REBUTTAL TESTIMONY

OF

WILLIAM W. DUNKEL

CONCERNING
DEPRECIATION AND COST OF REMOVAL

Submitted on Behalf of
the Staff of the Maryland Public Service Commission

POTOMAC ELECTRIC POWER COMPANY

Maryland P.S.C. Case No. 9092

March 26, 2007
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I. Qualifications

Q. Please state your name and address.

A. My name is William W. Dunkel. My business address is 8625 Farmington Cemetery Road, Pleasant Plains Illinois, 62677.

Q. What is your present occupation?

A. I am a consultant providing services in utility rate proceedings. I am the principal of William Dunkel and Associates, which was established in 1980. Since that time, I have regularly provided consulting services in utility regulatory proceedings throughout the country. I have participated in over 200 state regulatory proceedings before over one-half of the state commissions in the United States. I have participated in utility regulatory proceedings for over 20 years.

Q. Have you prepared an appendix that describes your qualifications?

A. Yes. My qualifications are shown on Appendix A.

Q. Have you previously testified in Maryland?

A. Yes, I participated in following Maryland proceedings:

Chesapeake and Potomac Telephone Company
General rate proceeding Case No. 7851
Cost Allocation Manual Case Case No. 8333
Cost Allocation Issues Case Case No. 8462
Q. On whose behalf are you providing testimony?
A. I am providing this Testimony on behalf of the Staff of Maryland Public Service Commission.

Q. What is the purpose of your Rebuttal Testimony?
A. The primary purpose of my Rebuttal Testimony is to respond to the Direct Testimony of Charles W. King filed on March 7, 2007. I address to certain issues pertaining to depreciation.

II. Error in the Pepco Depreciation Reserve Amounts

Q. What is one problem with the depreciation rate calculations contained in the Direct Testimony of Charles King?
A. The Maryland Depreciation Reserve amounts used in the depreciation rate calculations are incorrect. Mr. King used the Maryland Depreciation Reserve amounts as contained in the PEPCO initial filing. However PEPCO has

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1 The “Depreciation Reserve” is also known as the “Accumulated Provision for Depreciation,” Account 108.
acknowledged the Maryland Depreciation Reserve amounts PEPCO used in
calculating the depreciation rates proposed in its initial filing are incorrect. In
response to OPC Request 11-27 PEPCO stated:

In developing this response, it was discovered that the blended
depreciation rates vs. jurisdictional rates figure of ($26,602,420)
shown above does not fully adjust for the differences between
blended rates and the Maryland approved jurisdictional
depreciation rates. The Company is in the process of quantifying
the appropriate difference between the booked Maryland
depreciation rates (which reflect blended rates) and the Maryland
approved jurisdictional rates, and will supply the information as
soon as it is available. An update of this information affects the
arithmetic calculations in Table 4, Table 2 and Table 1 of Exhibit
PEPCO__ (EMR-1). This change does not affect the underlying
study of net salvage, average service lives and resulting average
remaining lives. The update will also require a straightforward
adjustment to Ratemaking Adjustment 16 (Reflection of New
Depreciation Rates) which will require updates to Exhibit
PEPCO__ (WMV-1). Updates to these schedules will also be
provided.

Schedule WWD-1, attached, is a copy of this PEPCO response.

Q. Has PEPCO provided the promised corrections to the Depreciation Reserve
amounts and depreciation rate calculations?

A. No. Staff informs me that Staff has not received the promised corrections. Staff
would expect to receive these data request updates at the same time as OPC.
Although the Company may update the Depreciation Reserve amounts and
depreciation rate calculations simultaneous with this Rebuttal Testimony, this
information is not currently available.
The fact that PEPCO has not provided the corrected Depreciation Reserve amounts means that the depreciation rates and annual accrual amounts will have to be trued up in the April 2, 2007 surrebuttal testimony in this proceeding. In this testimony I will refer to the net salvage annual accruals amounts as filed by the OPC and PEPCO, but those amounts are subject to true up in the April 2, 2007 surrebuttal, after the corrected data has been received from PEPCO.

Q. What impact should this correction have when the proper Depreciation Reserve amounts are received from PEPCO?

A. There was a significant error in the Depreciation Reserve amounts originally used in the PEPCO Depreciation Study. The depreciation rates calculated using the corrected Maryland Depreciation Reserve amounts should produce an overall annual depreciation accrual that is several million dollars lower than the overall annual depreciation accrual calculated using the incorrect Maryland Depreciation Reserve amounts that PEPCO had originally filed.

