MEMORANDUM

TO: James Leonard, Records Commissioner

FROM: Sonny Popowsky, Chair of the Water, Sewer and Storm Water Rate Board SP

DATE: July 12, 2018

RE: Rate Determination of Water Department Rates and Charges for FY 2019-2020

On March 14, 2018, the Water Department filed a Formal Notice of the Philadelphia Water Department's Proposed Changes in Water, Wastewater and Stormwater Rates and Charges (FY 2019-2021), seeking changes in rates and charges effective September 1, 2018, September 1, 2019, and September 1, 2020.

In accordance with Section 5-801 of the Philadelphia Home Rule Charter, Section 13-101 of the Philadelphia Code, and the Regulations of the Water, Sewer and Storm Water Rate Board, the Rate Board held nine public hearings and five technical hearings on this matter in April and May, 2018. Pursuant to those Regulations, the Rate Board's Hearing Officer supervised discovery among the six entities and one individual registered as participants in the rate case.

In June 2018, five participants submitted briefs or a position paper; the Hearing Officer filed her Recommended Decision and a Supplement, and three participants filed Exceptions. The Rate Board then deliberated the issues in the case in public meetings that were held on June 29 and July 2, 2018, and adopted this Rate Determination at a further public meeting on July 11, 2018. All meetings and hearings were duly noticed.

Pursuant to Section 5-801 of the Charter, Section 13-101 of the Code, and the Rate Board's Regulations, and at the direction of the Rate Board in its public meeting of July 11, 2018, I am forwarding herewith for filing the "City of Philadelphia Water, Sewer and Storm Water Rate Board 2018 Rate Determination," which constitutes the Rate Report and Rate Determination of the Rate Board, along with a memorandum of approval from the Law Department. The Rate Board has approved changes in rates and charges to take effect on September 1, 2018, and September 1, 2019, but has not approved changes for FY 2021 at this time.

We expect that the Water Department will shortly file Rates and Charges in conformance with the Rate Determination.

The City of Philadelphia
Law Department
Marcel S. Pratt, City Solicitor

MEMORANDUM

Privileged and Confidential
Attorney Work Product – Attorney/Client Privilege

TO: Sonny Popowsky, Chair – Water, Sewer and Storm Water Rate Board

FROM: Daniel W. Cantú-Hertzler, Senior Attorney DWCH

DATE: July 12, 2018

SUBJECT: Determination of Water Department Rates and Charges for FY 2019-2020

I have reviewed the attached City of Philadelphia Water, Sewer and Storm Water Rate Board 2018 Rate Determination, which the Rate Board adopted yesterday. The Rate Board is the independent rate-making body established by ordinance of City Council pursuant to Section 5-801 of the Philadelphia Home Rule Charter to fix and regulate rates and charges for water and sewer services. The attached document is the Rate Board's Rate Report under Section 13-101(8) of the Philadelphia Code, and is the Rate Board's Rate Determination pursuant to Section II.10 of the Rate Board Regulations. I find the 2018 Rate Determination to be legal and in proper form.

In accordance with Section 13-101(8) of the Philadelphia Code and Section II.10(c) of the Rate Board Regulations, you may forward the Rate Determination to the Department of Records for filing. As stated in the Rate Determination and consistent with Section 13-101(3)(e) of the Code and Section II(10)(d) of the Rate Board Regulations, the effective date of the initial changes in the rates and charges will be September 1, 2018 if the Water Department files its conforming Rates and Charges at least ten days prior to that date.

Attachment

cc: All Rate Board Members (via E-mail)
Nancy Brockway, Hearing Officer (via E-mail)

City of Philadelphia
Water, Sewer and Storm Water Rate Board

2018 RATE DETERMINATION

concluding rate proceeding that commenced with
Formal Notice by the Water Department on March 14, 2018
following Advance Notice on February 12, 2018
for
Water, wastewater, and storm water rates and related charges of the City of Philadelphia Water Department

Filed July 12, 2018

Water, Sewer and Storm Water Rate Board
Sonny Popowsky, Chair
Folasade A. Olanepikun-Lewis
Tony Ewing
Rasheia R. Johnson
Abby Pozefsky

PHILADELPHIA WATER, SEWER AND STORM WATER RATE BOARD
2018 RATE DETERMINATION
July 12, 2018

PHILADELPHIA WATER, SEWER AND STORM WATER RATE BOARD
2018 RATE DETERMINATION
July 12, 2018

I. *INTRODUCTION*

PROPOSED RATE INCREASE AND SUMMARY OF BOARD DECISION

On March 14, 2018, the Philadelphia Water Department (PWD or Department)[1] filed with the Philadelphia Water, Sewer and Storm Water Rate Board (Rate Board or Board) its proposal to increase rates to recover additional revenues over three years (FY 2019 -2021). As originally filed, the proposed increases would have raised overall rates by 1.60% in Fiscal Year 2019, 4.50% in Fiscal Year 2020 and 4.50% in Fiscal Year 2021. PWD Sch. BV-E-1, Table C-1.

Under the original proposed schedules of water and wastewater rates, the total monthly bill for the typical residential customer using 500 cubic feet of water per month would have increased from $66.50 to $67.24 in Fiscal Year 2019; to $70.60 in Fiscal Year 2020; and to $73.79 in Fiscal Year 2021.

As set forth more fully below, the Rate Board has determined that it will only address the proposed rate increases for Fiscal Years 2019 and 2020 at this time. Based on its review of the evidence presented in this case, the Board has approved overall rate increases of 1.33% in Fiscal Year 2019 and 1.20% in Fiscal Year 2020.[2] For a typical residential customer, the monthly bill will decline slightly from $66.50 to $66.33 in Fiscal Year 2019 and increase to $67.19 in Fiscal Year 2020.[3] As proposed by the Department, the rate changes approved in this Order will go into effect on September 1, 2018 for Fiscal Year 2019, and on September 1, 2019 for Fiscal Year 2020.

In reaching its decision in this proceeding, the Board also set forth targets for a number of financial metrics to be considered by the Department in its future operations and by the Board in its future rate decisions. These targets include a 1.30 senior debt service coverage ratio; a $150 million combined reserve balance in the Department's rate stabilization fund and residual fund; and 20% cash financing for capital expenditures.

[1] PWD is a City department, with responsibility for provision of water, sewer and storm water services in the City. The Department also makes wholesale water sales to neighboring communities, but the Rate Board does not determine rates for such off-system sales.

[2] The rate increases and financial results of this Order are attached to the Order as Appendix A, Table C-1. This Table, as well as the accompanying Tables C-4, C-5, C-8, W-18, and WW-18, were prepared by the Department based on the decisions made by the Board on contested issues during public rate deliberations held on June 29 and July 2, 2018. To the extent those Tables include information for Fiscal Years 2021, 2022, and 2023, that information was provided by the Department for illustrative purposes only and is not part of the Board's Order in this proceeding.

[3] As shown on Table C-4 in Appendix A, residential customers with monthly usage at 500 cubic feet or below will receive rate decreases in Fiscal Year 2019. It is the Board's understanding that this is due to a reduction in the monthly customer service charge which has a greater proportionate impact on low usage customers.

The Board also approved the Department's proposal to establish a reconcilable cost recovery rider for the Tiered Assistance Program (TAP) which provides reduced rates for eligible low-income customers.

The bases for the Board's decisions in this matter are set forth in the remainder of this Order. In addition to Appendix A, the attachments to this Order include a list of the adjustments to revenue requirements and financial metrics approved by the Board as Appendix B, and a matrix identifying the votes of the Board members on all issues in the proceeding as Appendix C.

II. *PROCEDURAL HISTORY AND GENERAL EXCEPTIONS*

A. *PROCESS TO DETERMINE RATES*

This is the second rate proceeding for the Rate Board. In 2012, a new rate process was established in Philadelphia to determine prospective water, sanitary sewer and storm water rates and charges. In November 2012, Philadelphia voters approved an amendment to the Home Rule Charter[4] to allow City Council to establish, by ordinance, an independent rate-making body responsible for fixing and regulating rates and charges for water and sewer services. Under the Rate Ordinance adopted by the Council, the Board replaces the Water Department as the entity responsible for setting water, wastewater and storm water rates. The Rate Ordinance[5] became effective January 20, 2014.

The Rate Board members as of the date of this Order are Board Chair Sonny Popowsky, Folasade Olanipekun-Lewis, Tony Ewing, Rasheia R. Johnson, and Abby Pozefsky.[6]

1. OPEN AND TRANSPARENT PROCESS: TECHNICAL REVIEW PROCESS

The Board regulations also provide for a technical review of the proposed rate increase. To justify its proposed increase, the Department must file with its Advanced and Final Notices[7] certain technical information, including the following:

- All financial, engineering and other data upon which the proposed revenue requirements, rates, and changes are based;

[4] View the **amendment to the Charter**.
[5] **View the legislation**. The Rate Ordinance is Chapter 13-100 of the Philadelphia Code
[6] Short biographies of each Board member can be accessed at http://www.phila.gov/water/rateboard/Pages/BoardMembers.aspx
[7] Based on input to the Advance Notice proposals, the Department may make some changes in its Final Notice, such as clarifications sought by participants commenting on the Advance Notice, or Board instructions to complete the record.

- Evidence demonstrating that the proposed rates were developed in accordance with sound utility ratemaking practices and consistent with the current industry standards for water, wastewater and storm water rates; and
- Material required by Order of the Board in the last rate case.

In support of its filing, the Department presented numerous expert witnesses on various technical aspects of the proposed rate increase. These included:

- Debra McCarty, Water Commissioner;
- Melissa LaBuda, PWD Deputy Water Commissioner for Finance;
- Stephen Furtek, PWD General Manager of Engineering and Construction;
- Donna Schwartz, PWD Deputy Commissioner and General Manager of the Operations Division;
- Joanne Dahme, PWD General Manager of Public Affairs;
- Erin Williams, PWD Manager for the Stormwater Billing and Incentives Program;
- Michelle L. Bethel, WRB Deputy Revenue Commissioner;
- RaVonne A. Muhammad, Assistant to the Director of Finance, WRB Assistance Division;
- David Katz, PWD Deputy Water Commissioner;
- Department consultant Black & Veatch (Prabha Kumar, Brian Merritt, Dave Jagt, and Ann Bui);
- Department consultant Raftelis (Jon Pilkenton Davis, Henrietta Locklear, and Jennifer Fitts);
- Department bond counsel, Ballard Spahr (Valarie Allen, Esq.);
- Department consultant Public Financial Management (PFM) (Katherine Clupper); and
- Department consultant Acacia Financial (Peter Nissen).

At a special Public Input hearing, April 17, 2018, Fire Commissioner Adam K. Thiel made a presentation in support of the Department's proposed transfer of revenue responsibility for public fire protection services.

Pursuant to the Ordinance and the Regulations, the Board chose Community Legal Services to act as Public Advocate (Advocate or PA) to represent the concerns of residential consumers and other small users in the rate proceeding. The Public Advocate presented the testimony of three expert witnesses:

- Lafayette K. Morgan, Exeter Associates, Inc.
- Jerome D. Mierzwa, Exeter Associates, Inc.
- Roger D. Colton, Fisher, Sheehan & Colton

In addition to the input of the Public Advocate, the Board permitted interested parties to participate in the technical analysis of the proposed rate increase. Such participants could obtain data from the Department, offer their own technical experts and information, and make argument to the Board summarizing their view of the proposed increase, based on the record compiled by the Board. The following interested parties participated in the technical review process:

- PECO Energy Company and Exelon Generation Co. LLC (PECO/Exelon)
- Philadelphia Land Bank
- PennEnvironment Research and Policy Center (PennEnvironment)
- Philadelphia Large Users Group (PLUG)
- Michael Skiendzielewski, *Pro Se* Participant

PennEnvironment sponsored the testimony of Stephanie Wein, Clean Water & Water Conservation Advocate. The Philadelphia Land Bank sponsored the testimony of Angel Rodriquez, Executive Director of the Land Bank and Director of Land Development for the Philadelphia Housing Development Corporation. PLUG sponsored the testimony of Richard A. Baudino of J. Kennedy and Associates, Inc. Mr. Skiendzielewski made an oral presentation at the technical hearing on May 17, 2018.

2. PROCEDURAL HISTORY

The Ordinance provides that the decision by the Board to approve, modify or reject the proposed rates and charges shall be made in a timely manner, but "no later than 120 days from the filing" of the Final Notice.[8] This deadline, together with other timing requirements specified in the Board regulations, necessitates the careful development of the deadlines for action within the Board's overall time limit.

To promote an efficient process, participants from the last rate case consulted together before the filing of the Advance Notice on anticipated scheduling issues. The Public Advocate sent numerous data requests to the Department before the filing of the Advance Notice. In early November, the Board provided the Department with a list of topics developed by rate consultant Edward Markus of Amawalk Consulting Group, and the Board advised the Department that such information should be submitted to the Board. The Department also developed its own list of items that had been sought in the last rate case. The Department included many such items and discovery responses in its Advance Notice.

[8] The Department in its Final Notice announced the date of September 1, 2018 as its requested rate-effective date. This date was substantially beyond the 120 day limit. The Board has taken care to complete its review within the 120 day limit specified in the Ordinance. There is a provision in the Ordinance for establishing emergency rates and charges on a temporary basis if the Board is unable to reach a decision within 120 days. The Board has not had to use this provision.

Formal discovery by participants in the technical review process commenced immediately upon PWD's submission of its Advance Notice. Pursuant to the schedule promulgated by the Hearing Officer retained by the Board, Nancy Brockway, discovery was to conclude by May 3, 2018. Technical hearings were held on May 10, 11, 14, 15 and 17, 2018 at 1515 Arch Street, 18th Floor, Philadelphia, Pennsylvania. All hearings were open to the public and were advertised consistent with Rate Board Regulations and the Hearing Officer's directives. In addition, nine public input hearings were held to receive comments from members of the public throughout the City. Transcripts of the hearings are available on the Board's web site. Consistent with the Board Regulation Section II(6)(f)(1), the record was closed on May 22, 2018.

On June 4, 2018, the following technical participants filed Briefs: the Department, the Public Advocate, the Land Bank and PLUG. *Pro Se* Participant Mr. Skiendzielewski filed a Position Paper on June 6, 2018. Hearing Officer Brockway issued her recommendations in a Report issued on June 20, 2018, with supplemental recommendations on June 21, 2018. Exceptions were filed June 27, 2018 by the Department, the Public Advocate and PLUG.

The Board deliberated the issues in the case in public meetings that were held on June 29 and July 2, 2018, and adopted this decision at a further public meeting on July 11, 2018 for publication on July 12, 2018.

As noted above, the Ordinance and Regulations provide that the Board decision must be issued no later than 120 days from the Department's filing of the Formal Notice,[9] and the Board's decision must be issued at least 10 days before the effective date of the new rates.[10] The Board is filing this decision on July 12, 2018, which is 120 days from the Department's filing of its Formal Notice, and more than 10 days before the effective date of the initial new rates, September 1, 2018.

B. *PUBLIC ADVOCATE EXCEPTION ON ENLARGMENT OF TIME*

The Public Advocate filed a General Exception to the Hearing Officer Report contending the Report was inadequate and that the Board should extend the period for consideration of the case in order to provide time for the Hearing Officer to provide a complete Report. In this respect, the Public Advocate reiterated a position that it had taken in a Motion filed with the Board on June 20, 2018, requesting the same relief.

At a Special Meeting of the Board on June 25, 2018, the Board unanimously rejected the Public Advocate's Motion for an Enlargement of Time. The Board sees no reason to alter that decision at this time and therefore denies the Public Advocate's Exception for the same reasons.

[9] Board Regulations I(b).
[10] Board Regulations Section II(9)(d).

Specifically, the Board has concluded that the Hearing Officer's Report was sufficient to aid the Board in its deliberations in this matter and also notes that the Board may not extend the 120-day deliberation period for this proceeding unless it is "unable" to act within the 120-day period required by its enabling ordinance. Philadelphia Code Sections 13-101(4)(b)(4) and 13-101(8).

Alternatively, the Public Advocate states that in light of the inadequacy of the Report, the Board may not approve any increase in rates at this time.

As set forth below, the Board determines that it is in a position to address each of the Department's rate increase claims on the merits and does not agree that the Department's proposed increase should be rejected out of hand. The Exception of the Public Advocate is therefore denied.

C. *PUBLIC ADVOCATE EXCEPTION ON DUE PROCESS/RECUSAL*

Under the heading of due process concerns, the Public Advocate has renewed its argument that Board Member Rasheia Johnson must be recused from consideration of this case because she also serves as the City Treasurer of Philadelphia. According to the Public Advocate "[t]he City Treasurer's participation creates an appearance or impression of bias, and potential actual bias, which must not be permitted." PA Exc. at 10.

The Public Advocate had previously raised this issue in a Motion for Recusal filed directly with Ms. Johnson on April 6, 2018. After receiving advice from Board Counsel at the City Law Department in a letter dated April 17, 2018, which was shared with all participants, Ms. Johnson declined to recuse herself from the proceeding. The Public Advocate subsequently filed a Motion with the Board for Certification of an Interlocutory Appeal and Stay of the proceeding on this issue. At a Special Meeting on May 9, 2018, the Board voted to deny the Public Advocate's request.

To the extent that the Public Advocate now requests the Board to order the recusal of Ms. Johnson from its deliberations in this proceeding, the Board denies that request. Ms. Johnson was appointed to the Board by the Mayor of Philadelphia and confirmed by the City Council – as was her predecessor as City Treasurer Nancy Winkler. The composition of the Board is determined by the Mayor and City Council, not by the Board itself. If specific issues arise in this or any other proceeding in which an individual Board member believes that he or she has a real or perceived conflict of interest, then that Board member may choose to abstain from the consideration or voting on that issue. The Board, however, declines to order Ms. Johnson's recusal from this case and rejects the Public Advocate's Exception that her participation in this proceeding constituted a violation of due process.[11]

[11] It should be noted that, due to a family illness, Ms. Johnson was absent from the Board's public meeting of June 29, 2018, and therefore did not participate in the deliberations on this issue. It should also be noted that all votes taken by the Board throughout the deliberations on the issues in this proceeding were unanimous. See Appendix C to this Order.

D. *PWD MOTION* IN LIMINE

On May 7, 2018, the Department submitted a Motion *in Limine* ("Motion"),[12] requesting that the scope of the technical hearing be limited to (i) exclude certain issues and proposals presented by the Public Advocate regarding the Structure and Operation of the Tiered Assistance Program ("TAP") and Barring Unfair and Deceptive Shutoff Notices; and (ii) strike Part 1 (Structure and Operation of TAP) and Part 4 (Barring Unfair and Deceptive Shutoff Notices of the Direct Testimony of Roger D. Colton (Public Advocate Statement 3) relating to the listed topics.[13] On May 20, 2018, the Hearing Officer ruled that the motion would be briefed at the conclusion of hearings, and that meanwhile the testimony would be heard. Tr. 5-10 at 3. She recommended denial of the motion, and the Department took exception, PWD Exc. At 37-39.

The Department

The Department contends that the issues raised by Mr. Colton concerning both the structure and operation of TAP and shut-off notices are beyond the scope of a rate proceeding before the Board. Motion at 1. The Department argues that the Rate Board's jurisdiction does not extend to the subjects of its motion to exclude. The Department cites a memorandum from the Law Department provided to the Board during the 2016 rate case, upon the Board's request for advice regarding the scope of Board authority to direct the Water Department (and by extension the Water Rate Board [WRB]) to take specific actions to take certain actions to improve customer service, such as improving call center operations and program intake. The Law Department advised that the Rate Board does not have the power to direct how the Water Department (and WRB) provide service. The Board accepted the advice of the Law Department. See Report of the Board on PWD Proposed Rate Changes 2017-2018, at 39, and Appendix B at 46. The Department argues that Mr. Colton's challenged testimony is offered only to direct how the Department and WRB provide service.[14]

The Department further argues that the Board's Hearing Regulations authorize the Hearing Officer to control the receipt of testimony and evidence into the record, including the exclusion of irrelevant testimony or evidence, citing Rate Board Hearing Regulations at §§ 3(b)(4), 8(b)(3).

[12] As noted by the Department, a motion *in limine* is a motion to exclude anticipated prejudicial evidence, keep extraneous issues out of the proceeding, preclude reference to prejudicial matters, or prevent encumbering the record with immaterial matter. See Commonwealth v. Pikur, 596 A 2d 1253, 1259 (Pa. Commw. 1991).

[13] The Department did not challenge proffered testimony concerning TAP Cost Recovery and Public Fire Costs.

[14] As described by the Department, Mr. Colton's testimony seeks to have the Rate Board require the PWD to modify particular programs. First, in Part 1 of his testimony, Mr. Colton argues that modifications should be required for TAP to comply with legislation. With regards to TAP, Mr. Colton recommends (a) modifications to the TAP application; (b) the removal of time constraints on the return of any TAP application; (c) that arrearage forgiveness for TAP participants be "improved;" (d) that PWD enter into certain agreements and contracts with others; and (e) modifications to PWD's outreach to Limited English customers. Second, in Part 4 of his testimony, Mr. Colton recommends that additional conditions/restrictions be placed on PWD's ability to issue shut-off notice(s) to delinquent customer(s).

Public Advocate

The Public Advocate argues that Mr. Colton's evidence should be included in the record, in full. According to the Public Advocate, granting PWD's Motion *in Limine* would be contrary to the purposes of this evidentiary proceeding and improperly restrict the Public Advocate's ability to present its case and rebut PWD evidence. PA Brief at 33. The PA states that granting PWD's Motion *in Limine* would have the fundamentally unfair consequence of preventing PWD's own evidence from being subject to rebuttal. *Id.at 34.*[15]

The Advocate notes that PWD's own submissions have sought to introduce evidence and testimony concerning customer affairs and Direct Testimony of Joanne Dahme, PWD Statement 5 and the Direct Testimony of Michelle L. Bethel and RaVonne A. Muhammad on behalf of the Water Department, PWD Statement 7. In these statements, the Public Advocate points out, the Department introduced testimony concerning its efforts to implement TAP, its self-described "comprehensive campaign" dedicated to TAP education and public engagement, and the role of the Water Revenue Bureau related to billing, accounting and collection activities for water and wastewater services, as well as the WRB's involvement with the Tiered Assistance Program ("TAP") and other customer assistance and customer service programs that are administered by WRB. PA Brief at 34. Further, according to the Advocate, PWD opened the door to examination of the disconnection-notice issue, and filed rebuttal testimony responsive to the Public Advocate's findings. PA Brief at 129.

Hearing Officer Recommendation

The Hearing Officer recommended that the Motion *in Limine* be denied. Under applicable law, proceedings before the Board need not follow the strict rules of evidence applied in civil courts.

Philadelphia Water, Sewer and Storm Water rate cases are conducted before a Board specifically chosen for the purpose of reviewing and approving the Department's rates and charges. In addition to public comment, they involve technical hearings where matters of a scientific, engineering, program design, finance, economic, and other specialties are considered. There is no jury of lay people who may otherwise need protection against misleading, confusing and irrelevant evidence.

The Department put its own evidence in the record on the issues it contests in Mr. Colton's testimony. Its arguments to restrict the evidence at this point are unpersuasive. The items

[15] The Public Advocate points to the fact that the Department filed its Motion *in Limine* 3 days after filing rebuttal testimony on Mr. Colton's topics: Overcomplexity of the TAP Application. PWD St. 4R at 3:14-4:17; Customer harms from unreasonable delays in processing TAP applications. PWD St. 4R at 5:14-6:24; Retroactive adjustments to TAP bills due to delay in approval. PWD St. 4R at 7:1-7:13; Stays of enforcement, including liens on TAP customer properties. PWD St. 4R at 7:15-8:10; Determination of the most affordable bill option. PWD St. 4R at 8:12-8:24; Arrearage forgiveness. PWD St. 4R at 9:1-9:17; PWD St. 5R at 8:20-9:3; Outreach and intake methods; (including LEP customer issues). PWD St. 4R at 9:9-11:16; and the fairness and deceptiveness of PWD shut-off notices. PWD St. 4R at 13:20- 14:23. PA Brief at 34-35.

challenged by the Department in Mr. Colton's testimony will be addressed on their merits. To the extent they are not probative, they will not be relied on.

Board Decision

As set forth more fully below, the Board recognizes its limitations with respect to service issues as opposed to rate issues. The Board concludes, however, that there is little harm and some potential gain in receiving evidence regarding the operation of the Department's rate-related programs, particularly the new and innovative TAP program. Indeed, in both its initial expert testimony and public hearing presentations, the Department itself discussed the TAP program at length.

The Board will address the merits of the Public Advocate's recommendations regarding TAP implementation and shut-off notices in subsequent portions of this Order. The Board denies the Department's request to exclude categorically the Public Advocate's testimony on these issues.

E. *DISCOVERY APPEAL OF* PRO SE *PARTICIPANT*

On June 2, 2018, *Pro Se* Participant Michael Skiendzielewski filed an Appeal regarding certain Discovery Orders issued by the Hearing Officer during the course of the proceeding. On March 16, 2018, the Hearing Officer denied Mr. Skiendzielewski's discovery requests regarding payments made by PWD customers to replace laterals and inlet pipes and PWD HELP loans offered to PWD customers with respect to such replacements, on the ground that the information requested would not be "useful to the Board in determining rates and charges in this rate proceeding" and would not "likely lead to the discovery of such relevant information." Hearing Officer Ruling on Discovery Dispute, March 16, 2018, at 4. The Hearing Officer did, however, order the Department to submit answers to "substitute discovery" which were designed to tie the issues raised by Mr. Skiendzielewski to the facts relevant to the present rate proceeding. The Department filed responses to that discovery on March 23, 2018.

In a subsequent Discovery Order issued on May 16, 2018, the Hearing Officer denied a further request for documents on the grounds, *inter alia*, that the discovery requests were not relevant to the Board's determination of the revenue requirement of the Department in this proceeding. Hearing Officer Ruling on Discovery Dispute, May 16, 2018, at 3.

The Department filed a response to Mr. Skiendzielewski on June 8, 2018, urging that the Appeal be treated as a Motion, and further urging that the request be denied. The Department contended that the discovery in question did not "relate to any practice or policy that would affect the proposed rates and charges for FY 2019-2021." PWD, June 8, 2018 Response at 2. Upon review of the record, the Board agrees with the Hearing Officer's determinations in these disputes and therefore denies Mr. Skiendzielewski's Appeal with respect to the discovery rulings in this proceeding.

