PA-EXE-175. According to the response to PA-EXE-24, power costs increased by over 35% from 2010 to 2011 and then show unsteady decreases over the next 3 years.

- a. Please explain whether the 2010 2011 increase was due to energy usage or a change in electric rates?
- b. Please provide the annual electric power costs from FY 2010 through FY 2015.
- c. Please provide total annual city power costs from FY 2010 through FY2015.
- d. According to the response to PA-EXE-24, PWD states that "it was decided that a 5% escalation factor would be used to escalate Electric Costs for FY2018 FY2021. This is a reasonable escalation factor based upon both experience and judgment, taking into account the market uncertainty related to electricity and power costs". Is there an analysis showing the calculation of the 5% increase, or is the 5% increase based upon subjective judgment as implied in the response?

Response:

- (a) Fiscal Year 2011 (July 1, 2010 July 1, 2011) was the first full year of PECO's energy efficiency and conservation surcharges. A new tariff which added surcharges for the cost of PECO's Energy Efficiency and Conservation Program became effective January 1, 2010 following the approval by the PUC in Docket No. M-2009-2093215. In addition, PECO base rate increase became effective on January 1, 2011 (FY 2011) following expiration of the rate caps and approval of new rates by the PUC in Docket No. R-2010-2161575
- (b) The Water Department annual electric power costs from FY 2010 through FY 2015 are provided in PWD Exhibit-6: Black & Veatch Corporation Cost of Service Work Papers, Finplan2015.xls, Direct O&M-1 (pages 194 to 195 of the PDF).
- (c) The Water Department does not have full access to data for City power costs.
- (d) The 5.0% escalation factor for power costs is a reasonable escalation factor based upon both experience and judgment and consideration of the following facts:
- As presented in PWD St.-9B: Supplemental Direct Testimony and Exhibits of Black & Veatch Corporation, on page 22 of Financial Plan: Revenue & Revenue Requirement Assumptions (Ref#: BV-S1), the annual increase in the historical Consumer Price Index Electricity Philadelphia Area during the period FY 2005 to FY 2015 the annual increase has ranged from (3.99%) to 12.22%.
- On January 1, 2016 a PECO rate increase became effective following approval by the PUC in Docket No. R-2015-2468981 which includes a 13.3% increase in the Rate for Primary Distribution (PD) and a 6.4% increase in the Rate for High Tension (HT).

Response Provided By: Scott Schwarz, Philadelphia Water Department and Ann Bui, Prabha Kumar and David Jagt, Black & Veatch

PA-EXE-176. With reference to the response to PA-EXE-26(b), please show how the costs were projected (not a reference) if there are no reports breaking down the costs?

Response:

While no reports are available that capture all the types of abatement that were listed in response to PA-EXE-26 (a), there is data available to track the number of properties cleaned that were damaged as a result of a water main break. This information is provided in response to PA-EXE-177. The additional abatement cost of \$600,000 is due to the increase in the number of properties being cleaned from FY14 to December FY16. As of March 1, 2016 the cost of claims has already exceeded the budgeted amount for FY2016.

Response Provided By: Debra McCarty, Philadelphia Water Department

PA-EXE-177. With reference to the response to PA-EXE-26(c), it states "the additional adjustment amount is due to the increase in the number of properties that require abatement. We have experienced an increase in the number of water main breaks the past 2 fiscal years with this fiscal year on track to reach the same level or higher as FY 15." Please provide the supporting data for this statement which shows the increase in abatement costs, number of properties requiring abatement and the number of water main breaks.

Response:

	FY2014	FY2015	FY2016*
Total Properties Cleaned	58	91	129
Emergency Cleaning Costs	\$333,884	\$239,095	\$888,796
Number of Water Main Breaks **	919	911	457

^{*} FY2016 Information as of 2/1/2016

Response Provided By: Debra McCarty, Philadelphia Water Department

^{**}FY14 Removed Joint Leaks as a Failure Type, which reduced number reported from 969.

