting date. Have your proxy card in hand when you call. You will be given simple voting instructions to follow.

- OR -

INTERNET - www.voteproxy.com Use the Internet to transmit your voting instructions and for electronic delivery of information up until 5:00 p.m. Eastern Time the day before the meeting date. Have your proxy card in hand when you access the Web site. You will be given simple voting instructions to obtain your records and to create an electronic voting instruction form.

COMPANY NUMBER	
ACCOUNT NUMBER	

ADMISSION TICKET on reverse side.

↓ Please detach along perforated line and mail in the envelope provided IF you are not voting via telephone or the Internet. ↓

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Pepeco Holdings, Inc.

C/O OPERATIONS CENTER, AMERICAN STOCK TRANSFER & TRUST COMPANY, 6201 15TH AVENUE, BROOKLYN, NY 11219-9821

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" ALL OF THE NOMINEES LISTED IN ITEM 1:

1. Election of 12 Directors

FOR ALL NOMINEES

WITHHOLD AUTHORITY FOR ALL NOMINEES

FOR ALL EXCEPT (See instructions below)

NOMINEES:

- Jack B. Dunn, IV
- Terence C. Golden
- Patrick T. Harker
- Frank O. Heintz
- Barbara J. Krumsiek
- George F. MacCormack
- Lawrence C. Nussdorf
- Patricia A. Oelrich
- Joseph M. Rigby
- Frank K. Ross
- Pauline A. Schneider
- Lester P. Silverman

INSTRUCTIONS: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here: ●

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" ITEM 2: FOR AGAINST ABSTAIN

2. A proposal to approve, by non-binding vote, the compensation of the Company's named executive officers.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR "1 YEAR" FREQUENCY:

3. A proposal recommending, by non-binding vote, the frequency of an advisory vote on the compensation of the Company's named executive officers. 1 year 2 years 3 years ABSTAIN

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" ITEM 4:

4. A proposal to ratify the appointment of Pricewaterhouse-Coopers LLP as independent registered public accounting firm of the Company for 2011. FOR AGAINST ABSTAIN

5. To transact such other business as may properly be brought before the meeting.

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

MARK "X" HERE IF YOU PLAN TO ATTEND THE MEETING.

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Shareholder _____ Date: _____ Signature of Shareholder _____ Date: _____

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.