

PECO ENERGY CO
Form 424B5
April 22, 2003

[QuickLinks](#) -- Click here to rapidly navigate through this document

PROSPECTUS SUPPLEMENT
(To Prospectus dated September 13, 2002)

\$450,000,000

PECO Energy Company

First and Refunding Mortgage Bonds, 3.50% Series due 2008

The bonds will bear interest at the annual rate of 3.50% per year. We will pay interest on the bonds on May 1 and November 1 of each year, beginning on November 1, 2003. The bonds will mature on May 1, 2008. We may redeem some or all of the bonds at any time at the redemption prices described in this prospectus supplement.

The bonds will be secured equally with all other bonds outstanding or hereafter issued under our First and Refunding Mortgage.

Please see "Risk Factors" beginning on page S-3 for a discussion of factors you should consider in connection with a purchase of the bonds.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the bonds or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Bond		Total
Public Offering Price(1)	100.00%	\$	450,000,000
Underwriting Discount	0.60%	\$	2,700,000
Proceeds, before expenses, to PECO Energy Company	99.40%	\$	447,300,000

(1) Plus accrued interest from April 28, 2003, if settlement occurs after that date.

The underwriters expect to deliver the bonds in book-entry form only through The Depository Trust Company on or about April 28, 2003.

Banc One Capital Markets, Inc.

Barclays Capital

Dresdner Kleinwort Wasserstein

BNY Capital Markets, Inc.
Credit Suisse First Boston
Loop Capital Markets, LLC
Scotia Capital
Wachovia Securities

April 21, 2003

You should rely only on information contained in this document or the prospectus or the documents to which we have referred you. We have not authorized anyone to provide you with information that is different. This document may only be used where it is legal to sell these securities. The information in this document may only be accurate on the date of this document.

TABLE OF CONTENTS

	Page
About This Prospectus Supplement	i
Where You Can Find More Information	S-1
Documents Incorporated by Reference	S-1
PECO Energy Company	S-2
Risk Factors	S-3
Use of Proceeds	S-9
Capitalization	S-9
Ratio of Earnings to Fixed Charges	S-9
Summary Historical Consolidated Financial Data	S-10
Description of the Bonds	S-11
Underwriting	S-13
Legal Matters	S-14

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus contain information about our company and about the bonds. They also refer to information contained in other documents that we file with the Securities and Exchange Commission (the "SEC"). If this prospectus supplement is inconsistent with the prospectus or the documents that are incorporated by reference in this prospectus, rely on this prospectus supplement.

When we refer to "PECO," "the Company," "we," "our" or "us" in this prospectus supplement, we mean PECO Energy Company together with our subsidiaries.

WHERE YOU CAN FIND MORE INFORMATION

In connection with this offering, we have filed with the SEC a registration statement under the Securities Act of 1933, as amended (the "Securities Act"). As permitted by SEC rules, this prospectus supplement and the accompanying prospectus omit information included in the registration statement. For a more complete understanding of this offer, you should refer to the registration statement, including its exhibits.

The public may read and copy the registration statement and any reports or other information that we file with the SEC at the SEC's public reference room, Room 1024 at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. These documents are also available to the public from commercial document retrieval services and at the web site maintained by the SEC at <http://www.sec.gov>. You may also obtain a copy of the registration statement at no cost by writing us at the following address:

PECO Energy Company
Attn: Investor Relations
10 South Dearborn Street, 36th Floor
P.O. Box 805379
Chicago, IL 60680-5379

Information about us is also available on Exelon Corporation's web site at <http://www.exeloncorp.com>. This web site and the SEC's web site above are intended to be inactive textual references only. Information on Exelon's or the SEC's web site is not a part of this prospectus supplement.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act but prior to the termination of any offering of securities made by this prospectus supplement and the accompanying prospectus:

PECO's Annual Report on Form 10-K for the fiscal year ended December 31, 2002; and

PECO's Current Report on Form 8-K filed March 6, 2003.

Upon written or oral request, we will provide without charge to each person, including any beneficial owner, to whom this prospectus supplement and the accompanying prospectus is delivered, a copy of any or all of the documents which are incorporated in this prospectus supplement and the accompanying prospectus by reference (other than exhibits to those documents unless those exhibits are specifically incorporated by reference into the documents that this prospectus supplement and the accompanying prospectus incorporates). Written or oral requests for copies should be directed to PECO Energy Company, Attn: Investor Relations, 10 South Dearborn Street, 36th Floor, P.O. Box 805379, Chicago, IL 60680-5379, (312) 394-2345.

Any statement contained in this prospectus supplement and the accompanying prospectus, or in a document all or a portion of which is incorporated by reference, shall be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement and the accompanying prospectus, any supplement or any document incorporated by reference modifies or supersedes that statement. Any statement so modified or superseded shall not, except as so modified or superseded, constitute a part of this prospectus supplement and the accompanying prospectus.

S-1

PECO ENERGY COMPANY

Edgar Filing: PECO ENERGY CO - Form 424B5

We are a subsidiary of Exelon and are engaged principally in the purchase, transmission, distribution and sale of electricity to residential, commercial, industrial and wholesale customers and in the purchase, distribution and sale of natural gas to residential, commercial and industrial customers. We deliver electricity to approximately 1.5 million customers and natural gas to approximately 450,000 customers.

Our traditional retail service territory covers 2,100 square miles in southeastern Pennsylvania. We provide electric delivery service in an area of 2,000 square miles, with a population of approximately 3.8 million, including 1.5 million in the City of Philadelphia. Natural gas service is supplied in a 2,100 square mile area in southeastern Pennsylvania adjacent to Philadelphia, with a population of 2.3 million.

Pursuant to the Pennsylvania Electricity Generation Customer Choice and Competition Act (the "Competition Act"), the Commonwealth of Pennsylvania required the unbundling of retail electric services in Pennsylvania into separate generation, transmission and distribution services with open retail competition for generation services. Since the commencement of deregulation in 1999, we have served as the local distribution company providing electric distribution services to all customers in our service territory and bundled electric service to provider-of-last-resort customers, which are customers who do not or cannot choose an alternate electric generation supplier.

As a result of deregulation, Exelon undertook a corporate restructuring to separate its unregulated generation and other competitive businesses from its regulated energy delivery businesses. As part of the corporate restructuring, effective January 1, 2001, our unregulated operations were transferred to separate subsidiaries of Exelon. The transferred assets and liabilities related to nuclear, fossil and hydroelectric generation and wholesale services and unregulated gas and electric sales activities, and administrative, information technology and other support for all other business activities of Exelon and its subsidiaries. In connection with the restructuring, we entered into a power purchase agreement with Exelon Generation Company, LLC ("Generation"), a wholly owned subsidiary of Exelon, to supply us with all of our electric load requirements for customers through 2010.

As a public utility under the Pennsylvania Public Utility Code, we are subject to regulation by the Pennsylvania Public Utilities Commission (the "PUC"), including regulation as to electric distribution rates, retail gas rates, issuances of securities and certain other aspects of our operations. As a subsidiary of Exelon, a registered holding company under the Public Utility Holding Company Act of 1935 ("PUHCA"), we are subject to a number of restrictions. As an electric utility under the Federal Power Act, we are also subject to regulation by the Federal Energy Regulatory Commission ("FERC") as to transmission rates and certain other aspects of our business, including interconnections and sales of transmission related assets.

Our principal executive offices are located at 2301 Market Street, Philadelphia, PA 19101-8699, and our telephone number is (215) 841-4000.

S-2

RISK FACTORS

The utility business involves many operating risks. In addition to the information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the risks described below, each of which could have a material adverse effect on our business and could result in a loss or a decrease in the value of your investment.

We must comply with numerous regulatory requirements in managing our business, which affect costs and responsiveness to changing events and opportunities.

We are subject to regulation at the state and Federal levels. We are regulated by the PUC, which regulates the rates, terms and conditions of service; various business practices and transactions; financing; and transactions between us and our affiliates. We are also subject to regulation by the FERC, which regulates transmission rates, certain other aspects of our business and gas pipelines. The regulations adopted by these state and Federal agencies affect the manner in which we do business, our ability to undertake specified actions and the costs of our operations.

