

PHILADELPHIA WATER DEPARTMENT
REBUTTAL STATEMENT NO. 4

BEFORE THE
PHILADELPHIA WATER, SEWER AND STORM WATER RATE BOARD

In the Matter of the Philadelphia Water Department's Proposed Change in Water, Wastewater and Stormwater Rates and Related Charges	Fiscal Years 2024 - 2025
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Rebuttal Testimony

on behalf of

the Philadelphia Water Department

to

Philadelphia Large Users Group Witness Billie LaConte

Dated: April 26, 2022

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

1. PLEASE STATE YOUR NAMES AND POSITIONS.

1. Our names are Ann Bui, Dave Jagt, and Brian Merritt. We are employed by the firm of Black & Veatch Management Consulting LLC (Black & Veatch), 11041 Lamar Avenue, Overland Park, Kansas. We are providing testimony on behalf of the City of Philadelphia (the City) Water Department (“Water Department” or “PWD”) in this proceeding as a panel.

2. HAVE ANY WITNESSES ON THIS PANEL PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

2. Yes. We provided testimony and schedules in PWD Statement 7.

3. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

3. In this rebuttal, we provide the Department’s response to recommendations and criticisms of Billie LaConte in her direct testimony (PLUG St. 1) submitted on behalf of Philadelphia Large Users Group (“PLUG”).

II. COST OF SERVICE STUDY

A. Water COSS

4. PLEASE DESCRIBE MS. LACONTE’S CONCERNS REGARDING THE CAPACITY FACTOR ANALYSIS IN THE DEPARTMENT’S COST OF

1 **SERVICE STUDY.**

2 4. Ms. LaConte indicated that the capacity factor analysis was based on 2018 billing data
3 and requested that intervenors be provided with more recent actual maximum day and
4 maximum hour factor data. PLUG St. 1 at 3-4, 5.

5
6 **5. PLEASE RESPOND TO THOSE CONCERNS.**

7 5. The Department is in the process of implementing Advanced Metering Infrastructure
8 (AMI) which will provide the Department with the capability to analyze the customer
9 billing information to establish estimates of actual maximum day and maximum hour
10 demand factors by customer type. This effort will take some time as the Department
11 completes the implementation of AMI, establishes the data processes to develop this
12 information, and validates customer classification data to affirm its accuracy. As stated,
13 this information is not available for use in this Rate Proceeding.

14
15 The Department’s current metering does not provide the data or ability to establish
16 estimates of actual maximum day and maximum hour demand factors. In the absence of
17 the available data to provide the actual maximum day and maximum hour demand
18 factors, the methodology outlined in Appendix A of the AWWA Manual M-1: Principles
19 of Water Rates, Fees, and Charges was utilized to estimate the customer demand factors.

20
21 As outlined in Appendix A, the data necessary for the analysis should be based on the
22 data from the year with the highest ratio of system maximum day to average day
23 demands over the recent five years. During the development of the Cost of Service Study
24 (“COSS”) in support of the 2021 general rate proceeding, the system demand operating
25 data was reviewed and it was determined that FY 2018 represented the year with the

1 higher ratio of system maximum day to average day demands based on the recent five
2 years prior to that study. However, during the development of the customer peaking
3 factor analysis, a high-level review of the FY 2018 monthly billing data by customer type
4 revealed that the maximum month for some customer types was impacted by a change in
5 the number of bills issued during the monthly billing period, which resulted in overstating
6 the maximum month to average day ratio of the corresponding customer types¹.

7 Therefore, we did not feel it is appropriate to use FY 2018 in the context of the peaking
8 factor analysis. Given the data issues coupled with the fact that the historical peak
9 maximum day to average day ratio of 1.40 utilized in the peaking factor analysis
10 supporting the prior rate proceeding was consistent with the FY 2018 system peak
11 maximum day to average day ratio of 1.39, we felt it was appropriate to continue to use
12 the historical analysis.

