

**SECURITIES AND EXCHANGE COMMISSION**

**WASHINGTON, D. C. 20549**

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**FORM 11-K**

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**ANNUAL REPORT**

Pursuant to Section 15(d) of the  
Securities Exchange Act of 1934

For the Fiscal Year Ended December 31, 2010

Commission File No. 001-31403

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**PEPCO HOLDINGS, INC. RETIREMENT SAVINGS PLAN**

(Full title of plan)

**PEPCO HOLDINGS, INC.  
701 NINTH STREET, N.W.  
WASHINGTON, D. C. 20068**

(Name of issuer of securities held pursuant to the plan and address of principal executive office)

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Financial Statements and Supplemental Schedules**  
**as of December 31, 2010 and 2009**  
**and for the Years Ended December 31, 2010 and 2009,**  
**and**  
**Report of Independent Registered Public Accounting Firm**

## **Pepco Holdings, Inc. Retirement Savings Plan**

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## **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Plan Administrator of the  
Pepco Holdings, Inc. Retirement Savings Plan:

We have audited the accompanying statements of net assets available for benefits of the Pepco Holdings, Inc. Retirement Savings Plan ("the Plan") as of December 31, 2010 and 2009, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Plan's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan at December 31, 2010 and 2009, and the changes in its net assets available for benefits for the years then ended, in conformity with U.S. generally accepted accounting principles.

Our audits were performed for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying supplemental schedules of assets (held at end of year) as of December 31, 2010 and reportable transactions for the year then ended are presented for purposes of additional analysis and are not a required part of the financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. These supplemental schedules are the responsibility of the Plan's management. The supplemental schedules have been subjected to the auditing procedures applied in our audits of the financial statements and, in our opinion, are fairly stated in all material respects in relation to the financial statements taken as a whole.

/s/ Mitchell & Titus LLP

Washington, DC  
June 28, 2011

**Pepco Holdings, Inc. Retirement Savings Plan**

**Statements of Net Assets Available for Benefits**

	As of December 31, 2010	As of December 31, 2009
<b>Assets</b>		
Investments, at fair value		
Registered investment companies	\$545,866,281	\$494,907,790
Common/Collective trust	158,444,030	159,756,487
Pepco Holdings, Inc. common stock	<u>111,111,833</u>	<u>100,675,415</u>
Total investments	815,422,144	755,339,692
Receivables		
Employer contributions	—	23,446
Participant contributions	—	7,648
Participant loans	<u>25,747,531</u>	<u>26,373,244</u>
Net assets available for benefits, at fair value	841,169,675	781,744,030
Adjustments from fair value to contract value for fully benefit-responsive investment contracts	<u>(5,976,719)</u>	<u>(3,377,780)</u>
<b>Net assets available for benefits</b>	<u><u>\$835,192,956</u></u>	<u><u>\$778,366,250</u></u>

The accompanying Notes are an integral part of these financial statements.

**Pepco Holdings, Inc. Retirement Savings Plan**

**Statements of Changes in Net Assets Available for Benefits**

	<b>For the year ended December 31, 2010</b>	<b>For the year ended December 31, 2009</b>
<b>Investment income:</b>		
Interest and dividend income – investments	\$ 23,218,677	\$ 22,003,912
Interest income – participant loans	1,220,289	1,497,028
Net appreciation in fair value of investments	62,913,398	87,702,919
Net investment income	<u>87,352,364</u>	<u>111,203,859</u>
<b>Contributions:</b>		
Employer	11,333,807	11,824,737
Participants	33,995,812	34,126,697
Total contributions	<u>45,329,619</u>	<u>45,951,434</u>
<b>Other Additions</b>	<u>43,267</u>	<u>30,085</u>
<b>Deductions</b>		
Payments of benefits to participants	75,546,209	45,555,213
Other deductions	352,335	262,086
Total deductions	<u>75,898,544</u>	<u>45,817,299</u>
Net increase in net assets available for benefits	56,826,706	111,368,079
Net assets available for benefits at beginning of year	778,366,250	666,998,171
<b>Net assets available for benefits at end of year</b>	<u><u>\$ 835,192,956</u></u>	<u><u>\$ 778,366,250</u></u>

The accompanying Notes are an integral part of these financial statements.

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 1 – Description of Plan**

The following description of the Pepco Holdings, Inc. (“PHI” or the “Company”) Retirement Savings Plan (the “Plan”), provides only general information. Participants should refer to the Plan Agreement for a more comprehensive description of the Plan’s provisions.

**General**

The PHI Retirement Savings Plan is a defined contribution plan that consists of eight Sub Plans: 1) the Management Sub Plan, 2) the Local 1900 Sub Plan, 3) the Local 1307 Sub Plan, 4) the Local 1238 Sub Plan, 5) the Local 210 Sub Plan, 6) the Local 210-5 Sub Plan, 7) the PHI Operating Services Company (POSC) Sub Plan, and 8) the Petron Sub Plan. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (“ERISA”).