III. Recovering the Removal Cost

Q. The Direct Testimony of Charles W. King (King Direct) presents several different possible treatments of the “removal cost,”\(^2\) as summarized on pages

\(^2\) “Net Salvage” is the “Gross Salvage” less the “Cost of Removal.” In this proceeding PEPCO shows zero or virtually zero gross salvage for all accounts. Table 1, PEPCO Depreciation Study (EMR-1). Therefore
36 and 37 of his testimony, including the treatment proposed by PEPCO.
The net salvage annual accrual amounts range from $5.4 million to $37.2 million, depending on which treatment is selected. Please explain the major problem relating to recovering the removal costs.

A. The major problem relating to recovering removal costs is that customers may pay the utility for removal costs decades before the utility actually pays to have the facilities removed. For example, for Station Equipment, Account 362, both PEPCO and OPC estimate the average service life to be 47 years. If customers pay over the life of the investment for future removal costs, some customers will pay the utility 47 years before the utility actually pays to have the facilities removed. Under these circumstances, PEPCO’s customers would be paying for the future removal of assets in this account an average of 23.5 years before the Company actually pays to have the investment removed. The prepayment by customers creates significant analysis issues. The purchasing power of the dollar declines significantly during the decades the customer money is held by the utility. Properly addressing the decline in the purchase power of a dollar that occurs over the decades the customer money is held is the major problem in addressing future cost of removal.

in this case the amount of “net salvage” is virtually the same amount as “cost of removal” but negative. A $50,000 cost of removal is a -$50,000 net salvage.

3 This statement applies to long life accounts.

4 Table 2, Plant Only, page 1 of 2, “Depreciation Study as of December 31, 2005” (Company Study or “PEPCO Study”), attached to the Direct Testimony of Company witness Robinson. The same “Plant Only” depreciation rate is shown on the King recommendation on Statement 1, attached to the Direct Testimony of King.

5 47 years/2=23.5 years. This assumes the customers pay uniformly over the life of the investment.
To illustrate this issue, assume that as part of a business deal you have signed a contract that stated that in the year 2007 you would pay the other party the amount required to buy a new Ford pickup truck, with the level of equipment specifically stated in the contract. The current price of that truck is $35,000.

However the other party states that they will not actually buy the truck until 30 years from now. Because of future inflation it is reasonable to expect a Ford pickup truck will cost $140,000 if purchased new in the year 2037. Therefore the other party insists that you pay them $140,000, still to be paid by you in the year 2007.

Calculating the current charge based on what the inflated cost will be in the future (the $140,000 in this example) is similar to the PEPCO net salvage proposal in this proceeding. As this illustrates, when money changes hands decades prior to the actual expenditure, that creates issues, since a “year 2007” dollar is not the same as a “year 2037” dollar.

Q. What is the goal of your testimony on this issue?
A. The goal of this testimony is to inform the Commission as to the advantages and disadvantages of each of the different proposed treatments of removal cost that
are presented in the Direct Testimony of Mr. King. The requirements of the Uniform System of Accounts (USOA)\(^6\) will be considered. The utility is entitled to reasonable recovery of removal costs from the customers because removal costs are costs of providing utility service. The recovery treatment selected should consider the reasonable interests of the current customers, future customers, the Company, and the shareholders.

Q. How will you discuss the several different proposed treatments that are contained in the testimony of Mr. King?

A. One problem is that there are multiple items of varying ages in each account. For example, there are thousands of poles, of many different ages, in the Poles account. In addition, the recovery of the removal cost of these items, in this example each pole, is often spread over time. To understand the principles underlying each proposed treatment in Mr. King’s testimony, I will first explain the principles proposed in that treatment by using a simple hypothetical that considers only one pole.\(^7\) After the principles in that treatment are understood, I will then address the application of those principles to the full account.

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\(^6\) Section 22 “Depreciation Accounting,” CFR Title 18, Part 101.

\(^7\) The simple hypothetical also uses recovery of the one pole removal cost at one time. In the actual accounts recovery is generally spread over time. In the full account evaluation I do spread the recovery over time.
Q. Can you present the simple hypothetical you will use to illustrate the different removal cost recovery principles that are discussed in the Direct Testimony of Mr. King?

A. Yes. I will use a simple hypothetical to demonstrate the principles in the proposed treatments. Assume a hypothetical utility uses a pole to provide service to a group of customers. Also assume it has been agreed that in the year 2007 those customers will make a single payment to the utility to pay for the full removal cost of one pole.