III. *RATE DETERMINATION STANDARDS*

A. *THE ORDINANCE*

Section 13-101 of the Philadelphia Code, provides guidance for the Board in Fixing and Regulating Rates and Charges. Section 13-101(4) sets forth the standards the Board must apply in reviewing and determining rate cases:

> (4) Standards for Rates and Charges.
>
> (a) Financial Standards. The rates and charges shall yield to the City at least an amount equal to operating expenses and debt service, on all obligations of the City in respect of the water, sewer, storm water systems and, in respect of water, sewer and storm water revenue obligations of the City, such additional amounts as shall be required to comply with any rate covenant and sinking fund reserve requirements approved by ordinance of Council in connection with the authorization or issuance of water, sewer and storm water revenue bonds, and proportionate charges for authorization or issuance of water, sewer and storm water revenue bonds, and proportionate charges for all services performed for the Water Department by all officers, departments, boards or commissions of the City.
>
> (b) The rates and charges shall yield not more than the total appropriation from the Water Fund to the Water Department and to all other departments, boards or commissions, plus a reasonable sum to cover unforeseeable or unusual expenses, reasonably anticipated cost increases or diminutions in expected revenue, less the cost of supplying water to City facilities and fire systems and, in addition, such amounts as, together with additional amounts charged in respect of the City's sewer system, shall be required to comply with any rate covenant and sinking fund reserve requirements approved by ordinance of Council in connection with the authorization or issuance of water and sewer revenue bonds. Such rates and charges may provide for sufficient revenue to stabilize them over a reasonable number of years.
>
> (i) In fixing rates and charges the Board shall recognize the importance of financial stability to customers and fully consider the Water Department's Financial Stability Plan. In addition, the Board shall determine the extent to which current revenues should fund capital expenditures and minimum levels of reserves to be maintained during the rate period. When determining such levels of current funding of capital expenditures and minimum levels of reserves, the Board shall consider all relevant information presented including, but not limited to, peer utility practices, best management practices and projected impacts on customer rates. ….

> (ii) Rates and charges shall be developed in accordance with sound utility rate making practices and consistent with the current industry standards for water, wastewater and storm water rates. Industry standards include the current versions of: American Waterworks Association (AWWA) Principles of Rates, Fees and Charges Manual (M-1) and Water Environment Federation's Wastewater Financing & Charges for Wastewater Systems.) …
>
> (c) The rates and charges shall be equitably apportioned among the various classes of consumers.
>
> (d) The rates and charges shall be just, reasonable and nondiscriminatory as to the same class of consumers.[16]

Section 13-101(2) provides that the Water Department:

> shall develop a comprehensive plan ("Financial Stability Plan") which shall forecast capital and operating costs and expenses and corresponding revenue requirements. It shall identify the strengths and challenges to the Water Department's overall financial status including the Water Fund's credit ratings, planned and actual debt service coverage, capital and operating reserves and utility service benchmarks. It shall compare the Water Department to similar agencies in peer cities in the United States. A Financial Stability Plan shall be submitted to Council every four (4) years, and updated prior to proposing revisions in rates and charge.

Together, these provisions of the Ordinance provide guidance to the Board in reviewing a Department general rate increase request. Several considerations must be observed and balanced. The Ordinance directs the Board to consider the impact of its rate decisions on customers as well as the Department. The Ordinance points to the AWWA water rate manual M-1 and other industry manuals as sources for identifying industry standards applicable to water, wastewater and storm water rates. The Ordinance requires that rates and charges be equitably apportioned among the various classes of consumers. Finally, the Ordinance directs that rates and charges "shall be just, reasonable and nondiscriminatory as to the same class of customers."

B. *BOND AND INSURANCE COVENANTS*

As noted above, the Ordinance prescribes that rates and charges must be sufficient to provide

[16] The Ordinance also provides that special rates and charges designated as "charity rates and charges" shall be established for public and private schools, institutions of purely public charity, and places used for actual religious worship. Section 13-101(4)(e). The Ordinance also establishes special "public housing rates and charges" for property of the Philadelphia Housing Authority. Section 13-101(4)(f). In addition, the Ordinance specifies the determination of quantities subject to usage charges for the "Sewer Charge Where City Water Not Used" and the "Sewer Charge Where City Water Not Discharged Into Sewage Disposal System." Sections 13-101(5) and (6).

> at least an amount equal to operating expenses and debt service, on all obligations of the City in respect of the water, sewer, storm water systems and, in respect of water, sewer and storm water revenue obligations of the City, such additional amounts as shall be required to comply with any rate covenant and sinking fund reserve requirements…

The City and the Department are bound by General Ordinance rate covenants, and bond insurance covenants. As described by Deputy Commissioner for Finance LaBuda, the General Ordinance rate covenant is as follows:

> In the 1989 General Ordinance the City covenanted with the bondholders that it will impose, charge and collect rates and charges in each Fiscal Year sufficient to produce annual net revenues which are at least 1.20 times the debt service requirements, excluding the amounts required for subordinated bonds (as defined in the 1989 General Ordinance). In addition, the City's covenants to its bondholders require that net revenues in each fiscal year must be equal to 1.00 times (A) annual debt service requirements for such fiscal year, including the amounts required for subordinated bonds, (B) annual amounts required to be deposited in the debt reserve account, (C) the annual principal or redemption price of interest on General Obligation Bonds payable, (D) the annual debt service requirements on interim debt, and (E) the annual amount of the deposit to the Capital Account (less amounts transferred from the Residual Fund to the Capital Account)…

PWD Statement No.2 at 12.

Ms. LaBuda explains the bond insurance covenant as follows:

> Further, the City's bond insurance policies contain an insurance covenant (the "Insurance Covenant") which requires the City to establish rates sufficient to produce net revenues (excluding amounts transferred from the Rate Stabilization Fund into the Revenue Fund for a given year) equal to at least 90% of Debt Service Requirements (as defined by the 1989 General Ordinance).

Id.

In this proceeding, the Rate Covenants and the Insurance Covenant are collectively referred to as the "Bond Covenants." Additional information on the bond covenants is provided in Black & Veatch direct testimony (PWD Statement 9A at 43-46, 46-51.)

C. *PUBLIC ADVOCATE EXCEPTION ON NECESSITY FOR A RATE INCREASE*

In addition to the specific arguments on financial and revenue requirement issues that are addressed in the following sections the Public Advocate filed an Exception stating that the Hearing Officer's Report did not address its overriding argument that the Department's rate increase request is wholly unnecessary and therefore should be rejected in its entirety.

While the Board agrees that a number of the Department's requests – including its request for approval of a rate increase in Fiscal Year 2021 – should not be adopted at this time, the Board does not agree that the proposed rate increases for Fiscal Years 2019 and 2020 must be rejected in their entirety. Rather, as set forth below, the Board has reviewed all elements of the Department's rate proposals and financial projections for those years and will address the Department's overall request based on the merits of those proposals. The Public Advocate's Exception on this point is therefore denied.[17]

IV. *USE OF TWO-YEAR OR THREE-YEAR RATE PERIOD*

The Department

PWD asks that the Board approve a multi-year rate period consisting of three fully-projected future test years (FPFTYs). PWD Statement 9A at 9-11. The Department is specifically proposing schedules of retail water, wastewater and storm water charges for three successive fiscal years (2019-2021 FPFTYs). The Department began its estimation of these test year operations and maintenance (O&M) expenses by adjusting the Water Fund's FY 2018 approved budget to reflect the actual-to-budget spending factors. The Department then uses these adjusted FY 2018 O&M expenditures to project O&M expenses for each FPFTY. PWD Statement 9A at 9-11, 34; PWD Rebuttal Statement 1 at 2-4. To estimate costs for future test years, the adjusted FY 2018 expenditures were further adjusted based upon (a) an analysis of historical actual and budgeted expenses for each of the classes of expenses (including personal services, purchased services, materials and supplies, equipment and interdepartmental charges); and (ii) application of appropriate escalation factors for each FPFTY.

The Department intends the resulting revenues and expenses to be representative of what PWD anticipates will be incurred while those rates and charges are in effect. PWD Statement 9A at 9-11, 30-31; PWD Rebuttal Statement 1 at 2-4.

Based on its analysis of the three fully-projected future test years (2019-2021), the Department requests authorization to recover additional revenues over this period. *Id*. The Department states

[17] For the same reasons, the Board does not adopt the recommendation in the position paper filed by *Pro Se* participant Mr. Skiendzielewski that the proposed rate increase should be rejected in its entirety.

this phased-in rate increase provides the following benefits:

- future rate filings will occur with less frequency;
- greater financial stability can be achieved over this reasonable period;
- the Department can balance its capital and operating activities with available resources in a cost-effective manner;
- rate case expenses can be minimized; and
- water and wastewater customers can plan their budgets with greater certainty.

PWD Brief at 10-11, citing PWD Statement 2 at 21 and Water Environment Federation Manual at 85.

The Department also states that multi-year rate plans have become an accepted form of ratemaking for water utilities. *Id.* at 10. According to the Department, government-owned utilities typically select a future test year and in municipal ratemaking, revenue requirements are generally derived from projections premised upon budgets or historical data, which are used to project revenues needed for a reasonable period of years. *Id.*

The Department argues that rate setting is prospective. *Id.,* at 13. According to the Department, projections "must be reasonable," but "[n]othing requires absolute certainty in a fully-projected future test year." *Id.* By their very nature, observes the Department, forward-looking projections for such test years are subject to a number of estimates and assumptions, known and unknown risks, uncertainties and other factors. So, it is reasonable to expect that actual results may vary from said projections. *Id.,* The Department states that nevertheless revenues and expenses are reasonably projected within the future test period based upon reliable information that is reasonably known to the Department. *Id.*

PWD provided actual data for revenues, obligations/appropriations, adjustments and balances in FY 2016 (final, audited), FY 2017 (preliminary, unaudited) and FY 2018 (as budgeted and adjusted to reflect actual-to-budget spend factors). *Id.,* citing PWD Statement 2 at 31. For the purposes of developing projections for the future test years, the Department made adjustments to FY 2018 budgeted data, where necessary, to ensure that the projections were representative of revenue requirements that the Department expects to experience during the rate period. *Id.*, citing PWD Statement 2 at 31.

PWD also submits that a three-year rate period (with separate FPFTYs) is optimal for this rate proceeding. *Id.* at 26, citing PWD Statement 2 at 20. In the past few rate proceedings, notes the Department, the rate periods have ranged from two to four years, with rate increases phased in over multiple years. *Id.* The Department points out that base rate proceedings involve significant time and expense. *Id.*

The Department further argues that multi-year rate proceedings provide customers with transparency about the Department's planned expenses, revenues and rate increases over a reasonable number of years while reducing the administrative burden and expense of having to litigate base rate filings on a more frequent basis. *Id.*, citing PWD Statement 2 at 21. In addition, the Department avers, the use of three-year period (as proposed by PWD) will provide (a) an indicator of financial stability (which is viewed as a "credit positive" by the rating agencies); and (b) time for PWD to fully evaluate alternative rate structure options ahead of the next rate proceeding. *Id.,* at 26-27, citing PWD Statement 2 at 21.

According to the Department, the Advocate's "back-testing" of PWD's projections misses the mark. *Id.* at 27. Mr. Morgan looked at the six-year period of FY 2012 to 2017 and opined that PWD's projections did not exactly match actual revenues and expenses. *Id.*, citing PA Statement 1 at 11-15. Based on this historic performance, asserts the Department, Mr. Morgan simply (and summarily) opines that the 2021 FPFTY cannot be accurate in its entirety. *Id.* However, since that opinion is not based on any information or data actually related to the projections for the 2021 FPFTY, there is no basis for the Board to conclude that 2021 FPFTY is less accurate than any other FPFTY. *Id.*

Public Advocate

The Public Advocate opposes the use of a three-year rate period. PA Witness Morgan testifies that "the three-year rate plan is not a reasonable approach to use for determining PWD's rates because … PWD has demonstrated an inability to accurately forecast its cost of service for ratemaking purposes." PA Brief at 39, citing PA Statement 1 at 6-7. According to Mr. Morgan, the Department has consistently forecasted revenues on the low side and expenses on the high side. *Id*. The Public Advocate also argues that PWD does not adhere to accepted ratemaking principles, and this failure is a contributing factor to the inaccurate forecasts. *Id*. The Public Advocate states that the consequence of this is that ratepayers pay rates that are higher than needed, and those funds do not get refunded.

The Public Advocate maintains that the nature of financial projections and forecasting is that the further out in time one projects the less accurate the forecast. *Id*. Citing the claim that PWD's forecast is consistently inaccurate, the Advocate posits that the FY 2021 test year is too far out to be reliable for ratemaking purposes. For this reason, the Advocate argues, if the Board finds that a rate increase is justified, the Board should limit the rate increase to a two-year rate plan. The Public Advocate cites the following as examples of the Department's lack of adherence to accepted ratemaking practices:

- Use of budgeting tools such as the City's Five Year Plan in place of appropriate and accepted ratemaking tools.
- Inclusion of speculative year-over-year increases in assumed interest on debt service.
- Such increases are not known and measurable.

- In the past, have not been correct.
- Failure to normalize non-recurring expenditures.

Id. at 39-40, citing *e.g.* PA Statement 1 at 23 (regarding the use of the City's Five Year Plan for purposes of projecting power and gas costs); PA Statement 1 at 27 (2016 Rate Case interest expense was projected to increase, but did not); and PA Statement 1 at 30:16-22 (failure to normalize non-recurring expenses).

In addition, the PA contends that PWD's revenue and O&M projections have been overly conservative. *Id.* According to witness Morgan's analysis, over the six-year period 2012-2017, the approved rates have understated revenues by $68.576 million and overstated expenses by a total of $73.336 million. *Id.*, at 41, citing PA St. 1 at 12:1-4. The Public Advocate also cites PWD's projections of revenue requirements for the prior two proceedings, as well as this 2018 Rate Case, as confirming that the farther out PWD projects its needs, the more unreliable its projections become. *Id.* at 41.

The Advocate notes that PWD's responds that the disparity between its earlier forecasts and the actual results can be attributed to "different assumptions" and "different levels of revenue increases in years prior" as well as the difference between PWD's financial plan and Board approved rates. *Id.*, citing 5/14 Tr. at 164:1-22. The PA argues that the PWD statement proves the point that assumptions about expenses and revenues do and should adjust over time, and take into account actual experience. *Id.*

The PA states that PWD has historically overestimated its use of the Rate Stabilization Fund, projecting higher withdrawals than actually occur. *Id.* The Advocate points to the 2016 Rate Case, in which PWD projected spending down the Rate Stabilization fund to $111 million by the end of FY 2018. The PA observes that instead, "PWD now projects having nearly $190 million in that fund as of the end of FY 2018." *Id.*

The Advocate contends that the Department's projections regarding its expenditure of reserves to offset the need for higher rates "are flawed from the outset, and remain understated throughout the period." *Id.* The Advocate points to the PWD's estimation that it would draw almost $37 million from the Rate Stabilization Fund to avoid a higher rate increase than it requested; in fact, the Advocate notes, PWD withdrew less than $2 million from that fund. *Id.*

The PA concludes that, given the clear demonstration that PWD will not be correct about the amount of revenues it needs from customers in FY 2021, based on the study performed for this 2018 Rate Case, the Board should, if it approves any increase or change in rates and charges, not exceed a two-year rate period. *Id.* at 45.

Hearing Officer Recommendation

The Hearing Officer recommended that the Board limit its approval to a two-year Rate Period. Three years in the future is too long a period to forecast revenue requirements at a detailed and reliable enough level to warrant setting rates that far out, at least without some mechanism to true-up or adjust those out-year rates if circumstances deviate too far from the forecast. This is especially the case where, as here, the historic record of forecasts shows a pattern of over-forecasting expenses and under-forecasting revenues. The result has been a Rate Stabilization Fund higher than that which the Department considers necessary. Many members of the public, in testimony at public input hearings, pointed to the present RSF of around $200 million, and asked why rates were rising when those funds are available to cover rising costs.

The Department points out that it has made progress in recent years in tightening its forecasting and budgeting. PWD claims that actual-to-budget results justify reliance on the Department's budget (based on an adjusted City-approved Five Year Plan) to set rates into the future. The Advocate disputes this claim. Even if one could find that the Department's budgeting has improved as claimed, however, that fact would not take care of the unanticipated changes that arise from time to time. The City's recent move of certain pension costs over to the Department is an example of a change that could not have been anticipated in 2016, when rates were last set.

Setting rates based on forecasts two years out, and allowing a phase-in of the overall revenue requirement, does not mean that the Department will either have to charge nothing or come in for a rate case in time to match the end of the FY 2020 test year. Rather, rates set for FY 2020 will remain in effect until changed with the approval of the Board. Closer to the time, the Department can determine if the rates set for FY 2020 will allow it to recover sufficient net revenues beyond that period. It need come in for new rates only if it finds at that time that FY 2020 rates will not be satisfactory beyond that period, or some period soon after the end of that fiscal year.

There is nothing in the Ordinance or the regulations of the Board that permits the fashioning of a reopener or other circuit breaker for out-year deviations. Accordingly, the Hearing Officer recommends that the Board set rates in this proceeding for FY 2019 and 2020, which will remain in place until new rates are established.[18]

Exceptions

According to the Department, the Report errs in rejecting the three-year time horizon for rates proposed by the Department. The Hearing Officer offers only a general rationale in support of this recommendation. The Hearing Officer's recommendation is flawed for several reasons including that (i) it ignores common municipal rate setting practices – which permit three-year (36 month) rate periods; (ii) it lacks record support - given its generality; and (iii) it indirectly

[18] It should be noted that under the reconcilable TAP Rider that is being approved in this proceeding, rates will be subject to change on an annual basis to reflect changes in TAP costs and revenues.

applies the "known and measurable" standard – after denying the applicability of same to municipal rate setting practices.

Board Decision

The Board concludes that under the circumstances presented in this case, a two-year rate period is appropriate. A number of factors support this decision, including, but not limited to the greater than anticipated balances in the Rate Stabilization Fund in recent years and the significant increases in the Department's planned capital spending in the coming years. For example, in Appendix A, Table C-1 that accompanied the Board's 2016 rate order, it was anticipated that the Department's Rate Stabilization Fund would decline to $110 million by the end of Fiscal Year 2018; in the present proceeding, the Department's initial estimate for the level of the Rate Stabilization Fund as of the end of Fiscal Year 2018 was approximately $189 million. PWD Schedule BV-E1, Table C-1. In addition, as compared to recent historical experience, the Department anticipates significant additional capital expenditures in each year as well as some expense increases throughout the upcoming rate period. At this time, however, the Board has determined that it does not have sufficient information to determine the extent to which all of those cost increases will occur and whether the Department's proposed rate increase in Fiscal Year 2021 would be just and reasonable to all concerned. A two-year rate period determination by the Board at this time would be consistent with the period used in the 2016 rate proceeding, and the Department can file a rate proposal for Fiscal Year 2021 if it believes it is necessary at that time.

In the subsequent sections of this Order regarding the Department's financial plans, the Board sets forth targets that are in large part consistent with the Department's stated financial goals and are intended to ensure that the Department can continue to provide safe and adequate service at a reasonable cost to all customers. As noted above, however, the Board concludes that it does not have sufficient information to determine whether the Department's proposed rate increase in Fiscal Year 2021 would be just and reasonable at this time. The Board has determined that rates should be set for only two years at this time and the Department's Exception is therefore denied.

V. *FINANCIAL METRICS*

A. *PWD FINANCIAL STABILITY PLAN – OVERVIE*W

The Ordinance setting standards for rate decisions requires, among other things, that the Board take into account the financial impacts of rates on both customers and the Department:

> In fixing rates and charges the Board shall recognize the importance of financial stability to customers and fully consider the Water Department's Financial Stability Plan. In addition, the Board shall determine the extent to which current revenues should fund capital expenditures and minimum levels of reserves to be maintained during the rate

> period. When determining such levels of current funding of capital expenditures and minimum levels of reserves, the Board shall consider all relevant information presented including, but not limited to, peer utility practices, best management practices and projected impacts on customer rates.

Phila. Code § 13-101(4)(b)(i)

The Department's analysis of its financial situation and its prerequisites for stability is provided in its Financial Plan. PWD Statement 2 at 14, and Schedule ML-2. Deputy Commissioner for Finance Melissa LaBuda stated that the Department is focusing its Financial Plan on four key financial policy goals:

> (1) funding at least 20% of the Department's capital program from current revenues;
> (2) improving debt service coverage;
> (3) using strategic debt issuance to relieve cash flow pressures and better align debt payments over the lifetime of assets; and
> (4) utilizing cash reserves to offset the level of rate increases.

PWD statement 2 at 14-15.

The City and the Department are further bound by General Ordinance rate covenants and bond insurance covenants as described by Deputy Commissioner for Finance LaBuda. PWD Statement 2 at 12.

In this proceeding, the Rate Covenants and the Insurance Covenant are collectively referred to as the "Bond Covenants." Additional information on the bond covenants is provided in Black & Veatch direct testimony (PWD Statement 9A at 43-46, 46-51.)

B. *DEBT SERVICE COVERAGE*

Overview

As the Department states, debt service coverage is "simply cash flow that is used to support the system by funding certain actions such as capital projects." PWD Rebuttal Statement 2 at 11. Any funds used for capital projects also allow the system to manage future leverage. Id. And "adequate debt service coverage ensures that reserves are maintained at levels that can mitigate unforeseen expenses and capital needs or dips in expected revenue." See, PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 3.

Coverage is calculated on the basis of net revenues after operations. PWD St. 9A, Sch. BV-E1, Table C-1, line 23. PWD's affordability programs are accounted for in the rate model as reductions to other operating revenues, and so are factored into net revenues prior to the calculation of coverage. PWD St. 9A, Sch. BV-E1, Table C-3. In addition, only withdrawals

from the Rate Stabilization Fund to the Revenue Fund are counted toward coverage. PWD St. 9A, Sch. BV-E1, Table C-1. The definition of "net revenues" in the General Bond ordinance specifically *excludes "*the amounts, if any, transferred from the Revenue Fund to the Rate Stabilization Fund." PA-I-21 (Attachment 1).

The Department

In its Financial Plan, the Department states that it has targeted its senior Debt Service coverage to trend to 1.3 times. PWD Brief at 16, citing PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 3. According to the Department, this level is "just above the minimum legal requirement for debt service coverage" (which is 1.2 times coverage of senior debt, including contributions from the Rate Stabilization Fund) and "will support maintaining PWD's existing credit ratings for the foreseeable future." *Id.* The Department notes that all three of the rating agencies have mentioned PWD's increased debt service coverage of 1.3x as a credit positive. *Id.,* at 17, citing PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 8. The Department argues that this increased coverage will result in stronger liquidity and will ultimately allow for increased pay-go funding. *Id.* The Department states that this is critical, given the reality of PWD's increasing required capital needs. *Id.* As with other older urban systems, states the Department, ongoing maintenance of assets is critical. *Id.* The Department claims that it has historically had low margins and a higher debt burden. *Id.* Consistent reasonable rate increases will allow PWD to address capital needs without over-burdening future ratepayers, according to the Department. *Id.*

The Department points out that the current and past debt service coverage for PWD are below national trends for "A" rated utilities. *Id.*, citing PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 3. If not allowed to improve coverage levels, the Department avers, PWD will face higher costs for funding its capital program (as it will have no other recourse but to issue more debt on less favorable terms). *Id.*

The accumulation of coverage above the PWD's stated minimums requires modestly higher rates today, the Department acknowledges, but leads to lower future debt payments and rates. *Id.,* at 17-18. So from both an operational and a credit rating perspective, the Department maintains it is essential to sustain debt service coverage levels significantly above the minimum levels required by the Rate Covenants to provide (i) a hedge against unanticipated cost increases or revenue losses; (ii) a source for pay-go funding; as well as (iii) comfort to bondholders that the Department is not operating at the edge of an event that would cause a violation of the Rate Covenants. *Id.* at 18.

The Department opines that the Public Advocate seems to recommend setting the debt service coverage at the legal requirement of 1.2x. *Id.*, citing PA Statement 2 at 34-36. If that is the case, the Department avers, the Advocate's recommendation ignores reality and must be rejected. *Id.* First, the recent rating agency reports have emphasized the need for the Department to improve debt service coverage. *Id.,* citing PWD Rebuttal Statement 2 at 12. The Advocate's

recommendation would do nothing to improve coverage. *Id.* Second, increasing the extent to which current revenues fund capital expenditures is a mathematical imperative to improve debt service coverage to industry standards. *Id.* citing PWD Rebuttal Statement 2 at 12-13. Therefore, from both an operational and a credit rating perspective, the Department argues, it is essential for the Department to sustain debt service coverage levels significantly above the minimum required levels throughout the Rate Period. *Id.*

Public Advocate

According to the Advocate, PWD propounds multiple views, which often conflict, regarding the purposes and import of increasing debt service coverage. On the one hand, PWD's Deputy Commissioner for Finance refers to increasing coverage as a lever to direct funds toward capital expenditures. PA Brief at 61, citing 5/15 Tr. at 101:1-5. On another hand, debt service coverage is presented as a crucial indicator of creditworthiness which impacts PWD's credit rating. The credit rating agency reports attached as exhibits to PWD's testimony confirm that coverage is a significant focus in determining PWD's credit rating. *Id.*, citing PWD St. 2, Sch. ML-4.

The Advocate also avers that the Department suggests that coverage is a panacea, enabling PWD to accomplish any goals, such as paying for affordability programs, funding the Rate Stabilization Fund to mitigate future increases, and contributing to pay-go. *Id.*, citing 5/15 Tr. at 83:4-11. This last view of coverage is a "broad misconstruction, as increasing coverage does not increase funds available for affordability programs nor direct dollars toward the Rate Stabilization Fund to mitigate rate increases." *Id.*

The Advocate states that, as correctly understood, PWD's coverage depiction is the reflection of a calculation that takes into account decisions made by PWD, including where to direct additional funds among various possible spending goals, as well as how much funds to direct to or from the Rate Stabilization Fund. *Id.* at 62. For purposes of its rate presentation, PWD's coverage numbers are "solved for" through a combination of revenue and expense projections, including additional revenues from increased rates, Rate Stabilization Fund deposits or withdrawals, the effect of the Capital Account Deposit, and debt service projections. *Id.*, citing 5/14 Tr. at 216:19-218:11. Changing any of these assumptions modifies the depiction of coverage, in some way, big or small. *Id.*, citing, *e.g.*, 5/14 Tr. at 131:1-145:23.