In 2010, PHI sold the wholesale power generation business of its wholly-owned subsidiary, Conectiv Energy Holding Company (Conectiv Energy), and liquidated substantially all of Conectiv Energy’s load service supply contracts, energy hedging portfolio, certain tolling agreements and other non-core assets. In addition, PHI is winding down the retail electric and natural gas supply business, which it conducts through its wholly owned subsidiary Pepco Energy Services. The remaining Energy Services business will not be affected by the wind down of the retail energy supply business. In connection with these disposition activities and a restructuring plan entered into in 2010, many participants in the Plan have separated from the Company and are no longer active participants in the Plan. As further discussed below under the heading “Distributions and Withdrawals,” distributions for reasons of retirement or termination will be made upon receipt of a written request. Employees who separated from the Company in 2010 were able to leave balances of \$5,000 or more in the Plan until they decide to withdraw them.

**Plan Amendments**

Effective September 1, 2010, the PHI Administrative Board amended the Local 1238 Sub Plan and the Local 1307 Sub Plan to increase the employer match from fifty cents on each dollar contributed up to 5% of base pay to fifty cents on each dollar up to 6% of base pay for employees hired on or after September 1, 2010. The PHI Administrative Board amended the Plan in June 2009 to allow for Roth 401(k) contributions and the amendment became effective April 1, 2010. In addition, the PHI Administrative Board amended the Plan to implement Automatic Enrollment and Automatic Escalation (subject to Union approval for the Plans serving union employees) which became effective in January 2010, for the Management Sub Plan, the POSC Sub Plan, the Petron Sub Plan, the Local 1900 Sub Plan, the Local 1238 Sub Plan, the Local 1307 Sub Plan, and effective in July 2011 for Local 210.

The PHI Administrative Board also approved amendments in 2009 to 1) implement the Required Mandatory Distribution (RMD) as permitted by The Worker, Retiree, and Employer Recovery Act of 2008, 2) expand the definition of a hardship for the purpose of Hardship Withdrawals, as permitted by The Pension Protection Act of 2006, and 3) permit Qualified Reservists Distributions as permitted by The Heroes Earnings Assistance and Relief Tax Act of 2008.

**Designation of Trustee**

The Plan’s Trustee is Vanguard Fiduciary Trust Company (“Vanguard”) of Malvern, Pennsylvania. The Plan’s investments are held in a trust account at Vanguard and consist of a specific interest in the Pepco Retirement Savings Plan Master Trust (“the Trust”).

**Designation of Recordkeeper**

The Vanguard Group serves as the Plan’s recordkeeper.

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 1 – Description of Plan (continued)**

**Participation**

Management employees (non-bargaining unit, full-time and part-time more than 20 hours per week) of PHI's wholly-owned subsidiaries (PHI Service Company, Potomac Electric Power Company, Pepco Energy Services, Inc., Delmarva Power & Light Company, Atlantic City Electric Company, Conectiv Atlantic Generation, LLC and Conectiv Delmarva Generation, LLC) are eligible to participate in the Management Sub Plan upon date of hire (or as soon as administratively feasible). Employees of PHI Operating Services Company participate in the POSC Sub Plan and are eligible to participate upon date of hire (or as soon as administratively feasible). Employees of Conectiv Energy Supply, Inc., participate in the Petron Sub plan and are eligible to participate upon date of hire (or as soon as administratively feasible). Employees represented by Local 1900 participate in the Local 1900 Sub Plan and are eligible to participate upon date of hire but are not eligible to receive company matching contributions until they reach one year of service. Effective January 1, 2010, Local 1900 members became eligible to receive company matching funds upon date of hire (or as soon as administratively feasible). Employees represented by Local 1238 participate in the Local 1238 Sub Plan and are eligible to participate once they have completed six months of service. Employees represented by Local 1307 participate in the Local 1307 Sub Plan and are eligible to participate once they have completed six months of service. Employees represented by Local 210 participate in the Local 210 Sub Plan and are eligible to participate on their date of hire (or as soon as administratively feasible) if they are scheduled to work at least 1,000 hours of service in the first 12 consecutive month period. Employees represented by Local 210-5 participate in the Local 210-5 Sub Plan and are eligible to participate upon date of hire (or as soon as administratively feasible).

**Contributions**

In all Sub Plans, participants may contribute from 1% to 65% of their base pay on a before- or after-tax basis, not to exceed the maximum allowable under the Internal Revenue Code of 1986, as amended ("IRC").

For participants in the Management Sub Plan and the Local 210-5 Sub Plan, the Company provides matching contributions in Company stock equal to 100% on the first 3% of base pay and 50% on the next 3% of base pay contributed by the employee. For participants in the POSC Sub Plan and the Petron Sub Plan, the Company provides matching contributions in cash or Company stock equal to 100% on the first 3% of base pay and 50% on the next 3% of base pay contributed by the employee, however, eligible employees may also receive a discretionary contribution depending on the success of the respective company. For participants in the Local 1238 Sub Plan and the Local 1307 Sub Plan, the Company provides matching contributions in Company stock equal to 50% up to 5% of the base pay contributed. For participants in the Local 1900 Sub Plan, the Company provides matching contributions in Company stock equal to 50% up to 6% of the base pay contributed. For participants in the Local 210 Sub Plan, the Company provides matching contributions in Company stock equal to 50% up to 6% of the base pay contributed.