We are involved in a number of regulatory proceedings as a part of the process of establishing the terms and rates for services.

These regulatory proceedings typically involve multiple parties, including governmental bodies, consumer advocacy groups and various consumers of energy, who have differing concerns but who have the common objective of limiting rate increases. The proceedings also involve various contested issues of law and fact and have a bearing upon the recovery of our costs through regulated rates. During the course of the proceedings, we look for opportunities to resolve contested issues in a manner that grant some certainty to all parties to the proceedings as to rates and energy costs.

We must maintain the availability and reliability of our delivery systems to meet customer expectations.

Edgar Filing: PECO ENERGY CO - Form 424B5

Each year, increases in both customers and the demand for energy require expansion and reinforcement of delivery systems to increase capacity and maintain reliability. Failures of the equipment or facilities used in those delivery systems could potentially interrupt energy delivery services and related revenues, and increase repair expenses and capital expenditures. Such failures, including prolonged or repeated failures, also could affect customer satisfaction and may increase regulatory oversight and the level of our maintenance and capital expenditures.

We must manage our costs due to the rate caps imposed on us.

Rate caps in effect currently limit our ability to recover increased expenses and the costs of investments in new transmission and distribution facilities. We are subject to agreed-upon rate reductions of \$200 million, in aggregate, for the period 2002 through 2005 and caps (subject to limited exceptions for significant increases in Federal or state income taxes or other significant changes in law or regulation that do not allow us to earn a fair rate of return) on our transmission and distribution rates through December 31, 2006 as a result of settlements previously reached with the PUC. As a result, our future results of operations will depend on our ability to deliver electricity and natural gas, in a cost-efficient manner, and to realize cost reductions to offset increased infrastructure investments and inflation.

S-3

We have lost and will lose energy customers to other generation service providers, although we continue to provide delivery services and may have an obligation to provide generation service to those customers.

Our revenues will vary because of customer choice of generation suppliers. As a result of restructuring initiatives in Pennsylvania, all of our retail electric customers can choose to purchase their generation supply from alternative suppliers. If customers do not choose an alternative generation supplier, we are currently generally obligated to provide generation and delivery service to customers in our service territory at fixed rates. In addition, customers who choose an alternative generation supplier may later return to us. We remain obligated to provide transmission and distribution service to all customers regardless of their generation supplier. To the extent that customers leave traditional bundled tariffs and select a different generation provider, our revenues are likely to decline.

At December 31, 2002, approximately 10% of our small commercial and industrial ("C&I") load, 7% of our large C&I load and 21% of our residential load were purchasing their generation service from an alternative electric generation supplier.

Our Electric Restructuring Settlement established market share thresholds ("MST") for residential and commercial customers such that if, on January 1, 2003, 50% of our residential and commercial customers (by number of customers for residential and small commercial classes, and by load for large commercial classes) are not obtaining generation service from alternative generation suppliers, then non-shopping customers, up to the MSTs level, will be randomly assigned to alternative generation suppliers. The assigned customers have the right, at any time, to return to us or to switch to another supplier.

The number of customers choosing alternative generation suppliers depends in part on the prices being offered by those suppliers relative to the fixed prices that we are authorized to charge by the PUC.

We continue to serve as the provider-of-last-resort for energy for all customers in our service territory.

We are required to make available generation service to all retail customers in our service territory, including customers that have taken energy from an alternative generation supplier. Our customers can "switch," that is, they can choose an alternative generation supplier and then return to us and then go back to an alternative supplier, and so on, within limits. Because customers can switch, our planning has a higher level of uncertainty than that traditionally experienced due to weather and the economy. Presently, we manage this obligation through a full requirements contract with Generation, under which Generation supplies our power requirements. Because of the ability of customers to switch generation suppliers, there is uncertainty regarding the amount of our load that Generation must prepare for.

Our long-term power purchase agreement provides a hedge to our customers' demand.

Because the bundled rates we charge our customers are capped through 2010, as mentioned previously above, our ability to recover increased costs with increases in rates charged to these customers is limited. Therefore, to effectively manage our obligation to provide power to meet our customers' demand, we have established power supply agreements with Generation that reduce exposure to the volatility of market prices through 2010. Market prices relative to our bundled rates still influence switching behavior among retail customers.

Our business may be significantly impacted by the end of our regulatory transition period in 2010.

In Pennsylvania, as a mechanism for utilities to recover their allowed stranded costs, the Competition Act provides for the imposition and collection of non-bypassable competitive transition

S-4

charges ("CTCs") on customers' bills. CTCs are assessed to and collected from all customers who have been assigned stranded cost responsibility and access the utilities' transmission and distribution systems. As the CTCs are based on access to the utility's transmission and distribution system, they are assessed regardless of whether such customer purchases electricity from the utility or an alternative electric generation supplier. The Competition Act provides, however, that the utility's right to collect CTCs is contingent on the continued operation, at reasonable availability levels, of the assets for which the stranded costs are being recovered, except where continued operation is no longer cost efficient because of the transition to a competitive market.

We have been authorized by the PUC to recover stranded costs of \$5.3 billion (\$4.6 billion of unamortized costs at December 31, 2002) over a twelve-year period ending December 31, 2010, with a return on the unamortized balance of 10.75%. Our recovery of stranded costs is based on the level of transition charges established in the settlement of our restructuring case and the projected annual retail sales in our service territory. Recovery of transition charges for stranded costs and our allowed return on our recovery of stranded costs are included in revenues. In 2002, revenue attributable to stranded cost recovery was \$850 million and is scheduled to increase to \$932 million by 2010, the final year of stranded cost recovery. Amortization of our stranded cost recovery, which is a regulatory asset, is included in depreciation and amortization. The amortization expense for 2002 was \$308 million and will increase to \$879 million by 2010. Thus, our results will be adversely affected over the remaining period ending December 31, 2010 by the reduction in the unamortized balance of stranded costs and therefore the return received on that unamortized balance.

Weather affects electricity and gas usage and, consequently, our results of operations.

Temperatures above normal levels in the summer tend to further increase summer cooling electricity demand and revenues, and temperatures below normal levels in the winter tend to further increase winter heating electricity and gas demand and revenues. Because of seasonal pricing differentials, coupled with higher consumption levels, we typically report higher revenues in the third quarter. Extreme summer conditions or storms may stress our transmission and distribution systems, resulting in increased maintenance costs and limiting our ability to bring power in to meet peak customer demand. These extreme conditions may have detrimental effects on our operations.

Economic conditions and activity in our service territory directly affect the demand for electricity.

Higher levels of development and business activity generally increase the number of customers and their use of energy. Sales growth on an annual basis is expected to be 0.6% in our service territory. In the long-term, output growth for electricity is expected to be 0.6% per year. However, there is continued economic uncertainty. Recessionary economic conditions, and the associated reduced economic activity, may adversely affect our results of operations.

Effective management of capital projects is important to our business.

Our business is capital intensive and requires significant investments in energy transmission and distribution facilities, and in other internal infrastructure projects.

We continue to make significant capital expenditures to improve the reliability of our transmission and distribution systems in order to provide a high level of service to our customers. Our base rate caps will generally preclude incremental rate recovery on any of these incremental investments prior to January 1, 2011 (see the risk factor captioned "We must manage our costs due to the rate caps imposed on us" above).

S-5

Our ability to grow our business is affected by the ability to finance capital projects.

Our business requires considerable capital resources. When necessary, we secure funds from external sources by issuing commercial paper and, as required, long-term debt securities. We actively manage our exposure to changes in interest rates through interest-rate swap transactions and our balance of fixed-and floating-rate instruments. We currently anticipate primarily using internally generated cash flows and short-term

Edgar Filing: PECO ENERGY CO - Form 424B5

financing through commercial paper to fund our operations as well as long-term external financing sources to fund capital requirements as the need arises. The ability to arrange debt financing, to refinance current maturities and early retirements of debt, and the costs of issuing new debt are dependent on:

credit availability from banks and other financial institutions;

maintenance of acceptable credit ratings;

investor confidence in us and Exelon;

general economic and capital market conditions; and

the success of current projects.