As a result, the Public Advocate submits, the Board is only obligated to ensure that legally mandated coverage requirements are satisfied. The Advocate notes that in prior rate proceedings, PWD had based its revenue requirement on attaining its legally-mandated 1.20X coverage. PA Brief at 62, n. 42. The Advocate further pointed out that PWD acknowledged that its claim as to its prior positions was based solely on the 2016 rate case. *Id.*, n. 41, citing 5/15 Tr. at 75:3-17.

According to the Public Advocate, the Board must not mandate that a particular, predetermined higher coverage level be attained, as doing so would necessarily involve sustained operational

oversight of PWD actual spending that is outside of the Board's capacity and is administratively unworkable. PA Brief at 63. As shown in Appendix A, of the Public Advocate's Brief, after accepting all of the Public Advocate's recommendations, PWD would meet or exceed its legally mandated coverage requirements, with the capability to further exceed those requirements by spending down the significant reserves that have accumulated. *Id.,* at 64.

Hearing Officer Recommendation

For the following reasons, the Hearing Officer recommended that rather than set a target for senior debt service coverage, the Board consider the results of the revenue requirements model run before deciding the coverage ratio question. The Department urges that the Board approve its target of 1.3x senior debt service coverage. The Department is correct that merely allowing the (1.3x) legal minimum coverage, as required by the bond covenants, is likely to signal to the credit rating agencies some doubt about the Board's intention to support strong financial metrics for the Department. There are, however, a number of criteria by which bond rating agencies determine what rating to give to a municipality's bonds. In each case, the Department has sought a decision from the Board that would increase the Department's metrics. When taken as a whole, the result is higher current rates than are likely necessary to satisfy the rating agencies. The Board need not predetermine the desired coverage ratio. After deciding revenue requirement disputes, the Board will have its inputs factored into the Black & Veatch model. Depending on the results, the Board can revisit this issue.

Exceptions

The Department

The Department states that the Hearing Officer Report errs in not targeting adequate debt service levels consistent with PWD's Financial Plan and in making no firm recommendation concerning debt service coverage. PWD asserts that this outcome gives insufficient consideration to rating agency concerns. PWD cites recent rating agency reports (submitted of record) that emphasize the need for the Department to improve its debt service coverage levels. The Department avers that the Report, by not addressing this issue, proposes to do nothing to improve coverage levels. The Department surmises that the Hearing Officer's position is that debt service coverage is the by-product of whatever revenue requirements are approved – and not a targeted financial performance metric. The Department argues that the Board should take this issue more seriously as, from both an operational and a credit rating perspective, it is essential for the Department to sustain debt service coverage levels above the minimum required levels throughout the Rate Period.

Public Advocate

According to the Advocate, the Hearing Officer has made sound recommendations, which the Board should not disturb, to the effect that PWD's goals for debt service coverage are not persuasive and the Board need not predetermine a desired coverage ratio.

Board Decision

The Board submits that it is important to all parties and, in certain cases, required by the enabling legislation, see Philadelphia Code Section 13-101(4), for the Board to establish certain financial metrics as part of its Order in this proceeding. These metrics approved by the Board are not mandated requirements and should not be considered to be either strict ceilings or floors, except and to the extent required by City Council or applicable bond covenants. Rather, the Board's determinations in this regard should be viewed as targets to be considered by the Department in its future operations and by the Board in determining the need for future rate increases. Specifically, in this case, the Department originally proposed to design its rates and financial obligations to produce a Senior Debt Service Coverage Ratio of 1.28x and 1.30x respectively[19] in Fiscal Years 2019 and 2020, with a general goal of maintaining a Coverage Ratio of 1.30x over time. The Public Advocate contends that the Board need only set rates designed to ensure that the legally-mandated coverage ratio of 1.20x is satisfied.

The Board concludes that the coverage ratios projected by the Department in this proceeding for Fiscal Years 2019 and 2020 are reasonable and that a Senior Debt Service Coverage Ratio of 1.30x is a reasonable target for the future. This would meet the Bond Covenants and should help to support future debt financing at reasonable rates. While this level exceeds the minimum 1.20x Senior Debt Service Bond Covenant requirements, the Board has determined that it is a reasonable target to serve as a guide for the Department's financial operations in the future.

C. *PAY-GO FINANCING*

The Department

The Department states that it anticipates needing increased borrowing to fund Capital Improvement Program and Consent Order and Agreement (COA) obligations. PWD Brief at 21, citing PWD Statement 2 at 17, 21, 32. The Department points out that the Public Advocate does not dispute that more investment will be needed by PWD to maintain the system. *Id.*, citing PWD Statement 2, Financial Plan (Schedule ML-2) at 30. Beyond maintaining the system, PWD also anticipates increasing capital and operating requirements associated with the COA during the Rate Period. *Id.*, citing PWD Statement 2 at 22. The Department states that it has revised its Financial Plan and strategies to begin to address these obligations, but notes that "additional pressures will arise during FY 2019-2021 (and beyond) due to the performance milestones in the COA." *Id.*

Given these funding needs, the Department maintains that Capital and Construction Accounts are appropriately used to provide "pay-go" financing for capital improvements. Pay-go financing, avers the Department, reduces borrowing needs, thereby reducing costs that customers will have to bear over the life of the typical 30-year bond. *Id.*, citing PWD Statement 2 at 5. The Department argues that similarly situated utility systems, which have been able to fund

[19] Revised Table C-1, attached in Appendix A to this order, notes a change to 1.30x and 1.30x in Fiscal Years 2019 and 2010.

significant portions of their capital programs with annual revenues, are able to manage their debt without significantly burdening future ratepayers. *Id.* at 22, citing PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at p. 4; PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 4-5.

The Department also posits that pay-go financing is mathematically necessary "to improve debt service coverage to industry standards." *Id*. at 18. The Department thus argues that pay-go financing is just and reasonable as a principle of both finance and ratemaking. *Id.* at 21.

According to the PWD, its goal of 20% "is on the weaker side" and "should be achieved, and even strengthened, in the future. *Id.* at 22, citing PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 4-5. PWD cites its rapidly growing capital program. PWD acknowledges that it will not meet the 20% threshold over the next few years. *Id.*, citing PWD Statement 2 at 5. The Department notes that its rate filing (as detailed in Schedule BV-E1, Table C-7) includes capital improvements totaling $1.1 billion from FY 2019 through FY 2021.

Public Advocate

The Public Advocate points out that the Philadelphia Code requires the Board to determine "the extent to which current revenues should fund capital expenditures." PA Brief at 60, citing Phila. Code §13-101(4)(b)(i). Accordingly, the Board must determine the appropriate mix of current customer contributions to PWD capital work from the Capital Account Deposit and from other available sources of funds. *Id.* According to the Public Advocate, the Board must look to the Residual Fund to determine the extent to which it can establish pay-go funding targets, "given that the Board cannot modify the mandatory Capital Account Deposit." *Id.*

Under the flow of funds in PWD's rate model, which mirrors Section 4.06 of the General Bond Ordinance, after all required and discretionary transfers (including, *e.g.*, transfers to/from the Rate Stabilization Fund) are made, any inter-fund loans are repaid, and the Capital Account Deposit is made, any remaining project revenues (i.e., revenues from rates and charges) are transferred to the Residual Fund. *Id.*, citing PA-I-21 (Attachment 1).

For ratemaking purposes, then, the PA argues the Board must consider the availability of funds from the Residual Fund for construction purposes, together with a Capital Account Deposit, for purposes of satisfying the "extent to which current revenues should fund capital expenditures." *Id.*, quoting Phila. Code §13-101(4)(b)(i).

The PA advocates that the Board should establish a threshold of $45 million per year for pay-go capital, "with the explicit recognition that PWD's outperformance may result in exceeding that standard." *Id.* According to the Public Advocate, under the Public Advocate's assumptions, including an aggregate annual minimum funding of $45 million in pay-go, the Black & Veatch ratemaking model shows a $15 million ending balance in the Residual Fund, and more than $225 million remaining in the Rate Stabilization Fund, at the end of FY 2019, FY 2020 and FY 2021.

Id., citing PA Brief Appendix A. The PA concludes that using the $45 million pay-go assumptions, the Department will have access to excess funds from the Rate Stabilization Fund to be used for other purposes, including construction funding. *Id.*, at 60-61, citing Appendix A; 5/14 Tr. at 137:5-18; 154:18-155:4.

The Advocate argues that the Department has consistently outperformed its net revenue projections. The PA states that "recognizing both that the Public Advocate's assumptions increase the availability of funds for potential discretionary uses and the certainty that PWD will continue to outperform its projections," a $45 million pay-go assumption is appropriate. *Id.* at 61.

Hearing Officer Recommendation

The Hearing Officer recommended that the Board not determine a target pay-go level, for the following reasons. The discussion of pay-go in this docket is one of the many unsatisfying arguments that appear to be more about optics than actualities. The Department does not intend to finance its capital program 20% with ratepayer funds for some years. *Id.* at 22. The Board need not pull this metric out of the bundle that indicates financial stability to approve the particular goal the Department has set for itself.

Exceptions

The Department

The Department argues that the Hearing Officer's Report errs in its indecision concerning capital funding through current revenues (pay-go financing). The Department notes that the Board is required to determine the extent to which current revenues should fund capital expenditures. The Department avers that the Report's inaction in this regard fails to send a clear and positive message to the rating agencies. The Department suggests that the Hearing Officer considers the question of pay-go financing to be more about "optics" than "actualities" – and that PWD does not intend to fund its capital with 20% current revenues for some years. The Department states that the Board should be aware, however, that PWD is incrementally trying to reach its pay-go financing objective. PWD acknowledges that this will take a few years, but says that it needs to continue and build upon pay-go financing during this Rate Period – as it proposed. According to the Department, the fact that PWD is gradually moving towards its ultimate goal helps to minimize the size of its revenue requirement. It does not – as discussed herein and in PWD's Brief – negate the reasonableness of the interim steps or the end goal itself. The Department concludes that to support the financial stability of the capital program, the Rate Board should clearly embrace pay-go financing.

Public Advocate

The Advocate states that the Hearing Officer has made sound recommendations, which the Board should not disturb, to the effect that PWD's goals for pay-go capital funding are not persuasive and should not be adopted for ratemaking purposes. The Public Advocate also agrees with the Hearing Officer's criticism of PWD's pay-go proposal as "theoretical." However,

because of the requirements of the Philadelphia Code, the Public Advocate respectfully submits that the Report failed to adequately address the positions of the parties regarding the extent to which current revenues should fund capital expenditures. This determination is a required component of the Board's Rate Report for which proposed resolution by the Hearing Officer is essential. See Phila. Code §13-101(4)(b)(i); PA .B. at 45. Accordingly, the Public Advocate excepts to the portion of the Report addressing pay-go.

Board Decision

The Department has set a long-term goal of financing 20% of its annual capital expenditures in cash, though acknowledging that it does not plan to meet that goal during the rate period in this case. Instead the Department originally projected that it will meet approximately 17 to 18.5% of its Fiscal Years 2019 and 2020 financing requirements with cash. The Advocate has proposed that the Department use $45 million in cash financing each year.

The Board concludes that the Department's proposed 20% "pay-go" target is reasonable for an entity with PWD's capital needs, and accepts for purposes of this proceeding the Department's projected cash financing levels for the Fiscal Year 2019 and 2020 rate period.

D. *CAPITAL ACCOUNT DEPOSIT*

The Department

The Department states that the Capital Account Deposit is necessary to finance water and wastewater capital improvements. PWD Brief at 22, citing PWD Statement 9A at 39. The Department notes that the Capital Account is an account within the Construction Fund. *Id.* at note 135, citing PWD Statement 2, Memorandum from Bond Counsel (Schedule ML-3 – Glossary). The 1989 General Ordinance requires an annual deposit to the Capital Account. It defines the required "Capital Account Deposit Amount" as "an amount equal to one percent (1%) of the depreciated value of property, plant and equipment of the System or such greater amount as shall be annually certified to the City in writing by a Consulting Engineer as sufficient to make renewals, replacements, and improvements in order to maintain adequate water and wastewater service to the areas served by the System." *Id.*at 22-23. One percent should be considered a minimum. *Id.* at 23, PWD Rebuttal Statement 1 at 22-23. As noted in the ordinance, greater amounts are allowable based on the certification of a Consulting Engineer. *Id.*, citing PWD Rebuttal Statement 1 at 23.

The Department proposes to increase the Capital Account Deposit Amount from 1.0% to 1.5%. *Id.,* citing PWD Rebuttal Statement 1 at 23. The Department explains that this proposal provides a critical source of cash financing, consistent with industry best practices, and is imperative to improving PWD's financial metrics. *Id.* According to the Department, the PWD's Consulting Engineer has testified that, commensurate with the projected increase in average annual capital expenditure, the adjusted level of annual Capital Account Deposit Amount would be approximately 1.56% of the FY 2016 depreciated value of property, plant, and equipment of the

water and wastewater assets. *Id.*, citing PWD Statement 9A at p. 42-43; PWD Rebuttal Statement 1 at 23. So, the Department argues, the proposed change to 1.5% would better align the Capital Account Deposit Amount to the enhanced levels of capital spending that are occurring and are likely to continue during the foreseeable future. *Id.*

The Department brings to the Board's attention that changing the Capital Account Deposit Amount from 1.0% to 1.5% does not increase the Department's annual revenue requirement. *Id.* The Department points out that the level of revenues needed to fund the Capital Account Deposit Amount based on 1.5% is less than the level of revenues necessary to meet the 1989 General Ordinance rate covenants requirements. *Id.* The Department also points out that the increase in the Capital Account Deposit is accompanied by a corresponding decrease in the transfer to the Residual Fund. *Id.* at 23-24, citing PA Statement 1 at 29-30 and at Schedule LKM-2.

The Department criticizes the Public Advocate's recommendation that the amount to be deposited to the Capital Account Deposit be set at 1%. *Id.* According to the Department, that recommendation ignores reality and is unreasonable under the circumstances presented. *Id.* The Department reasons that it is undisputed in the record that, since FY 2010, the Department's annual capital expenditures have increased due to (i) the COA; (ii) enhanced rehabilitation of aging infrastructure; and (iii) increased investments in water and wastewater treatment facilities to meet water quality standards and permit requirements. *Id* .at 23-24, citing PWD Statement 9A at 42. The Department notes that, despite these facts, the Advocate would keep the amount of revenues made available for capital improvements at the historic level of 1%. *Id.*

Public Advocate

The Advocate argues that PWD proposes an unsupportable 0.5% increase in the mandatory Capital Account Deposit. PA Brief at 64. The Advocate contends that this proposal was recently rejected by City Council and the Board lacks the authority to approve it in this rate proceeding. *Id.* The Public Advocate recommends that the Board maintain the Capital Account deposit at 1%. *Id.* The Advocate observes that PWD's proposal includes an increase in the *mandatory* Capital Account Deposit of 0.5%, in order to direct additional funds to pay-go capital. *Id.* (emphasis in Brief). In addition to the increase being completely unnecessary, according to the Advocate the Board is not authorized to increase PWD's Capital Account Deposit. *Id.*

The PA states that the Capital Account Deposit is a fixed annual amount, which is not subject to adjustment by the Board in a rate proceeding, but can only be adjusted based on an annual certification to the City by a Consulting Engineer. *Id.* The Advocate argues that the Board is not a Consulting Engineer, nor does the Board certify to the City the sufficiency of the Capital Account Deposit. *Id.* Accordingly, avers the PA, PWD's proposal that the Board increase its mandatory Capital Account Deposit to 1.5% of depreciated plant, property and equipment for FY 2019, FY 2020 and FY 2021 is directly in conflict with the terms of the 1989 General Bond Ordinance. *Id.*

Hearing Officer Recommendation

The Hearing Officer recommended that the Board not determine the minimum percentage in the Capital Account, for the following reasons. As in the case of the pay-go target, the issue of the capital account deposit is theoretical, but does not have a direct bearing on the revenue requirement in this docket. The amounts being considered for capital spending exceed the 1% currently required to be deposited. And they exceed the 1.5% the Department recommends. It is not necessary to resolve this debate in order to determine just and reasonable rates in this docket, including rates that meet the needs of the Department for financial stability.

Exceptions

The Department

The Department asserts that the Report errs in not fully addressing this issue. The Department disagrees with the Hearing Officer's opinion that this issue is more theoretical (than real). The Department contends that the Capital Account Deposit is necessary to finance water and wastewater capital improvements. The Department observes that the 1989 General Bond Ordinance requires an annual deposit to the Capital Account.

The Department's rate filing (as detailed in Schedule BV-E1, Table C-7) includes capital improvement costs totaling $1.1 billion from FY2019 through FY2021. These investments support critical improvements related to water and wastewater treatment plant upgrades, clean water storage tanks, pumping stations, water main replacements and sewer replacements, according to the Department.

The Department contends that 1.5 percent should be considered a minimum deposit to the Capital Account. The Department notes that, pursuant to the ordinance, greater amounts are allowable based on the certification of a Consulting Engineer.

The Department notes that the Hearing Officer correctly finds that changing the Capital Account Deposit Amount from 1.0% to 1.5% does not increase the Department's annual revenue requirement. The Department also agrees that the level of revenues needed to fund the Capital Account Deposit Amount, based on 1.5%, is less than the level of revenues necessary to meet the 1989 General Ordinance rate covenants requirements. The Department further notes that the increase in the Capital Account Deposit is accompanied by a corresponding decrease in the transfer to the Residual Fund. In view of all of the foregoing, the findings of the Report, as to this issue, should be modified consistent with these Exceptions.

Public Advocate

The Public Advocate agrees with the Hearing Officer's determination that PWD's proposed use of an increased Capital Account Deposit is "theoretical." However, because of the requirements of the Philadelphia Code, the Public Advocate submits that the Report failed to adequately address the positions of the parties regarding the extent to which current revenues should fund

capital expenditures. The Advocate argues that this determination is a required component of the Board's Rate Report for which proposed resolution by the Hearing Officer is essential. See Phila. Code §13-101(4)(b)(i).

For the reasons set forth at length in the its Main Brief, the Public Advocate contends that Board cannot and should not approve PWD's request to increase the Capital Account Deposit.

Board Decision

The Department seeks Board approval of its request to increase the Capital Account Deposit required under the 1989 General Bond Ordinance from 1% to 1.5%. Section 2.01 of the Ordinance defines "Capital Account Deposit" as "an amount equal to one percent (1%) of the depreciated value of property plant and equipment of the System or such greater amount as shall be annually certified to the City in writing by a Consulting Engineer as sufficient to make renewals, replacements, and improvement in order to maintain adequate water and wastewater service to the areas served by the System." Quoted at PWD Brief at 14. According to the Public Advocate at page 55 of its Brief, however, the Philadelphia City Council recently declined to approve a proposal to increase the mandatory deposit from 1% to 1.5%.

While the Board has authority to establish a reasonable target for the level of cash financing utilized by the Department to fund capital expenditures, Philadelphia Code Section 13-101(4)(b)(i) (and indeed has exercised that authority to approve the Department's proposed overall level of "Pay-Go" financing in this proceeding), it is not clear that the Board has jurisdiction to rule on the level of the Capital Account Deposit under the General Bond Ordinance. In any case, the Department has acknowledged that changing the Capital Account Deposit amount from 1% to 1.5% does not alter the Department's annual revenue requirement. PWD Exc. at 13. As such, the Board declines to approve an increase in the Capital Account Deposit at this time, and the Exception of the Department with respect to this issue is therefore denied.

E. *CAPITAL PROGRAM SPEND RATE*

The Department

The Department's Projected Capital Improvement Program expenditures for the Rate Period are $328 million, $339 million and $349 million in 2019, 2020 and 2021 FPFTYs, respectively. PWD St. 9A, Sch. BV-E1, Table C-7, line 11; PWD Statement 9A, Schedule BV-E5 (WP-1) at 10. The Department projected capital program total annual expenditures for the Rate Period using a capital spend rate of 90% of the annual inflated capital program budget. PWD Brief at 36. The inflated capital program budget reflects an annual inflation rate of 2.5% based upon industry construction cost indices. PWD p. 36, citing PWD Statement 9A, Schedule BV-E5 (WP-1) at 9; Appendix 7.

The Department argues that use of a 90% spend rate of the capital program budget is needed to track anticipated expenditure levels during each FPFTY. PWD Brief 36, citing PWD Statement 9A, Schedule BV-E5 (WP-1) at 9; PWD Rebuttal Statement 2 at 14-15.

The Department observes that the Public Advocate witness specifically recommends that a 76% spend rate be used instead, reflecting average spending levels over the past three years. *Id.* at 36. According to the Department, this analysis is mistaken, given recent trends in capital obligations as detailed in the response to PA-IX-20, determining that expenditures lagged behind obligations for a variety of reasons including, (i) the timing of obligations during the fiscal year; (ii) the timing of the start of construction; and (iii) the duration of construction. *Id.*, citing PWD Rebuttal Statement 2 at 14. But, argues the Department, the two are correlated. As obligations increase, according to PWD, future expenditures will likewise increase as the projects (for which the obligations were made) are constructed and paid for. *Id.*

The Department states that over the past six years, bidding related to capital projects has been steadily increasing (as demonstrated by the increase in fiscal year obligations in column 3 below). *Id.* at 36. As one would expect, PWD avers, there is also an increase in expenditures which reached 82.12% of the budget in FY 2017 (due to an increase in obligations over prior years). *Id.*

The Department argues that based upon the high level of obligations in FY 2016-2018, it reasonably anticipates expenditures in FY 2019-2021 will continue to rise, and may even surpass 90% of the capital budget. *Id.*, citing PWD Rebuttal Statement 2 at 15; Response to PA-IX-20. Given the experience of the recent past, the Department states, longer term historical performance will not be a good indicator of future expenditure levels. *Id.* The Department argues that in view of increasing PWD obligations, it is reasonable to reflect this trend in the Capital Program spend rate at 90%, as opposed to the lower spend rate recommended by the Advocate. *Id.*, citing PWD Rebuttal Statement 2 at 15.

Public Advocate

The PA argues that PWD's use of a 90% capital program spend rate estimate is unsupportable. PA Brief at 58. The Advocate's witness, Mr. Morgan, determined that historic spend rates have been much lower than budgets. To estimate a reasonable spend factor, Mr. Morgan calculated an actual-to-budget ratio of 76 percent for the most recent three-year period, using the data provided in response to PA-VI-27. . Based on a model run by Black & Veatch that substituted this lower actual-to-budget rate, the PA states that this adjustment would reduce PWD's projected net funding requirement over FY 2019 and FY 2020 for capital projects by approximately $100 million. *Id.*

The Advocate noted that PWD affirmed these historical spending results in rebuttal testimony, *Id.*, citing PWD St 2R at 15:3-7. The Advocate argues that PWD has never attained a 90% ratio of actual-to-budget expenditures for capital, and that it is unreasonable to assume that PWD will

attain that rate in the future. *Id.* The Public Advocate argues that those "net revenues in excess of projections" which PWD attains will be "an incentive to prudently direct funds to certain efforts, such as SMIP/GARP … and to the Residual Fund for construction purposes." PA Brief at 59, citing PA St. 1 at 39:10-11.

The Advocate asserts that PWD's data does not indicate that increased obligations increase its rate of expenditure against its capital pay-go amounts, compared to the $45 million target recommended by the Public Advocate, to the reasonably anticipated expenditure of 76% of PWD's inflated capital budget.

Again, the Advocate argues that PWD's outperformance must be assumed. *Id.* at 59. For this reason, the Public Advocate states that its recommendation constitutes a reasonable floor on the amount of pay-go contributions that can be expected based on the PWD's historical operating results.

Hearing Officer Recommendation

The Hearing Officer recommended that the Board select 82.12% as the capital program spend rate, for the following reasons. This item requires a judgment call. On the one hand, a longer view of actual experience supports the Advocate's 3-year average figure of 76%. On the other hand, the Department is persuasive that capital costs will continue to rise, and that to keep up with operational and legal obligations, the Department's spending rate must rise, as well. Having said that, 90% is higher than the most recent year, and is a speculative number. The Hearing Officer recommends the Board select the highest actual rate in the recent past, which was 82.12% in 2017.

Exceptions

The Department

The Department excepts to the Hearing Officer Report recommendation to reject the Department's projected capital program spend rate. The Department notes that the Hearing Officer adopts a spend rate of 82.12% — as the highest spend rate achieved in the recent past. The Department characterizes this recommendation is a compromise (judgment call) between the PWD (90%) and Advocate (76%) proposals. The Department questions whether this approach gives sufficient weight to the evidence presented with regard to the uptick in capital spending. The Department avers that the evidence clearly shows that the cumulative impact of 90% versus 82% capital spend rate shortens capital spending by over $116 million. In the context of revenue requirements, the Department argues, adoption of this recommendation would understate debt service costs and cash financing needs.

Public Advocate

The Public Advocate excepts to the Hearing Officer's recommendation that the Board use an assumed 82.12% "spend rate" for PWD's Capital Improvement Program. While the Advocate

agrees with the conclusion that PWD's proposed 90% spending rate is speculative, it argues that the recommendation to use an 82.12% spend rate is contrary to the weight of evidence.

The Advocate emphasizes that 82.12% is a clear outlier, representing a spend rate almost 15% higher than any other year in the five-year history. In the view of the Advocate, the same logic would support using a rate of 65.90%, the rate experienced in 2015, which the Advocate submits is more representative of PWD's actual experience for the four years 2013-2016.

The Advocate argues that the Board should use the Public Advocate's proposed 76% rate of spending, which continues to be a conservative and favorable rate, considering that in four of the past five years, PWD's spending rate did not exceed 67.45%.

According to the Advocate, PWD's spend rate increased to 82.12% for the first time in 2017. The Advocate argues that this single year experience is not demonstrative of a trend, nor does it support a conclusion that PWD will achieve that level of actual spending in future years.

The Advocate challenges PWD's argument that the amount it has "obligated" or "encumbered" for capital expenditures has increased in recent years, saying that PWD's data does not indicate that increased obligations increase its rate of expenditure of its capital budget.