The Company's matching contributions, made in Company stock, are paid to the Trustee in authorized unissued shares or in cash for the purchase of Company common stock on the open market.

Participants age 50 and older (by year end) and meeting one of the Internal Revenue Service ("IRS") pre-tax contribution limits are eligible to make catch-up contributions. The catch-up contribution limit for 2010 and 2009 was \$5,500.

The sum of the elected percentages of before- and after-tax contributions and the Company matching contributions may not exceed 65% of a participant's annual salary. A participant is prohibited from making elective contributions to the Plan for six months following a hardship withdrawal. Eligible rollover contributions are permitted from other employer-sponsored plans into the Plan.



**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 1 – Description of Plan (continued)**

**Vesting**

Participants are 100% vested and have a nonforfeitable interest, in their own contributions, and in the Company matching contributions, including any earnings or losses thereon.

The Plan allows participants to diversify their vested Company matching contributions regardless of age or years of participation in the Plan.

**Participant Accounts**

Each participant's account is credited with the participant's contribution, the Company's matching contribution, and earnings (losses) attributable to the participant's investments. Participant accounts are impacted by expenses charged by the funds in which they invest, as disclosed in the funds' prospectus. Also, certain funds charge redemption fees that are also paid directly by the participant from their account. All other administrative fees related to participant accounts are paid by the Company.

Participants may elect to have their contributions invested, in multiples of 1%, in one or more of the available investment options. The Plan's investment options were selected by the PHI Investment Committee and are intended to provide diversified categories of investments with different risk and return characteristics that will enable participants to create an investment portfolio to meet their individual goals, depending on the level of risk they are willing to accept. The investment options available to participants of the Plan are reviewed periodically and can be changed at the discretion of the PHI Investment Committee pursuant to the Plan Agreement.

Effective July 1, 1998, the U.S. Savings Bond Fund was closed to any new contributions to the fund. The U.S. Savings Bond Fund was terminated effective June 30, 2009. All of the monies in this fund were distributed to employees or transferred into another fund.

Participants can transfer all or part of their investment account balance and related earnings in any existing fund to any other fund option offered in the Plan with the exception of any limitation expressed in the prospectus of a specific investment fund that prohibits such transfer. Participants may change the allocation of their future contributions among the funds at any time.

**Distributions and Withdrawals**

If a participant retires, dies, becomes permanently disabled, or otherwise separates from the Company, the participant or participant's beneficiary is entitled to the entire account balance as valued on the withdrawal date. In the event of a participant's death, distribution of the participant's account balance will be made as soon as administratively practicable upon the receipt of appropriate documentation from the designated beneficiary. Distributions for reasons of retirement, disability retirement, permanent disability or termination will be made upon receipt of a written request. Distributions of a participant's account balance may be made in (1) a lump sum cash payment, (2) in regular installments for a period not exceeding the joint and survivor life expectancy of the participant and his or her spouse or other beneficiary or, (3) partial lump sums upon the request of the participant, with certain limitations stated in the PHI Plan or Sub Plan Agreement. Distributions from the Pepco Holdings, Inc. Common Stock Fund may be made in PHI common stock or cash based on the election of the participant. Distributions cannot be deferred beyond age 70 1/2. Distributions from the remaining investment funds are made in cash.

While employed, upon written notice, a participant may make certain withdrawals of vested contributions. Pre-tax employee contributions can only be withdrawn for the reason of financial hardship, as defined in the Plan Agreement. At the age of 59 1/2, the participant may withdraw any portion of his or her account balance.

**Pepco Holdings, Inc. Retirement Savings Plan  
Notes to Financial Statements  
For the Years Ended December 31, 2010 and 2009**

**NOTE 1 – Description of Plan (continued)**

After making a hardship withdrawal of pre-tax contributions, a participant is prohibited from making contributions or receiving Company matching contributions for a period of six months. A participant with less than 60 months of Plan participation will incur a six-month suspension period upon making any withdrawal of his or her after-tax contributions. During this suspension period, no matching contributions will be credited to the participant's account.

**Loans to Participants**

Loans are available to participants from amounts attributable to pre-tax and/or after-tax contributions, subject to U.S. Department of Labor and IRS limitations. The Plan requires that a minimum of \$1,000 be borrowed by a participant. A one-time fee per loan is deducted from the participant's account at the time of each loan distribution. The fee is \$50 for loans processed on the Vanguard website and \$100 for loans processed via a paper loan application. The number and amount of loans allowed to a participant are restricted by the PHI and Sub Plans and are consistent with IRS regulations. A participant can have up to four loans outstanding at any time with maximum term lengths of five years, or 30 years for a primary residence. The prevailing prime rate (quoted by Reuters at the end of the month prior to the month of the loan) is applied as the fixed interest rate for the loan. Loan repayments are made through payroll deductions or by prepayment in a lump sum. If an active participant has four outstanding loans and pays off one loan, they will not be eligible for another loan until 30 days after the loan pay-off date. Upon termination from the Company, a participant can elect to continue to make loan repayments. If the loan repayments are not made, the loan will be in default and is converted to a distribution at the end of the calendar quarter following the calendar quarter in which the first payment amount was missed, or approximately 90 days.