PA-EXE-178. Reference the response to PA-EXE-36, please provide supporting documentation showing the derivation of the 4.02% from the 3 indices listed in the response. Your response should show the rate used from each of the 3 data sources which was used in the calculation for each of the 7 years.

Response:

For the period 2001-2007 we used the following annual inflation rates for each of the indices used:

•	HW Index	3.50%
•	ENR	3.87%
•	Means	4.70%

Supporting documentation can be obtained through subscription to these organizations.

Response Provided By: Stephen J. Furtek, Philadelphia Water Department

PA-EXE-179. According to the response to PA-EXE-37(c), using the 3-year historical average for pension costs would not accurately capture those costs. Please explain why using the 3-year historical average would not accurately capture those costs.

Response:

A full description of the City of Philadelphia Pension System is detailed in the response attachment EXE-179a City of Philadelphia, General Obligation Bond, Series 2015B official statement under the Section titled "Pension System", starting on page number A-48 and response attachment EXE-179b City of Philadelphia Board of Pensions and Retirement Annual Report Fiscal Year Ending June 30, 2014. Please read the referenced response attachments in their entirety to better understand the status of the Pension System and the corresponding expenses.

The City faces significant ongoing financial challenges in meeting its pension obligations including an unfunded actuarial liability ("UAL") of approximately \$5.7 billion as of July 1, 2014. In Fiscal Year 2015, the City's contribution to the Municipal Pension Fund was approximately \$595 million. The Funded Ratio of the Municipal Pension Plan was 47.7% on July 1, 1995 and 45.8% on July 1, 2014.

The decline in the Municipal Pension System's funded status and the net growth of the unfunded liability is the product of a number of factors, including the following:

- The declines in the equity markets
- A reduction in the assumed rate of return, from 9.00% in 2004 to 7.80% effective July 1, 2014 and 7.75% effective July 1, 2015. Although the gradual reductions in the assumed rates of return are considered a prudent response to experience studies, by reducing the assumed return in the measurement of the actuarial liabilities, it services to increase the UAL from what it otherwise would have been.
- Adopting more conservative mortality rates in response to experience studies performed by the Municipal Pension Plan actuary.
- The Municipal Pension Plan is a matured system, which means the number of members making contributions to the Municipal Pension Plan is less than the number of retirees and other beneficiaries receiving payments from the Municipal Pension Plan, by approximately 10,700. As a result, the aggregate of member contributions and the City's contributions are less than the amount of benefits and refunds payable in any particular year, with the result that investment income must be relied upon to meet such difference before such income can contribute to an increase in the Municipal Pension System's assets growth.

As such, the City and the Department face rising pension costs. Using a three year historical average from FY2013, FY2014 and FY2015 would understate the Water Departments pension expense.

PA-EXE-180. Please explain whether the Pension Plan is a defined benefit plan or defined contribution Plan?

Response:

The City maintains two defined-benefit pension programs. While most of our employees participate in a defined contribution plan, approximately 800 are in a hybrid plan that combines elements of a defined benefit plan and of a defined contribution plan. For further details, please see response attachment EXE-179a City of Philadelphia, General Obligation Bond, Series 2015B official statement under the Section titled "Pension System", starting on page number A-48 and response attachment EXE-179b City of Philadelphia Board of Pensions and Retirement Annual Report Fiscal Year Ending June 30, 2014.

PA-EXE-181. Please provide a copy of the most recent pension plan actuarial study.

Response:

Please see response attachment EXE-181 City of Philadelphia Actuarial Valuation Report as of July 1, 2014.

PA-EXE-182. Regarding the response to PA-EXE-130, the provided schedule appears to have been duplicated from another record, source, document or workpaper, which includes hyperlinks. Please provide the complete record, source, document or workpaper from which the schedule was duplicated.