Board Decision

Based on its projected capital improvement needs, the Department has proposed a substantial increase in its upcoming annual capital expenditure budgets, as well as an increase – to 90% -- of the percentage of its capital budgets that it actually expects to spend. In light of the Department's recent experience of underspending its anticipated capital requirements, the Advocate has recommended that the Board utilize an expected capital spending rate of 76%. The Hearing Officer recommended the use of a spend rate of 82.12%, based on the Department's highest recent experienced percentage of budgeted expenditures which occurred in 2017.

The Department excepts to the Hearing Officer's recommendation and urges the Board to adopt its proposed 90% spend rate in order to ensure that the Department will have adequate funding for essential system improvements required by its Consent Order and Agreement and other necessary projects. In view of the recent uptick in actual and budgeted capital spending, the Board has determined to grant the Department's Exception and adopt the proposed 90% spend rate for Fiscal Years 2019 and 2020. As noted above, the Board has declined to accept the Department's proposal to grant a further rate increase for Fiscal Year 2021 at this time. The Board is prepared to accept the Department's proposal for Fiscal Years 2019 and 2020 on this issue at this time and will reexamine the Department's capital expenditure levels at the time of its next rate proceeding.

F. *RATE STABILIZATION AND RESIDUAL FUNDS*

The Department

According to the Department, adequate cash reserves allow systems to contribute to increasing capital projects, mitigate system disruptions, and fund unexpected operating expenses. *Id.*, citing PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 4. The Department avers that it plans to maintain appropriate levels of financial reserves by targeting a $150 million balance in the Rate Stabilization Fund. PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 3. PWD also aims to maintain a minimum of $15 million in the Residual Fund, which is established to maintain the remaining revenues after all other payments. *Id.* at note 101, citing PWD Statement 2, Financial Plan (Schedule ML-2) at 21.

The Department notes that credit agencies give credit to the Department for balances in both funds in calculating liquidity levels. The Department states that it is critical to be allowed to maintain these targeted levels. *Id.*, citing PWD Statement 2, Memorandum from Financial Advisory (Schedule ML-6) at 4; PWD Rebuttal Statement 2 at 9.

According to the Department, the Rate Stabilization Fund is critical to the Department's overall financial strength, both (i) in consideration of the Department's credit rating by all three rating agencies that rate the Department and (ii) for actual protection in the event of unforeseen emergency capital or operating requirements. *Id.*, citing PWD Rebuttal Statement 2 at 9. The Department explains that the purpose of the Rate Stabilization Fund is to maintain liquidity in the Water and Wastewater Funds in satisfaction of financial covenants and otherwise for the financial health and operation of the enterprise. *Id.*, citing PWD Statement 2, Memorandum from Bond Counsel (Schedule ML-3) at 6. PWD states that it aims to keep $150 million in the Rate Stabilization Fund to cover annual expenditures when the revenues are less than projected. *Id.*, citing PWD Statement 2, Financial Plan (Schedule ML-2) at 21 The Department avers that this level serves as the key protection to ratepayers and bondholders. *Id.*

The Department notes that a smaller level of protection is provided by the Residual Fund, which may be used to pay Operating Expenses or debt service, or for almost any other purpose in support of the System. *Id.*, at 19-20, citing PWD Statement 2, Memorandum from Bond Counsel (Schedule ML-3) at 6-7. The Department notes that the Water and Wastewater Funds are a closed system, and states that the Residual Fund is the last Fund into which revenues may flow. *Id.* at 20. Regarding emergency capital expenditures, the Department states, the only sources available are the Residual Fund and the Capital Account, and not the Rate Stabilization Fund. *Id.*, citing PWD Rebuttal Statement 2 at 9.

The Department argues that there are prudent financial reasons to maintain reserves of at least $150 million in the Rate Stabilization Fund. *Id.*, citing PWD Rebuttal Statement 2 at 2. First, a municipal utility, like any business, needs a reserve of cash on hand in order to pay current obligations as they come due. Municipal water and wastewater utilities incur costs to

provide the service (labor, materials, supplies, services, etc.) in advance of bills being rendered and revenue collected for providing the service. The timing of the costs necessary to run the business precede the timing of the receipt of revenues to cover those costs, which means a reserve of cash always must be available to handle basic day-to-day utility operations. Second, utility revenue can fall short of expenditures, causing negative cash flow due to the inherent lag in the regulatory process of adjusting rates to match costs that have been impacted by inflation and other increases over time. *Id.*

The Department observes that the Public Advocate disagrees with the targeted balance for the Rate Stabilization Fund, and recommends instead a $110 million balance in the Rate Stabilization Fund. *Id.*, citing PA Statement 2 at 14, 38. According to the Department, the Advocate is not opposing the $15 million balance for the Residual Fund. *Id.* citing PA Statement 2 at 36-37. [20] The Department argues that Advocate's proposed target for the Rate Stabilization Fund must be rejected:

> Its recommended level of cash reserves would severely impede the Department's ability to mitigate any changes in revenue collections, unforeseen operating expenditures or disruptions in the ability to fund ongoing capital needs. It would be irresponsible to leave a system with annual operating revenues of over $729 million and expenses of over $485 million and annual capital needs of over $300 million with cash reserves at such low levels.

Id., citing PWD Rebuttal Testimony 2 at 5-6.

According to the Department, adopting the Advocate's recommendation would represent only a fraction of cash reserves necessary to meet the required medians for an "A" rated credit rating and would be well below the required medians for an "A" rated credit on all accounts. *Id,* at 21, citing PWD Rebuttal Testimony 2 at 5. In comparison, the Department states that its proposed minimum of $165 million balance in the Rate Stabilization Fund and Residual Fund would represent approximately 244 days cash on hand for FY 2018. *Id.*. citing PWD Rebuttal Testimony 2 at 6. PWD argues that its target of $150 million would keep PWD on the path towards adequacy in this area, and a target of $110 million would leave PWD short of the financial reserves of any comparable peer. *Id.*

Public Advocate

The Public Advocate challenges PWD's proposal that the Board approve its financial plan with the goal of maintaining a minimum year-end balance of $150 million in the Rate Stabilization Fund and $15 million in the Residual Fund. PA Brief at 50, citing PWD St. 2, Sch. ML-2, at 21. The Advocate notes that in the 2016 Rate Case, PWD requested that the Board approve rates with the expectation that it would maintain $110 million in the Rate Stabilization fund (by the

[20] As noted below, the Public Advocate argued in Brief and Exceptions that a combined level of minimum reserves of $100 million for the Rate Stabilization Fund and the Residual Fund is sufficient.

end of FY 2018) and $15 million in the Residual Fund. *Id.* The Advocate further observes that, as the Board's decision in the 2016 Rate Case indicates, for ratemaking purposes, the Board approved those projections. *Id.,* citing 2016 Rate Case Determination, Appendix A.

The Advocate contends that PWD consistently maintains higher reserves than projected, which is the consequence of its conservative revenue and expense assumptions, citing PA witness Morgan:

> The combination of under-projected revenues and over-projected expenses during previous rate cases has directly contributed to the accumulation of funds in PWD's Rate Stabilization Fund over the period FY 2012 through FY 2017 well above what was projected. In fact, documentation produced in this proceeding demonstrates that PWD's forecast Rate Stabilization Fund balances have been consistently projected at unrealistically low levels, suggesting the accuracy of PWD's rate model is a longstanding problem.

Id., citing PA St. 1 at 13:21-14:2.

The Advocate argues that, based on its projections in the last two rate cases, PWD has produced total reserves which greatly exceed the projections it uses in seeking rate increases. *Id.,* at 51. The Advocate notes that PWD confirms the excess reserves it has accumulated, showing actual cash reserves of between $216 and $220 million for each year 2015-2017. *Id.,* citing PWD St. 2, Sch. ML-2, at 13.

The Advocate contends that PWD's request to raise the minimum level of targeted Rate Stabilization Fund reserves from $110 million to $150 million is unreasonable in light of PWD's persistent actual attainment of excess reserves, constituting revenues from PWD customers that were beyond what PWD claimed it needed in raising rates. *Id.* Mr. Morgan testified that PWD's Rate Stabilization Fund, which maintains a significantly higher balance than PWD projected in its last rate case, should not target a minimum balance more than 36% higher than PWD indicated was appropriate just two years ago.

In addition, the Advocate argues that the significance of reserves in PWD's Rate Stabilization Fund is muted, to a significant degree, by the emphasis that the credit ratings agencies place on the calculation of days cash on hand (DCH). When comparing utilities, the Advocate states, the credit rating agencies examine available sources of cash which include funds in reserves like the Rate Stabilization and Residual Funds, but also take into account the reality of additional cash, recognized for accounting purposes, by PWD. *Id.,* at 52. For this purpose, says the Advocate, cash includes what is designated "Equity in the Treasurer's Account" and contributes to PWD's total DCH calculation. *Id.,* citing 5/17 Tr. at 95:20-96:9. The Advocate points out that in determining PWD's DCH, for FY 2016 and FY 2017, PWD acknowledges that an additional $79

million and $95 million, respectively, were available for cash purposes in those two years. *Id.,* citing TR- 19.

The Advocate cites the Philadelphia Code for the proposition that the Board must take into account "all relevant information presented, including, but not limited to, peer utility practices, best management practices and projected impacts on customer rates," when determining appropriate minimum levels of reserves. *Id.,* citing Phila. Code §13-101(4)(b)(i). The Advocate argues that, in addition to the necessary recognition that PWD's rates have historically recovered more than necessary from customers (thus achieving higher than necessary levels of reserves in the Rate Stabilization Fund), the Board should also recognize that days of cash on hand is an important measure for comparing PWD to its peers, and that PWD's days of cash on hand places PWD above the A utility median. PWD St. 2, Sch. ML-2 at 25. Accordingly, by the measure utilized to compare PWD to its peers, increasing the target for Rate Stabilization Fund balances is not necessary to maintain PWD's credit rating. *Id.,* at 52-53.

The Advocate argues further that PWD has identified no need, in operation, to target higher levels of reserves. *Id.*at 53. The Advocate submits that, as demonstrated by its Table C-1, even after projections of potential withdrawals, PWD would maintain sufficient reserves in its Rate Stabilization Fund over two- year or three-year rate periods, even if no rate increase is approved by the Board. *Id.* The Public Advocate recommends that the Board take notice of the sufficiency of PWD reserves at the current time, and determine for ratemaking purposes that PWD should aim to maintain at least $100 million in combined Rate Stabilization Fund and Residual Fund reserves. *Id.*

Philadelphia Large Users Group ("PLUG")

PLUG contends that the Board should reject PWD's proposal to increase the target balance for its Rate Stabilization Fund ("RSF"). PLUG Brief at 6. According to PLUG, the Department has not provided credible support for increasing its targeted RSF balance by 36%- from $110 million to $150 million. *Id.* PLUG argues that the Board should reject PWD' s proposal and require PWD to use excess RSF funds for debt service coverage and make RSF funds available to offset rate increases. *Id.* PLUG states that, as demonstrated on the record, PWD ended FY 2017 with RSF funds totaling $201 million-approximately $48 million in excess of the projections submitted with its 2016 rate case and more than $90 million in excess of the $110 million target balance. *Id.* at 6-7, citing Public Advocate Statement No. 2, at 16.

Historically, avers PLUG, the Department has accumulated reserves well in excess of its current target and even in excess of the proposed $150 million target. *Id.* at 7. Therefore, argues PLUG, historical experience does not merit an increase to the targeted RSF balance. To the contrary, increasing the target balance would exacerbate PWD's modeling inaccuracies because the higher target would become the new target balance, which PWD' s actual fund balances for FYs 2019, 2020, and 2021 would undoubtedly exceed as they have in prior years. *Id.* Accordingly, instead of allowing PWD to continually set unreasonable RSF balances, the Board should maintain the

current $110 million target balance and use any excess RSF balances to minimize rate increases to customers. *Id*.

Hearing Officer Recommendation

The Hearing Officer Report does not make a recommendation on the minimum levels of reserves the Board should determine are reasonable for PWD to maintain during the rate period.

Exceptions

The Department

The Department states that the Hearing Officer's Report errs in not addressing the issue of adequate financial reserves.

According to the Department, the Rate Stabilization Fund is vital to the Department (i) in consideration of the Department's credit rating by all three rating agencies that rate the Department; (ii) for actual protection in the event of unforeseen emergency capital or operating requirements; and (iii) to mitigate the magnitude of future base rate increases. It serves as the key protection to ratepayers and bondholders.

Public Advocate

The Public Advocate submits that the Board should "take note of the sufficiency of PWD reserves at the current time, and determine for ratemaking purposes that PWD should aim to maintain at least $100 million in combined Rate Stabilization Fund and Residual Fund reserves." See PA M.B. at 50; Phila. Code § 13-101(4)(b)(i) (requiring the Board's report to set forth the Board's determination of minimum levels of reserves to be maintained during the rate period).

Board Decision

The Department has proposed the need to maintain a minimum year-end level of $150 million for its rate stabilization fund and $15 million for its residual fund. The Public Advocate noted that in the last rate proceeding in 2016, the Department projected that it would have a 2018 Fiscal Year-end balance of $110 million in the rate stabilization fund and $15 million in the residual fund and argues that a combined minimum level of $100 million for the two funds is adequate. PA Exc. at 15. PLUG argued in its Brief below that the Department had not provided credible support for increasing its targeted rate stabilization fund from $110 million to $150 million. PLUG Brief at 6-7.

In its initial filing in this proceeding, the Department proposed to draw down the rate stabilization fund gradually from $189 million at the end of Fiscal Year 2018 to $177 million in 2019, $156 million in 2020, and $145 million in 2021.[21] PWD Sch. BV-E1, Table C-1.

[21] In Revised Table C-1 in Appendix A attached to this Order, the Department has estimated year-end Rate Stabilization Fund balances of $185.7 million in Fiscal Year 2019 and $159.5 million in Fiscal Year 2020.

As noted above, the Board has determined not to set rates in this case for 2021, but the Board accepts as reasonable the Department's projected rate stabilization and residual fund levels for Fiscal Years 2019 and 2020. On a going forward basis, the Board adopts a combined target level of $150 million for the rate stabilization and residual funds. At any given point in time, the Board recognizes that these funds may exceed or fall short of these levels. On the basis of the evidence presented by the parties in this proceeding, however, the Board concludes that a $150 million combined target level for the rate stabilization and residual funds is adequate to ensure that the Department has adequate reserves to meet its financial needs, while not imposing an undue burden on customers.

VI. *REVENUE REQUIREMENT ADJUSTMENTS*

A. *OVERVIEW*

The Department built its projection of revenue requirements on its Fiscal Year 2018 budget. PA Statement 2 at 6. Its consultants, Black & Veatch (B&V), used the budget as inputs to their model of the finances of the Department. Black & Veatch have provided this modeling service and consulting to the Department for many years.

Black & Veatch provided the results of their modeling in testimony. They provided their workpapers, and responded to numerous requests for information from the participants in the technical process. In the development of the technical record, participants proposed adjustments to the inputs used in the model, supported by expert witness testimony. The result of such adjustments would be to reduce the forecast revenue needs of the Department. In turn, if the Board were to accept the participants' adjustments, the rates could be reduced below those sought by the Department, all else equal.

It is important to understand that if the Board approves a proposed downward adjustment to the revenue requirements, that does not mean that the Board has set the revenue requirement below the cost to the Department (or lower than its target for financial stability). Rather, it means that the Board is persuaded by the participant offering the adjustment that the expenses in the two rate years will be lower. The Board has not "disallowed" any of these expenses, and has approved a revenue requirement and associated rates that covers the level of revenues required by the Department under the Home Rule Charter, the Rate Ordinance, and the General Bond Ordinance.

B. *AGREED-UPON ADJUSTMENTS*

The Department and the Advocate agreed upon a number of adjustments to the Department's filing on revenue requirement. Each filed its own version of the list. In response to a post-hearing request by the Board for the parties to clarify precisely what they agreed upon, the

parties filed a memo July 2, 2018, containing the following chart of agreed-upon revenue requirement adjustments:

Adjustments Acceptable to PWD and Public Advocate

Adjustment	Description of Adjustment	Citation to Record
Additional Staffing Operating Labor Expense (Actual/Budget Factor)*	Application of Actual-to - Budget Factor consistent with cost classification	PA Statement 1 at 20, Lines 6-7
Debt Interest Rate**	Use of 5.25 percent interest rate for debt issuance in FY 2019 and FY 2020	PA Statement 1 at 27, Lines 15 - 16
Capacity to Pay Energy Costs***	($1,493,250) - FY 2019 ($1,493,250) - FY 2020	PA Statement 1 at 31, Schedule LKM-2, line 14
Chemicals****	0.0% - FY 2019	PA Statement 1 at 25-26.
Bond Issuance Costs	0.56% - FY 2019 0.56% - FY 2020 0.56% - FY 2021	PA Statement 1 at 28.

Notes:
* This adjustment relates to the actual-to-budget factor to be applied for this expense for FY 2019-2021. PWD maintains its position that planned expenditures for Additional Employees should be approved for FY 2021.
** This adjustment reflects a 5.25% interest rate for planned issuances in FY 2019 and 2020 – which is acceptable to the Department. PWD maintains its position for FY 2021. See PWD Statement 9A at 39.
*** This adjustment reduces Class 200 Power using actual-to-budget factor of 75.62%.
**** This adjustment reduces a 6.7% increase estimated for FY 2019. See PWD Statement 9A, Schedule BV-E5 (WP-1) at 5.

The Board agreed that all of these agreed adjustments were reasonable and should be implemented, with respect to Fiscal Years 2019 and 2020. As noted above, the Board is not addressing rates for Fiscal Year 2021 in this Order.

C. *SMIP/GARP*

Overview
SMIP and GARP are respectively the Department's Storm Water Management Incentive Program and Greened Acres Retrofit Program and are part of the Department's *Green City, Clean Waters* initiative. SMIP provides grants to non-residential property owners to assist them in designing and building site retrofit projects that result in greened acres. GARP providers grant

funding to companies or contractors to construct storm water projects across multiple properties in the Department's service area.

To satisfy regulations requiring reductions in waste discharge from storm runoff, the Department has negotiated a Consent Order and Agreement ("COA") with Pennsylvania Department of Environmental Protection ("PaDEP"). See PWD Exhibit 7. Under the COA, the Department commits to meet targets known as "total greened acres." The SMIP and GARP programs are components of the plan to achieve COA compliance to meet "total greened acres" targets and the overarching goal of an 85% reduction in CSO discharges.

The Department proposes to increase SMIP/GARP funding by $10 million per year to $25 million in each year of the Rate Period. In the last rate case, the Board approved a proposed expense of $15 million per year for FY 2017-2018.

The Department
The Department states that it needs additional resources to fund SMIP/GARP project grants, so that it can meet requirement milestones in its environmental mitigation of combined sewer overflows. PWD Brief at 34. The Department points out that the Advocate does not challenge the need to spend $25 million per year to comply with the COA. *Id.* The Department argues that the Advocate is wrong in believing that the additional $10 million can be adequately funded by PWD's ability to control costs or by using other reserves. *Id.*

Department witnesses state that SMIP and GARP grants are important components of the *Green City, Clean Waters* program and are necessary for the Department to comply with the requirements in the Consent Order and Agreement. The grants provide a pathway for the Department to take compliance credit for "greened acres" on project sites that would otherwise be inaccessible. *Id.*, at 33-34.

After operating the *Green City, Clean Waters* program for seven years, the Department states that "it has become abundantly clear that GARP is far and away the least expensive, most efficient, most timely and simplest way for PWD to produce greened acres in compliance with COA requirements." *Id.* at 35, citing PWD Rebuttal Statement 1 at 14.

The Department observes that by not fully planning for the required SMIP/GARP projects, the Public Advocate appears to be positioning the Department to take actions that are neither responsible nor prudent: to wit: (i) to be non-compliant with COA requirements; (ii) to cut other programs/services; or (iii) force the Department to rely on reserves (or some combination of those outcomes). *Id.*

Public Advocate
The Public Advocate opposes the Department's proposed increase in rate case revenues for SMIP and GARP. He asks that the Board leave the expense amount for SMIP/GARP at $15

million. The Public Advocate's primary argument is that increasing the amount allowed in rates for these programs is unnecessary, as the Department will be able to fund what it needs for SMIP/GARP even if rates are not set to reflect the PWD's requested increase. PA Brief at 71.

PA's witness, Mr. Morgan, pointed to PWD's using other funds to spend amounts above those forecast for FY 2017 and FY 2018. According to the PA, this is an example that shows that PWD is capable of directing excess net revenues, beyond its projections, toward SMIP/GARP:

> …I believe the SMIP/GARP can be funded by PWD's ability to control costs from which it has the discretion to direct funds to the SMIP/GARP. … I believe this arrangement provides an incentive for the Department to control costs, use available reserves instead of raising rates, and adequately fund the SMIP/GARP grants.

PA Statement 1 at 19 (lines 3- 15), referenced at PA Brief at 71.

Further supporting its contention that no SMIP/GARP increase in revenue requirements is needed, the PA points out that PWD has stated that it intends to fund a portion of its future SMIP/GARP expenditures from the Rate Stabilization Fund. *PA Brief* at 72, citing PWD St. 1R at 14:1-6. According to the PA, by including the additional $10 million for these programs as a line item, but then stating that the Department will use RSF funds to pay for some of its future SMIP/GARP expenses, the Department is inconsistent in its presentation of need for these additional expense amounts. *Id*. at 73.

PennEnvironment Research Center
PennEnvironment Research Center strongly supports the PWD proposal to increase SMIP/GARP expenses. Stephanie Wein, Clean Water & Conservation Advocate for the organization, praised the acceleration of the City's transition to green infrastructure as a result of SMIP/GARP. (Direct Testimony at 4-5).

PLUG
PLUG supports the increased funding for SMIP and GARP. PLUG Brief at pp. 7-8.

Hearing Officer Recommendation
The Hearing Officer recommended inclusion of the additional expense in the SMIP/GARP program. One of the economies achieved by the GARP approach is that the parcel owners retain the responsibility to keep up the greening of the property. When the Department greens property directly, it must bear these costs. TR 5-15 at 55-56.

The Advocate makes a provocative argument that any additional funds needed to fulfill SMIP/GARP obligations for the COA should come from economies in other categories. This argument is tempting, if for no other reason than the Department has historically overestimated costs and underestimated revenues when budgeting. But the Board should try to hold as closely

as possible to a realistic forecast of needs. The Hearing Officer recommends that the increase be approved.

Exceptions

For the reasons set forth in its Brief, the Public Advocate excepts to the Hearing Officer recommendation that the Board accept the Department's proposed SMIP/GARP expense increase.

Board Decision

The Board agrees that the SMIP and GARP programs play a vital role in the Department's efforts to meet its environmental commitments and therefore accepts the proposal to increase the annual level of funding for these programs by $10 million. The increase in SMIP and GARP funding was supported not only by the Department but by the Philadelphia Large Users Group, PennEnvironment Research Center, and a large number of the public commenters in this proceeding. While the Public Advocate argues that the additional costs of these programs could be supplied from discretionary resources such as additional withdrawals from the Rate Stabilization Fund, the Board does not agree with that suggestion. The Board has previously noted in this Order its acceptance of the levels of the Rate Stabilization Fund projected by the Department for Fiscal Years 2019 and 2020, including the projected Fund withdrawals in those years. The Board concludes that the anticipated increased costs of the SMIP and GARP programs should be explicitly reflected in the Department's revenue requirement calculations during the rate period established in this case. The Public Advocate's exception on this issue is therefore denied.

D. *NORMALIZATION ADJUSTMENTS*

Public Advocate

The Advocate posits that at least two expense categories in the 2018 rate case consist of non-recurring or extraordinary expenditures: Rate Case expenses and implementation costs for the Tiered Assistance Program (TAP). PA Brief at 85, 87. The Advocate states that PWD's proposed 2018 Rate Case departs from accepted ratemaking practices, where utilities amortize or "normalize" non-recurring or extraordinary expenditures, both on their books and for ratemaking purposes. The rationale is to spread cost over the periods that benefit from the expenditure, or to prevent overcollection of costs. PA Brief at 83, citing PA St. 1 at 10:2-7.

In substance, avers the Advocate, failing to normalize non-recurring expenses, which are incurred in one fiscal year but included in projected O&M expenses for all future years, permits PWD to charge customers multiple times for costs that it only incurs once.

The Advocate argues that PWD has no authority for its explanation that it cannot normalize these expenditures, because under the accounting rules applicable to PWD, "expenditures are recognized and recorded as expenses at the time they are paid or encumbered." PA Brief at 83-84, citing PWD St. 1R 12:7-8. Rather, the PA asserts, "sound utility ratemaking practices" that

the Board must follow in developing rates and charges, Phila. Code § 13-101(4)(b)(ii), take precedence in this rate case despite the Department's cash accounting method for planning and management. According to the Advocate, the Philadelphia Code does not require that the Board set rates that yield 100% of all of PWD's O&M expenses in each fiscal year. Rather, it requires that rates and charges be "such as shall yield" sufficient revenues for PWD's operations. PA Brief at 84 citing Phila. Code § 13-101(4)(a). The Advocate argues that this language authorizes and empowers the Board, for ratemaking purposes, to normalize expenses to avoid their duplication in rates while nonetheless ensuring that PWD's rates are adequate *over time* to fund operations. *Id.*

The Advocate asserts that failure to normalize or amortize nonrecurring expenses is fundamentally at odds with the explicit recognition in the Philadelphia Code that accumulated reserves are available to "stabilize rates." *Id.*, citing Phila. Code § 13-101(1)(c). The Advocate explains that General Bond Ordinance established the Rate Stabilization Fund, directing that amounts accumulated in that fund can be transferred to the Revenue Fund for purposes of contributing to revenues available for operating expenses. *Id.*, citing PA-I-21 (Attachment 1) (definition of "Net Revenues"). According to the Advocate, the Rate Stabilization Fund exists to "stabilize rates and revenues and expenses that are out of alignment temporarily until they get back into alignment." *Id.*, citing Tr. 265:1-3 (5/14/2018).[22] Under PWD's theory, asserts the Advocate, the Board would permit PWD to recover multiple times for the same expense, completely disregarding the purposes of the Rate Stabilization Fund. *Id.*

The Advocate argues that the record does not support PWD's claim that it has somehow taken into account, for budgeting purposes, the non-recurring nature of expenses in prior fiscal years when projecting its budget for successive fiscal years. *Id.* at 85. PWD's FY 2019 Budget has not been finalized, and its FY 2020 and FY 2021 Budgets have not even been contemplated. Therefore, there is simply no support for "the premise that PWD's non-recurring expenses in its base year have somehow been shifted, for purposes of projecting future rates, to compensate for other non-recurring expenses anticipated in future years." *Id.*

Ultimately, argues the Advocate, failing to normalize expenses for ratemaking purposes violates the fundamental precept that rates be cost-based. *Id.* The non-recurring expenses pointed out by the Advocate occur one time; charging customers for them over each forecast test year is impermissible because PWD has not identified the applicable cost-basis for them in each of the forecast test years. *Id.*

a) Rate Case Expense

The Advocate states that PWD's estimated rate case expense is a non-recurring cost which should be normalized for ratemaking purposes. PA Brief at 85. The Advocate cites the testimony of witness Morgan:

[22] Unless otherwise stated, all transcript cites in this Section VI.D are to the hearing of May 14, 2018.