**Plan Administration and Termination**

The Plan is administered by the PHI Administrative Board, which is appointed by the Company's Chief Executive Officer. All contributions to the Plan are held in trust by Vanguard, the Plan Trustee, for the exclusive benefit of the participants. The Company generally pays the trustee fees and certain other administrative expenses of the Plan, while the participants pay expenses charged by the funds and disclosed in the Funds' prospectuses.

The Plan is a defined contribution plan. Interests in the Plan are not insured by the Company and are not guaranteed by the Pension Benefit Guaranty Corporation, an agency of the United States government.

Although the Company intends to continue the Plan indefinitely, it reserves the right to terminate or amend the Plan at any time. In the event of the termination of the Plan, all Company contributions become immediately vested to Plan participants.

**NOTE 2 – Significant Accounting Policies**

**Basis of Presentation**

The financial statements of the Plan are prepared on the accrual basis of accounting in conformity with United States generally accepted accounting principles.

**Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 2 – Significant Accounting Policies (continued)**

**Valuation of Investments and Income Recognition**

The Plan provides for various investment options. Investment securities are exposed to various risks, such as interest, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the Statements of Net Assets Available for Benefits and Statements of Changes in Net Assets Available for Benefits.

The Plan presents in the Statement of Changes in Net Assets Available for Benefits, the Plan's interest in the net investment income in the Trust, which consists of the realized gains or losses and the unrealized appreciation on those Trust investments.

The Plan's investments are stated at fair value using the framework established by Financial Accounting Standards Board (FASB) guidance on Fair Value Measurements and Disclosures (ASC 820). Purchases and sales of securities are recorded on a trade date basis.

Dividends are recorded on the ex-dividend date. Interest on interest-bearing cash, money market accounts and participant loans is recorded when earned. Participants with investments in the Stock Fund have an option to receive a payout of any dividends paid on PHI stock held in the Stock Fund and allocated to units within the Stock Fund or reinvest those dividends to purchase additional units in the PHI Stock Fund.

**Participant Loans Receivable**

Participant loans receivable represent participant loans that are recorded at their unpaid principal balance plus any accrued but unpaid interest. Interest income on notes receivable from participants is recorded when it is earned. Related fees are recorded as administrative expenses and are expensed when they are incurred. No allowance for credit losses has been recorded as of December 31, 2010 or 2009.

**Benefit Payments**

Benefit payments to participants are recorded when paid.

**Forfeitures**

At December 31, 2010 and 2009, plan year forfeiture amounts were \$1,383 and \$83, respectively. These amounts, and an additional \$200,481 from prior year forfeitures, were used to reduce future employer contributions or fund administrative expenses by the Plan.

**Plan Expenses**

Certain expenses incurred in the administration of the Plan are paid by the Company, excluding those expenses associated with participant accounts.

**Reclassifications and Adjustments**

Certain prior year amounts within the Statement of Net Assets Available for Benefits have been reclassified to conform to current year presentation.

**Pepco Holdings, Inc. Retirement Savings Plan  
Notes to Financial Statements  
For the Years Ended December 31, 2010 and 2009**

**NOTE 3 – Newly Adopted Accounting Standards**

**Fair Value Measurement and Disclosures (ASC 820)**

The FASB issued new disclosure requirements for recurring and non-recurring fair value measurements. The guidance, effective beginning with the Plan's December 31, 2010 financial statements, requires the disaggregation of balance sheet items measured at fair value into classes of investment based on the nature and risks of the items. The standard requires descriptions of pricing inputs and valuation methodologies for instruments with Level 2 or 3 valuation inputs. In addition, the standard requires information about any significant transfers of instruments between Level 1 and 2 valuation categories. These additional disclosures are included in Note (5), "Fair Value Measurements."

**Plan Accounting – Defined Contribution Pension Plans (ASC 962)**

In September 2010, the FASB issued guidance that requires participant loans to be measured at their unpaid balance plus accrued interest and classified as notes receivable from participants. Previously loans were measured at amortized cost, which approximated fair value, and classified as investments. This guidance is effective for fiscal years ending after December 15, 2010 and is required to be applied retrospectively. Adoption of this guidance did not change the value of participant loans from the amount previously reported as of December 31, 2009. Participant loans have been reclassified to notes receivable from participants as of December 31, 2009.

**NOTE 4 – Recently Issued Accounting Standards, Not Yet Adopted**

**Fair Value Measurement and Disclosures (ASC 820)**

The FASB issued new disclosure requirements that require the disaggregation of the level 3 fair value measurement reconciliations into separate categories for significant purchases, sales, issuances, and settlements. This requirement is effective beginning with the Plan's March 31, 2011 financial statements. The Plan is evaluating the impact of this new guidance on its financial statement footnote disclosures.