The facts that will be “givens” in this hypothetical are:

1. Customers will be paying the utility using “year 2007” dollars to pay for the full removal cost of one pole.
2. Removing this size pole costs $1000, if the removal is paid for in “year 2007” dollars.
3. The utility plans to retire that particular pole 30 years later, in the year 2037.
4. Because of future inflation, the future “year 2037” dollars will have a lower purchasing power than a “year 2007” dollar. As a result of the lower value of the “year 2037” dollar, removing this size pole will cost $4000, if the removal is paid for in lower value “year 2037” dollars.
The question is, how much should these customers pay in the year 2007 (using “year 2007” dollars), in order to pay fully for the removal cost of one pole?

The major different net salvage treatments presented in the testimony of Mr. King are the following, when those principles are applied to this hypothetical:

(1) The customers in 2007 could be required to pay $1,000 in “year 2007” dollars for the cost of removal for one pole, because the removal cost of one pole is $1,000 in “year 2007” dollars.

(2) The customers in 2007 could be required to pay $4,000 in “year 2007” dollars for the cost of removal for one pole, because the removal cost for one pole will be $4,000 in “year 2037” dollars.

(3) The customers in 2007 could be required to pay the “present value” of the future removal cost of $4,000. They would pay enough in the year 2007 such that the money they paid, plus 30 years of interest on that money, would be the $4,000 needed for the removal cost in the year 2037 in “year 2037” dollars.

The above different principles are the different principles that are contained in the different net salvage treatments discussed in the testimony of Mr. King. Below I will discuss the advantages and disadvantages of each of these choices, and also address these principles as they apply to the full accounts.
IV. Traditional Inflated Future Cost Approach

Q. Could you please discuss the first “removal cost” recovery method discussed in the Direct of Mr. King?

A. Yes. Starting on page 25 of his testimony, Mr. King discusses the removal cost treatment he calls the Traditional Inflated Future Cost Approach (“TIFCA”). This is the treatment proposed by PEPCO. This treatment produces the highest annual cost to customers, at $37,195,873. For comparison, the average actual removal costs paid by PEPCO averages $5.37 million per year in recent years.

Under this treatment, current customers are charged for future inflation. The dollars currently collected from customers are higher than they otherwise would be in order to allow for the future lower purchasing power of future dollars.

Applying this principle to the simple hypothetical discussed above, the equivalent treatment in the hypothetical is:

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8 Table 1, “Depreciation Study as of December 31, 2005 ("Company Study" or “PEPCO Study”), attached to the Direct Testimony of Company witness Robinson. (EMR-1)

9 King Direct, page 25.

10 Depreciation accruals are established by the depreciation rates. Those accruals are expenses that can generally be recovered in customer rates, as determined in a rate proceeding.
The customers in 2007 could be required to pay $4,000 in “year 2007” dollars to remove one pole, because the removal cost of one pole will be $4,000 in “year 2037” dollars.

$1,000 in “year 2007” dollars is enough to pay to remove one pole. Those customers paying in $4,000 of “year 2007” dollars are actually providing enough purchasing power to pay for the removal of four poles, using the numbers for the hypothetical, if TIFCA is used.

Q. What are the disadvantages and advantages of this treatment?

A. The disadvantages of the Traditional Inflated Future Cost Approach are:

(1) The main disadvantage is that customers overpay. The number of dollars currently collected from customers is higher than they otherwise would be, to allow for the future lower purchasing power of future dollars. The premium paid is highest for customer payments that are paid the farthest in advance of the removal date. As the customer payments get closer to the removal date, the premium declines, but there is always a positive

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11 Under this treatment the Future Net Salvage Percent for an account is often selected in large part based on the past Net Salvage Percent. This effectively assumes that future inflation will be similar to past inflation. Past inflation between the time the investment was installed and the time it was removed has a major impact of the past Net Salvage Percent. For a pole installed in the year 1965, and retired 40 years later, in the year 2005, the net salvage percent for would be:

Net Salvage Percent = \( \frac{\text{Net Salvage (paid in year 2005 dollars)}}{\text{Original Cost investment (paid in year 1965 dollars)}} \).

The numerator is written in year 2005 dollars, but the denominator is written in year 1965 dollars. Inflation between these two years has a major impact on the net salvage percent calculated.
premium, except for payments in the same year as the removal. The
dollars that customers currently are paying in are improperly treated as if
they have the lower purchasing power that future dollars will have, and
therefore more of these current dollars are collected from the current
customers to allow for future inflation.