> PWD has estimated the total cost of this proceeding to be $3,188,000 which is included in the FY 2018 budget (PA-IX-23). I am recommending that rate case expenses be normalized over 2 years. Rate case expenses are incurred as a result of the Department filing to increase rates and not a normal cost that is incurred annually. It is standard ratemaking procedure that since these costs are not incurred every year, they should be normalized over the benefit period to avoid an overcollection of the cost. Also, given that I am recommending a two-year rate increase, this approach is consistent with the period over which the rates from this proceeding will be in effect.

PA St. 1 at 30:14-21.

The Advocate disputes PWD's claim that it could experience a revenue "shortfall" as a result of Mr. Morgan's normalization recommendations, and claims that PWD acknowledges that in so asserting, it ignores the existence of the Rate Stabilization Fund. *Id.,* citing Tr. 90:4-92:17. The Advocate notes that the substance of PWD's concern is that, in the year in which rate case expense is incurred, the revenues may not completely align with that expense. *Id.,* citing Tr. 92:4-9. Stabilizing rates despite the temporary misalignment of revenues and expenses is one of the purposes served by the Rate Stabilization Fund. *Id.* at 86. The Advocate further argues that, by normalizing rate case expense over the anticipated period between rate cases, PWD would fully recover that expense, and that PWD acknowledges this to be true. *Id.,* citing Tr. 96:1-7.

The Advocate also challenges PWD's further contention that, although described as rate case expense, the one-time projected cost should be included in all projected rate years because, in effect, PWD may spend it on something else. *Id.* The following Technical Hearing exchange demonstrates that PWD has simply projected its anticipated rate case expense into future years, without identification of what non-rate case services will be required or compensated for:

> [PWD Witness] … When we talk about rate case cost, the costs that are budgeted and projected for 2019 are the costs that are expected to be incurred in 2019. And then if there is a cost that is projected for 2020, that 2020 is the cost that we expect to incur for 2020. Now, is it exactly for rate case? It may not be exactly for rate case. It is for services that the same team of people that -- an example of a rate case is the same people are -- same group of consultants are going to be providing services, because they have already been selected for multiple years to provide services.
> * * *
> [Public Advocate] But have you identified those costs for fiscal 2020 at this time, what those costs would be?
> [PWD Witness]: The costs are identified on the basis of projection, based off of the 2018 figures.

Tr. 96:16-99:3.

Of the total rate case expense budget, $3,188,000, Advocate witness Mr. Morgan identifies that, [with the exception of $361,840, the amount designated as "Remaining Budget TBD"], the entire budget clearly relates solely to the functions to be performed in this 2018 Rate Case. *Id.* The Advocate points out that, after the conclusion of this proceeding, none of the specifically identified expenses will recur. *Id.* Accordingly, for ratemaking purposes, the total amount to be normalized over the rate period selected by the Board should be $2,826,160. *Id.* If normalized over two years, this results in a downward expense adjustment of $1,413,080 for FY 2019 and FY 2020. If normalized over three years, the Advocate explains, this results in a downward expense adjustment of $1,884,107 for FY 2019, FY 2020 and FY 2021. *Id.*, citing PA TR-17 (Appendix B).

b) TAP Implementation Costs

The Advocate argues that TAP Implementation Costs are similar to the 2018 Rate Case Expense, and should be normalized. *Id.* at 88. The Advocate points out that PWD's FY 2018 budget, upon which its fully projected test year expense assumptions are based, includes substantial expenditures for the implementation of the Tiered Assistance Program (TAP). *Id.* As Mr. Morgan explained:

> The FY 2018 budget includes an increase of $1,569,366 in contracted services related to the Tiered Assistance Program (TAP) and other regulatory matters. The Department explains that $1,100,000 of this total represents costs related to the WRAP/TAP implementation cost, bond engineering, affordable rate studies and reporting. I am recommending an adjustment to normalize the $1,100,000 over a 2-year period. The implementation of the TAP program is a non-recurring event. Therefore, the inclusion of the full costs in rates as a normal recurring cost would result in an overstatement of expenses.

Id., citing PA St. 1 at 31:20-32:2.

The Advocate's fundamental arguments for and against normalization of this expense are essentially the same as those discussed regarding Rate Case Expense. However, unlike Rate Case Expense, "implementation" of TAP has already occurred, and will not recur, per the Advocate. *Id.*, citing Tr. 106:5-9. According to the Advocate, then, although PWD claims it has identified additional expenses for the implementation of TAP, in excess of those included in its FY 2018 Budget, those expenses have not been included in the FY 2018 Budget assumptions upon which rates are forecast. *Id.*, citing Tr. 104:8-17.

The Public Advocate states that its recommendation takes into account that, with a new program, adjustments to TAP may be necessary during the period between rate cases. *Id.* Again, however, PWD has identified no specific costs associated with "implementation of TAP" during FY 2019, FY 2020 or FY 2021. *Id.* The Public Advocate does acknowledge that it is appropriate to account for some incremental expense associated with refining PWD processes and

administration of TAP, in light of the PA's recommendations concerning program modifications, and to continue to support modifications to the TAP program as may be necessary. *Id.* For this purpose, the Advocate proposes the normalization of the $1,100,000 implementation costs as reasonable and necessary, to take into account those improvements to TAP which the Board should order as part of this proceeding, and the work to be accomplished by PWD prior to its next rate proceeding. *Id.* at 89. If the $1,100,000 implementation cost is normalized over two years, the result is a $550,000 downward expense adjustment. *Id.*, PA St. 1 at LKM-2. If that cost is normalized over three years, the result is a $733,333 downward expense adjustment. *Id.*, citing TR-17.

The Department

The Department states that it anticipates incurring Rate Case Expenses and TAP Implementation Costs in each of the proposed FPFTYs. PWD Brief at 41. It states that the Rate Case Expenses that are budgeted and projected for FY 2019 are the costs that it expects to incur in that year. *Id.*, citing Tr. 96. As budgeted, this category of expense is not limited to expenses incurred in the preparation or presentation of this rate proceeding. PWD Brief at 41. Instead, it relates to ongoing expenses for the same teams of people/consultants who are providing (and will continue to provide) other services to the Department. *Id.*, citing Tr. 254-255. Many of the consultants have been selected (and contracted) to provide such service over multiple years. Between rate proceedings, the Department states, it does rate-related tasks that it cannot do during a rate proceeding. *Id.*, citing Tr. 255. According to the Department, those tasks are "captured" in the same accounting category as more traditional rate case expenses. *Id.*

With regard to TAP implementation costs, the Department avers they are ongoing annual expenses and are expected to continue throughout the life of the program. *Id.*, citing Tr. 104. The Department also notes that parts of the program still need to be fully implemented. *Id.*, citing Tr. 105-106. According to the Department, a major component, and specific driver, of continued "implementation" costs is the requirement to have electronic applications. Tr. 104; Response to Transcript Request ("TR") 12. This requirement is ongoing and will continue in the test period, according to the Department, which states that electronic application cost alone is $3 million. *Id.*, citing Tr. 104. In addition, the Department notes, the TAP ordinance contains certain reporting requirements that require tracking of applications, and the way WRB obtains those tracking metrics is through bar-coded applications. *Id.*, citing Response to TR-12.

The Department says that, to be clear, the level of these expenses in each FPFTY reflects the anticipated level of these expenses on a normal/ongoing level for that FPFTY. "Simply put, each of these expenses is an ongoing annual expense." *Id.*

For these reasons, the Department argues that the Public Advocate's normalization (amortization) proposal should be rejected. The Department cites the AWWA manual for the proposition that normalization (or amortization) is done to account for conditions not expected to continue during the FPFTY. *Id.*, at 42, citing AWWA Rate Manual at 10. The Department

continues that normalization is not appropriate to normalize the Department's costs between the separate FPFTYs presented in this proceeding. *Id.*

From a ratemaking perspective, each FPFTY is set using the cash needs approach. *Id.*, citing the AWWA Manual at 12. The Department explains that this means that each FPFTY measures the revenue requirement to provide the total revenues required by the Department to meet its cash expenditures in that FPFTY. *Id.* The normalization proposed by the Advocate would provide only a portion of the funds to cover anticipated expenses – half if a two-year period is adopted or one-third if a three-year period is adopted – and could lead to a revenue shortfall. *Id.* The Public Advocate does not provide adequate funds in the first FPFTY (2019) to pay for all of the costs incurred in that year and would not provide any additional funds for ongoing expenses during 2020 and 2021 FPFTYs. *Id.*

The Department asserts that acceptance of the Public Advocate's normalization proposal would force the Department to either use funds allocated for other expenses to pay for these expenses or operate at deficit for these expenses. *Id.* The Department argues that neither option is a reasonable outcome. *Id.* In addition, the Cost-of-Service Study effectively reflects a normalization of these costs, since PWD budgeted costs are adjusted by actual-to-budget factors based upon historical experience; and Rate Stabilization Fund transfers mitigate/levelize the need for additional revenues during the Rate Period. *Id.* at 42-43.

Hearing Officer Recommendation

The Hearing Officer recommended that the Board reject the Department's objections, and normalize the "rate case" and "TAP implementation" expenses over two years, for the following reasons. The Department's arguments are internally inconsistent. On the one hand, the Department says that each FPFTY measures the revenue requirement to provide the total revenues needed in that year to meet its cash requirement, and that normalization would force the Department to operate at a deficit (or use funds allocated for other expenses). On the other hand, the Department argues that the Cost-of-Service Study effectively reflects a normalization of these costs, since, among other things, Rate Stabilization Fund transfers mitigate and levelize the need for additional revenues. This latter observation is precisely the point made by the Public Advocate: normalization spreads the cost over time so as to avoid requiring consumers to pay for 100% of a non-recurring cost in one year, and to avoid double or triple recovery of the same cost if continued past the year of incurrence. The RSF is intended to enable precisely this smoothing of revenue collections.

As to the Rate Case expense, the Department's explanation of the uses to which such funds are to be put in the years following the incurrence of the Rate Case expense itemized in response to PA-9-23 is unpersuasive and incomplete. First, the Department says the Board should pay no attention to the label "rate case expense," because in the rate years proposed here there would not be the same costs, but there would be others performed by the same contractors. Use of the term "rate case expense," then, is at least confusing. The Department also fails to provide sufficient

detail about the activities in the near term of the persons and firms whose expenses were reflected in the FY 2018 budget to determine if indeed the costs they will reasonably impose on the Department are comparable, if not equal to, the actual rate case expense. The Public Advocate reasonably excepts the "remaining budget TBD" from the normalization, in recognition that these are apparently incremental costs not driven by the rate case. The balance, $2,826,160, should be normalized over two years. This results in a downward expense adjustment of $1,413,080 for FY 2019 and FY 2020. This amount, $1,413,080, should be dropped from the revenue requirement if the Board authorizes rates for FY 2021. If the Department prefers, the $2,826,160 could be normalized over three years, resulting in a downward expense adjustment of $1,884,107 for FY 2019, FY 2020 and FY 2021. The Department will not experience a deficit once the amortization is complete. In the meantime, as the Department itself acknowledges, it has the RSF available to cover the temporary mismatch, if such exists.

The Department's picture with regard to TAP implementation costs is similarly unclear. The Advocate agrees that there will be continuing implementation costs. The Department has not sufficiently identified them, however. Particularly if the Department wishes to base rates on a fully projected test year, it bears the responsibility to show what costs will in fact be incurred. That the Department states it will incur electronic application costs alone of $3 million, a figure three times the approximately $1 million at issue in this adjustment, does not clarify the situation. It is not clear the extent to which the application development is a capital cost, as opposed to an expense, for example. As the Department wishes the Board to approve a budget-based revenue requirement for a future year, it needs to provide a clearer picture of the activities and their associated costs. In this context, the Advocate's recommendation of a two- or three-year amortization of the entire FY 2018 budget for implementation is a reasonable adjustment.

Exceptions

The Department states that the Report (as supplemented) errs in rejecting the Department's position concerning normalization adjustments. It opines that the Hearing Officer follows the Public Advocate's lead in misidentifying costs (so-called "rate case" expenses and TAP implementation costs) as non-recurring expenses. The Department disagrees with the recommendation that these expenses be normalized for ratemaking purposes for the reasons explained in its Brief and summarized in its Exceptions.

The Department argues that normalization (as defined by Advocate and endorsed by the Hearing Officer) would only provide a portion of the funds to cover anticipated expenses: half if a two-year period is adopted or one-third if a three-year period is adopted. The Department argues that this could lead to a revenue shortfall.

Board Decision

The Board agrees with the Public Advocate and the Hearing Officer that it is improper to include a full year of rate case expense in each year of the prospective rate period. Those costs should be

spread or "normalized" over the two-year rate period established in this case. The Department's funding claim shall be reduced in each year by $1,413,080.

As in the case of rate case expense, the Public Advocate argued and the Hearing Officer agrees that certain TAP implementation costs are one-time expenses that should not be included in full in each year of the rate period. The Board agrees that these costs – totaling $1.1 million – should be spread over a two-year period in the amount of $550,000 per year.

E. *ESCALATION FACTORS*

1. OVERVIEW

The Department projected operating expenses for each FPFTY using escalation factors to be applied to FY 2018 operating expenses by category. PWD Statement 9A, Schedule BV-E5 (WP-1) at 4-5.

The Department based escalation factors for Power and Gas on the City Energy Office estimates. It based escalation factors for Chemicals for FY 2019 and 2020 on PWD's recent experience; the resulting escalation rates of 3.8% and 1.0% were used for FY 2020 and 2021, respectively. The Department used annual escalation factors of 3.3% for Class 200 Expenditures and of 2.47% for Class 800 Transfers for the FY2019-2021 period.

The Public Advocate contests the escalation factors applied to (a) Power and Gas, (b) General Costs and Other Class 200 Expenses, (c) Chemicals and (d) Transfers. PA Statement 1 at 22. PA Brief at 77-83.[23]

2. POWER AND GAS EXPENSE

The Department
The Department challenges the Public Advocate's argument that reliance on the Five Year Plan to develop escalation factors falls short of the "known and measurable" standard and therefore should be rejected. PWD Brief at 38, citing PA Statement 1 at 22-23. According to the PWD, Mr. Morgan is mistaken. *Id.* at 38. The Department reiterates that nothing requires absolute certainty in a fully projected future test year. *Id.* All forward-looking projections are subject to a number of assumptions, uncertainties and other factors. The appropriate test is whether the projection is reasonable. *Id.* 38-39.

With regard to both Power and Gas costs, the Department states that the escalation factors used reflect the judgment of the City's Office of Sustainability, Energy Office which coordinates energy purchase across the City departments. *Id.* at 39. The Department argues that, to assume

[23] The Advocate and the Department stipulated to the Department's proposed escalation factor for labor costs. See Section VI.B above.

that the City will experience no increase in either power or natural gas expenses after FY 2020 is unreasonable and fails to recognize the Energy Office's expertise in coordinating purchases for the City. *Id.*, citing PWD Rebuttal Statement 1 at 18. The Department also noted that, as stated in the technical hearings, PECO recently filed an application for rate relief with the PUC, and the Department states that Board should also take notice of the fact that increases in natural gas costs can be experienced independent of a new rate filing by Philadelphia Gas Works in view of its gas cost recovery mechanism. *Id.*at 39, note 226. As the Energy Office has already accounted for current hedges and its recent experience in the energy market (which has favorably impacted gas and power costs projected in FY 2019-2020), the escalation factors used in FY 2021 should be considered as reasonable projections – based upon the same reasonable judgment and experience. *Id.,* citing PWD Rebuttal Statement 1 at 18.

Public Advocate

The PA challenges PWD's proposed expense escalation of 3% for Power costs (Class 220) and Gas costs (Class 221) in FY 2021. PA Brief at 77. As Mr. Morgan explains, the City's Energy Office projected no increase in Power costs for FY 2019 or FY 2020. PA St. 1 at 23:1-3. The City's Energy Office projected a 4% increase in gas costs based on the settlement of a recent PGW rate case. PA Brief at 77, citing PA St. 1 at 23:18-19. For FY 2021, however, PWD includes a 3% escalation factor to both Power and Gas expense, because such rate is used in the City's five-year plan. *Id.,* citing PA St. 1 at 23:4-6, 21-22.

The Public Advocate repeats its assertion that "known and measurable" is a fundamental standard of ratemaking that applies to ensure that rates are cost-based, satisfying core obligations of fairness and equity. *Id.,* at 78. According to the Public Advocate, then, just as PWD's base budget, the FY 2018 budget, must first be adjusted based on actual, historical spend factors, so is it only reasonable for ratemaking purposes to escalate projected expenditures when the basis of those projections is both "known and measurable." *Id*. The Advocate states that PWD acknowledges that even expense escalations for fully projected test years must be based on reasonable estimates of future expenses that will actually be incurred, based on known experience. *Id.,* at 78, citing PWD St. 1R at 7:19-22.

The Advocate contends that, contrary to the Department's own express acknowledgment of the manner in which assumptions for future expenditures are determined for PWD ratemaking, the sole justification for the escalation factors proposed for FY 2021 is its inclusion in the City's five-year plan. *Id.* The Public Advocate asserts that PWD has made no demonstration that the 3% escalation factors are based on any known or available data, historical experience, or other reasonable information. *Id.*

Under any conceivable standard for the projection of future O&M expenses, avers the PA, PWD's 3% expense escalation falls short, and is nothing more than a contingency that lacks any reasonable basis whatsoever. *Id.,* at 78-79. The Public Advocate notes PWD's assertion that it is unreasonable to assume that these costs will not increase. *Id.* at 79, citing PWD St. 1R at 18:10-

11. The Advocate repeats that in its view this is not the appropriate standard in a Rate Case. *Id.* PWD is the proponent, the Advocate points out, and must carry its burden to demonstrate with substantial evidence the need for the rate relief it seeks. In other words, PWD must demonstrate that costs *will increase* to justify inclusion of its 3% Power and Gas expense escalation in FY 2021. *Id.*

Hearing Officer Recommendation
The Hearing Officer recommended that the Department's escalation factor be used for Fiscal Year 2019 and 2020, but declined to approve any increase for Fiscal Year 2021.

Exceptions
The Department and the Advocate filed exceptions to the Hearing Officer's recommendations concerning the appropriate escalation factor for Power and Gas costs.

Board Decision
The Rate Board adopts the Department's proposed cost escalation rates for power and gas expense for FY 2019 and 2020. The escalation rate issue for Fiscal Year 2021 is moot as the Board has determined not to set rates for Fiscal Year 2021 in this proceeding.

3. CHEMICAL COSTS

The Department
The Department originally proposed chemical cost escalation factors of 6.7% for FY 2019, 3.8% for FY 2020, and 1% for FY 2021. See responses to PA-IV-12, PA-IV-22 and PA-IX-18, which detail PWD's recent experience in procuring chemicals. PWD Brief at 40. The Department avers that the annual increases for FY 2020 are based on PWD's recent experience and unit costs provided during the procurement process. *Id.* citing PWD Rebuttal Statement 1 at 19. In addition, the Department states that a nominal escalation rate of 1% is applied for FY 2021, based upon a review of the overall consumer price index and PWD's recent experience. *Id.*, citing PWD Rebuttal Statement 1 at 19. The Department faults the Advocate for failing to recognize either the expertise of the PWD Operations staff in establishing reasonable cost escalation factors based upon their experience and professional judgment or the impact that variations in river/source water quality may have on treatment costs. *Id.*, citing PWD Rebuttal Statement 1 at 20.

Public Advocate
According to the Advocate, PWD seeks to justify its proposed 1% increase for FY 2021 as "a nominal annual escalation of 1% for FY 2021 through FY 2023 based upon a review of the overall consumer price index and PWD's recent experience." PA Brief at 79, citing PWD St. 1R at 19:21-23. Pointing to the evidence provided by its witness, Mr. Morgan, the PA avers that PWD's "recent experience" demonstrates that PWD experienced decreases in expenditures for Chemical costs in FY 2015 and FY 2016. *Id.* It further argues that recent historical expenditures

belie any argument that such costs will increase in accordance with the consumer price index. *Id.*

Mr. Morgan noted that the Department largely supported its proposal for FY 2019 and 2020 with an analysis comparing budgeted data, not actual expenditures, which are the true issue. PA Brief at 79, citing PA Statement 1 at 25:4-21. Mr. Morgan opined that budgets are not indicative of the actual of the Department, that recent PWD experience did not support its proposed increase, and that the Rate Board should approve no escalation absent evidence of increased costs. *Id.*, citing PA St. 1 at 25:24-26:1.

The PA argues that absent evidence of a "known and measurable," or even reasonably estimated, assumption of future costs, the Rate Board should award none. *Id.* at 80-81.

Hearing Officer Recommendation
In her Report, the Hearing Officer recommends that the Board approve a two-year rate path, finding that FY 2021 costs are speculative at this point.

Exceptions
The Advocate and the Department filed cross-exceptions, repeating their arguments above. Ultimately they agreed with each other that the escalation should be 0% for FY 2019, but continued to disagree as to whether the 2020 escalation rate should be zero, as proposed by the Advocate, or 3.8%, as proposed by the Department.

Board Decision
The Rate Board agrees with providing no change for chemical costs for Fiscal Year 2019. The Board noted that chemical expense escalation has been highly variable in recent years, and the Board was not convinced by the position of either the Department or that of the Advocate for Fiscal Year 2020. The Board estimates that chemical expenses for Fiscal Year 2020 will increase by 2%, and directs the Department to calculate its rate increase for September 1, 2019 on that basis. The proposed increase for FY 2021 is now moot.

4. CLASS 200 AND CLASS 800 TRANSFERS

The Department
The Department proposed annual cost escalation factors of 3.3% for General Costs and Other Class 200 expenses and 2.47% for Class 800 transfers,[24] which it said was consistent with the Department's historical average. See PWD Statement 9A, Schedule BV-E5 (WP-1) at Appendix 4; PWD Brief at 39-40.

The Department avers that the Advocate's disagreement with the escalation factor used for Class 200 expenses is predicated upon the assumption that PWD applied a 3.15% general escalation

[24] Class 200 is the City's budget category for purchase of services, and Class 800 is transfers.

factor in its projections. According to the Department, this is incorrect. PWD Brief at 39. Rather, as noted in PWD Statement 9A, Schedule BV-E5 (WP-1) at Appendix 4, specific escalation factors for individual cost categories are used in projecting expenses for each FPFTY (also as shown in Appendix 4). *Id.* The Department states that the overall escalation in total costs experienced by PWD is presented for FY 2014-2016 at the bottom of the table shown in that Appendix. *Id.* It emphasizes that the escalation factor used for Other Class 200 Costs is 3.3% -- not 3.15%, as assumed by the Advocate. *Id.* Further, the Department states that the escalation factor used by PWD did not include SMIP/GARP costs. Finally, the Board should be aware that the 3.3% escalation factor (used as stated above) is consistent with PWD's historical two-year average increase experience, as presented in Appendix 4 (referenced above). *Id.*, at 40.

Discussing the escalation factor applied to Transfers, the Department states that Mr. Morgan mistakenly assumes that the Transfers represented by Class 800 (as presented in PWD Statement 9A, Schedule BV-E5 (WP-1) at Appendix 4) include transfers to the Residual Fund for further transfer to the Capital Account. PWD Brief at 40, citing PA Statement 1 at 26 (lines 11-12). This is incorrect. The Department states that the historical experience presented in Appendix 4 (referenced above) does not include Residual Fund transfers for further transfer to the Capital Account. Such a transfer would be some $28 million. As shown in Appendix 4, the total expenses used to derive the 2.47% escalation factor for Transfers (Class 800) are in the range of $6.24 million to $8.10 million. For this reason, the Department argues, the premise for Advocate's escalation factor is plainly wrong. *Id.* at 41, citing PWD Rebuttal Statement 1 at 21; PWD Statement 9A, Schedule BV-E5 (WP-1) at Appendix 4.

Public Advocate

The Advocate states that PWD proposes a 3.4% annual expense escalation factor for Class 200 Services, whereas Appendix 4 showed inconsistent results including a decrease in one year. PA Brief at 81-82, citing PA-VI-1(D), (H). Mr. Morgan, the Advocate's witness, testified that the expenses shown on Appendix 4 would support only an escalation factor of 1.98%, given his conclusion that the Department double-counted by including SMIP/GARP[25] costs in the Class 200 escalation rate; and that Class 800 transfers included transfers to the Residual Fund for retransfer to the Capital Account, and that this escalation factor should be 2.18%. *Id.*; see Tr. 157-159 (May 15, 2018); PA St. 1 at 24:20-22; 26:6-19.

Hearing Officer Recommendation

The Hearing Officer made no recommendation on these issues.

[25] The Department's Stormwater Management Incentive Program and Greened Acres Retrofit Program, discussed in Section VI.C above.

Exceptions

The Department

The Department argues that the Advocate's proposed adjustments are predicated upon the assumption that PWD applied a 3.15% general escalation factor in its projections – which needed to be adjusted to remove the impact of SMIP/GARP. According to the Department, this assumption is factually incorrect and lacks evidentiary support. The Department notes that it has provided specific escalation factors for individual cost categories that it uses in projecting expenses for each FPFTY. The Department emphasizes that the escalation factor utilized for Other Class 200 Costs is 3.3% – not 3.15%, as assumed by the Advocate. Moreover, the escalation factor utilized by PWD for Other Class 200 Costs did not include SMIP/GARP costs. The Department states that the Board should be aware that the 3.3% escalation factor (utilized as stated above) is consistent with PWD's historical two-year average increase experience. Assuming the application of a 1.98% escalation factor in FY 2019 and 2020 and assuming no escalation factor in FY 2021, PWD argues, its O&M expenses for Other Class 200 O&M expenses would be understated by $11.43 million during the proposed Rate Period.
The Department did not further discuss the Class 800 Transfer question in its Exceptions.