**NOTE 5 – Fair Value Disclosures**

FASB guidance on fair value measurement and disclosures (ASC 820) established a framework for measuring fair value and expanded disclosures about fair value measurements. As defined in the guidance, fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price). PHI utilizes market data or assumptions that market participants would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique. These inputs can be readily observable, market corroborated, or generally unobservable. Accordingly, PHI utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. The guidance establishes a fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurement) and the lowest priority to unobservable inputs (level 3 measurement). The asset's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 5 – Fair Value Disclosures (continued)**

The three levels of the fair value hierarchy are as follows:

**Level 1**

Level 1 asset fair values are based on unadjusted quoted prices for identical assets in active markets that the Plan has the ability to access. Assets in this category include investments in Registered Investment Companies – Mutual Funds and the Pepco Holdings, Inc. Stock Fund.

**Level 2**

Level 2 asset fair values are based on quoted prices for similar assets in active markets, quoted prices for identical or similar assets in inactive markets, inputs other than quoted prices that are observable for the asset and, inputs that are derived principally from or corroborated by observable market data by correlation or other means. If the asset has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset. Assets in this category include investments in a common/collective trust.

**Level 3**

Level 3 asset fair values are based on significant inputs that are generally less observable than those from objective sources. The Plan currently holds no investments that are categorized as level 3.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different measurement at the reporting date.

The following tables present the fair values of Plan assets by asset category within the fair value hierarchy levels, as of December 31, 2010 and 2009:

<u>Asset Category</u>	<u>Fair Value Measurements at December 31, 2010</u>		
	<u>Level 1</u>	<u>Level 2</u>	<u>Total</u>
Registered investment companies – Mutual Funds			
Equity			
Domestic	\$295,080,402	\$ —	\$295,080,402
International	69,955,553	—	69,955,553
Fixed income	107,021,078	—	107,021,078
Balanced	73,809,248	—	73,809,248
Common/Collective trust (a)	—	158,444,030	158,444,030
Pepco Holdings, Inc. common stock fund (b)	111,111,833	—	111,111,833
Total assets at fair value	<u>\$656,978,114</u>	<u>\$158,444,030</u>	<u>\$815,422,144</u>

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 5 – Fair Value Disclosures (continued)**

<u>Asset Category</u>	<u>Fair Value Measurements at December 31, 2009</u>		
	<u>Level 1</u>	<u>Level 2</u>	<u>Total</u>
<b>Registered investment companies – Mutual Funds</b>			
Equity			
Domestic	\$266,695,799	\$ —	\$266,695,799
International	65,129,200	—	65,129,200
Fixed income	98,468,933	—	98,468,933
Balanced	64,613,858	—	64,613,858
Common/Collective trust (a)	—	159,756,487	159,756,487
Pepco Holdings, Inc. common stock fund (b)	100,675,415	—	100,675,415
<b>Total assets at fair value</b>	<b><u>\$595,583,205</u></b>	<b><u>\$159,756,487</u></b>	<b><u>\$755,339,692</u></b>

(a) This category represents investments in a stable value fund.

(b) Represents interests in a stock fund whose underlying investments are shares of PHI common stock.

**Valuation Techniques Used to Determine Fair Value**

The following methods and assumptions were used to estimate the fair value of each class of financial instrument. There have been no changes in the methodologies used for the years ended December 31, 2010 and 2009.

**Registered Investment Companies – Mutual Funds**

*Equity*

Equity assets included in mutual funds are primarily comprised of securities issued by public companies in domestic and foreign markets, which are valued on a daily basis. The fair values of the Plan's interests in mutual funds are based on publicly quoted Net Asset Values (NAV). These funds have ongoing subscription and redemption activities and are classified as level 1.

*Fixed income*

Fixed income assets included in mutual funds are comprised of fixed income securities primarily issued by corporations, governments and government agencies. The fair values of the Plan's interests in mutual funds are based on publicly quoted NAVs. These funds have ongoing subscription and redemption activities and are classified as level 1.

*Balanced*

Balanced assets included in mutual funds are primarily comprised of investments in other equity and fixed income mutual funds. Equity mutual fund assets are primarily comprised of securities issued by public companies in domestic and foreign markets which are valued on a daily basis. Fixed income mutual fund assets are comprised of fixed income securities primarily issued by corporations, governments and government agencies. The fair values of the Plan's interests in mutual funds are based on publicly quoted NAVs. These funds have ongoing subscription and redemption activities and are classified as level 1.

**Common/Collective Trust**

The common/collective trust fund represents an investment in the Vanguard Retirement Savings Trust which is a stable value fund. The fund is valued using the NAV provided by the Trustee based on the value of the underlying assets divided by the number of units outstanding. The fair value of the fund's underlying assets is determined by pricing agents using observable inputs on a daily basis plus the total wrap contract rebid value, which is calculated

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 5 – Fair Value Disclosures (continued)**

by discounting the annual rebid fee over the duration of the contract's assets. The only restriction is that the Plan is required to provide a one year redemption notice to liquidate its entire share in the fund. The fair value of the fund is classified as level 2.