Our credit ratings influence our ability to raise capital.

We have investment grade ratings and have been successful in raising capital, which has been used to further our business initiatives. Failure to maintain investment grade ratings would require us to incur higher financing costs.

Equity market performance affects Exelon's benefit plan asset values.

The sharp decline in the equity markets since the third quarter of 2000 has reduced the value of the assets held in trusts to satisfy the obligations of pension and postretirement benefit plans. If the markets continue to decline, we may have higher funding requirements and pension and other postretirement benefit expense. Exelon will continue to manage the assets in the pension and postretirement benefit plans in order to achieve the best return possible in conjunction with its overall risk management practices and diversified approach to investment.

Our results of operations can be affected by inflation.

Inflation affects us through increased operating costs and increased capital costs for transmission and distribution plants. As a result of the rate caps imposed under the legislation in Pennsylvania, we are not able to pass the costs of inflation through to customers.

We may incur substantial cost to fulfill our obligations related to environmental matters.

Our business is subject to extensive environmental regulation by local, state and Federal authorities. These laws and regulations affect the manner in which we conduct our operations and make capital expenditures. We are subject to liability under these laws for the costs of remediating environmental contamination of property now or formerly owned by us and of property contaminated by hazardous substances we generated. Management believes that it has a responsible environmental management and compliance program; however, we have incurred and expect to incur significant costs related to environmental compliance and site remediation and clean-up. Remediation activities associated with manufactured gas plant operations will be one source of such costs. Also, we are currently involved in a number of proceedings relating to sites where hazardous substances have been deposited and may be subject to additional proceedings in the future.

S-6

As of December 31, 2002, our reserve for environmental investigation and remediation costs was \$40 million, exclusive of decommissioning liabilities. We have accrued and will continue to accrue amounts that management believes are prudent to cover these environmental liabilities, but we cannot predict with any certainty whether these amounts will be sufficient to cover our environmental liabilities. Management cannot predict whether we will incur other significant liabilities for any additional investigation and remediation costs at additional sites not currently identified by us, environmental agencies or others, or whether such costs will be recoverable from third parties.

Our financial performance is affected by our ability to manage costs for security and liability insurance.

Edgar Filing: PECO ENERGY CO - Form 424B5

Security. In connection with the events of September 11, 2001, the electric and gas industries have developed additional security guidelines. The electric industry, through the North American Electric Reliability Council, developed physical security guidelines, which were accepted by the U.S. Department of Energy. In 2003, FERC issued minimum standards to safeguard the electric grid system control. These standards will be effective in 2004 and fully implemented by January 2005. The gas industry, through the American Gas Association, developed physical security guidelines that were accepted by the U.S. Department of Transportation. Exelon participated in the development of these guidelines, and we are using them as a model for our security program.

Insurance. We, through Exelon, carry property damage and liability insurance for our properties and operations. As a result of significant changes in the insurance marketplace, due in part to the September 11, 2001 terrorist acts, the available coverage and limits may be less than the amount of insurance obtained in the past, and the recovery for losses due to terrorist acts may be limited. Exelon is self-insured to the extent that any losses may exceed the amount of insurance maintained.

The possibility of attack or war may adversely affect our results of operations, future growth and ability to raise capital.

Any military strikes or sustained military campaign may affect our operations in unpredictable ways, such as increased security measures. Just the possibility that infrastructure facilities, such as electric transmission and distribution facilities, would be direct targets of, or indirect casualties of, an act of terror or war may affect our operations. War and the possibility of war may have an adverse effect on the economy in general. A lower level of economic activity might result in a decline in energy consumption, which may adversely affect our revenues or restrict our future growth. Instability in the financial markets as a result of war may affect our ability to raise capital.

The introduction of new technologies could increase competition within our markets.

While demand for electricity is generally increasing throughout the United States, the rate of construction and development of new, more efficient, electric generation facilities and distribution methodologies may exceed increases in demand in some regional electric markets. The introduction of new technologies could increase competition, which could lower prices and have an adverse effect on our results of operations or financial condition.

We are subject to control by Exelon.

We are ultimately controlled by Exelon and, therefore, Exelon controls decisions regarding our business and has control over our management and affairs. In circumstances involving a conflict of interest between Exelon, on the one hand, and our creditors, on the other, Exelon could exercise its power to control us in a manner that would benefit Exelon to the detriment of our creditors, including the holders of the mortgage bonds.

S-7

Conflicts of interest may arise between us and our affiliate.

We rely on purchases from our affiliate Generation under long-term contracts in order to supply electricity to our customers. Conflicts of interest may arise if we need to enforce the terms of agreements between us and Generation. Decisions concerning the interpretation or operation of these agreements could be made from perspectives other than the interests solely of our company or its creditors.

S-8

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the bonds, after deducting the underwriting discount and our estimated fees and expenses, (1) to repay commercial paper that was used to pay at maturity \$250,000,000 aggregate principal amount of our 6⁵/₈% first mortgage bonds due March 1, 2003 and (2) to pay at maturity \$200,000,000 aggregate principal amount of our 6¹/₂% first mortgage bonds due May 1, 2003.

CAPITALIZATION

The following table sets forth our short-term debt and capitalization as of December 31, 2002 (1) on a consolidated basis and (2) on a consolidated basis as adjusted to reflect this offering and the use of proceeds from this offering as set forth under "Use of Proceeds" above. This table should be read in conjunction with our consolidated financial statements and related notes for the periods ended December 31, 2002, incorporated by reference in this prospectus supplement. See "Where You Can Find More Information" and "Documents Incorporated by Reference."

	As of December 31, 2002	
	Actual	As Adjusted(a)
(\$ in millions)		
Short-term debt(b)	\$ 889	\$ 439
Capitalization:		
Long-term debt(c):		
Transition bonds(d)	\$ 4,017	\$ 4,017
First mortgage bonds	703	1,153
Other long-term debt	231	231
Preferred securities	265	265
Common shareholders' equity	624	624
Total capitalization	\$ 5,840	\$ 6,290

- (a) Reflects the payment of \$450 million of first mortgage bonds and commercial paper.
- (b) Includes current maturities of long-term debt of \$689 million, of which \$239 million are transition bonds.
- (c) Includes unamortized debt discounts and premiums. Excludes current maturities.
- (d) Transition bonds represent bonds issued by our subsidiary to securitize a portion of our stranded cost recovery.

RATIO OF EARNINGS TO FIXED CHARGES

The following table provides our consolidated ratio of earnings to fixed charges:

	Years Ended December 31,				
	2002	2001	2000	1999	1998
Ratio of earnings to fixed charges	3.00	2.46	2.66	3.37	3.38

The ratio of earnings to fixed charges represents, on a pre-tax basis, the number of times earnings cover fixed charges. Earnings consist of pre-tax net income from continuing operations after adjustment for income from equity investees and capitalized interest or allowance for funds used during construction, to which has been added fixed charges. Fixed charges consist of interest costs and amortization of debt discount and premium on all indebtedness and the interest portion of all rental expense.

SUMMARY HISTORICAL CONSOLIDATED FINANCIAL DATA

The following table sets forth our summary historical consolidated financial data. The historical consolidated income statement data for the years ended December 31, 2002, 2001 and 2000, and the historical consolidated balance sheet data as of December 31, 2002, 2001 and 2000, have been derived from our audited financial statements incorporated by reference into the accompanying prospectus. As part of Exelon's restructuring, effective January 1, 2001, our unregulated generation and other competitive businesses and related assets and liabilities were transferred to separate subsidiaries of Exelon. The restructuring has had a significant impact on our assets, liabilities and equity and our results of operations. Our results of operations and assets and liabilities prior to January 2001 do not reflect the restructuring. You should read the following together with our historical consolidated financial statements and the related notes incorporated by reference in this prospectus supplement. See "Where You Can Find More Information" and "Documents Incorporated by Reference."