The Public Advocate

The Advocate relies upon the position set forth in its Main Brief and submits that, for the reasons set forth therein, the Board should approve a 1.98% escalation factor for Class 200 Services and Class 800 Transfers, using the methodology advanced by the Public Advocate's witness. If the Board does not agree with this position, at a minimum, the Board must adjust PWD's proposed 3.4% escalation factor for Class 200 Services to 3.3%, to be consistent with PWD's own data.

Board Decision

The Department correctly rebutted the Advocate's argument that the Class 200 escalation rate was improperly inflated by the increase in SMIP and GARP costs. See PWD Exc. at 19. The Board accepts the Department's proposed escalation rate for Class 800 transfers but agrees with the Public Advocate that the rate for Class 200 expenses should be 3.3%, not 3.4%, based on the Department's own data. See PA Exc. at 22.

F. *COLLECTION FACTOR*

Overview

Projected revenues reflect anticipated cumulative receipts for water, sewer and storm water services for each fully projected future test year. The Department estimates receipts for each year based on projected system billings and the associated projected collection factors. These collection factors reflect the payment patterns of the Department's customers. Once the Department calculates its operating revenue from each customer type in the given fiscal year, it applies the collection factors to estimate the operating retail revenue cash receipts. PWD Brief at 30; PA Brief at 73-74, citing PA St. 1 at 20:13-21.

Collection factors are calculated as the percentage of the total amount billed that is collected (i.e., amount collected divided by amount billed). The result reflects the amount the Department anticipates receiving in a fiscal year. PWD uses the collection factors to estimate what portion of billed revenues it expects to receive. The Public Advocate and the Department disagree on how such factors should be calculated.

The Department

The Department used a cumulative collection factor of 96.54% for water and wastewater (non-storm water-only) billings. PWD Brief, at 30, citing PWD Statement 9A, Schedule BV-E5: WP-1, at 2, 15. This means that the Department expects to collect 96.54% of its gross non-storm water-only billings, and will not collect 3.46% of its gross non-storm water-only billings. The 3.46% is an uncollectible expense, which is recovered from all customers. *Id.*, citing PWD Statement 9A, Schedule BV-E5: WP-1 at 2.

The Department argues that its approach is reasonable and prudent. *Id.* The Department says that it used a cumulative system collection rate in this rate proceeding (using all of the available data). According to the Department, this approach recognizes that payments for bills in any fiscal year may be collected in the fiscal year they are rendered (the billing year) or in a subsequent fiscal year. *Id.*

PWD states that it prudently uses a five-year average for the Billing Year, a four-year average for the Billing Year Plus 1, and finally, a three-year average for the Billing Year Plus 2 and Beyond. The Department argues that this approach effectively uses all of the data that is available on actual payment patterns and also reflects potential payment volatility that could occur due to economic conditions and other factors. *Id.* at 31, citing PWD Rebuttal Statement 1 at 8-9; Response to PA-VI-28.

The Department notes that it is curious that the Public Advocate agrees with the use of a cumulative system collection rate in this rate proceeding, but disagrees with the use of all of the available data. *Id.* The Advocate's proposal is only based on a "rolling" average that takes into account the three most recent results in each category.

According to the Department, the Advocate's witness, Lafayette Morgan, errs in using only an average based on three years of data. *Id.* at 32. As explained in the Department's rebuttal testimony, this approach has two fundamental flaws: (i) the use of three years of data does not provide sufficient support to reliably determine payment patterns; and (2) the use of the most recent three years of data actually only provides one set of payment pattern for FY 2014 billings. *Id.*, citing PWD Rebuttal Statement 1 at 9. The Department argues that it is appropriate to use a larger data set, as illustrated by viewing the totality of the data shown above, because historical experience indicates that PWD continues to receive payments on bills for more than three years. As a consequence, the Advocate's analyses in both instances are incomplete and misleading (by focusing on only three years of data). *Id.*

In addition, the Department notes, the Advocate's analyses ignore storm water-only customers altogether. *Id.* These customers would also be impacted, according to the Department, if the Advocate's methodology were used. PWD uses a cumulative collection factor of 72.08% for storm water-only billings. *Id.* The Department states that the data for storm water-only customers is available in the rate filing to complete this analysis, but "for whatever reason, the Advocate and its witness chose not to use same" *Id.,* citing PA Statement 9A, Schedule BV-E5 (WP-1) at 15. The Department states that it is obvious that, storm water-only data will affect the overall collection levels for the Department. *Id.* Use of either of the Public Advocate's methods lowers the collection factor for storm water-only customers. *Id.* According to the Department this will necessarily lower the overall collection factor during the Rate Period. *Id.*

Public Advocate
During the technical hearings, the Public Advocate presented calculations of the collection factors proposed by PWD and the Public Advocate. PA Hearing Ex. 7 at 56. The Public Advocate proposes using a three-year average and recommends a collection rate of 97.12%. PA Brief at 74.

The Advocate argues that Mr. Morgan's proposed three-year average is more consistent with the two-year average used by PWD to forecast revenue for the projected test years. PA Brief at 74, citing PA St. 1 at 20:22-25.

The Public Advocate's proposal is to use the most recent three years of data from each of the three periods, whereas PWD's proposal is to use five years of data from the "Billing Year" period, four years of data from the "Billing Year +1" period, and three years of data from the "Billing Year +2+" period. *Id.* Under the Public Advocate's proposal, PWD's collection factor would increase by 0.58%, reflecting assumed additional payments from customers, and reducing the need for an increase in rates and charges. *Id.,* As set forth in the Public Advocate's response to Transcript Request 17 (Appendix B), the effect of this adjustment is to reduce PWD's revenue requirement (by increasing revenues) by $3,909,000 in FY 2019, $4,031,000 in FY 2020 and $4,179,000 in FY 2021.*Id.* Note that notwithstanding the projected impacts in FY 2021, the Public Advocate maintains that the Board should only consider a two-year rate period in this 2018 Rate Case. *Id.*

The Public Advocate cites the fact that in the 2016 Rate Case, the Board approved a three-year collection factor calculation performed in an identical manner to that recommended by the Public Advocate in this case. *Id.* citing, 5/14 Tr. at 189:10-14; PA Hearing Ex. 7 at 54-55. In addition, according to PWD, it outperformed its projections of service revenues in FY 2016 and FY 2017. *Id.,* citing PA Hearing Ex. 7 at 53 (PA-ADV-14). According to the PA, then, based on actual dollars received, the most recent collection experience is more favorable, and should be taken into account by the Board. *Id.* "In other words, the Board should lean toward the approach that reflects a stronger rate of collection." *Id.* at 76.

Moreover, argues the PA, PWD's approach is not reasonable. The PA states that PWD's "Billing Year" collection factor has improved substantially in the most recent three years. *Id.* The PA observes that that a five-year average, for this factor alone, would underestimate the likely performance based on the most recent experience.

Also, according to the Public Advocate, the most recent three years of experience in the "Billing Year +1" factor more accurately reflect the trend of those aged bills, for which collections have declined during the period that the "Billing Year" collections have increased. *Id.* The PA states that contrary to these clear indicators, PWD proposes to maintain a higher "Billing Year +1" factor. *Id.* While PWD maintains that using all information available to it is preferable (see, *e.g.*, 5/14 Tr. at 188:17-22; 189:18-190:10; 248:15-249:2), the Public Advocate submits that doing so "fails to afford appropriate weight to the most recent experience, which indicates that a higher collection factor must be utilized to project future payments." *Id.*

In addition, the Public Advocate submits that the intersection of PWD collections and the new TAP rates has not been thoroughly evaluated. *Id.* The Advocate cites Mr. Colton's demonstration that the majority of arrears owed by TAP participants are aged arrears. *Id.* As more customers enroll in TAP, and are provided affordable bills, posits the Advocate, it can reasonably be anticipated that the "Billing Year" collection factor will improve, and that unless arrearage forgiveness is implemented, the Billing Year +1 and Billing Year +2 + collection factors will not improve to the extent that they include TAP arrears (since TAP participants are not required to make any payment on those bills). *Id., citing, e.g.,* PA St. 3 at 64:5-7 (observing that the average pre-existing arrears of TAP participants falls into the 24+ month age range).

Hearing Officer Recommendation

The Hearing Officer recommended that the Department's uncollectible rate calculation be adopted, for the reason that Department's analysis appears to model actual experience more closely than that of the Advocate.

Exceptions

The Public Advocate excepts to the Hearing Officer's recommendation that the Board approve the use of PWD's calculation of collection factors for the vast majority of PWD customers (designated here as "non-storm water-only" customers). The Advocate states that the Report provides no clear explanation or basis for this recommendation, merely suggesting that: "the Department's analysis appears to model actual experience more closely than that of the Advocate." According to the Advocate, this statement is illogical, given that the Public Advocate's adjustment is based on precisely the same actual collection factors utilized by PWD.

The Hearing Officer's Report incorporates the Public Advocate's and PWD's arguments and suggests that actual experience, upon which both parties rely, favors PWD more than the Public Advocate. The Report fails to consider that PWD's proposal is a significant modification to the

methodology of calculating the collection factor approved by the Board in the last rate proceeding, and upon which the Public Advocate's adjustment is based.

According to the Advocate, it is incorrect to conclude that PWD's analysis models actual experience more closely than the Advocate's calculation. As set forth in the Public Advocate's Main Brief, PWD's methodology provides equal weight to the current year collection rate for FY 2012 as it does FY 2016. Actual experience shows that *PWD's FY 2016 current year collection rate was 2.17% higher than FY 2012's current year collection rate*. The Advocate points out that the impact of even a small percentage increase in the projected collection factor is significant. Indeed, a 0.58% upward adjustment to the collection factor, as proposed by the Public Advocate, results in an approximate $4 million increase in anticipated revenues in FY 2019 and FY 2020. PA M.B. at 75. Similarly, as the Public Advocate explained, PWD actually out-performed its projections of service revenues by almost $20 million in FY 2016 and FY 2017 combined. PA M.B. at 75.

The Public Advocate posits that its proposed adjustment to PWD's collection factor is reasonable and appropriate, as shown by the Board's previous reliance upon the same methodology in the 2016 rate proceeding. The Hearing Officer's recommendation is contrary to the evidence, and the Board should approve the use of the 97.12% collection factor for non-storm water-only customers proposed by the Public Advocate.

Board Decision
While both the collection factors proposed by the Department (96.54%) and the Public Advocate (97.12%) contain supporting information in the record of this case, the Board agrees with the Hearing Officer that the Department's calculation is better founded. When looking at the totality of collection data that is available over the full period for which such data is available, the Board found that the Department's proposed collection factor is appropriate for use in setting the rates in this case.

G. *TAP ADMINISTRATIVE COSTS*

The Department
In its Brief, consistent with its position on the Motion *in Limine*, the Department did not directly address the Public Advocate's proposal that TAP administrative costs be capped. As set forth more fully below, however, the Department vigorously defended its operation of the TAP program and urged that none of the Advocate's recommendations with respect to the operation of the TAP program be accepted by the Board.

Public Advocate
The Advocate states that PWD has been operating TAP with administrative personnel costs that equal 21% of program benefits. *Id.*, at 125, citing PA St. 3 at 66:12-13. According to the Advocate, the twenty-two TAP identified administrative personnel had an aggregate annual

salary of $827,643 as of July 1 2017, representing an administrative expense ratio in excess of 21%, relative to the $3,900,000 in TAP benefits estimated to be provided for FY 2018. *Id.,* citing PA St. 3 at 66:9-13. The Advocate argues that this fact demonstrates the administrative over-staffing of TAP, which has not led to more enrollees, but to more duplication of effort due to PWD's two tier review process. *Id.*

PWD confirms that this level of staffing resulted from an allocation of existing PWD employees to TAP administration. *Id.,* at 125-126. The Advocate points out that this transfer of employees directly contradicts PWD's express representations in the 2016 proceeding that the administration of TAP would require *incremental* hiring of 22 new employees, to work alongside existing low-income staff, for which customer rates were increased in FY 2018. *Id.* at 126. PA St. 3 at 67:1-68:13.

Concerns about the extent to which PWD misstated staffing requirements in the last rate case aside, argues the Advocate, the level of administrative cost being incurred by PWD for TAP is unreasonable. *Id.* The Public Advocate witness reviewed the most suitable performance indicator for these employees: the number of TAP applications reviewed. The Advocate states that results of that review, as shown by Mr. Colton, indicate that that, on average, each individual TAP administrative employee is actively reviewing eleven or fewer applications per day. In half the periods reviewed, each employee, on average, reviewed six or fewer applications per day – less than one per hour. *Id.,* citing PA St. 3 at 69:1 (Table).

To rectify the excessive administrative costs PWD is incurring for TAP, Mr. Colton recommends outsourcing TAP Administration and, regardless of outsourcing, limiting administrative expenses to a reasonable, 10% cost ceiling. *Id.,* citing PA St. 3 at 71:17-25. According to the Advocate, PWD appears to argue that outsourcing cannot be accomplished, due to requirements of its labor contracts. *Id.,* citing 5/11 Tr. at 122:11-123:14.

The Advocate avers that PWD points to no provisions in these contracts which override: (1) the Board's obligations to ensure just and reasonable rates; and (2) the Board's power to reject or modify PWD's proposed rates to exclude expenses which are excessive and unnecessary.

The Advocate observes that in 2016 PWD identified neither any specific prevision of the contracts nor any legal provision that preclude outsourcing, instead submitting that it had not assessed the feasibility of outsourcing and would require the input of the City Solicitor on the issue. *Id.,* citing PWD Brief 2016 Rate Case at 37, n. 36. The Advocate argues that Board should establish a limitation on PWD's rate recovery of TAP administrative expenses, not to exceed 10% of the aggregate program benefits provided. *Id.,* at 127, citing PA St. 3 at 71:17-20.

The Advocate notes that the Department has implemented a two-tier system for reviewing TAP applications, which is unprecedented and unsupported in the field of utility assistance and means-tested low-income assistance programs. *Id.* This duplicative process is certainly

contributing to additional, and unnecessary, administrative expense, while also delaying customer access to essential utility assistance. *Id.* The Advocate avers that the Board is expressly authorized to modify PWD's proposed rate assumptions, including by limiting its ability to recover unreasonable expenses. If PWD cannot operate within the Board's reasonably established TAP administrative expense ceilings set forth in its rate determination, PWD should outsource the process to entities that can do so. PWD has identified no clear barrier to outsourcing these functions. *Id.*

Hearing Officer Recommendation
The Hearing Officer made no recommendation on this issue.

Exceptions

The Department
In its exceptions, the Department argued against all the Public Advocate's TAP administration proposals, following from its position that the Board lacks jurisdiction to direct the Department with regard to what it characterizes as program operation. See discussion of Motion *in Limine.* According to the Department, issues and proposals on the structure and operation of TAP are customer service issues, and are unrelated to the Department's proposed rates and charges for Fiscal Years 2019 through 2021.

The Public Advocate
The Advocate observes that PWD did not squarely address the Public Advocate's proposal in its Main Brief, and that the Hearing Officer proposes no findings of fact or conclusions of law regarding the Public Advocate's proposal, and makes no recommendation to the Board. The Public Advocate maintains that the Board should establish a limitation on PWD's rate recovery of TAP administrative expenses, not to exceed 10% of the aggregate program benefits provided. The Public Advocate incorporates by reference the section of its Main Brief describing this proposal.

The Public Advocate states that the Report appears to present the issue of TAP administrative cost as an issue for the TAP rider. The Advocate points out that this is incorrect. No TAP administrative expense is proposed for recovery through the TAP rider. The Public Advocate's limitation on TAP administrative cost is a base rate issue, not a TAP rider issue. The Board should approve the Public Advocate's limitation on recovery of TAP administrative cost, as PWD must be required to avoid excessive administrative expenses currently associated with its unnecessary "two-tier" system of TAP application review.

Board Decision
The Public Advocate has suggested that the ongoing administrative costs incurred by the Department with respect to the TAP program are excessive and should be limited to 10% of the aggregate benefits provided by the program. The Board has concluded that such a limit on

ongoing costs would be arbitrary and possibly counter-productive as the Department works to develop this innovative and important program. As set forth more fully below, the Board will direct the Department to report back to the Board on proposed improvements to the administration of the TAP program. The Board, however, does not wish to take action that might make such improvements more difficult to implement. While the Board will continue to monitor both the costs and benefits of the TAP program, the Board will not adopt the Public Advocate's proposed limitation on ongoing TAP administrative costs in this proceeding.

H. *DEBT INTEREST RATE*

Board Decision

The Board accepts the agreement of the Department and the Public Advocate regarding the appropriate assumption for the interest rate on new debt to be used for Fiscal Years 2019 and 2020. To the extent that there was continued disagreement over the proper interest rate for Fiscal Year 2021, that issue is now moot as the Board has determined that it will not seek to establish rates in this case for that year.

VII. *FIRE PROTECTION COSTS*

The Department

PWD states that it has proposed to change how it recovers the costs of public fire protection. PWD Brief at 49. Currently, costs for public fire protection are allocated and billed to the City Fire Department, which pays PWD from its General Fund allocation. *Id.* at 49-50, citing PA Statement 3, Letter to PWD Regarding Fire Protection Costs (Appendix D). The Department proposes that going forward, costs for public fire protection (beginning in FY 2019) be allocated within the cost of service analysis to all water customers, through fixed, meter-based service charges. *Id.* at 49. The proposal would shift approximately $8 million in costs annually from taxpayers to PWD customers. *Id.*, at 50, citing PWD St. 9A, Sch. BV-E5:WP-1 at 1. Monthly fixed charges would increase under the Department's proposal. According to the Department, it would receive the same amount of revenue for the provision of these services, but the revenue would be coming from customers instead of the General Fund.

The Department argues that this change in policy was the subject of decision by the City Administration. *Id.*, at 49, n. 260, response to PA-V-6, Attachment. To meet other constraints, PWD avers, it is no longer reasonable for the General Fund to have to pay for fire services. According to the Department, the Fire Department payment for fire services constitutes an artificial subsidy to PWD. *Id.* at 50, citing, PA-V-6, Attachment; PA Statement 3, Letter to PWD regarding fire protection costs (Appendix D).

PWD argues that consumer payment for city fire protection costs is consistent with industry accepted practice. The Department states that in many places, including in Pennsylvania, water customers pay for all or part of the cost of public fire protection services. *Id.*, at 50, n. 283, citing

PWD Statement V6, White Paper on Recovery of Public Fire Protection Costs (Schedule BV-E5: WP-2). In Pennsylvania, the Department argues, water utilities regulated by the PUC (almost all privately owned) can only charge a municipality up to 25% of the cost of service for public fire hydrants. 66 Pa. C.S. §1328(b). The remaining costs are allocated to all of other customers of the system. *Id.* at n. 284.

As to the inequities of such a cost shift, and adverse impacts on low-income customers, the Department points to the TAP, which is a burden-based rate that will not increase if the consumers pick up the fire protection costs. *Id.,* at 50. PWD also argues that the PA has misread the Ordinance provisions regarding determination of rates and charges, and that these do not prevent the Board from approving the shift from the Fire Department to all water ratepayers. *Id.* at 51-52.

Public Advocate

The PA states that the shift of cost responsibility for fire protection from the Fire Department to all PWD customers is illegal and fundamentally unfair. PA Brief at 63. The Public Advocate argues that fire protection is a public good that should be paid by the taxpayers collectively for the public benefit. *Id.* at 68, citing PA St. 3 at 93. The PA further states that the shift violates principles of cost causation, creates inequities among customers, and unfairly shifts fire cost burdens to lower-use and lower-income households.

The Public Advocate argues that correspondence from the City's First Deputy Managing Director, cited by the Department, is merely a recommendation and that there has been no directive to shift such costs that PWD or the Board must follow. *Id.* at 63. The Public Advocate argues that the shift of fire services costs to customers generally is prohibited by the language of the Ordinance governing PWD rates. *Id.* at 65.

Hearing Officer Recommendation

The Hearing Officer recommended that the Department's proposal to shift cost responsibility for fire services to consumers other than the Philadelphia Fire Department be rejected, for the following reasons. The Philadelphia Code has long required that rates and charges be determined after excluding the cost of serving City facilities and fire systems. PA Hearing Ex. 6 (1957 Water Rate Ordinance). That language remains in the Philadelphia Code today:

> The rates and charges shall yield not more than the total appropriation from the Water Fund to the Water Department and to all other departments…plus a reasonable sum to cover unforeseeable or unusual expenses, reasonably anticipated cost increases or diminutions in expected revenue, *less the cost of supplying water to City facilities and fire systems,* and, in addition, such amounts as, together with additional amounts charged in respect of the City's sewer system, shall be required to comply with any rate covenant and sinking fund reserve requirements approved by ordinance of Council in connection with the authorization or issuance of water and sewer revenue bonds….

Phila. Code §13-101(4)(b) (emphasis added). See also PA Hearing Ex. 6 at 259, PA Hearing Ex. 7 at 22.

PWD acknowledges that this proposal constitutes a new obligation to retail customers in this 2018 Rate Case, and the cost of water for City facilities and fire systems has never previously been considered for recovery through PWD customer rates. 5/14 Tr. at 19:20-20:1. When City Council enacted the present Ordinance, Bill No. 130251, Council continued to require as a rate standard that the costs associated with supplying water to City facilities and fire systems be excluded from rates and charges, leaving those costs to be paid out of the General Fund. Although it could readily have included a change to this language while establishing the Rate Board and modifying certain standards for establishing PWD rates and charges, City Council left the long-standing language regarding fire systems unaltered in Bill No 130251.

The Board cannot accept a recommendation from the City's First Deputy Managing Director as a modification of its responsibilities under the Ordinance. Further, whether or not the Department is correct that the language of Phila. Code §13-101(4)(b) does not create an absolute prohibition on such a cost reallocation, from the perspective of the Water Department and its customers, such a shift would be unfair and lead to the inequities cited by the Public Advocate. The Tiered Assistance Program would help protect some low-income customers from the cost shift, but the cost shift would raise rates for all other residential and all commercial customers, at least as proposed.

Exceptions
The Department argues that the Recommendation in that it is based on a misreading of the Philadelphia Code.

Board Decision
The Department proposed to switch responsibility for the costs of public fire protection from the City's General Fund to all other customers. This proposal was opposed by the Public Advocate as well as a number of individuals who testified at the Public Input sessions. The Hearing Officer recommended that the Department's request be denied.

The Board recognizes that there are policy arguments in support of both positions in this case, but agrees with the Public Advocate that the Department's position appears to be contrary to longstanding practice under applicable City law. The provision in the Philadelphia Code that governs the Water Department's rates specifically appears to exclude cost recovery for the "cost of supplying water to City facilities and fire systems." Philadelphia Code Section 13-101(4)(b). This provision has been in the Code since at least 1957, see PA Hearing Exhibit 6, and the Department has never before attempted to recover public fire protection costs through its other customers' rates. Absent clear direction to the contrary from the City Council, the Board declines to include public fire protection costs in customer rates and the Department's Exception to the Hearing Officer's recommendation on this issue is therefore denied.

VIII. *COST ALLOCATION AND REVENUE ALLOCATION ISSUES*

The Department

PWD uses the base extra-capacity method to allocate costs to the various customer types. The total revenue requirements to be derived from charges for water and wastewater service constitute the total cost of service. In order to develop specific rates, the Department allocates these costs to the various customer types according to respective service requirements. PWD Brief at 43, citing PWD Statement 9A at 52.

The Department explains that, for the water utility, allocations of these requirements to customer types take into account the quantity of water use, relative peak capacity requirements placed on the system, the number and size of services to customers, and proprietary interest in the system investment. *Id.,* citing PWD Statement 9A at 52. The analyst considers the following factors in estimating service requirements for wastewater service to each customer type: the annual volume and peak rates of sanitary wastewater, infiltration, and storm water flows; wastewater strengths; the number and sizes of customers served; and proprietary interest in system investment. *Id,* citing PWD Statement 9A at 52-53.

As PWD explains, the analyst then distributes the functionalized cost component to customer types. *Id.,* at 44. Customers are assigned to specific categories based on the similarity of their characteristics. The analyst determines units of service for each customer type for each of the functional cost component categories. *Id.* For each customer type, the analyst then apportions the unit costs based the class units of service. This provides a means of proportionate distribution to the customer types of the costs previously allocated to functional cost components. *Id.,* citing PWD Statement 9A at 69.

The analyst then uses analysis of the resulting costs of service to each customer type as the basis for design of the proposed rate schedules. In this case, the Department designed rate schedules for water and wastewater service to retail customers that consist of a service charge and volume charges applicable to billable usage for each such utility. *Id.*

For the water Cost of Service Study (COSS), Black & Veatch used the Base Extra-Capacity cost allocation method outlined in AWWA's Rate Manual. *Id.,* at 45. This approach reflects the fact that engineers size and design the water source of supply, treatment, pumping and transmission and distribution facilities to handle the annual usage and potential maximum day and maximum hour demands of the PWD's water customer base. *Id.* at 43. The Department allocated these costs to the base, maximum day, and maximum hour cost categories based on the degree to which they are associated with meeting those service requirements. *Id.* at 44.

The Department argues that its proposed cost allocation and rate design for water service are consistent with industry best practices and are premised upon cost causation. PWD Brief at 43, citing PWD Statement 9A at 10. The Department states recent historical experience supports the System-Wide Capacity Factors Used in its COSS. *Id.*, at 43. The Department states that the highest recent ratio of maximum day to average day demand is 1.41, based on the FY 2012 system raw water pumping data, and that accordingly the proposed system-wide maximum day capacity factor of 1.40 is consistent and supported by recent data. *Id*., citing PWD Rebuttal Statement 3 at 3.

PWD notes that PLUG supports the Department's methodology and capacity factors. *Id.* The Department quotes Richard A. Baudino, testifying on behalf of PLUG, who said "the system-wide maximum day and maximum hour extra-capacity factors used in the COS Study are based on the PWD's actual historical experience, are reasonable, and should be adopted for purposes of the COS Study used in this proceeding." *Id*., citing PLUG Rebuttal Statement 1 at 2, lines 18 to 21. The Department's methodology, however, was challenged during the proceeding by PA witness Mierzwa as set forth below.