(2) There is not a strong theoretical foundation for this method when net
salvage is negative. The theoretical foundation for this method was based
on positive net salvage. With positive net salvage, investors provided the
investment and the positive net salvage was used to pay back some of the
investor provided funds. When net salvage is positive there is no
prepayment by customers.

However over the decades net salvage has become increasingly negative.
No account in this filing has a positive net salvage percent. Most accounts
have a negative net salvage percent, and some have a zero net salvage
percent. Negative net salvage results in customers paying in advance for
the net cost of removal. The theory on which this treatment is based was
not designed to handle prepayments by customers properly.

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12 Table 5, PEPCO Depreciation Study, (EMR-1)
The advantages of the Traditional Inflated Future Cost Approach are:

1. The customers that use the facilities during its service life pay for the future cost of removing that facility (although they overpay, as discussed above).

2. Commissions are familiar with this treatment as it has been used for many decades. However, now that net salvages are generally negative, some regulators are moving to different treatments that are better suited to dealing with negative net salvage.

Q. Is it correct that under the “Traditional Inflated Future Cost Approach” the future removal cost recovery is spread over many years, not all recovered in one year as in your hypothetical?

A. Yes. Under the “Traditional Inflated Future Cost Approach” the removal cost recovery is spread over the life of the investment. However, the problem of overcollecting from customers remains. Take a new investment just installed at the start of 2007, and expected to live 30 years. Assume the future removal cost is expected to be or $30,000 in “year 2007” dollars, or $120,000 in “year 2037” dollars. Under the “Traditional Inflated Future Cost Approach” the removal cost in future dollars ($120,000 in this example) is spread over the life so that effectively 1/30 of that would be collected each year. 1/30 of $120,000 is $4,000 in “year 2037” dollars. So the customers in the “year 2007” would be required to pay the company $4,000 in “year 2007 dollars”, because their share of the
removal is $4,000 in “year 2037” dollars. This is an overpayment, because

$4,000 “year 2007” dollars are worth much more than $4,000 “year 2037” dollars.

Q. It could be argued that the extra funds collected from customers under the
“Traditional Inflated Future Cost Approach” provide certain benefits, such
as being favorable to investors or Wall Street, reducing the amount of money
PEPCO must borrow, providing future deductions from rate base, etc. Are
these valid reasons to collect excess amounts from customers under the name
of covering alleged depreciation expense?

A. No. Just like any other expense, the depreciation expense should be properly
calculated to reasonably reflect the actual depreciation cost.

Q. Do you recommend the Traditional Inflated Future Cost Approach for
purposes of this proceeding?

A. No. Customers pay excessive amounts under this treatment. The dollars that
customers currently pay are improperly treated as if they have the lower
purchasing power that future dollars will have. As a result, more of these current
dollars are collected from current customers in order to allow for future inflation.

There are other, more modern treatments, which do not have the disadvantages of
this treatment.
V. Five-Year Rolling Average Approach

Q. Could you please discuss another treatment discussed in the Direct of Mr. King?

A. Yes. Starting on page 33, line 22 of his testimony, Mr. King discusses the removal cost treatment he calls the “five-year rolling average approach.” This is the treatment with the highest recommendation from Mr. King. This treatment produces the lowest annual cost to customers, at $5,374,932\textsuperscript{13}. Under this treatment the current charge to customers is effectively set equal to the average actual removal costs paid by PEPCO in recent years, which averages $5.37 million per year in recent years.\textsuperscript{14}

This proposal is based on the principle of charging current customers what the company is currently paying for the cost of removal, with a five-year average used to smooth out year-to-year fluctuations.

Applying this principle to the simple hypothetical discussed above, the equivalent treatment in the hypothetical is:

(1) The customers in 2007 could be required to pay $1,000 in “year 2007” dollars for the cost of removal of one pole, because the removal cost of one pole is $1,000 in “year 2007” dollars.

\textsuperscript{13} Page 37, Direct Testimony of King
\textsuperscript{14} King Direct, page 25.
Q. What are the disadvantages and advantages of this treatment?

A. The disadvantage of the “Five-Year Rolling Average Approach.” is:

(1) The main disadvantage is that the removal cost of the investment is not recovered during the investment’s service life. In the hypothetical, customers paying $1000 in 2007 will have paid enough to fully remove one pole removed in 2007, but the customers would not have paid for removing the particular pole the customers are utilizing, because that particular pole will be removed in the future.

The advantages of the “Five-Year Rolling Average Approach.” are:

(1) The customers do not overpay for removal costs. They pay reasonable rates.