	Years Ended December 31,		
	2002	2001	2000
	(\$ in millions)		
Income Statement Data:			
Operating revenues	\$ 4,333	\$ 3,965	\$ 5,950
Operating income	1,093	999	1,222
Net income on common stock	478	415	497
Cash Flow Data:			
Capital expenditures	261	248	549
Cash flows from operating activities	880	938	756
Cash flows from investing activities	(252)	(241)	(894)
Cash flows from financing activities	(597)	(683)	133
	Years Ended December 31,		
	2002	2001	2000
	(\$ in millions)		
Balance Sheet Data:			
Property, plant and equipment, net	\$ 4,179	\$ 4,057	\$ 5,158
Total assets	10,720	10,738	14,776
Long-term debt (a)	4,951	5,438	6,002
Preferred securities	265	284	302
Common shareholders' equity	624	323	1,638

(a) Excludes current maturities of \$553 million, \$548 million and \$689 million as of December 31, 2000, 2001 and 2002, respectively.

Edgar Filing: PECO ENERGY CO - Form 424B5

The following description is qualified in its entirety by the more detailed information appearing elsewhere in this prospectus supplement and the accompanying prospectus. An investment in the bonds involves certain risks relating to our business, prospects, financial condition and results of operations and certain other risks relating to the terms of the bonds. These risks are described in "Risk Factors" beginning on page S-3 of this prospectus supplement.

Securities Offered. We are offering \$450,000,000 aggregate principal amount of our First and Refunding Mortgage Bonds, 3.50% Series due 2008 ("bonds"). The bonds will be issued under our First and Refunding Mortgage as proposed to be further amended and supplemented by a supplemental mortgage indenture relating to the bonds (herein sometimes referred to collectively as the "mortgage"). Wachovia Bank, National Association is the trustee under the mortgage ("trustee").

Principal, Maturity and Interest. Interest on the bonds will be paid on May 1 and November 1 of each year, beginning November 1, 2003, until the principal is paid or made available for payment. Interest on the bonds will accrue from the most recent date to which interest has been paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months. The bonds will mature on May 1, 2008.

Redemption at our Option. We may, at our option, redeem the bonds in whole or in part at any time at a redemption price equal to the greater of:

100% of the principal amount of the bonds to be redeemed, plus accrued interest to the redemption date, or

as determined by the Quotation Agent, the sum of the present values of the remaining scheduled payments of principal and interest on the bonds to be redeemed (not including any portion of payments of interest accrued as of the redemption date) discounted to the redemption date on a semi-annual basis at the Adjusted Treasury Rate plus 15 basis points, plus accrued interest to the redemption date.

The redemption price will be calculated assuming a 360-day year consisting of twelve 30-day months.

We will mail notice of any redemption at least 30 days, but not more than 45 days before the redemption date to each registered holder of the bonds to be redeemed.

Unless we default in payment of the redemption price, on and after the redemption date, interest will cease to accrue on the bonds or portions of the bonds called for redemption.

"Adjusted Treasury Rate" means, with respect to any redemption date, the rate per year equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for the redemption date.

"Business Day" means any day that is not a day on which banking institutions in New York City are authorized or required by law or regulation to close.

"Comparable Treasury Issue" means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the bonds that would be used, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the bonds.

S-11

"Comparable Treasury Price" means, with respect to any redemption date:

the average of the Reference Treasury Dealer Quotations for that redemption date, after excluding the highest and lowest of the Reference Treasury Dealer Quotations; or

if the trustee obtains fewer than three Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations so received.

Edgar Filing: PECO ENERGY CO - Form 424B5

"Quotation Agent" means the Reference Treasury Dealer appointed by us.

"Reference Treasury Dealer" means (1) each of Banc One Capital Markets, Inc. and Barclays Capital Inc. and their respective successors, unless any of them ceases to be a primary U.S. Government securities dealer in New York City (a "Primary Treasury Dealer"), in which case we shall substitute another Primary Treasury Dealer, and (2) any other Primary Treasury Dealer selected by us.

"Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the trustee, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the trustee by that Reference Treasury Dealer at 5:00 p.m., New York City time, on the third Business Day preceding that redemption date.

Form. The bonds will be book-entry only and registered in the name of a nominee of DTC.

S-12

UNDERWRITING

Under the terms and subject to the conditions contained in an underwriting agreement dated April 21, 2003, we have agreed to sell to the underwriters named below, for whom Banc One Capital Markets, Inc. and Barclays Capital Inc. are acting as representatives, the following respective principal amounts of the bonds:

Underwriter	Principal Amount
Banc One Capital Markets, Inc.	\$ 146,250,000
Barclays Capital Inc.	146,250,000
Dresdner Kleinwort Wasserstein Securities LLC	45,000,000
BNY Capital Markets, Inc.	22,500,000
Credit Suisse First Boston LLC	22,500,000
Loop Capital Markets, LLC	22,500,000
Scotia Capital (USA) Inc.	22,500,000
Wachovia Securities, Inc	22,500,000
	\$ 450,000,000

The underwriting agreement provides that the underwriters are obligated to purchase all of the bonds if any are purchased. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering of the bonds may be terminated.

The underwriters propose to offer the bonds initially at the public offering price on the cover page of this prospectus supplement and to selling group members at that price less a selling concession of .35% of the principal amount per bond. The underwriters and selling group members may allow a discount of .25% of the principal amount per bond on sales to other broker/dealers. After the initial public offering, the representatives may change the public offering price and concession and discount to broker/dealers.

We estimate that our out-of-pocket expenses for this offering will be approximately \$350,000.

The bonds are a new issue of securities with no established trading market. One or more of the underwriters intends to make a secondary market for the bonds. However, they are not obligated to do so and may discontinue making a secondary market for the bonds at any time without notice. No assurance can be given as to how liquid the trading market for the bonds will be.

We have agreed to indemnify the underwriters against liabilities under the Securities Act, or contribute to payments which the underwriters may be required to make in that respect.

The underwriters and/or their affiliates have in the past and may in the future provide investment and commercial banking and other related services to us and our subsidiaries and affiliates in the ordinary course of business, for which the underwriters and/or their affiliates have received or may receive customary fees and reimbursement of their out-of-pocket expenses. Banc One Capital Markets, Inc. is also a dealer in our commercial paper program. John W. Rogers Jr., who is a member of the board of directors of Exelon, is also a board member of Bank One

Corporation, the parent company of Banc One Capital Markets, Inc.

In connection with the offering, underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act of 1934.

Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.

S-13

Over-allotment involves sales by the underwriters of bonds in excess of the principal amount of the bonds the underwriters are obligated to purchase, which creates a syndicate short position.

Syndicate covering transactions involve purchases of the bonds in the open market after the distribution has been completed in order to cover syndicate short positions.

Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the bonds originally sold by such syndicate member are purchased in a stabilizing transaction or a syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of the bonds or preventing or retarding a decline in the market price of the bonds. As a result, the price of the bonds may be higher than the price that might otherwise exist in the open market. These transactions, if commenced, may be discontinued at any time.

A prospectus in electronic format may be made available on the web sites maintained by one or more of the underwriters participating in this offering.

LEGAL MATTERS

Ballard Spahr Andrews & Ingersoll, LLP, Philadelphia, Pennsylvania, will provide an opinion as to legal matters in connection with the bonds. Certain legal matters will be passed on for the underwriters by Winston & Strawn, Chicago, Illinois. Winston & Strawn provides legal services to Exelon and certain of its subsidiaries from time to time.

S-14

PROSPECTUS

PECO Energy Company

up to \$900,000,000
First and Refunding Mortgage Bonds

Preferred Stock, no par value

We will provide you with more specific terms of the securities to be offered at any time in supplements to this prospectus. The prospectus supplements may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest. This prospectus may not be used to sell securities unless accompanied by a prospectus supplement.

We may offer these securities from time to time in amounts, at prices and on other terms to be determined at the time of offering. The total offering price of the securities offered to the public will be limited to \$900,000,000.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus may not be used to consummate sales of offered securities unless accompanied by a prospectus supplement.

September 13, 2002

You should rely only on information contained in this document or incorporated by reference into this document. We have not authorized anyone to provide you with information that is different. This prospectus and any related supplement may only be used where it is legal to sell these securities. You should not assume that the information contained in this prospectus or any supplement is accurate as of any date other than the date on the front of those documents. Our business, financial condition, results of operations and prospects may have changed since that date.