The Department concludes that its rate structure is reasonable and should be approved. *Id.* at 48. Under this structure, the same usage (MCF) rates are applicable for all metered usage for all customer types, PWD Statement 8 at 8, vary based on monthly consumption, and decline with increasing consumption. *Id.* According to the Department, the design of the declining tier blocks reasonably captures the inherent diversity of water usage, among PWD's customer types. In addition, PWD argues that its water service rate structure, which includes fixed charges by meter size and a volumetric rate that reflects declining block rates, is a well-accepted rate structure. The Department further states that the design of the declining tier blocks reasonably captures the inherent diversity of water usage among PWD's customer types. In addition, PWD states that its water service rate structure, which includes fixed charges by meter size and a volumetric rate that reflects declining block rates, is a well-accepted rate structure that many utilities use across the United States.

Rather than make significant cost allocation and revenue allocation decisions in the present proceeding, the Department states that it recognizes that there is a need for a holistic evaluation of its existing water, sewer, and storm water rate structure and is considering a conducting a comprehensive rate structure review before the next rate proceeding. Consequently, the Department plans to present any potential changes to the rate structure as part of the next rate proceeding, for the Rate Board's consideration. The Department states that, while the specific components of the rate structure review and the detailed scope of work are yet to be finalized, at the current time, the Department envisions the following activities as part of the rate structure evaluation:

- Determination of the strengths and key issues about the existing rate structure.
- Definition of rate structure evaluation objectives and desired key outcomes.

- Evaluation of select rate structure alternatives and an analysis of the pros and cons of each alternative. Examples of rate structure alternatives that the Department may evaluate include uniform volumetric rate, inclining block rates, customer type based fixed and volumetric rates, specific cost recovery riders and/or charges, storm water rate structure and magnitude of storm water credits.
- Evaluation of bill impact and impact mitigation strategies.
- Recommendation of a proposed alternative rate structure that takes into consideration multiple factors including data availability, ease of administration, customer bill impact and outreach, and billing system modifications.

The Department argues that it would not be reasonable to mandate the adoption of rate design changes in this proceeding. Such changes should not be contemplated without thorough planning and interaction with customer groups before making such a major change. The Department states that revenue stability could be significantly impacted due to unforeseen changes to various customers and customer types; this could cause disruptions in revenue collections or materially impact revenues. As a matter of best practice to facilitate customer acceptance, the Department contends, the rate design changes proposed in this case should not be decided at this time, but should only be decided after undertaking the activities and analysis discussed above.

Public Advocate
According to the Public Advocate, PWD's application of the base-extra-capacity method in the water COSS is flawed.

The Advocate recommends that the Board approve use of a maximum day ratio of 1.30 in PWD's COSS. The PA states that this ratio is consistent with the AWWA M1 Manual, which requires the use of "the highest ratio of system maximum-day ('MD') demand to system average-day ('AD') demand over a representative number of recent years. PA Brief at 94, citing M1 (7th Ed.) at 373 (emphasis removed). According to the PA, PWD's COSS uses a maximum day to average day ratio of 1.40, reflecting the highest maximum day ratio experienced since FY 2012. *Id.* The Advocate's witness, Mr. Mierzwa, recommended the use of a maximum day ratio of 1.30, which reflects the highest maximum day to average day ratio experienced during the last 5 years. Id. The Advocate states that the 1.30 maximum day ratio is consistent with PWD's actual maximum day experience for FY 2013, FY 2014, and FY 2017. *Id*., citing PA-II-8; PWD St. 3R at 13:21-24.

The Public Advocate argues that ideally, the most reliable approach to determining customer class extra-capacity factors would be to conduct a formal study that samples the actual daily and hourly demands of the various customer classes. *Id.* However, Mr. Mierzwa noted that such studies are "generally expensive and time consuming." *Id.*, at 95-96. He observed that the PWD has not conducted a formal study of actual customer class demands. According to Mr. Mierzwa, in lieu of such a study, Appendix A of the M1 ("AWWA Method") presents an alternative approach to developing extra-capacity factors. *Id*. at 96, citing Public Advocate Data Request

PA-ADV-42. The PA asserts that the extra-capacity factors reflected in PWD's COSS are inconsistent with those resulting from application of the AWWA Method. *Id.*, citing PA St. 2 at 14:20- 15:4.

To correct for this problem, Mr. Mierzwa independently developed customer class extra-capacity factors based on the procedures described under the AWWA Method. *Id*. Mr. Mierzwa used the system-wide maximum day and maximum hour demands previously identified, and customer billing records from FY 2014-FY 2016 (July 2013 – June 2016). *Id*. He noted that the resulting customer extra-capacity factors would not vary significantly if data solely from FY 2016 had been used (which was the approach PWD claimed to use in PA-ADV-42.) *Id.*, citing PA St. 2 at 15:8-14.

The Advocate further argues that the Board should maintain and not increase the current 0 to 2 MCF usage block for water service during the rate period. *Id.* at 92. Mr. Mierzwa reviewed the PWD COSS for the Advocate, and determined that PWD has designed water rates which "significantly exceed the cost of providing service to the Residential customer class," PA Brief at 98. Mr. Mierzwa further determined that even the existing rates of the Residential customer class are "more than sufficient to recover the indicated cost of service." *Id.*, The Advocate urges that any increase authorized by the Board in this proceeding should be recovered through a proportional increase to PWD's remaining usage block rates which are currently less than the 0 to 2 MCF block rates. *Id.* at 98-99, citing PA St. 2 at 18:4-9.

The Public Advocate asserts that its COSS and PWD's COSS both support maintaining the current rates for the 0 to 2 MCF block of usage. *Id.* According to the PA, most Residential and Senior Citizens class consumption currently falls within the 0 to 2 MCF usage block. *Id. at 98.* The Advocate posits that the Residential and Senior Citizens customer class rates and revenues are well in excess of the rates necessary to recover the indicated cost of service for those classes under the Public Advocate's Cost of Service study, and are even sufficient to recover the indicated cost of service under PWD's study. *Id.* at 99.

In addition, if the Board approves any increase in rates, the Public Advocate urges that PWD's original increase be proportionately scaled back to achieve the revenue increase approved by the Board. *Id.*at 92, note 48, citing PA St. 2 at 20:23- 21:3.

The Advocate argues that the Board's Order should include a determination that PWD should develop and propose customer-class-specific water usage rates. PA Brief at 99. The water usage charges currently assessed by PWD and those proposed by PWD in this proceeding vary based on monthly consumption. These rates are applicable for all metered water usage for all customer classes. For this reason, states the Advocate, a change in one usage block rate will generally affect the revenues recovered from all customer classes. Because of this, it is nearly impossible to set rates to recover the indicated cost of service for each customer class. *Id.*at 100. Therefore,

according to the PA, the Board should require PWD to adopt separate volumetric usage rates for each customer class in its next proceeding.

PLUG

PLUG challenges Public Advocate witness Mierzwa's recommendation that the extra-capacity factors used in the Black & Veatch COSS be exchanged for "recent actual experience." PLUG Brief at 3, citing Public Advocate Statement No. 2, at 3. In effect, argues PLUG, Mr. Mierzwa is requesting that the Board rely on incorrect data. *Id*.

PLUG notes that the Manual provides that "[s]election of the appropriate methodology for determining customer class peaking factors should be considered on an individual utility basis." *Id*. Accordingly, PLUG argues, the Board should defer to PWD's selected methodology which accounts for system-specific characteristics. *Id*., citing PWD Statement No. 3, at 7. PLUG also argues that the selection of extra-capacity factors in the PWD COSS is generally consistent with prior studies conducted by Black & Veatch and adopted by the Board. *Id*. For these reasons, PLUG urges that, the Black & Veatch COSS should be approved without modification.

PLUG also challenges Public Advocate witness Mierzwa's proposal that the Board require PWD to hold the costs of the 0-2 MCF block constant, shifting all volumetric cost increases to users of more than 2 MCF. PLUG Brief at 5. According to PLUG, the Board should reject this proposal as (1) inequitable, (2) a recipe for rate shock and (3) not supported by substantial evidence. *Id.* at 5. PLUG submits that the burden of PWD's proposed rate increase would fall disproportionately on non-Residential customers. *Id.* PLUG cites Mr. Baudino, who testified that this burden would be substantial. As a hypothetical example, if the Board increases total rates by 10%, the actual increase to non-Residential customers would more than double to 22.8% under the Public Advocate's rate design proposal. *Id.*, citing PLUG Statement 1 at 6.

PLUG notes that, in its Brief, the Public Advocate added an additional proposal not proffered by its witness. PLUG explains that the Public Advocate's Main Brief argues that the Rate Board should maintain present water rates for the 0-2 MCF usage block because present revenues from Residential customers are sufficient to recover the cost-of-service under both the Public Advocate's modified COSS and PWD's as-filed COSS. Because the procedural schedule established for this proceeding does not allow for Reply Briefs, PLUG notes, it did not have an opportunity to address this argument in advance of the Report and clarify the logical fallacy and fundamental unfairness of maintaining present water rates for the 0-2 MCF usage block. As set forth in PLUG's Main Brief and recounted in the Report, the Public Advocate's COSS contains numerous flaws, relies on data subsequently corrected and clarified by PWD, and was properly rejected by the Report. As a result, argues PLUG, the only valid COSS on record remains PWD's COSS. A review of PWD's COSS by PLUG shows the Public Advocate's proposal to maintain present water rates for the 0-2 MCF usage block lacks credible support, would result in interclass subsidization, and would subject higher usage customers to unjust and unreasonable rates.

First, the primary evidence cited by the Public Advocate ignores the countervailing fact that the same is true for Commercial and Industrial customers. According to PLUG, when this information is considered, there can be no rational basis for the PA's proposal.
PLUG states that the Public Advocate' s recommendation to recover any increase in water rates from all usage blocks except the 0-2 MCF usage block must be rejected. Therefore, PLUG recommends that any revenue adjustments approved by the Board be proportionally scaled back for all water, sewer and storm water service rates. *Id.* at 9.

PLUG also opposes Mr. Mierzwa's proposal that the Board compel PWD to change its rate design by adopting separate volumetric usage rates for each customer class. PLUG Brief. at 5, note 16, citing Public Advocate Statement No. 2, at 17- 18. PLUG points out that Mr. Mierzwa provides no specific rates for affected stakeholders to review, and that accordingly the proposal should be dismissed as unsupported. *Id.*

Hearing Officer Recommendation
The Hearing Officer recommended that the Department's extra-capacity factors be approved, as the Department has shown it has used data specific to PWD, rather than the generic data used by Mr. Mierzwa.

The Hearing Officer recommended that the Board order the Department not to increase the usage rate for customers using 0-2 MCF of water, reasoning that the Advocate was persuasive that the present rate is satisfactory under all identified assumptions.

Exceptions
The Department and PLUG filed exceptions to the Hearing Officer's proposal to exempt the first two MCF of customer usage from any rate increase and to shift all such increases to higher use customers. The Department also reiterated its suggestion that the cost allocation and rate design issues identified in this proceeding would be better considered after the Department has an opportunity to develop a comprehensive analysis of possible changes to its rate structure.

Board Decision
The Public Advocate raised a number of criticisms of the Department's cost allocation methodology, particularly with respect to the application of the "base extra-capacity" methodology. The Department's methodology was supported, however, by the Philadelphia Large Users Group, who presented an expert witness in the rebuttal phase of the case challenging the Public Advocate's criticism of the Department's cost of service study.

The Public Advocate also challenged the Department's allocation of the proposed rate increase among customer groups. The Public Advocate contended that small users, including most residential customers, were allocated too large a proportion of the costs of the system and that there should therefore be an exemption from any rate increase for the first two MCF of monthly

usage. Again, the Public Advocate's proposal was opposed by PLUG, which argued that this proposal would unfairly place nearly the entire burden of any rate increase on the larger commercial and industrial customers.

Importantly, while supporting its cost and rate allocation proposals in this case, the Department also acknowledged that "there is a need for a holistic evaluation of its existing water, sewer, and storm water rate structure and is considering a comprehensive rate structure review before the next rate proceeding." PWD Exc. at 30.

The Board concludes that the Department's cost allocation and rate allocation proposals should be adopted in this proceeding, but the Board also agrees that it is appropriate to review the Department's rate structure on a comprehensive basis and directs the Department to begin to conduct such an analysis at this time. This analysis should include, but need not be limited to, the issues set forth in the Department's Exceptions at page 30 and its Direct Testimony, PWD Statement at 8-9, and should be completed if at all possible in time for consideration by the Board in the next rate proceeding. The Board also agrees with the Department's observation that this analysis should include "thorough planning and interaction with customer groups." PWD Exc. at 31.

IX. *TAP IMPLEMENTATION ISSUES*

Overview

PWD's Tiered Assistance Program (TAP) is a percentage of income payment program, which provides TAP customers with bills that are calculated as a fixed percentage of household income (HHI), as follows: 2% of HHI for customers with income between 0-50% of the Federal Poverty Rate (FPL) (subject to a minimum bill of $12 per month); 2.5% of HHI for customers with income between 51%-100% FPL; and 3% of HHI for customers with income between 101-150% FPL.

As set out more fully below, the Public Advocate describes numerous features of the TAP rate as presently offered to potentially eligible customers. The Public Advocate argues that various impediments to taking service under the rate remain and that these concerns should be addressed. The Department states that the PA's recommendations for reform of operations are beyond the authority of the Board. To the extent that the Board chooses to address any of these issues, the Department generally urges the Board to reject the recommendations of the Public Advocate at this time.

Public Advocate

The Public Advocate acknowledges that implementing a new program, like TAP, takes significant effort, much of it directed to outreach and community education. *Id.* Based on the analysis of its expert Roger Colton, the Advocate concludes that PWD can make improvements to ensure the broad availability of TAP rates to low-income Philadelphians. Certain of the efforts

PWD has focused on have not, according to analysis of application and enrollment data, borne sufficient fruit. *Id*. According to Mr. Colton, PWD's mass mailing approach has not been effective. *Id.,* citing PA St. 3 at 11:3-4. In contrast, the PA states, the applications generated through means *other than* mass mailings were much more effective. *Id.*, citing PA St. 3 at 46:18-47:9.

Based on these observations, Mr. Colton recommends that PWD make several improvements in outreach, designed to assist in reaching customers who should be enrolled in TAP. Primarily, Mr. Colton emphasizes the need to use community-based organizations (CBOs), integrating application and enrollment through those agencies that serve "hard to reach" customers. According to the Advocate, relying on organizations employing trusted messengers, and reaching customers directly, in-person, are the most successful in serving low-income constituents in need. *Id.* at 110, citing PA St. 3 at 50:22-53:22.

Another barrier to participation cited by the Advocate is the fact that TAP applications are only available in hard copy, by mail, or via electronic access through a website portal that requires the customer's "water access code" (which appears on the customer's bill). *Id.,* citing 5/11 Tr. at 53:20-54:16. These applications, generated by PWD, include individualized barcodes for tracking and processing purposes. *Id.,* citing 5/11 Tr. at 86:1-5. Because these applications include individualized bar codes used for tracking and processing purposes, neither customers not community organizations serving them have access to "blank" applications. *Id.,* at 110-111.

Mr. Colton also contends that the use of community-based organizations would assist PWD in meeting the needs of limited English proficient (LEP) customers. *Id.,* at 111-112. The Advocate cites his analysis to the effect that the needs of LEP customers are not being adequately met under current operations *Id.,* citing 5/11 Tr. at 65:4-11.

On the basis of this review, Mr. Colton makes the following recommendations, which the Advocate asks the Board to approve in its determination in this proceeding:

- PWD should comply with the clear language of the Philadelphia Code requiring it to use determinations of income and/or residency made for purposes of the City's Owner-Occupied Payment Agreement (OOPA) program. Mr. Colton recommends this be accomplished through an information sharing agreement between the City Departments, to the extent necessary.
- PWD should use information from its sibling municipal utility, PGW, to identify eligible customers for TAP, because PGW's customer assistance program uses the same income eligibility threshold and requires occupancy for approval.
- PWD should engage CBOs to conduct TAP outreach and intake. As part of this process, PWD should set aside administrative funding for these groups, in order that they have the resources to employ a boots on the ground approach, to identify and enroll customers in-person, where they are, and without technological

> limitations. Blank applications should be made available, in those languages identified by the CBOs based on language access needs of their communities, for use in enrolling TAP customers.

Id. at 112-113.

As of May 22, 2018, PWD has enrolled 8,960 based on applications submitted between July 1, 2017 (the date that TAP was implemented) and March 31, 2018. PA Brief at 101. The Public Advocate observes that this number falls well short of the estimates in the 2016 Rate Case, which anticipated enrollment approximating 31,000 by the end of FY 2018. *Id*., citing 2016 Rate Case PA Statement 3 at 30:19-22. On behalf of the Public Advocate, Mr. Colton examined data from PWD regarding the time periods between customers' submission of applications and PWD's status updates on those applications. The Public Advocate states that Mr. Colton found that there is a substantial delay in acting on TAP applications.

According to the Advocate, TAP applicants are being deprived of substantial amounts of discounts – discounts that are simply "lost." *Id.,* at 103. Citing Mr. Colton's analysis, the Advocate estimates that for those persons who enrolled in TAP from July 1, 2017 through January 19, 2018, and who faced delays in TAP approval, these lost discounts amounted to nearly $700,000, representing unaffordable bills that were rendered in excess of the TAP rate bills for which customers were subsequently found eligible. *Id.,* citing PA St. 3 at 10:20-11:2. The Advocate points out that even these numbers do not take into account the TAP applicants for whom no determination has been made, or for whom approval may be obtained only after resubmitting or responding to an application determined to be incomplete. *Id.,* at 5/11 Tr. at 23:11-29:5

On the basis of PWD's delay in processing TAP applications, Mr. Colton recommends a billing adjustment, "retroactive to the first full billing cycle after PWD received a complete TAP application." *Id.,* at 104, citing PA St. 3 at 12:4-6.

Based on his review of PWD's TAP application, PA witness Colton also made several recommendations in order to ensure that PWD's application complies with the Philadelphia Code, and to ensure that customers are not discouraged from or prevented from accessing TAP due to unreasonable application requirements. The Advocate proposes that the Board include a determination in its rate order that Mr. Colton's recommendations should be implemented by PWD, as follows:

a) *Social Security Number Requirement*

Public Advocate witness Colton testified that, based on the application itself, PWD appears to demand that a TAP applicant provide a Social Security Number "for every household member between the ages of 18 and 65." PA Brief at 105, citing PA St. 3 at 21:1-3. The Advocate states

that PWD acknowledges that a Social Security Number is not actually required to process a TAP application, and provision of a Social Security Number is optional. *Id.*, citing 5/11 Tr. at 37:10-12. However, the Advocate avers that PWD could not identify anywhere in the application or application instructions where a customer would be informed of the optional nature of Social Security Numbers. *Id.*, citing 5/11 Tr. at 38:1-6. According to the Advocate, such a requirement is an unnecessary hindrance to successful application for TAP. *Id.*

b) *Time Limit for Return of Application*

The Public Advocate criticizes the PWD application packet because it includes two statements that impose inconsistent and unauthorized time limits for customers to complete and return their applications. PA Brief at 106. Mr. Colton concluded that these timelines can discourage applications from being returned, and may not even be feasible given the potential for delay in receiving the application after request. *Id.*, citing PA St. 3 at 22:15- 23:5. In any event, the Advocate argues, the deadlines imposed are neither authorized by the Philadelphia Code, nor reasonable in duration. *Id.*, citing PA St. 3 at 23:7-12.

c) *Residence and Financial Hardship Determinations from OOPA*

According to the Advocate, PWD is not fully complying with the provisions of the Philadelphia Code, requiring that, in administering TAP, PWD "shall accept determinations of income and/or residency made within the prior twelve months pursuant to [Philadelphia Code] §19-1305." *Id.*, citing PA St. 3 at 28:12-13; 31:15-21. This section, governing the City's Owner-Occupied Payment Agreement (OOPA) program, provides income-based tax hardship agreements to low-income homeowners and equitable owners in Philadelphia. The Advocate points out that the ordinance authorizing TAP expressly required PWD to accept determinations made pursuant to OOPA with the goal of streamlining TAP access for customers who are known by the City to be low-income owner occupants. *Id.*

d) *Unnecessary Acknowledgements/Requirements*

The PA points out that PWD's TAP application requires customers who report zero income to provide a detailed listing of assets, for which the Philadelphia Code provides no authorization. *Id.*, citing PA St. 3 at 19:5-7. The TAP application requires that a customer provide an explanation for why an adult household member may have no income, which explanation is not relevant to the determination of household income for purposes of TAP eligibility. *Id.*, citing PA St. 1 at 20:10-18. Similarly, the TAP application requires customers to acknowledge several responsibilities which are not authorized under the Philadelphia Code provisions regarding TAP. *Id.*, citing PA St. 3 at 19:16-18. As Mr. Colton states, the provisions of the Philadelphia Code governing TAP explicitly acknowledge that a customer shall be enrolled upon completing an application that provides proof of residency and financial or Special Hardship. *Id.*, citing PA St. 3 at 18:15-18; Phila. Code §§19-1605(2)(d), (3)(g).

According to the Advocate, a customer who fails to explicitly acknowledge the requirements PWD lists in the application, whether due to oversight or disagreement, will not become a TAP customer. A customer who refuses to provide, or can't provide, an explanation for why an adult household member lacks income, will not become a TAP customer. *Id.,* at 108.

e) *Recommended TAP Application Improvements*

On the basis of the administrative delay associated with the current TAP administrative process, as discussed above, the Public Advocate submits that the Board should reach a determination that PWD's demands for extensive information, beyond what is required by the Philadelphia Code, are unreasonable and unnecessary. *Id*. The Rate Board, having established TAP rates, "should address, in clear and certain terms, that PWD's administrative practices must not impede access to the approved TAP rates." *Id.* The Public Advocate recommends that the Rate Board endorse the use by PWD of a streamlined application form, similar to that used by PECO Energy Company for its Customer Assistance Program, as attached to Mr. Colton's testimony. *Id.,* citing PA St. 3, Appendix C.

The Department
The Department states that the Board should approve the Motion *in Limine*, and argues that the Board has no authority to direct program operations such as the one in question. The Department further argues that its operations are reasonable.

According to the Department, issues and proposals on the structure and operation of TAP are customer service issues, which are beyond the scope of a rate proceeding before the Rate Board and are, therefore, legally irrelevant.

Even if PWD's Motion is not granted, however, PWD contends that it should not be ordered to undertake any particular actions to improve customer service as a condition of increasing rates or otherwise. Nor should PWD be explicitly directed to include in its annual report to the Council and the Board, under 13-101(10) of the Philadelphia Code, any information relevant to the issues raised by the Public Advocate on the structure and operation of TAP.

The Department defends the customer service provided in the TAP program, stating that:

- TAP is a ground-breaking customer assistance program. PWD Brief at 64.
- PWD/WRB designed TAP around customers. *Id*
- Initial program design was critical to success. *Id.* at 65.
- In addition to offering an affordable bill, TAP also provides program applicants and participants robust protections and benefits. *Id.* at 65-66.
- An integral part of the design of TAP is the Customer Assistance Application. *Id.* at 66.

  - This application is universal in nature and offers access (for eligible customers) to all the Department's bill assistance programs, including TAP, senior citizen discount, WRAP recertification, and extended and standard payment agreements. See PWD Statement 8 at 12, lines 4-24.
  - The application was developed with input and feedback from several stakeholders including Community Legal Services, the Neighborhood Energy Centers, Utility Emergency Services Fund, and behavioral scientists. PWD Rebuttal Statement 4 at 4, lines 13-17.
  - Applications can be obtained by calling the Department to have an application mailed or by visiting any WRB customer service center to have an application mailed or printed. See, PWD Statement 8 at 10, lines 14-16.
  - Customers can also go online to print an application, request an application be mailed to them, or to complete the application. See PWD Statement 8 at 10, lines 11-13 and 17-18.
  - The most innovative aspect of the application is the unique barcode that provides applicant protection and application tracking and metrics. *Id.*, citing TR-12 and discussion *infra* in PWD Brief.
  - As part of the Department's commitment to Philadelphia's limited English proficient households, the application is available in ten (10) languages: Arabic, Cambodian (Mon-Khmer), Chinese (simplified and traditional), Italian, Portuguese, Russian, Spanish, and Vietnamese, in addition to English. *Id.* at 66, citing PWD Rebuttal Statement 4 at 10, lines 20-22.
  - CAMP, the new application workflow and reporting software, is the heart of TAP. In addition to providing the workflow for program selection, CAMP provides in-depth program metrics. CAMP is able to deliver such detailed reporting because each application has a unique bar code. *Id*., citing, Tr. 99, lines 22-23 (May 11, 2018).
- The Program Design is supported with regulations. *Id.,* at 67. TAP's information technology systems are the backbone of the program. *Id.*
- TAP's timely launch was successful. *Id.* at 68.
- As part of the outreach program a TAP Advisory Committee was formed that included Community Legal Services, Utility Emergency Services Fund, Energy Coordinating Agency and their Neighborhood Energy Centers, and the Drexel Center for Hunger Free Communities. *Id.* at PA Statement 3 at 46, lines 19-22.
- TAP is administered to deliver substantial relief to low-income customers and insightful metrics for stakeholders. *Id.* at 69.
- Water Revenue Bureau uses a two-stage review process to ensure the applicant is placed in the most affordable program and that other ratepayers are not unduly burdened by customers receiving assistance for which they do not qualify. *Id*., citing PWD Statement Number 8, page 11, lines 6-11.

- WRB is required to provide annual reporting to the Mayor and City Council on TAP and other assistance programs.

PWD Brief at 70, citing Philadelphia Code §19-1605(7). Using the bar code, CAMP is able to provide the reports and countless other regular and *ad hoc* reports. *Id.,* citing PWD Statement 8 at 19, lines 6-22.

Hearing Officer Recommendation

The Hearing Officer recommended that the Board at a minimum direct the Department to report back on its efforts to reduce barriers to participation, for the following reasons. The supervision of PWD's rates and charges would be in vain if the Department simply refused to implement an approved rate. This is an extreme hypothetical, and does not apply to the TAP situation. To the extent PWD and WRB outreach, applications forms, proof of income eligibility, and delays in processing are keeping customers from obtaining service under the TAP rate, the reasons have more to do with the newness of the rate, and the need to graft its implementation onto an intake system that was not designed for the purpose. The Department has worked hard to implement TAP since its approval in 2016.