**Pepco Holdings, Inc. Common Stock Fund**

This category represents PHI common stock held in the stock fund that is valued at the quoted market price at close of business as reported on the New York Stock Exchange. Participants' holdings in the stock fund are represented by units in the stock fund and do not represent direct ownership of PHI common shares, the value of which was \$7.90 per unit and \$7.30 per unit at December 31, 2010 and 2009, respectively, versus PHI common stock, which was valued at \$18.25 per share and \$16.85 per share at December 31, 2010 and 2009, respectively. The fair value of the fund is classified as level 1.

**NOTE 6 – Investment Contracts**

The Accounting Standards Codification (ASC) guidance requires investment contracts held by a defined-contribution plan to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined contribution plan attributable to a fully benefit-responsive investment contract because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the Plan.

The Plan invests in investment contracts through a Common/Collective trust (the Vanguard Retirement Savings Master Trust). The Statement of Net Assets Available for Benefits presents the fair value of the Vanguard Retirement Savings Master Trust and the adjustment from fair value to contract value. The fair value of the Plan's interest in the Vanguard Retirement Savings Master Trust is based on information reported by the issuer of the Common/Collective trust at year end. The contract value of the Vanguard Retirement Savings Master Trust represents contributions plus earnings, less participant withdrawals and administrative expenses.

**NOTE 7 – Non-Participant-Directed Investments**

Information about the components of and the significant changes in net assets relating to the Plan's non-participant-directed investments are as follows:

	<u>2010</u>	<u>2009</u>
<b>Pepco Holdings, Inc. Common Stock Fund:</b>		
Net Assets at Beginning of Year	\$100,675,415	\$ 95,399,523
Contributions	12,782,321	13,339,850
Interest and dividend income	6,466,908	6,092,984
Net appreciation/(depreciation) in fair value of investments	8,506,870	(2,605,958)
Benefits paid to participants	(9,648,584)	(5,631,700)
Plan transfers	(8,386,754)	(6,778,070)
Other	715,657	858,786
Net Assets at End of Year	<u>\$111,111,833</u>	<u>\$100,675,415</u>

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 8 – Investments**

Investments at December 31, which exceed five percent of the Plan's net assets are as follows:

	<u>2010</u>	<u>2009</u>
Vanguard Institutional Index Fund	\$125,983,800	\$119,389,223
Vanguard Total Bond Market Index Investment	—	39,120,035
Vanguard Retirement Savings Trust	152,467,311	156,378,707
Pepco Holdings, Inc. Common Stock Fund	111,111,833	100,675,415

During the years ended December 31, 2010 and 2009, the Plan's investments (including gains and losses on investments bought, sold and transferred during the period) appreciated in value as follows:

	<u>2010</u>	<u>2009</u>
Registered Investment Companies – Mutual Funds	\$54,406,528	\$90,564,750
U.S. Savings Bonds	—	(255,873)
Pepco Holdings, Inc. Common Stock Fund	8,506,870	(2,605,958)
Net appreciation in fair value of investments	<u>\$62,913,398</u>	<u>\$87,702,919</u>

**NOTE 9 – Related Party Transactions**

Certain Plan investments are shares of mutual funds managed by The Vanguard Group ("Vanguard"). Vanguard is affiliated with the Vanguard Fiduciary Trust Company who is the Plan's trustee as defined in the Plan and, therefore, these transactions qualify as party-in-interest transactions.

The Company as Plan sponsor is a related party. At December 31, 2010 and 2009, the Plan held investments of 6,088,320 shares and 5,974,802 shares of Pepco Holdings, Inc. common stock, respectively. These shares are indirectly held by participants through the ownership of 14,064,789 units and 13,791,153 units of the Pepco Holdings, Inc. Common Stock Fund at December 31, 2010 and 2009, respectively. The fair market value of the common stock at December 31, 2010 and 2009 was \$111,111,833 and \$100,675,415, respectively. Purchases of \$26,393,088 and \$26,563,092 and sales of \$24,465,713 and \$18,680,851 of Company common stock were made during 2010 and 2009, respectively.

**NOTE 10 – Tax Status of the Plan**

The IRS has determined that all plans that were merged into the Pepco Holdings, Inc. Retirement Savings Plan at January 13, 2006 (Conectiv Savings and Investment Plan – October 9, 2003; Atlantic Electric 401k Savings and Investment Plan B – October 9, 2003; Potomac Electric Power Company Savings Plan for Management Employees – December 1, 2003; PHI Operating Services Company 401k Savings Plan – August 7, 2001; and Potomac Electric Power Company Savings Plan for Bargaining Unit Employees – December 1, 2003; Conectiv Energy Supply, Inc. Safe Harbor 401(k) Profit Sharing Plan – August 7, 2001), the POSC Sub Plan – June 25, 2007, and the Petron Sub Plan – September 12, 2008 are qualified employee benefit plans under Section 401(a) of the IRC, and that the Trust is a qualified tax exempt employee benefit trust under Section 501(a) of the IRC. Although the plans have been amended since receiving their determination letters, the Plan Administrator believes that the plans are designed and currently being operated in compliance with the applicable requirements of the IRC. Participants are not taxed on the income allocated to contributions made for their account until such time as they or their beneficiaries receive distributions from the Plan.