(2) Since the dollar amount to be currently collected from the customers are based on the current actual expenditures for actual removals, there is little or no difference between the value of the dollars collected from the customers and the values of the dollars used by the Company to pay for the removals. This eliminates any significant issues pertaining to inflation or the change in the value of dollars over time.

Q. Do you recommend the “Five-Year Rolling Average Approach” or purposes of this proceeding?
A. The “Five-Year Rolling Average Approach,” or similar treatment, is superior to the “Traditional Inflated Future Cost Approach,” because the “Five-Year Rolling Average Approach” does not involve excessive charges to the customers. One disadvantage of the “Five-Year Rolling Average Approach” is that the removal cost of the investment is not recovered during the investment’s service life. However the “Traditional Inflated Future Cost Approach” overcharges customers for net salvage, and I consider reasonable rates to be an important regulatory goal. The “Five-Year Rolling Average Approach” or similar treatment is superior to the “Traditional Inflated Future Cost Approach”, but my recommendation in this proceeding is the “Present Value” treatment discussed below.

VI. “Present Value” of the Future Removal Costs

Q. Could you please discuss the third removal cost treatment discussed in the Direct of Mr. King?

A. Yes. Starting on page 29, line 26 of his testimony, Mr. King discusses the “Present Value” treatment for removal costs. According to Mr. King’s figures, this treatment produces annual costs to customers that is between the two treatments previously discussed in this testimony, at $12,895,576.15

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15 Page 37, Direct Testimony of King.
This proposal is based on charging current customers the “present value” of the future removal costs.

Applying this principle to the simple hypothetical discussed above, the equivalent treatment in the hypothetical is:

(3) The customers in 2007 could be required to pay the “present value” of the future removal cost of $4,000. They would pay enough in the year 2007 such that the money they paid, plus 30 years of interest on that money, would be the $4,000 needed for removal cost in the year 2037 in “year 2037” dollars.

As shown on column j of Schedule WWD-4, in an additional part of the calculation customers also pay the “interest”, so all money in the depreciation reserve is from the customers. This is consistent with the present value treatment that is currently used by PEPCO and other utilities for the “legally” required AROs.

Q. What are the disadvantages and advantages of this treatment?

A. The disadvantage of the “Present Value” treatment of net salvage is:

(1) There is no major disadvantage. The removal costs are recovered over the life of the investment, and customers do not overpay for removal.
In the past a disadvantage was that utilities and regulators were not familiar with “Present Value” calculations for removal cost recovery, but utilities, including PEPCO, now use “Present Value” calculations for their “legally-required” removals. Therefore the utilities are now familiar with the use of “Present Value” calculations for removal costs.

The advantages of the “Present Value” treatment of net salvage are:

1. The customers that use the facilities during its service life pay for the future cost of removing that facility.
2. Customers do not overpay for net salvage. They pay reasonable rates.

I recommend the “Present Value” treatment for removal cost recovery.

Q. Have you reviewed the calculation of the annual accrual for removal costs under the “Present Value” treatment as shown on Mr. King’s Exhibit (CWK-3), Schedule 4?

A. Yes. It is a reasonable approximation for discussion purposes, but the most accurate calculations are done “by vintage.” “By vintage” means the calculation is done separately for each year of installation. The “Plant Only” depreciation

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16 According to the PEPCO response to OPC Request 3-4, PEPCO has underground storage tanks for which it has a “legally-required” asset retirement obligation.

17 Please note I am not implying the other PEPCO investments are legally-required removals. The point is that PEPCO is familiar with the “Present Value” calculations for removal costs.
rates include “by vintage” calculations,\(^\text{18}\) and the most accurate “Present Value” removal cost depreciation calculations are by vintage. The “by vintage” calculation recognizes that the current “present value” calculations are different for investments installed in different years.

Q. Have you attached a “by vintage” “Present Value” removal cost depreciation calculation?

A. Yes. This calculation for Account 365, Overhead Conductors and Devices, is attached as Schedule WWD-2.\(^\text{19}\) Using the same inputs as Mr. King used, the “by vintage” calculation produces an annual accrual of $2,948,420, which is 12\% higher than the $2,632,743 for this account shown on King Schedule 4. As shown on Schedule WWD-2, the “by vintage” calculation produces a 1.41\% removal depreciation rate for this account, as opposed to the 1.26\% rate shown on King Schedule 4. It should be noted that 1.41\% in not my final recommendation. For comparison purposes, on Schedule WWD-2 I used the same inputs as used on King Schedule 4.\(^\text{20}\) Later I will provide a similar calculation, but using the Staff recommended inputs.