TABLE OF CONTENTS

	<u>Page</u>
About this Prospectus	1
Forward-Looking Statements	1
Where You Can Find More Information	2
Documents Incorporated by Reference	3
PECO Energy Company	3
Use of Proceeds	4
Ratio of Earnings to Fixed Charges and Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends	4
Description of the First and Refunding Mortgage Bonds	5
Description of the Preferred Stock	8
Book-Entry Bonds and Preferred Stock	10
Plan of Distribution	12
Legal Matters	12
Experts	12

ABOUT THIS PROSPECTUS

Edgar Filing: PECO ENERGY CO - Form 424B5

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the "SEC") using a "shelf" registration process, relating to the first and refunding mortgage bonds and the preferred stock, no par value, generally described in this prospectus. Under this shelf process, we may sell the securities described in this prospectus in one or more offerings up to a total initial offering price of \$900,000,000.

This prospectus provides you with a general description of the securities we may offer. This prospectus does not contain all of the information set forth in the registration statement as permitted by the rules and regulations of the SEC. For additional information regarding us and the offered securities, please refer to the registration statement of which this prospectus forms a part. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. A prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading "Where You Can Find More Information."

Unless otherwise indicated, all references in this prospectus or a supplement to "PECO Energy Company," "PECO," "we," "our," "us," or similar terms refer to PECO Energy Company together with our subsidiaries.

FORWARD-LOOKING STATEMENTS

This prospectus and the documents we have filed with the SEC, which we have referenced under "Where You Can Find More Information" and "Documents Incorporated by Reference" contain forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this prospectus that address activities, events or developments that we expect or anticipate will or may occur in the future, including such matters as our projections, future capital expenditures, business strategy, competitive strengths, goals, expansion, market and industry developments and the growth of our businesses and operations, are forward-looking statements. These statements are based on assumptions and analyses made by us in light of our experience and our perception of historical trends, current conditions and expected future developments, as well as other factors we believe are appropriate under the circumstances. These statements involve a number of risks and uncertainties, many of which are beyond our control. The following are among the most important factors that could cause actual results to differ materially from the forward-looking statements:

the significant considerations and risks discussed in this prospectus;

general and local economic, market or business conditions;

fluctuations in demand for electricity, capacity and ancillary services in the markets in which we operate;

uncertain obligations due to customers' right to choose generation suppliers;

changes in laws or regulations that are applicable to us;

environmental constraints on construction and operation; and

access to capital.

Consequently, all of the forward-looking statements made in this prospectus are qualified by these cautionary statements and we cannot assure you that the results or developments anticipated by us will be realized or, even if realized, will have the expected consequences to or effects on us or our business prospects, financial condition or results of operations. You should not place undue reliance on these forward-looking statements in making your investment decision. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to these forward-looking statements to reflect events or circumstances that occur or arise or are anticipated to occur or arise after the date hereof. In making an investment decision regarding the securities described in this prospectus, we are not making, and you should not infer, any representation about the likely existence of any particular future set of facts or circumstances.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. The public may read and copy the registration statement and any reports or other information that we file with the SEC at the SEC's public reference room, Room 1024 at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. These documents are also available to the public from commercial document retrieval services and at the web site maintained by the SEC at <http://www.sec.gov>. Each outstanding series of our preferred stock is listed on the New York Stock Exchange where reports, proxy and information statements and other information about us may be inspected. You may also obtain a copy of the registration statement at no cost by writing us at the following address:

PECO Energy Company
Attn: Investor Relations
10 South Dearborn Street, 36th Floor
P.O. Box 805379
Chicago, IL 60680-5379

This prospectus is one part of a registration statement filed on Form S-3 with the SEC under the Securities Act of 1933, as amended, known as the Securities Act. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules to the registration statement. For further information concerning us and the securities, you should read the entire registration statement, including this prospectus and any related prospectus supplements, and the additional information described under the subheading "Documents Incorporated By Reference" below. The registration statement has been filed electronically and may be obtained in any manner listed above. Any statements contained herein concerning the provisions of any document are not necessarily complete, and, in each instance, reference is made to the copy of such document filed as an exhibit to the registration statement or otherwise filed with the SEC. Each such statement is qualified in its entirety by such reference.

Information about us is also available on Exelon's web site at <http://www.exeloncorp.com>. This web site and the SEC's web site above are intended to be inactive textual references only. Information on Exelon's or the SEC's web site is not a part of this prospectus.

2

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act but prior to the termination of any offering of securities made by this prospectus:

PECO's Annual Report on Form 10-K for the fiscal year ended December 31, 2001;

PECO's Quarterly Report on Form 10-Q for the period ended March 31, 2002;

PECO's Quarterly Report on Form 10-Q for the period ended June 30, 2002; and

PECO's Current Reports on Form 8-K filed August 2, 2002, July 16, 2002, April 25, 2002 and January 31, 2002.

Upon written or oral request, we will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, a copy of any or all of such documents which are incorporated herein by reference (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates). Written or oral requests for copies should be directed to PECO Energy Company, Attn: Investor Relations, 10 South Dearborn Street, 36th Floor, P.O. Box 805379, Chicago, IL 60680-5379.

Edgar Filing: PECO ENERGY CO - Form 424B5

Any statement contained in this prospectus, or in a document all or a portion of which is incorporated by reference, shall be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any supplement or any document incorporated by reference modifies or supersedes such statement. Any such statement so modified or superseded shall not, except as so modified or superseded, constitute a part of this prospectus.

PECO ENERGY COMPANY

We are a subsidiary of Exelon and are engaged principally in the purchase, transmission, distribution and sale of electricity to residential, commercial, industrial and wholesale customers and in the purchase, distribution and sale of natural gas to residential, commercial and industrial customers. We deliver electricity to approximately 1.6 million customers and natural gas to approximately 440,000 customers.

Our traditional retail service territory covers 2,107 square miles in southeastern Pennsylvania. We provide electric delivery service in an area of 1,972 square miles, with a population of approximately 3.6 million, including 1.6 million in the City of Philadelphia. Natural gas service is supplied in a 1,475 square mile area in southeastern Pennsylvania adjacent to Philadelphia, with a population of 1.9 million.

Our principal executive offices are located at 2301 Market Street, Philadelphia, PA 19101-8699 and our telephone number is (215) 841-4000.

3

USE OF PROCEEDS

The net proceeds from the sale of bonds and preferred stock will be added to our general funds and will be used for the repayment of outstanding indebtedness and for general corporate purposes, all as more specifically set forth in a prospectus supplement.

RATIO OF EARNINGS TO FIXED CHARGES AND RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

The following table provides our consolidated ratio of earnings to fixed charges and ratio of earnings to combined fixed charges and preferred stock dividends for each of the periods indicated:

	Years Ended December 31,					Twelve Months Ended June 30, 2002
	1997	1998	1999	2000	2001	
Ratio of earnings to fixed charges	2.56	3.38	3.37	2.70	2.46	2.49
Ratio of earnings to combined fixed charges and preferred stock dividends	2.38	3.20	3.22	2.61	2.38	2.41

The ratio of earnings to fixed charges represents, on a pre-tax basis, the number of times earnings cover fixed charges. Earnings consist of pre-tax net income from continuing operations after adjustment for income from equity investees and capitalized interest or allowance for funds used during construction ("AFUDC"), to which has been added fixed charges. Fixed charges consist of interest costs and amortization of debt discount and premium on all indebtedness and the interest portion of all rental expense.

The ratio of earnings to combined fixed charges and preferred stock dividends represents, on a pre-tax basis, the number of times earnings cover fixed charges and preferred stock dividends. Earnings consist of pre-tax net income from continuing operations after adjustment for income from equity investees and capitalized interest or AFUDC to which has been added fixed charges. Combined fixed charges and preferred stock dividends consist of interest costs and amortization of debt discount and premium on all indebtedness, preferred stock dividends (increased to reflect the pre-tax earnings required to cover such dividend requirements) and the interest portion of all rental expense.