**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 10 – Tax Status of the Plan (continued)**

Accounting principles generally accepted in the United States require plan management to evaluate uncertain tax positions taken by the Plan. The financial statement effects of a tax position are recognized when the position is more likely than not, based on the technical merits, to be sustained upon examination by the IRS. The plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2010, there are no uncertain positions taken or expected to be taken. The Plan has recognized no interest or penalties related to uncertain tax positions. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The plan administrator believes it is no longer subject to income tax examinations for years prior to 2007.

**NOTE 11 – Risks and Uncertainties**

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statement of net assets available for benefits.

**NOTE 12 – Reconciliation of Financial Statements to Form 5500**

The following is a reconciliation of net assets available for benefits per financial statements to the Form 5500 as of December 31:

	<u>2010</u>	<u>2009</u>
<b>Net Assets available for benefits:</b>		
Net assets available for benefits per financial statements at end of year	\$835,192,956	\$778,366,250
Adjustment from fair value to contract value for fully benefit- responsive investment contracts	5,976,719	3,377,780
Total participant loans deemed distributed	(734,109)	(607,025)
Net assets available for benefits per the Form 5500	<u>\$840,435,566</u>	<u>\$781,137,005</u>
	<u>2010</u>	<u>2009</u>
<b>Participants loans:</b>		
Participant loans per financial statements at end of year	\$ 25,747,531	\$ 26,373,244
Participant loans deemed distributed	(734,109)	(607,025)
Net participant loans per the Form 5500	<u>\$ 25,013,422</u>	<u>\$ 25,766,219</u>

**Pepco Holdings, Inc. Retirement Savings Plan**  
**Notes to Financial Statements**  
**For the Years Ended December 31, 2010 and 2009**

**NOTE 12 – Reconciliation of Financial Statements to Form 5500 (continued)**

The following is a reconciliation of change in net assets for addition and benefits paid to participants per the financial statements to the Form 5500 as of December 31:

	<u>2010</u>	<u>2009</u>
<b>Benefit payment and provided benefits:</b>		
Payment of benefits to participants per financial statements at end of year	\$75,546,209	\$45,555,213
Participant loan repayments from prior years	—	(61,043)
Other (corrective distributions)	(12,136)	(34)
Net benefit payments per the Form 5500	<u>\$75,534,073</u>	<u>\$45,494,136</u>
	<u>2010</u>	<u>2009</u>
<b>Other additions:</b>		
Other income per financial statements at end of year	\$ 43,267	\$ 30,085
Miscellaneous adjustments	4	(275)
Net other additions per the Form 5500	<u>\$ 43,271</u>	<u>\$ 29,810</u>

**PEPCO HOLDINGS, INC. RETIREMENT SAVINGS PLAN**

Schedule H – Line 4(i)  
Schedule of Assets (Held at End of Year)  
Year Ended December 31, 2010

Pepco Holdings, Inc. Retirement Savings Plan, EIN 52-2297449, PN 017

Attachment to Form 5500, Schedule H, Line 4(i):