13
14 In fact during the 2021 general rate proceeding, the witness for PLUG submitted
15 testimony in support of the Department's use of the capacity factors reflected in the
16 COSS in lieu of the capacity factors proposed by the Public Advocate's witness based on
17 the average of the 2019 and 2020 data.

18
19 During the development of the current COSS, the system maximum day data for the
20 recent two years was reviewed and it was determined that FY 2018 remained the highest
21 ratio of maximum day to average day demand. As such, we continued to utilize the
22 capacity factor analysis from the 2018 general rate proceeding.

23
24
25

¹ See responses to PA-IV-11 and PLUG-I-1.

1 **6. PLEASE DESCRIBE MS. LACONTE’S CONCERNS REGARDING THE**
2 **ALLOCATION OF COSTS TO LARGE CUSTOMERS.**

3 6. Ms. LaConte indicated that the increase for users with large meters (1” and above) are
4 higher (ranging from 12% to 15.5% in fiscal year 2024) than those for customers with
5 smaller meters and lower usage (ranging from 4.8% to 14.9%) and requested more recent
6 usage data. PLUG St. 1 at 4-5.

7
8 **7. PLEASE RESPOND.**

9 7. The primary drivers for the larger bill increases for larger meter sizes and higher volumes
10 are the following:

11
12 **Proposed Increase to the Water Service Charges.**

13 The proposed increase in the water meter charges is due to the increased investment in
14 meter equipment to reflect the ongoing investment in Advanced Meter Infrastructure,
15 which results in a higher allocation of costs to the meter cost component. The increases
16 for larger meter sizes are the result of the increasing equivalent meter ratios for those
17 meter sizes². As discussed in Schedule BV-2, the equivalent meter ratios are used as the
18 basis for establishing the units of service for the meter cost component in the COSS.

19
20 Please note that in the 2018 general rate proceeding, the larger meter sizes benefited from
21 the retirement of the meter plant investment³. The retirement of meter investment
22 decreased allocation of costs to the meter cost component. At that time, the larger
23 decreases for larger meter sizes were the result of the application of the increasing

24 _____
25 ² See Table 4-3 Schedule BV-2: Water and Wastewater Cost Service Report.

³ See response to PA-VII-20 from the 2018 rate proceeding

1 equivalent meter ratios reflected in the units of service. The equivalent meter ratios
2 compound both increases and decreases in costs, as applicable, during the respective COS
3 Studies.

4
5 **Proposed Increase to the Water and Sanitary Sewer Quantity Charges.**

6 In general, the requested increases in both the water and sanitary sewer quantity charges
7 are primarily driven by the increase in chemical and power costs. The higher increases in
8 the proposed quantity charges, relative to the service charges, result in higher increases in
9 the bills for higher volume customers.

10
11 Note that the proposed water quantity charge increases presented in the formal notice
12 ranged from 22.7% for the lowest usage block to 19.1% for the highest usage block. In
13 consideration of the proposed water volume charges alone, these proposed increases
14 would result in slightly lower relative increases for higher volume customers due to the
15 lower increase for the larger rate blocks. Note that the continued use of the estimated
16 customer peaking factors from the prior rate proceeding would contribute to a more
17 stable cost distribution between the rate blocks. The driver for the slightly higher increase
18 in the lower usage block is increase in the allocations to the extra maximum hour demand
19 component as a result of the higher systemwide peak hour demand experienced in
20 FY 2021.

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22 The combined impacts of these drivers result in higher bills for customers with larger
23 meter sizes and higher usage.

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25 **B. Wastewater COSS**

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8. DOES MS. LACONTE PROPOSE ANY CHANGES TO THE WASTEWATER COST OF SERVICE STUDY?

8. No.

C. Stormwater COSS

9. DOES MS. LACONTE PROPOSE ANY CHANGES TO THE STORMWATER COST OF SERVICE STUDY?

9. No.

III. CONCLUSION

10. DOES THIS CONCLUDE THIS REBUTTAL TESTIMONY?

10. Yes, it does.