4

DESCRIPTION OF THE FIRST AND REFUNDING MORTGAGE BONDS

General. We will issue the first and refunding mortgage bonds in series under our First and Refunding Mortgage, dated May 1, 1923, as amended and supplemented by supplemental mortgage indentures and as proposed to be further amended and supplemented by a supplemental mortgage indenture relating to the offered series of bonds (herein sometimes referred to collectively as the "mortgage"). Wachovia Bank, National Association (formerly First Union National Bank) is trustee under the mortgage (the "trustee").

The following summary of the mortgage does not purport to be complete and is subject to, and is qualified in its entirety by reference to, all provisions of the mortgage. Certain terms used in this section are defined in the mortgage. Copies of the First and Refunding Mortgage and the supplemental mortgage indentures are on file with the SEC. Copies of supplemental mortgage indentures under which any series of bonds is to be issued will be filed with the SEC.

Principal, Maturity and Interest. The aggregate principal amount of any series of bonds to be issued will be specified in the related prospectus supplement. Unless otherwise provided in the prospectus supplement, the bonds will be issued in book-entry form only. The bonds will be issued in the minimum denominations specified in the related prospectus supplement.

The bonds will mature on the date or dates set forth in the related prospectus supplement. Interest will be payable on the bonds as set forth in the prospectus supplement until the principal is paid or made available for payment. Interest on the bonds will accrue and be calculated as set forth in the related prospectus supplement.

For so long as the bonds are issued in book-entry form, payments of principal and interest will be made in immediately available funds by wire transfer to The Depository Trust Company ("DTC") or its nominee. If the bonds are issued in certificated form to a holder other than DTC, payments of principal and interest will be made by check mailed to such holder at such holder's registered address. Payment of principal of the bonds in certificated form will be made against surrender of those bonds at the office or agency of our company in the City of Philadelphia, Pennsylvania and an office or agency in the Borough of Manhattan, City of New York. Payment of interest on the bonds will be made to the person in whose name the bonds are registered at the close of business on record dates fixed by the Company which must be not more than 14 days prior to the relevant interest payment date. Default interest will be paid in the same manner to holders as of a special record date established in accordance with the mortgage.

All amounts paid by us for the payment of principal, premium (if any) or interest on any bonds that remain unclaimed at the end of two years after such payment has become due and payable will be repaid to us and the holders of such bonds will thereafter look only to us for payment thereof.

Redemption. The redemption provisions, if any, for each series of bonds will be set forth in the related prospectus supplement.

Security. The bonds will be secured equally with all other mortgage bonds outstanding or hereafter issued under the mortgage by the lien of the mortgage. The lien of the mortgage, subject to (1) minor exceptions and certain excepted encumbrances that are defined in the mortgage and (2) the trustee's prior lien for compensation and expenses, constitutes a first lien on substantially all of our properties. The mortgage does not constitute a lien on any property owned by our subsidiaries or affiliates. Our properties consist principally of electric transmission and distribution lines and substations, gas distribution facilities and general office and service buildings.

We may not issue securities which will rank ahead of the mortgage bonds as to security. We may acquire property subject to prior liens. If such property is made the basis for the issuance of additional bonds after we acquire it, all additional bonds issued under the prior lien must be pledged with the trustee as additional security under the mortgage.

Authentication and Delivery of Additional Bonds. The mortgage permits the issuance from time to time of additional mortgage bonds, without limit as to aggregate amount. Additional mortgage bonds may be in principal amount equal to:

- (1) the principal amount of underlying bonds secured by a prior lien upon property acquired by us after March 1, 1937 and deposited with the trustee under the mortgage;

Edgar Filing: PECO ENERGY CO - Form 424B5

(2) the principal amount of any such underlying bonds redeemed or retired, or for the payment, redemption or retirement of which funds have been deposited in trust;

(3) the principal amount of bonds previously authenticated under the mortgage on or after March 1, 1937, which have been delivered to the trustee;

(4) the principal amount of bonds previously issued under the mortgage on or after March 1, 1937, which are being refunded or redeemed, if funds for the refunding or redemption have been deposited with the trustee;

(5) an amount not exceeding 60% of the actual cost or the fair value, whichever is less, of the net amount of permanent additions to the property subject to the lien of the mortgage, made or acquired after November 30, 1941, and of additional plants or property acquired by us after November 30, 1941, and to be used in connection with its electric or gas business as part of one connected system and located in Pennsylvania or within 150 miles of Philadelphia; and

(6) the amount of cash deposited with the trustee, which cash shall not at any time exceed \$3,000,000 or 10% of the aggregate principal amount of bonds then outstanding under the mortgage, whichever is greater, and which cash may subsequently be withdrawn to the extent of 60% of capital expenditures, as described in clause (5) above.

No additional bonds may be issued under the mortgage as outlined in clauses (5) and (6) and, in certain cases, clause (3) above, unless the net earnings test of the mortgage is satisfied. The net earnings test of the mortgage, which relates only to the issuance of additional mortgage bonds, requires for 12 consecutive calendar months, within the 15 calendar months immediately preceding the application for such bonds, that our net earnings, after deductions for amounts set aside for renewal and replacement or depreciations reserves and before provision for income taxes, must have been equal to at least twice the annual interest charges on all bonds outstanding under the mortgage (including those then applied for) and any other bonds secured by a lien on our property.

Release and Substitution of Property. While no event of default exists, we may obtain the release of the lien of the mortgage on mortgaged property which is sold or exchanged if (1) we deposit or pledge cash or purchase money obligations with the trustee, or (2) in certain instances, if we substitute other property of equivalent value. The mortgage also contains certain requirements relating to our withdrawal or application of proceeds of released property and other funds held by the trustee.

Corporate Existence. We may consolidate or merge with or into or convey, transfer or lease all, or substantially all, of the mortgage property to any corporation lawfully entitled to acquire or lease and operate the property, provided that: such consolidation, merger, conveyance, transfer or lease in no respect impairs the lien of the mortgage or any rights or powers of the trustee or the holders of the outstanding mortgage bonds; and such successor corporation executes and causes to be recorded an indenture which assumes all of the terms, covenants and conditions of the mortgage and any indenture supplement thereto.

6

The mortgage does not contain any covenant or other provision that specifically is intended to afford holders of our mortgage bonds special protection in the event of a highly leveraged transaction. The issuance of long-term debt securities requires the approval of the Pennsylvania Public Utility Commission.

Defaults. Events of default are defined in the mortgage as (1) default for 60 days in the payment of interest on mortgage bonds or sinking funds deposits under the mortgage, (2) default in the payment of principal of mortgage bonds under the mortgage at maturity or upon redemption, (3) default in the performance of any other covenant in the mortgage continuing for a period of 60 days after written notice from the trustee, and (4) certain events of bankruptcy or insolvency.

Upon the authentication and delivery of additional mortgage bonds or the release of cash or property, we are required to file documents and reports with the trustee with respect to the absence of default.

Rights of Bondholders upon Default. Upon the occurrence of an event of default, the holders of a majority in principal amount of all the outstanding mortgage bonds may require the trustee to accelerate the maturity of the mortgage bonds and to enforce the lien of the mortgage. Prior to any sale under the mortgage, and upon the remedying of all defaults, any such acceleration of the maturity of the mortgage bonds may be annulled by the holders of at least a majority in principal amount of all the outstanding mortgage bonds. The mortgage permits the trustee to require indemnity before proceeding to enforce the lien of the mortgage.

Amendments. We and the trustee may amend the mortgage without the consent of the holders of the mortgage bonds: (1) to subject additional property to the lien to the mortgage; (2) to define the covenants and provisions permitted under or not inconsistent with the mortgage;

(3) to add to the limitations of the authorized amounts, date of maturity, method, conditions and purposes of issue of any bonds issued under the mortgage; (4) to evidence the succession of another corporation to us and the assumption by a successor corporation of our covenants and obligations under the mortgage; (5) to make such provision in regard to matters or questions arising under the mortgage as may be necessary or desirable and not inconsistent with the mortgage.