Identity of issue, borrower, lessor, or similar party	Description of investment including maturity date, rate of interest, collateral, par, or maturity value	Cost	Current value
Neuberger Soc Resp;Tr	Registered Investment Company	\$ 142,410	\$ 160,358
Allianz CCM Mid-Cap; Admn	Registered Investment Company	19,427,086	20,563,734
Allianz:NFJ SCV;Inst	Registered Investment Company	6,519,819	6,981,546
Baron Growth	Registered Investment Company	2,807,063	3,211,936
CRM Md Cp Val;Inv	Registered Investment Company	1,629,395	1,762,362
Columbia Small Cap Fd Class Z	Registered Investment Company	881,875	995,617
Conestoga Small Cap	Registered Investment Company	4,487,605	5,721,562
Dodge & Cox Intl Stock	Registered Investment Company	22,832,012	22,909,073
Fidelity Contrafund	Registered Investment Company	10,996,180	11,890,115
FT Mutual Discovery; A	Registered Investment Company	2,394,110	2,535,755
Lord Abbett Mid Cap Value Fund	Registered Investment Company	2,999,979	2,806,248
MFS Utilities Fund CI A	Registered Investment Company	2,912,254	3,261,674
MSIFT Midcap Growth A	Registered Investment Company	4,173,647	5,258,785
MSIF US Real Estate Class I	Registered Investment Company	6,465,290	6,367,286
N&B Genesis Trust	Registered Investment Company	4,220,365	4,473,920
Oakmark Eqty & Inc;I	Registered Investment Company	5,339,388	5,847,898
PIMCO Total Return Fd, Admin	Registered Investment Company	27,284,953	26,946,528
T. Rowe Price Emerging Mkt St	Registered Investment Company	12,794,848	14,908,077
T. Rowe Price New Horizons Ret	Registered Investment Company	1,699,798	1,950,844
TRP Growth Stock Fund	Registered Investment Company	27,432,682	30,802,670
TRP Spectrum Growth	Registered Investment Company	3,348,992	3,476,605
TRP Spectrum Income Fund	Registered Investment Company	4,283,538	4,444,686
Templeton Inc;GB;A	Registered Investment Company	9,194,276	10,210,017
* Vanguard Explorer Fund Inv	Registered Investment Company	2,584,904	3,091,015
* Vanguard GNMA Investor Shares	Registered Investment Company	17,771,173	17,957,440
* Vanguard Inst Index Fund	Registered Investment Company	122,670,391	125,983,800
* Vanguard IT Treasury Inv	Registered Investment Company	8,173,104	8,048,043
* Vanguard PRIMECAP Fund Inv	Registered Investment Company	28,488,259	29,978,924
* Vanguard Prime Money Mkt	Registered Investment Company	127,433	127,433
* Vanguard Tgt Retirement 2005	Registered Investment Company	1,732,253	1,777,913
* Vanguard Tgt Retirement 2010	Registered Investment Company	3,407,430	3,554,770
* Vanguard Tgt Retirement 2015	Registered Investment Company	16,336,039	17,272,082
* Vanguard Tgt Retirement 2020	Registered Investment Company	5,195,649	5,568,172
* Vanguard Tgt Retirement 2025	Registered Investment Company	16,536,891	17,521,920
* Vanguard Tgt Retirement 2030	Registered Investment Company	2,027,204	2,258,791
* Vanguard Tgt Retirement 2035	Registered Investment Company	6,952,541	7,464,116
* Vanguard Tgt Retirement 2040	Registered Investment Company	1,257,086	1,410,502
* Vanguard Tgt Retirement 2045	Registered Investment Company	7,439,977	7,890,738
* Vanguard Tgt Retirement 2050	Registered Investment Company	824,223	908,827
* Vanguard Tgt Retirement 2055	Registered Investment Company	1,158	1,171
* Vanguard Target Retirement Inc	Registered Investment Company	2,213,541	2,332,929
* Vanguard Total Bd Mkt Idx Inv	Registered Investment Company	37,832,746	39,414,365
* Vanguard Total Int'l Stock Idx	Registered Investment Company	29,214,600	29,602,648
* Vanguard Windsor II Fund Inv	Registered Investment Company	29,002,571	26,213,386
* Vanguard Retirement Savings Trust**	Common/Collective Trust	158,444,030	158,444,030

\* Party in interest

\*\* Fair value

**PEPCO HOLDINGS, INC. RETIREMENT SAVINGS PLAN**

Schedule H – Line 4(i) (continued)  
Schedule of Assets (Held at End of Year)  
Year Ended December 31, 2010

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Pepco Holdings, Inc. Retirement Savings Plan, EIN 52-2297449, PN 017

Attachment to Form 5500, Schedule H, Line 4(i) (continued):

Identity of issue, borrower, lessor, or similar party		Description of investment including maturity date, rate of interest, collateral, par, or maturity value	Cost	Current value
*	Pepco Holdings, Inc. Common Stock Fund	Company Stock Fund	118,589,251	111,111,833
	Loan Fund	3.25% - 11%	—	25,747,531
Total			<u>\$801,090,019</u>	<u>\$841,169,675</u>

\* Party in interest

**PEPCO HOLDINGS, INC. RETIREMENT SAVINGS PLAN**

Schedule H – Line 4(j)  
Schedule of Reportable Transactions  
Year Ended December 31, 2010

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Pepco Holdings, Inc. Retirement Savings Plan, EIN 52-2297449, PN 017

Attachment to Form 5500, Schedule H, Line 4(j):

Identity of Party Involved	Description of Asset	Purchase Price	Selling Price	Historical Cost of Asset	Current Value of Asset on Transaction Date	Historical Gain (Loss)
Vanguard	Pepco Holdings Common Stock Fd	\$26,393,088	\$ —	\$ —	\$26,393,088	\$ —
Vanguard	Pepco Holdings Common Stock Fd	—	24,465,713	26,161,325	24,465,713	(1,695,613)

**PEPCO HOLDINGS, INC. RETIREMENT SAVINGS PLAN**

**Exhibits:**

Exhibit 23      Consent of Independent Registered Public Accounting Firm

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Administrative Board has duly caused this annual report to be signed on its behalf by the undersigned, thereunto duly authorized.

PEPCO HOLDINGS, INC. RETIREMENT SAVINGS PLAN

By: /s/ JOSEPH M. RIGBY

Joseph M. Rigby, Chairman  
Administrative Board

Date: June 28, 2011

**PEPCO HOLDINGS, INC. RETIREMENT SAVINGS PLAN**

**Exhibit 23**

**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the Registration Statement (Form S-8 No.333-131371) pertaining to Pepco Holdings, Inc. Retirement Savings Plan of our report dated June 28, 2011, with respect to the financial statements and supplemental schedules of the Pepco Holdings Inc. Retirement Savings Plan included in this Annual Report (Form 11-K) for the year ended December 31, 2010.

/s/ Mitchell & Titus LLP

Washington, DC  
June 28, 2011