\(^{18}\) For example, see section 6, page 12 (6-12) of the PEPCO Depreciation Study (EMR-1).

\(^{19}\) Separately for each vintage I calculated the “Depreciation of Removal Cost” (similar to column F on King Schedule 4, except I did it by vintage), and also I also calculated the “Increment in Removal Cost” by vintage (similar to column I on King Schedule 4, except by vintage). These calculations specifically consider the specific remaining life until removal separately for each specific vintage.

\(^{20}\) For example, on Schedule WWD-2 I have used the annual cost of money of 7.17\%, because that is what was used on the King Schedule 4.
Although what Mr. King presented is a reasonable approximation for discussion purposes, for purposes of calculating the actual depreciation rate that will be adopted in the Commission Order, I recommend the more accurate “by vintage” calculations be used, as shown on Schedule WWD-2.

VII. Administration and Reserve Deduction

Q. Would the administration of the depreciation rate be the same as it now is under all of the proposals discussed in this testimony and in the testimony of Mr. King?

A. Yes. Under all the proposed treatments for removal costs, the application of the depreciation rate each month would be the same as it is now. Under all of the treatments, the cost of removal for an account is stated in the form of a net salvage “depreciation rate” that would continue to be multiplied times the current investment in that account each month. The resulting accruals would continue to go into the depreciation reserve, and the depreciation reserve would continue to be a deduction when calculating net rate base.

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21 The “plant only” depreciation rate is separate from the “Cost of Removal” depreciation rate, as shown on Table 1 of the PEPCO Depreciation Study (EMR-1).
22 The monthly version (1/12 of the annual rate) of the depreciation rate is used in monthly calculations.
23 On page 24 of his Direct Testimony, starting on line 24, Mr. King advocates that in addition to the reserves being a deduction from rate base, that the reserves should be recognized as a “regulatory liability” for regulatory purposes. At this time it is not clear what the impact would be of declaring the removal cost reserve a “regulatory liability,” and it is not clear that any additional treatment beyond the existing practice of deducting the reserve in the calculation of the rate base is appropriate.
24 Along with the other treatments, the removal reserve would continue to be a deduction from rate base under the “Present Value” treatment. Under the “Present Value” treatment, all funds in the Reserve are funds provided by the customers, and therefore this should be deducted when calculating the investor...
VIII. Amortizing a Reserve Surplus or Deficiency

Q. On page 36 of his testimony Mr. King points out that there is $36 million in the reserve for removal cost, as of end-of-year 2005. He proposes to amortize this amount over a five-year period, resulting in an annual credit to the customers of $7.2 million per year for the first five years. Do you support this amortization?

A. No. If this reserve amortization was adopted, for the next five years customers would pay nothing towards removal costs and would actually receive a net credit of $1.8 million per year related to removal costs. Mr. King’s primary recommendation for removal cost would result in an annual accrual of $5,374,932. If combined with a -$7,241,521 reserve amortization, the customers would have a net cost of -$1,866,589 per year for removal costs.

In addition, alleged reserve surpluses or deficiencies depend upon the depreciation parameters and treatments selected by that witness for that particular depreciation study. The alleged reserve surplus or deficiency may no longer supplied investment (net rate base). All the money in the reserve is customer supplied because under this specific “Present Value” treatment the customers pay in the “interest” as well as paying in the other amounts in the reserve. From page 7 of the King Direct “The annual expense associated with this liability consists of two parts. One is the depreciation of the liability, which is the present value of the liability divided by the life of the asset. The second expense is the annual accretion in the present value of the liability, similar to interest expense.” The two parts, both recovered in customers’ rates, are shown on Columns F and I of Schedule 4 attached to the Direct Testimony of King. Column I is effectively the “interest” paid being paid in by the customers. Calculating the expense in two such parts is consistent with the “present value” treatment used for “legally” required AROs.
appear, if different parameters or other different factors are used in a current or future depreciation study. An additional problem in this case, as previously discussed, is that there is a significant error in the depreciation reserve amounts, and PEPCO has not yet provided the corrected numbers. When the new numbers arrive it will be late in the case. Attempting to determine, with high certainty, if there is a significant reserve surplus or deficiency is difficult even under ordinary conditions. For purposes of this case, I do not recommend amortizing any alleged reserve deficiency or surplus. These amounts will remain in the depreciation reserve and continue to be a deduction when calculating net rate base.