We and the trustee may amend the mortgage or modify the rights of the holders of the mortgage bonds with the written consent of at least $66\frac{2}{3}\%$ of the principal amount of the mortgage bonds then outstanding; provided, that no such amendment shall, without the written consent of the holder of each outstanding mortgage bond affected thereby: (1) change the date of maturity of the principal of, or any installment hereof on, any mortgage bond, or reduce the principal amount of any mortgage bond or the interest thereon or any premium payable on the redemption thereof, or change any place of payment where, or currency in which, any mortgage bond or interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the date of maturity thereof; or (2) reduce the percentage in principal amount of the outstanding mortgage bonds, the consent of whose holders is required for any amendment, waiver of compliance with the provisions of the mortgage or certain defaults and their consequences; or (3) modify any of the amendment provisions or Section 22 of Article VIII (relating to waiver of default), except to increase any such percentage or to provide that certain other provisions of the mortgage cannot be modified or waived without the consent of the holder of each mortgage bond affected thereby.

Governing Law. The mortgage is governed by the laws of the Commonwealth of Pennsylvania.

Trustee. Wachovia Bank, National Association (formerly First Union National Bank), the trustee under the mortgage, is the registrar and disbursing agent for our mortgage bonds. Wachovia Bank, National Association is also our depository, from time to time makes loans to us and is trustee for a series of senior unsecured notes of Exelon Generation.

7

DESCRIPTION OF THE PREFERRED STOCK

General. As of December 31, 2001, our authorized capital stock consists of 500,000,000 shares of common stock, without par value and 15,000,000 shares of preferred stock, without par value. As of August 1, 2002, there were 170,478,507 shares of common stock outstanding and 1,375 shares of preferred stock outstanding.

Our Board of Directors is authorized, without further shareholder action, to divide the preferred stock into one or more series and to determine the following designations, preferences, limitations and special rights of any series (which for any series will be set forth in the related prospectus supplement):

the annual dividend rate or rates;

the rights, if any, of the holders of shares of the series upon voluntary or involuntary liquidation, dissolution or winding up of our company;

the terms and conditions upon which shares may be converted into shares of other series or other capital stock, if issued with the privilege of conversion;

the price at and the terms and conditions upon which shares may be redeemed;

the terms and amount of any sinking fund for the purchase or redemption of shares of a series; and

the exchange or exchanges on which the preferred stock will be listed, if any.

Dividend Rights. The annual dividend rate for each new series of preferred stock will be set forth in the applicable prospectus supplement. Dividends will be cumulative from the date of issuance and will be payable, when declared, quarterly on the first day of February, May, August and November. The dividends on shares of all series of preferred stock will be cumulative. Any limitations on our rights to pay dividends will be described in the applicable prospectus supplement.

Unless dividends on all outstanding shares of preferred stock of all series shall have been paid for all past quarterly dividend periods, no dividends are paid or declared and no other distribution is made on the common stock, and no common stock shall be purchased or otherwise acquired for value by us.

Edgar Filing: PECO ENERGY CO - Form 424B5

Voting Rights. Our articles of incorporation provide that the board of directors is to be classified into three classes. Holders of preferred stock and common stock elect an entire class for three-year terms. If and when dividends payable on all shares of the preferred stock are in default in an amount equal to four full quarterly dividends, and until all dividends then in default are paid or declared and set apart for payment, the holders of all shares of preferred stock, voting separately as a class, are entitled to elect the smallest number of directors necessary to constitute a majority of the full board of directors, and the holders of the common stock, voting separately as a class, are entitled to elect the remaining directors.

Holders of preferred stock will be entitled to vote on certain matters relating to:

- (1) authorization of stock (other than a series of preferred stock) ranking prior to or on a parity with the preferred stock or any security convertible into shares of stock of such kinds;
- (2) change the express terms of the preferred stock or of any series thereof in a manner prejudicial to the holders thereof;
- (3) issuance of additional shares of preferred stock unless, for any twelve consecutive calendar months within the fifteen calendar months immediately preceding the calendar month within which such additional shares are issued, net earnings applicable to the payment of dividends on the preferred stock and net income before payment of interest charges on indebtedness and after provision for depreciation and taxes shall have been, respectively, at least two times the dividend requirements upon the entire amount of preferred stock to be outstanding immediately after the proposed issue of such additional shares, and at least one and one-half times the aggregate of such dividend requirements and interest charges for such period on the entire amount of indebtedness then to be outstanding;

8

- (4) issuance of additional shares of preferred stock, unless our capital represented by the common stock together with its surplus is in the aggregate at least equal to the involuntary liquidating value of the preferred stock;
- (5) increase in the total authorized amount of preferred stock of all series; and
- (6) merger or consolidation with or into any corporation, or division, unless ordered, exempted, approved, or permitted by the SEC or other federal regulatory authority.

Except as otherwise provided in the express terms of any series of preferred stock, the number of authorized shares of preferred stock of any series may be increased without vote or consent of the holders of the outstanding shares of the series affected, subject to the aggregate limit on the authorized number of shares of preferred stock. With respect to (1), (2), (3) and (4) above, the consent or affirmative vote of the holders of shares of the preferred stock entitled to cast at least two-thirds of the votes which all holders of preferred stock of all series then outstanding are entitled to cast (or of the affected series in the case of a change prejudicial to less than all series) is required; and with respect to (5) and (6), the consent or affirmative vote of the holders of shares of the preferred stock entitled to cast at least a majority of the votes which all holders of preferred stock of all series then issued and outstanding are entitled to cast is required.

The preferred stock of all series constitutes one class in any vote of shareholders except as stated above, or some mandatory provision of law is controlling. At all meetings of the holders of preferred stock at which such holders have the right to vote, each holder of preferred stock of each series shall be entitled to one vote or fraction thereof, for each \$100 or fraction thereof of involuntary liquidating value represented by the shares of preferred stock of such series held by each such holder.

Liquidation Rights. Upon liquidation or dissolution of our company, holders of the preferred stock then outstanding are entitled to receive a cash payment per share equal to the liquidation value provided for the respective series, plus accrued and unpaid dividends to the date of liquidation, before any payment shall be made to holders of common stock.

No dividend payment or distribution shall be made to holders of common stock, if, after giving effect to such dividend payment or distribution, our capital represented by the common stock, together with surplus, is less than the involuntary liquidating value of all outstanding preferred stock.

The amount per share payable on each series of the new preferred stock in the event of any voluntary or involuntary liquidation will be set forth in the applicable prospectus supplement.

Redemption Provisions. The redemption provisions, if any, with respect to each series of new preferred stock will be set forth in the applicable prospectus supplement. After payment of all dividends on all series of preferred stock for past dividend periods, we, by action of our

Edgar Filing: PECO ENERGY CO - Form 424B5

Board of Directors, may redeem the whole or any part of any series of the preferred stock, to the extent permitted by the terms of that series of preferred stock, at any time or from time to time at the applicable redemption price of the shares of the particular series together with accrued and unpaid dividends.

Sinking Fund. The sinking fund provisions, if any, with respect to each series of new preferred stock will be set forth in the applicable prospectus supplement.

Miscellaneous. Holders of our preferred stock will not have any preemptive rights to subscribe for or purchase any additional shares of our capital stock, or other securities or other right or option to purchase shares of capital stock. The new preferred stock, when issued, will be fully paid and nonassessable.

There is no provision restricting us from purchasing shares of preferred stock in the event of an arrearage in the payment of dividends or sinking fund obligations.

Listing. We intend to list each series of preferred stock offered hereby on the New York Stock Exchange, but we are under no obligation to do so. The prospectus supplement will indicate whether and where the preferred stock to be issued will be listed.

9

BOOK-ENTRY BONDS AND PREFERRED STOCK

Book-Entry, Delivery and Form. Unless otherwise specified in a prospectus supplement, the certificates representing first and refunding mortgage bonds or preferred stock will be in fully registered, global form ("global securities"). Ownership of beneficial interests in global securities will be limited to persons who have accounts with DTC ("participants") or persons who hold interests through participants. Ownership of beneficial interests in global securities will be shown on, and the transfer of that ownership will be effected only through, records maintained by DTC or its nominee (with respect to interests of participants) and the records of participants (with respect to interests of persons other than participants).