Response:

The statement is not accurate there were no hyperlinks in the document provided.

Response Provided By: Katherine Clupper, Public Financial Management

PA-EXE-183. The City's Comprehensive Annual Financial Reports (CAFR) list Equity in Treasurer's Account for Water and Sewer on two separate lines – Current Assets and Non-Current Assets (Restricted Assets). See, e.g., 2014 CAFR, Exhibit VI, Page 33.

- a. With respect to Equity in Treasurer's Account listed as Current Assets (Water and Sewer), please explain:
 - i. What is the source of this cash (e.g., customer payments, interest earnings, loans, grants, etc.)?
- b. With respect to Equity in Treasurer's Account listed as Non-Current Assets (Restricted Assets) (Water and Sewer), please explain:
 - i. How reported amounts are determined?
 - ii. What are the component funds, accounts or assets which comprise the amounts reported on this line?

Response:

Please read the Philadelphia Water Department Financial Statements, Fiscal Year Ended June 30, 2015, footnote number 8. However, the Department has also provided the details below.

Restricted assets as of June 30th, 2015 are also detailed below:

Capital Projects – Series 2015 Tax Exempt Bond Proceeds \$300,250,303

Capital Projects – Series 2013 Tax Exempt Bond Proceeds \$14,161,248

Capital Projects – Self Generated Capital \$95,251,699.67

Residual Fund - \$14,990,160

Rate Stabilization Fund - \$206,297,549

Please note Equity in Treasurer's account is a term utilized by the City in its preparation of the GAAP Financial Statements. For purposes of rate setting, calculating compliance with the Rate Covenant and debt service coverage and budgeting, the Water Fund accounts are maintained on the modified accrual basis of accounting also referred to as the "Legally Enacted Basis". On a legally enacted basis the revenue account has a zero balance.

PA-EXE-184. Please confirm that the \$70 million shown as the Revenue Fund Ending Balance for FY 2016 on Black & Veatch Funds Worksheet "Combined Utility Funds" (PWD Exhibit 6) represents the same \$70 million shown as FY 2016 (Projected B&V) Water Operating Fund Balance on page 15 of PWD's December 2015 Financial Plan (PWD Exhibit 2).

Response:

The statement embedded in the question is not accurate.

PA-EXE-185. Please provide a listing of each of the chemicals used in the Department operations. Your response should separate the cost by water, wastewater and stormwater operations and should include the following:

- a. The total annual cost of each chemical for FY 2012 to FY2015;
- b. The annual average unit price paid for each chemical for FY 2012 to FY 2015; and
- c. The annual quantity purchased for each chemical for FY 2012 to FY 2015.

Response:

For (a) and (c), please see response attachment EXE-185. To determine average unit price paid (b) for each chemical, divide the quantity purchased by the total cost.

Response Provided By: Debra McCarty, Philadelphia Water Department

PA-EXE-186. According to Rate Case Assumptions, the Department is projecting a decrease customer usage during each year of the 6-year period.

- a. Given that the amount of chemical used is dependent on the quantity of water treated, why is the Department not projecting a corresponding decrease in chemical expense? Please provide all data used to support your response.
- b. Given that amount of electricity used by the Department is related quantity of water pumped, why is the Department not projecting a corresponding decrease in electricity expense? Please provide all data used to support your response.

Response:

As indicated in PWD St.-9B: Supplemental Direct Testimony and Exhibits of Black & Veatch Corporation, on page 1 of Financial Plan: Revenue & Revenue Requirement Assumptions (Ref#: BV-S1), the total retail water usage volume reflects an annual decrease of approximately 0.6% from FY 2016-2019. Based on the fact that the projected decrease in the retail water usage volume reflects a small (0.6%) decrease relative to the total system treated water volumes, we do not feel that that it is appropriate to decrease the projected electric and chemical costs.

Response Provided By: Ann Bui, Prabha Kumar and David Jagt, Black & Veatch