**IX. Separation of Depreciation from the Removal Cost Accrual**

Q. On page 4, lines 16-24 of his testimony, Mr. King states that the PEPCO witness did separate the depreciation rate for “removal cost” from the “plant only” depreciation rate. Mr. King states he agrees with PEPCO on this separation and then devotes the next several pages of his testimony (pages 4 through 15) primarily to explaining why he agrees with PEPCO on this separation issue. What is your recommendation on this issue?

A. This issue does not appear to be in dispute. Both PEPCO and the OPC support this separation and both of their filings show the depreciation rates for “removal cost” separately from the “plant only” depreciation rates. I have no objection to
that separation. I suggest the Commission accept this separation and move on to
other issues.

X. “Correct For Extrapolated Past Inflation”

Q. On page 27 and 28 of his testimony, Mr. King discusses the difference
between past inflation and future inflation. He recalculates the “Net Salvage
Ratios” using 2.2% future annual inflation. Based on this adjustment to the
“Net Salvage Ratios”, he states:

Total removal cost accruals come to $22.5 million, which
compares with Mr. Robinson’s $37.2 million for a difference of
$14.7 million.  

Please comment on this adjustment.

A. This is a valid concept, however the annual impact of the differences in net
salvage ratios is less than $3 million per year.

Mr. King is correct that for accounts with long plant lives, future annual inflation
rates are expected to be lower than past inflation, primarily because of the high
inflation that occurred in the 1970s and early 1980s when inflation was over 10%
per year in some years.

25 King Direct testimony, page 28, line 19-20.
If the recovery treatment selected does adjust for future inflation (as the PEPCO proposal effectively does), the concept that future expected inflation should be used instead of past inflation is also correct.

Mr. King states the changes in the “Net Salvage Ratios” results in an annual difference of $14.7 million, as shown on page 2 of his Schedule 3. However the annual difference that results purely from the difference between the PEPCO proposed “Net Salvage Ratios” and Mr. King’s adjusted “Net Salvage Ratios” is less than $3 million per year. The $14.7 million difference between the King number and the PEPCO number includes other differences, such as the PEPCO use of incorrect depreciation reserve amounts. I can recommend the concept but I cannot recommend the $14.7 million quantification of the impact of this concept.

In addition, the 2.2% annual future inflation Mr. King has proposed is in the lower part of the accepted range. According to the Survey of Professional Forecasters, a survey of dozens of professional forecasters by the Federal Reserve Bank of Philadelphia, future inflation over the long-term is expected to be 2.35%

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26 Page 2 of King Schedule 3 (CWK-3) shows a $22,507,500 annual accrual using Mr. King’s adjusted net salvage ratios. When I substitute the PEPCO original net salvage ratios into that calculation, the annual accrual is $25,467,025, a difference of $2,959,525.

27 The PEPCO number used the incorrect reserve amounts, the King calculation is a different calculation that does not use the reserve amount. Part of this difference may close when PEPCO uses the correct reserve amounts.
per year. On Schedule WWD-3 I have modified Mr. King’s Schedule 3 by using 2.35% future annual inflation. For example, for one of the largest accounts, Station Equipment, PEPCO had recommended –30%, Mr. King had recommended –25%, and the corrected calculation on Schedule WWD-3 is –26%. I recommend the net salvage ratios shown on Schedule WWD-3, for all treatments that include the use of net salvage ratios.

XI. Removal Cost Recommendation

Q. Have you prepared a Schedule which incorporates the removal cost recommendations discussed in this testimony?

A. Yes. Schedule WWD-4 shows the calculation of the removal cost depreciation rate that I recommend for account 365, Overhead Conductors and Devices. This is calculated using the “by vintage” “Present Value” treatment of removal costs. For the annual cost of money I have used the 8.22% overall cost of money as recommended by the Staff witness Elert. If the Commission determines a different cost of money is appropriate, this can easily be recalculated.


29 The “Traditional Inflated Future Cost Approach” and the “Present Value” treatment include the use of net salvage ratios in the calculations. The “five-year rolling average approach” does not use net salvage ratios in the calculation.

30 Staff Exhibit DHM-1, page 1, line 2, filed March 7, 2007, this proceeding, Case No. 9092. I am not offering a position on the cost of money.
The net salvage ratios I have used are the corrected ratios that are based on 2.35% future annual inflation, but this adjustment has only a small impact on the result. The PEPCO proposed net salvage ratio was –60% for this account, and the revised net salvage ratio I used as an input to this “present value” calculation is –58%.