So long as DTC or its nominee is the registered owner or holder of the global securities, DTC or such nominee, as the case may be, will be considered the sole record owner or holder of the bonds represented by such global securities for all purposes under the indenture or the preferred stock represented by such global securities. No beneficial owner of an interest in the global bonds or global certificates will be able to transfer that interest except in accordance with DTC's applicable procedures, in addition to those provided for under the indenture with respect to bonds and, if applicable, Euroclear or Clearstream.

Payments on the global securities will be made to DTC or its nominee, as the case may be, as the registered owner thereof. None of us, the trustee, or any paying agent will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in the global securities or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

We expect that DTC or its nominee, upon receipt of any payment in respect of the global securities, will credit participants, accounts with payments in amounts proportionate to their respective beneficial ownership interests in of such global securities, as shown on the records of DTC or its nominee. We also expect that payments by participants to owners of beneficial interests in such global securities held through such participants will be governed by standing instructions and customary practices, as is now the case with securities held for the accounts of customers registered in the names of nominees for such customers.

Such payments will be the responsibility of such participants.

DTC has advised us as follows: DTC is a limited purpose trust company organized under the laws of the State of New York, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code and a "Clearing Agency" registered pursuant to the provisions of Section 17A of the Exchange Act. DTC was created to hold securities for its participants and facilitate the clearance and settlement of securities transactions between participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of the certificates. Participants include securities brokers and dealers, banks, trust companies and clearing corporations and certain other organizations. Indirect access to the DTC system is available to others such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, either directly or indirectly ("indirect participants").

Edgar Filing: PECO ENERGY CO - Form 424B5

Neither the trustee nor we will have any responsibility for the performance by DTC or its participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

If DTC is at any time unwilling or unable to continue as a depository for the global securities and a successor depository is not appointed within 90 days, we will issue definitive, certificated original bonds or preferred stock, as the case may be, in exchange for the global securities.

10

Euroclear has advised us as follows: Euroclear was created in 1968 to hold securities for its participants and to clear and settle transactions between its participants through simultaneous electronic book-entry delivery against payment, thereby eliminating the need for physical movement of certificates and any risk from lack of simultaneous transfers of securities and cash. Euroclear provides various other services, including securities lending and borrowing, and interfaces with domestic markets in several countries. Euroclear is operated by Euroclear Bank S.A./N.V. (the "Euroclear Operator"), under contract with Euroclear Clearance Systems, S.C., a Belgian cooperative corporation (the "Cooperative"). All operations are conducted by the Euroclear Operator, and all Euroclear securities clearance accounts and Euroclear cash accounts are accounts with the Euroclear Operator, not the Cooperative. The Cooperative establishes policy for Euroclear on behalf of Euroclear participants. Euroclear participants include banks (including central banks), securities brokers and dealers and other professional financial intermediaries. Indirect access to Euroclear is also available to others that clear through or maintain a custodial relationship with a Euroclear participant, either directly or indirectly.

Securities clearance accounts and cash accounts with the Euroclear Operator are governed by the Terms and Conditions Governing Use of Euroclear and the related Operating Procedures of the Euroclear System, and applicable Belgian law (collectively, the "Terms and Conditions"). The Terms and Conditions govern transfers of securities and cash within Euroclear, withdrawals of securities and cash from Euroclear, and receipts of payments with respect to securities in Euroclear. All securities in Euroclear are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts. The Euroclear Operator acts under the Terms and Conditions only on behalf of Euroclear participants and has no record of or relationship with persons holding through Euroclear participants.

Distributions with respect to global securities held beneficially through Euroclear will be credited to the cash accounts of Euroclear participants in accordance with the Terms and Conditions, to the extent received by Euroclear.

Clearstream has advised us as follows: Clearstream is incorporated under the laws of The Grand Duchy of Luxembourg as a professional depository. Clearstream holds securities for its participants and facilitates the clearance and settlement of securities transactions between its participants through electronic book-entry changes in accounts of its participants, thereby eliminating the need for physical movement of certificates. Clearstream provides to its participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Clearstream interfaces with domestic markets in several countries. As a professional depository, Clearstream is subject to regulation by the Luxembourg Monetary Institute. Clearstream participants are financial institutions around the world, including securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. Indirect access to Clearstream is also available to others that clear through or maintain a custodial relationship with a Clearstream participant either directly or indirectly.

Distributions with respect to mortgage bonds or preferred stock held beneficially through Clearstream will be credited to cash accounts of Clearstream participants in accordance with its rules and procedures, to the extent received by Clearstream.

11

PLAN OF DISTRIBUTION

We may sell the first and refunding mortgage bonds and the preferred stock to or through underwriters, dealers or agents or directly to one or more other purchasers.

The prospectus supplement sets forth the terms of the offering of the particular series or issue of mortgage bonds or preferred stock to which that prospectus relates, including, as applicable:

Edgar Filing: PECO ENERGY CO - Form 424B5

the name or names of any underwriters or agents with whom we have entered into arrangements with respect to the sale of those securities;

the initial public offering or purchase price of those securities;

any underwriting discounts, commissions and other items constituting underwriters' compensation from us and any other discounts, concessions or commissions allowed or reallocated or paid by any underwriters or other dealers;

any commission paid to agents;

the net proceeds to us; and

the securities exchanges, if any, on which the securities will be listed.

The obligations of the underwriters to purchase securities will be subject to certain conditions precedent and each of the underwriters will be obligated to purchase all of the securities of that series or issue allocated to it if any of those securities are purchased. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

The securities may be offered and sold by us directly or through agents that we designate from time to time. Any agent involved in the offer or sale of the securities for which this prospectus is delivered will be named in, and any commission payable by us to that agent, will be set forth in the applicable prospectus supplement. Each agent will be acting on a best efforts basis for the period of its appointment.

Any underwriters, dealers or agents participating in the distribution of the securities may be deemed to be underwriters, and any discounts or commissions received by them on the sale or resale of securities may be deemed to be underwriter discounts and commissions under the Securities Act of 1933, as amended.

Underwriters, dealers and agents may be entitled, under agreements entered into with us, to indemnification by us against some civil liabilities, including liabilities under the Securities Act.

LEGAL MATTERS

Ballard Spahr Andrews & Ingersoll, LLP, Philadelphia, Pennsylvania, will provide an opinion as to legal matters in connection with the securities that we may offer. Additional legal matters may be passed on for any underwriters, dealers or agents by counsel which we will name in the applicable prospectus supplement.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report or Form 10-K for the year ended December 31, 2001 have been so incorporated in reliance upon the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

12

\$450,000,000

PECO Energy Company

**First and Refunding Mortgage Bonds,
3.50% Series due 2008**

PROSPECTUS SUPPLEMENT

April 21, 2003

Banc One Capital Markets, Inc.
Barclays Capital
Dresdner Kleinwort Wasserstein
BNY Capital Markets, Inc.
Credit Suisse First Boston
Loop Capital Markets, LLC
Scotia Capital
Wachovia Securities

QuickLinks

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS SUPPLEMENT

WHERE YOU CAN FIND MORE INFORMATION

DOCUMENTS INCORPORATED BY REFERENCE

PECO ENERGY COMPANY

RISK FACTORS

USE OF PROCEEDS

CAPITALIZATION

RATIO OF EARNINGS TO FIXED CHARGES

SUMMARY HISTORICAL CONSOLIDATED FINANCIAL DATA

DESCRIPTION OF THE BONDS

UNDERWRITING

LEGAL MATTERS

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS

FORWARD-LOOKING STATEMENTS

WHERE YOU CAN FIND MORE INFORMATION

DOCUMENTS INCORPORATED BY REFERENCE

PECO ENERGY COMPANY

USE OF PROCEEDS

RATIO OF EARNINGS TO FIXED CHARGES AND RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

DESCRIPTION OF THE FIRST AND REFUNDING MORTGAGE BONDS

DESCRIPTION OF THE PREFERRED STOCK

BOOK-ENTRY BONDS AND PREFERRED STOCK

PLAN OF DISTRIBUTION

LEGAL MATTERS

EXPERTS