Q. What is Schedule WWD-5?

A. Schedule WWD-5 shows my “Removal Cost” depreciation rate recommended for all of the accounts. The recommendation shown for account 365 is the recommendation that resulted from Schedule WWD-4, and the recommendations for the other accounts resulted from similar calculations for those accounts. Page 1 shows the recommended “Removal Cost” depreciation rate if the Service Lives recommended by PEPCO are used, and Page 2 uses the OPC proposed Service Lives.

Prior to addressing the “Removal Cost” depreciation rates, I suggest the Commission address the “rate of return”. I also recommend they determine the lives to be used in the “Plant Only” depreciation rates. Once those are determined, those cost of money and service lives can easily and quickly be entered into the “Removal Cost” depreciation rate calculations.

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31 A different cost of money and/or service lives can easily be entered into these calculations.
32 Due to time and resources limitations, in this testimony I am not addressing whether PEPCO or the OPC proposed service lives should be used.
Q. Will the “removal” depreciation reserve grow under your proposed “Removal Cost” depreciation rates?

A. Yes. As shown on Schedule WWD-5, the annual “Removal Cost” depreciation accruals are $14.3 million if the PEPCO Service Lives are selected by the Commission, or $9.6 million if the OPC Service Lives are selected by the Commission. These funds are placed into the “Removal Cost” Depreciation Reserve. The actual PEPCO expenditures for removal costs average $5.4 million per year in recent years. The actual net removal costs are removed from the Reserve. Because the amount coming into the Reserve is larger than the amount going out of the Reserve, the balance in the “Removal Cost” Reserve will grow.

XII. Conclusion

Q. Would you please summarize your Rebuttal Testimony?

A. Yes.

(1) PEPCO has acknowledged the Maryland Depreciation Reserve amounts PEPCO used in its depreciation rate calculations are incorrect. This means that the depreciation rates and annual accrual amounts may need to be trued up in the April 2, 2007 surrebuttal testimony. These corrections should produce an overall annual depreciation accrual that is several million dollars lower than the equivalent annual depreciation accruals previously filed.

(2) In determining the appropriate charges for net salvage, the major problem is that customers may pay the utility for removal costs decades before the

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33 King Direct, page 25.
utility actually pays to have the facilities removed. Properly addressing
the decline in the purchase power of a dollar that occurs over the decades
the customer money is held is the major problem in addressing future cost
of removal recovery.

(3) The “Traditional Inflated Future Cost Approach” results in the customers
overpaying for cost of removal. The number of dollars currently collected
from customers is higher than they otherwise would be, to allow for the
future lower purchasing power of future dollars. Using hypothetical
numbers, if removing one pole cost $1,000 in “year 2007” dollars, and
customers were paying in “year 2007” dollars, this treatment would
require the customers in 2007 to pay $4,000 in “year 2007” dollars to
remove one pole, because the removal cost of one pole will be $4,000 in
“year 2037” dollars.

I do not recommend this treatment.

(4) The “Five-Year Rolling Average Approach” is based on the principle of
charging current customers what the company is currently paying for cost
of removal, with a five-year average used to smooth out year-to-year
fluctuations.

Applying this principle to the simple hypothetical: The customers in 2007
could be required to pay $1,000 in “year 2007” dollars for the cost of
removal of one pole, because the removal cost of one pole is $1,000 in
“year 2007” dollars.

This treatment does produce reasonable rates. This treatment is preferable
to the “Traditional Inflated Future Cost Approach”.

(5) “Present Value” treatment for removal costs is based on charging current
customers the “present value” of the future for removal costs. Applying
this principle to a simple hypothetical, the customers in 2007 could be
required to pay the “present value” of the future removal cost of $4,000.
They would pay enough in the year 2007 such that the money they paid,
plus 30 years of interest on that money, would be the $4,000 needed for
removal cost in the year 2037 in “year 2037” dollars.

The “Present Value” treatment for removal costs is my primary
recommendation in this proceeding. It has no major disadvantages and
PEPCO is already familiar with “Present Value” calculations for removal
costs, because PEPCO is already using this treatment for other removal
cost purposes.

(6) In this testimony I also address a number of other lesser issues.

(7) I recommend the “Removal Cost” depreciation rates as shown on
Schedule WWD-5. These are calculated “by vintage” using the present
value of the future costs of removal. This treatment recovers the future
removal cost over the life of the investment, does not over charge
customers, and fully recovers the removal costs from customers. In
addition, PEPCO is familiar with the present value treatment of removal
cost, because PEPCO use the present value treatment for certain other
removal cost purposes.

Q. Does this conclude your Rebuttal Testimony?

A. Yes.

34 A different cost of money and/or service lives can easily be entered into these calculations.