Having said that, the evidence presented by Mr. Colton, a nationally recognized expert in the field of affordability rates, makes it clear that many customers who could be taking service under the TAP rate are not doing so, because of the impediments to signing up. To use a term from utility rate design, the TAP rate is not in fact "available" to the customers who are defined in the rate as those to whom the rate is available (and who could be benefiting from the rate nominally available to them). The Board cannot be powerless to direct the administration of a rate that is failing of its purpose. To deny this authority would be to render the Board impotent to see that its rate decisions are implemented as intended. The success of the Department's offer of the TAP rate also has direct effect on the revenue requirements that must be met depending on the numbers of customers taking the rate.

Mr. Colton has suggested a number of steps that would reduce the barriers that have kept many eligible households from obtaining TAP service. At the very least, the Board should require the Department to report on the extent to which it has adopted these suggestions, rejected them, or chosen other means to achieve the same improvement in participation.

Exceptions

While the Public Advocate supports the Report's recognition that, at a minimum, the Board should impose an informational reporting obligation, the Advocate nonetheless stands by its expert's recommendations and so excepts to the recommendation. The Advocate submits that the Board should explicitly adopt Mr. Colton's recommendations to improve TAP administration in its final Rate Report. The Public Advocate acknowledges that, having done so, the enforcement of such determinations may be the subject of consideration in another forum or a future proceeding. The Advocate nonetheless avers that, as the Public Advocate and Hearing Officer

both recognize, the Board has the clear and necessary power to ensure that its approved rates are available, and to make determinations regarding the changes necessary to effectuate that outcome. This is part and parcel of the Board's authority to fix and regulate rates, as set forth in the Philadelphia Code. Phila. Code §13-101(3). Accordingly, the Public Advocate submits that the Board should make clear findings that PWD's TAP processes require improvement to ensure customer access to the TAP rate. The Advocate further argues that the Board should approve the Public Advocate's recommendations for proposed improvements to be undertaken by PWD, for the reasons explained in the Public Advocate's Main Brief and the testimony of Mr. Colton.

The Department reiterates its position that the proposals raised by the Public Advocate are beyond the Board's authority to adopt and that, in any case, those proposals are not justified based on the record of this case. Even if PWD's Motion *in Limine* is not granted, PWD contends that it should not be ordered to undertake any particular actions to improve customer service as a condition of increasing rates or otherwise. Nor should PWD be explicitly directed to include in its annual report to the Council and the Board, under 13-101(10) of the Philadelphia Code, any information relevant to the issues raised by the Public Advocate on the structure and operation of TAP.

Board Decision

The Public Advocate raised a number of concerns regarding the Department's implementation of the TAP rate which was first approved by the Board in the 2016 PWD rate proceeding. The Department filed a Motion *in Limine* urging the Board to exclude such evidence from the current proceeding on the ground that the Board lacks authority over those issues. As noted above, the Board has denied the Motion *in Limine*.

While the Board has allowed the testimony regarding TAP implementation issues to be considered, the Board recognizes that it does not have authority to promulgate or enforce the regulations that govern the actual operation of the program. The Board does have authority over the TAP rate itself, however, and, as noted by the Hearing Officer at page 75 of her Report, the Board can take steps to ensure that the rate is available to customers who can benefit from it and that the rate serves the purpose for which it is intended. The level of participation also directly affects the revenue requirements associated with the TAP rate. With respect to the Public Advocate's proposed suggestions to reduce potential barriers for participation in the TAP rate by eligible households, the Hearing Officer states: "At the very least, the Board should require the Department to report on the extent to which it has adopted these suggestions, rejected them, or chosen other means to achieve the same improvement in participation." Hearing Officer Report at 75. The Board adopts this suggestion by the Hearing Officer and directs the Department to report back to the Board on its efforts in this regard.

The Board would also note that the Ordinance that authorized the creation of the TAP rate already contains an explicit requirement that the Department of Revenue file a report each year with the Mayor and City Council including such information as the number of applicants

enrolled in the program and the number of applicants who were not enrolled. Code § 19-1605(7). The Board would direct that the Water Department obtain and provide that information to the Board as well and to also include information regarding the length of time that elapses between the time an application is filed and time it is either approved or denied.
The Board is aware of the efforts that the Department already has made to work with the participants in this proceeding and other community-based organizations to implement the TAP rate in a manner that benefits low-income customers and the City as a whole. The Board urges the Department to continue and to expand those efforts and directs the Department to report back to the Board on its activities as set forth above. Such a report may coincide with and accompany the Department's annual TAP Rider reconciliation filing.

X. *TAP ARREARAGE FORGIVENESS*

Public Advocate
The Public Advocate states that PWD is legally required to make arrearage forgiveness available for TAP customers, citing Phila. Code 19-1605(3)(h.2). According to the Advocate, both the Water and Revenue Commissioners made an explicit commitment to evaluate the issue of arrearage forgiveness *prior to this 2018 Rate Case*. *Id*., citing PA St. 3 at 36:21-37:2 (emphasis in original). But, observes the Advocate, PWD has not proposed to satisfy its legal obligations to provide arrearage forgiveness to TAP customers, notwithstanding the clear programmatic and operational benefits to PWD of doing so. *Id.*

The Public Advocate notes that it has proposed rate recovery of TAP customers' arrearages to satisfy PWD's legal obligations and provide the program benefits that will contribute to the success of the TAP program. *Id.* According to the Advocate, the Board, having the unambiguous authority to "fix and regulate" rates and charges, is authorized to direct the implementation of this aspect of PWD's TAP Rider. *Id.* Indeed, argues the Advocate, doing so is no different from approving any adjustment to revenues or expenses under consideration in this 2018 Rate Case. *Id.*

According to the Advocate, PWD provides only pretextual arrearage forgiveness. *Id.* PWD regulations provide that accumulated penalty charges are forgiven after 24 months of TAP participation. Full forgiveness of principal is not available until after completing *15 years* of TAP participation. *Id.* (emphasis in original).

The Advocate states that it is unreasonable to assume that low-income families will both remain low-income and maintain their living conditions for a full 15 years. *Id.*, citing PA St. 3 at 38:19-20. Indeed, argues the Advocate, low-income households are disproportionately mobile, for a variety of reasons, including deteriorating housing. *Id.*
The Advocate states that the extent and amount of arrears among TAP customers are significant, and verify the substantial impediment they can present for low-income families. *Id*., citing PA St. 3, Sch. RDC-2:

- Between 95-98% of TAP enrollees had some arrears.
- More than half of TAP enrollees entered the program with $1,000 or more in arrears.
- 35% of TAP enrollees had more than $2,500 in arrears.
- 20% or more of TAP enrollees had more than $5,000 in arrears.
- PWD already has more TAP customers with balances in excess of $10,000 than PGW.

Id., citing 5/10 Tr. at 31:16-34:22.

The Advocate argues that, instead of fulfilling the promise that arrearage forgiveness be "made available," PWD has imposed preconditions on forgiveness that ensure that it will, in fact, never be available. *Id.,* at 115, citing PA St. 3 at 39:13-15.

The Public Advocate agrees that enforcement of the Board's rate determination may be sought in another available forum. *Id.* Notwithstanding this recognition, the Public Advocate submits that PWD's noncompliance with a rate determination may be raised by the parties and considered by the Board in reviewing future rate proposals. *Id.*

The Advocate contends that in order to satisfy its obligation to make earned forgiveness of arrears available to TAP customers, full forgiveness should be earned over a two-year period. *Id.,* citing PA St. 3 at 36:10-13; 40:1-3. The Advocate explains that this period is within a low-income customer's planning horizon, and enables them to see arrearages being forgiven, understand the meaningful relationship between payment and forgiveness, and incentivize regular payment. *Id.*

The Department

PWD states that it disagrees with the inclusion of any reconcilable arrearage forgiveness in the TAP rate at the current time, but has noted its "willingness to consider the inclusion of arrearage forgiveness in the future pending changes to City policies and after consideration of other implications." PWD Brief at 58, citing PWD Rebuttal Statement 5 at 8. The Department describes the Advocate's position to the contrary as aspirational at this point in time, since neither the Rate Board, WRB or PWD have the authority to change the City's arrearage forgiveness policies. *Id*. Pursuant to the City Charter, avers the Department, that authority lies with the Law Department. *Id*., citing Charter §§1-102(1), 4-100, 6-201, 4-400(b) and 8-410.

Hearing Officer Recommendation

The Hearing Officer made no recommendation on this issue.

Exceptions

As noted above, PWD disagrees with the inclusion of any reconcilable arrearage forgiveness in the TAP Rate program at the current time. The Department states that the Advocate's position to the contrary is aspirational at this point in time, as the Rate Board, WRB or PWD all lack the authority to change the City's arrearage forgiveness policies. In any event, the Department argues, inclusion of arrearage forgiveness as part of the TAP-Rider at this time, without any additional consideration to its implications on the revenue projection approach and cost of service analysis that are already used in the determination of the base rates, could risk a potential overstatement of the impact of arrearage forgiveness.

The Advocate notes that the Report makes no recommendation to the Board on this implementation of TAP arrearage forgiveness. The Public Advocate incorporates by reference the position set forth in Main Brief. According to the Advocate, in approving a rate mechanism to recover arrearage forgiveness, the Board would be acting within the clear bounds of its jurisdiction over rates and charges.

Board Decision

One area of TAP implementation that requires specific consideration is the Public Advocate's request that the Board order the Department to establish an arrearage forgiveness program as part of its TAP rate. The ordinance that authorized the establishment of the TAP rate contains a provision entitled "Arrearage Forgiveness" that states: "Earned forgiveness of arrearages shall be available under such terms and conditions as are adopted by regulation." Code § 19-1605(3)(h)(2). Notwithstanding this requirement, neither the Water Department nor the Revenue Department has proposed or implemented an arrearage forgiveness program either in the original proceeding establishing the TAP rate or the current proceeding. The Water Department has stated its willingness to consider the development of an arrearage forgiveness program, but has taken the position that it cannot implement such a program (nor can the Board order such a program) under the Home Rule Charter because such authority lies with the City Law Department. PWD Exc. at 35-36.

The Board is aware that arrearage forgiveness programs are a common element of low-income payment programs similar to TAP, including the program operated by the City-owned Philadelphia Gas Works. See TR. May 11, 2018 at 130. It is not clear why such a program has not been implemented or even proposed for the Philadelphia Water Department at this time, but the Board directs the Department to seek to work with the Department of Revenue and the Law Department to determine what legal barriers must be overcome in order to implement an arrearage forgiveness program as explicitly required under the Philadelphia Code provision noted above. The Board further directs the Department to report back to the Board on the results of those efforts in a timely manner.

XI. *TAP RIDER*

A. *AREAS OF AGREEMENT*

Throughout this 2018 Rate Proceeding, the Public Advocate and PWD engaged in multiple conversations and exchanges, with the goal of coming to mutual agreement, to the greatest extent possible, on the features and design of a Tiered Assistance Program rate rider (TAP Rider). As a result of these efforts, they have reached agreement regarding many of the significant aspects of a reconcilable TAP Rider. This Rider would track revenue losses resulting from application of the TAP rate and would permit annual reconciliation of such costs in order to prevent either over or under-recovery.

In response to Transcript Request 22, PWD and the Public Advocate each submitted a list of the areas of agreement. In the main, the two participants used identical language. Regarding some of the items, however, the two versions were different in wording, although apparently not in intent. In these cases, the Department's answer appeared to be more fully detailed as to operational effect. Where the language is identical, the following list of areas of agreement uses the Department's response. Where there is a language difference with no apparent intent to disagree, the Department's version is set out, and the PA version is shown in a footnote. There was one item addressed by the PA but not by the Department in response to Transcript Request 22:

AREAS OF AGREEMENT ON TAP RIDER -
COMBINATION (PWD/PA) RESPONSE TO TRANSCRIPT REQUEST 22

1. Expenses for the Low-Income Conservation Assistance Program (LICAP) will not be recovered through the TAP Surcharge Rate Rider ("TAP-R Surcharge" or "TAP Rider").

2. During the annual reconciliation submission, the TAP Rider will be calculated based on both the reconcilable TAP expenses (in this case the TAP revenue loss associated with providing discounts to TAP program participants) and the amount of TAP-R surcharge revenue collected through the rider from the Non-TAP customers.[26]

3. The TAP-R surcharge will be calculated on a "dollars per unit of consumption (MCF)" basis.

4. In calculating the TAP Rider in the annual reconciliation submission, for the 12-month period[27] prior to the effective date of the TAP Rider:

[26] PA language: "The TAP Rider will be calculated based on both the TAP expenses and the amount of TAP revenue collected through the rider."
[27] PA language: "…based on the 12-month period…"

a. PWD will use actual TAP revenues and expenses data from approximately the first 9 to 10 months of the current period, and annualized/projected revenues and expenses for the remaining months of the current period in order to estimate the full 12-month period of TAP revenue loss and surcharge revenues, which are subject to reconciliation.[28]

b. PWD will reconcile TAP Rider calculations of the current period, based on the difference between (i) annualized/projected TAP surcharge revenues and expenses, and (ii) the actual TAP surcharge revenues and expenses experienced during that current period.[29]

5. The TAP Rider will not include provisions for emergency TAP Rider adjustments based on financial emergencies associated with TAP surcharge revenues and/or TAP expenses.[30]

6. TAP over- and under-recovery shall be subject to an interest rate equal to the 52-week Treasury Bill rate as compiled and published in the Federal Reserve Statistical Release H.15 (519) as of the first day of the month preceding the month of the annual reconciliation submission.

The Public Advocate included a further point of agreement, not listed on the Department's response:

PWD and the Public Advocate agree to the principle that the TAP Rider should include an embedded lost revenue adjustment.

The TAP Rate Rider would go into effect beginning in FY 2019. Specifically, with the implementation of the rider, all revenue losses associated with TAP would be recovered via the associated surcharge rates which would become effective beginning in September 1, 2018. The reconciliation component would begin with the filing of the FY 2020 surcharge rates, which will include a projection for FY 2020 TAP revenue loss and reconcile actual discounts provided to TAP participants with revenue recovered via the TAP-R surcharge from non-TAP customers.

It is important to note that to establish distinct Water TAP-R surcharge rate and Sewer TAP-R surcharge rate, the total TAP revenue loss and reconcilable TAP over- or under-collection must be apportioned between water and sewer services, as further discussed below.

[28] PA language: "PWD will use actual TAP revenues and expenses for the first 9-10 months, and annualized/projected
revenues and expenses for the last 2-3 months."
[29] PA language: "PWD will 'true up' prior TAP Rider calculations based on the difference between (i) annualized/projected TAP revenues and expenses, and (ii) actual TAP revenues and expenses."
[30] PA language: "The TAP Rider will not include provisions for emergency adjustments based on financial exigencies."

The above areas of agreement reflect the significant progress PWD and the Public Advocate have made in addressing mutual concerns and finding common ground. The following section presents a discussion on the remaining areas of disagreement.

B. *COLLECTION FACTOR FOR RECONCILING TAP RIDER REVENUES*

The Department

The Department states that the collection factor it proposes is based on PWD-specific historical data of billings and receipts. PWD Brief at 56, citing PWD Statement 9A, Schedule BV-E5 (WP-1) at 2. This collection data represents the effect of multiple factors including the nature of integrated services PWD provides (water, sewer, and storm water); the magnitude of PWD's monthly water, sewer, and storm water charges; and PWD's customer base. *Id*., at 56-57. The Department argues that the use of a system-wide collection factor is appropriate because the bill discount being provided to TAP customers represents a "new cost burden" that is imposed on other ratepayers (i.e. the Non-TAP customers). *Id*., at 57, citing PWD Rebuttal Statement 5 at 6. The Department notes that "lost billings" from TAP customers will be billed to and recovered from Non-TAP customers for PWD to meet its revenue requirements. *Id.* Further, the Department avers, based on Black & Veatch's research there are other rate case proceedings where utilities have used system-wide collection factor specifically in the context of low-income customer assistance program cost recovery. *Id*. note 304.

Public Advocate

The Public Advocate observes that PWD agrees to the principle that the amount of TAP bill discounts, if they were billed directly to low-income customers, would not be fully paid currently. PA Brief at 119. However, the Public Advocate disagrees with PWD on the extent to which those dollars would be uncollectible from low-income customers in the absence of the TAP program. *Id.*

The Advocate argues that PWD's proposed adjustment is wrong for several reasons. First, the PA states that use of the system-wide collection factor of 96.54% assumes that the TAP discounts, if billed to low-income customers, would have been paid, on average, at the same rate and to the same extent as all bills issued to PWD non-storm-water-only customers. *Id.* The Advocate avers that this ignores the data PWD has that demonstrates that low-income customers are not capable of making payments in the way statistically average customers can make payment. *Id.,* at 119-120.

The Advocate argues further that PWD's data demonstrates that the majority of TAP customers have substantial arrears, accumulated over months and years. *Id.* PWD's assumption that the amount of charges that would otherwise be billed to these customers in the absence of TAP would be collected in the same fashion as PWD's system-wide average is unreasonable, according to the Advocate. *Id.*

The purpose of embedded lost revenue discounts, the Advocate asserts, is to recognize that the dollar amount of discounts provided to low-income customers is not the difference between billings and the discounted rate, but is the difference between the revenue and the discounted rates. *Id.,* citing PA St. 3 at 59.

According to the Advocate, then, while PWD data suggests that a system-wide uncollectible rate would be inappropriate, PWD has not conducted a study to identify its low-income uncollectible rate. *Id.*

To estimate a more accurate low-income uncollectible rate, the Advocate cites the testimony of witness Colton, who opined that publicly-available reports regarding the uncollectible rate of low-income electric and gas customers in PWD's service territory are available and serve as reasonable estimates for PWD's use. *Id.* As set forth in his testimony, Mr. Colton calculates an assumption for PWD as the average of the uncollectible rate for Philadelphia's natural gas (PGW) and electric (PECO) utilities, at 13.1%. *Id.,* citing PA St. 3 at 62:1-19. The Advocate describes this rate as conservative given the percentage of TAP customers having substantial arrears. *Id.,* citing 5/10 Tr. at 155:4-156:19.

Hearing Officer Recommendation
The Hearing Officer made no recommendation on this issue.

Exceptions
The Department disagrees with the use of a low-income collection factor as proposed by the Advocate. PWD proposes that its system-wide cumulative collection factor of 96.54% should be used in determining the TAP revenue loss and the surcharge revenues recovered from Non-TAP customers. This collection factor is based on PWD-specific historical data of billings and receipts. The collection data represents the effect of multiple factors including the nature of integrated services PWD provides (water, sewer, and storm water); the magnitude of PWD's monthly water, sewer, and storm water charges; and PWD's customer base. Use of the system-wide collection factor also demonstrates that TAP participants should be expected to achieve a collection factor commensurate with the system average once they are given an affordable bill and protected from any enforcement action on arrears. Further, based on Black & Veatch's research there are other rate case proceedings where utilities have used system-wide collection factor specifically in the context of low-income customer assistance program cost recovery.

The Department criticizes the Public Advocate's recommendation that a low-income uncollectible factor be applied to the annual TAP discount amount to determine the TAP revenue loss. The Department notes that, in the absence of PWD-specific data for low-income customers, the Public Advocate witness suggests that PWD utilize an average of PECO and Philadelphia Gas Works low-income gross write-off ratios that are not applicable to PWD.

The Public Advocate reiterates its position on Exception that the TAP discounts should be adjusted by an embedded lost revenue discount of 13.1% to take into account an appropriate uncollectible rate for low-income customer bills. PA Exc. at 34.

Board Decision

In determining the "lost revenues" from TAP participants that should be included in the TAP Rider, the Department and the Public Advocate agree that the amount recovered should not equal the full difference between what the TAP recipients pay and the payments that would be due if those customers paid the full bill. Rather, the lost revenue is the difference between what the TAP recipients pay and an estimate of what those customers likely would have paid if they had been asked to pay the entire bill. The Department and the Public Advocate disagree, however, as to what that lost revenue adjustment should be.

The Department proposes to adjust the lost revenue calculation based on the overall system-wide collection rate, which assumes that customers will actually pay 96.54% of their bills. The Public Advocate argues that the low-income customers who qualify for the TAP Rate are much more likely to have trouble paying their bills and therefore have a higher uncollectible rate than the average customer. Based on the average gross write-offs for low-income customers of customers for PECO and Philadelphia Gas Works (the other major utilities that serve Philadelphia consumers), the Public Advocate proposes to utilize a collection rate of 86.9% (i.e. assuming an uncollectible rate of 13.1%) in determining the revenues lost under the TAP rate. The Public Advocate utilized data for PECO and PGW because the Water Department has not performed a separate analysis of collection rates for its low-income customers.

The Board acknowledges the concerns identified by the Public Advocate in proposing a lower collection rate for TAP eligible customers, but the Board does not feel comfortable reaching out to two unrelated utilities in determining that rate. For purposes of establishing the initial TAP Rider in this case, the Board therefore adopts the Department's proposed 96.54% collection rate at this time. The Board, however, also directs the Department to perform an analysis of the collection rate for low-income customers (below 150% of the federal poverty level), for consideration in future proceedings. This analysis may be a part of the comprehensive rate study that the Department has proposed to perform and that the Board endorsed in the preceding section of this Order on cost and rate allocation issues.

C. *ALLOCATION OF TAP REVENUE LOSSES*

The Department

PWD proposes to apportion the TAP revenue loss based on the proportion of the water and sewer annual revenue requirements respectively, to the total combined water and sewer revenue requirements.PWD Brief at 59, citing PWD Rebuttal Statement 5 at 9. This approach is appropriate because the TAP revenue loss is essentially a "cost" or "revenue requirement" for the non-TAP customers. *Id.*, citing PWD Rebuttal Statement 5 at 6. Consistent with the foregoing, it is appropriate and reasonable to apportion the TAP costs between water and sewer services based

on the proportion of water and sewer revenue requirements to the total water and sewer revenue requirements. In addition, PWD revenues reflect payments (for a given year of billings) received over multiple years. Therefore, using revenue requirements as the basis for apportioning costs better aligns with the timing of when TAP costs are incurred. For consistency and certainty, PWD recommends using the FY 2019 Water and Sewer revenue requirement distribution percentages to apportion the FY 2019, FY 2020, and FY 2021 TAP costs between water and sewer services.

Public Advocate
The Advocate disagrees with PWD's proposal to allocate TAP cost recovery based on the proportion of its FY 2019 revenue requirements allocated to water and wastewater. PA Brief at 124, citing PWD St. 5R at 9:5-13. The Public Advocate's proposal is to allocate TAP cost recovery to water and wastewater based on actual revenues billed to each service, respectively. *Id.*, citing PA St. 3, Sch. RDC-2 at 114. For purposes of determining the actual revenues billed, the Public Advocate proposes PWD use the prior fiscal year billings. *Id.*, and PA Brief. at 123.

The Advocate submits that the Rate Board should approve the Public Advocate's allocation proposal. According to the Advocate, the primary reason why PWD's allocation should be rejected is that TAP costs are not driven by the same factors that drive PWD's revenue requirements. PA Brief at 124. As discussed at length earlier in its Brief, notes the Advocate, PWD's revenue requirements are determined on the basis of projected revenues, relying upon 2016 usage data, and projected expenses, relying upon FY 2018's adjusted budget, with escalation factors. The Advocate argues that TAP costs are driven by entirely different factors, including the levels of enrollment, household income, TAP participant actual consumption, and TAP participant arrears forgiven. *Id.* Because PWD's actual and more recent revenues from water and wastewater service for the prior fiscal year will be known at the time the TAP Rider is allocated, it is more suitable to use those known revenue amounts than to use the allocation of revenue requirements forecast in this proceeding. *Id.*

Hearing Officer Recommendation
The Hearing Officer made no recommendation on this issue.

Exceptions
The Department continues to challenge the Public Advocate's approach to apportion TAP revenue losses to water and sewer services based on the proportion of annual revenues of those respective services to total system revenues. The Department surmises that the Advocate's approach is premised upon the assumption discount is a revenue loss to those two services. This approach was reasonable, submits the Department, when, in the original filing, TAP costs were embedded as lost revenue and were to be recovered via all of the existing rate structure components. The Department states that is no longer the case with the Department's revised proposal; no portion of the TAP revenue loss will be recovered via base rates and therefore TAP

participants will not aid in the recovery of costs assigned to the TAP Rider. According to the Department, there is no longer any foundation for this area of disagreement.

The Advocate reiterates its disagreement with the Department on TAP rider cost allocation. The Advocate argues that the TAP rider should be allocated to non-TAP customer bills on the basis of prior fiscal year revenues, not PWD's forecast revenue requirements for FY 2019.

Board Decision

The Department and Public Advocate were unable to agree on how the expense related to TAP lost revenues should be apportioned between water and sewer services. The Department recommended allocating the costs based on the water and sewer revenue requirement distribution percentages, while the Public Advocate proposed to apportion those costs based on the proportion of annual revenues of water and sewer services to total system revenues.

As noted by the Department at page 37 of its Exceptions, no portion of the TAP revenue loss will be recovered via base rates and TAP participants will not bear any of the costs assigned to the TAP Rider. According to the Department, the revenue loss is a cost to be recovered solely from non-TAP customers. The Board agrees with the Department's analysis and adopts the Department's proposal for the apportionment of this cost between water and sewer services based on those services' respective share of revenue requirements.

D. *ARREARAGE FORGIVENESS IN TAP RIDER CALCULATION*

The Department

The Department notes that it disagrees with the inclusion of any reconcilable arrearage forgiveness in the determination of the reconcilable TAP surcharge rate at the current time. The Department notes, however, that it is willing to consider the inclusion of arrearage forgiveness in the future pending changes to City policies and after consideration of other implications. PWD Brief at 58, citing PWD Rebuttal Statement 5 at 8.

Public Advocate

As discussed above, the Advocate argues that the Department is obligated by law to institute an arrearage forgiveness program for TAP customers. PA Brief at 122. Accordingly, the Advocate posits, the Board should include the cost-recovery of arrearage forgiveness required to be provided to TAP customers through the TAP rider. *Id*. As calculated by Mr. Colton, states the Advocate, the amount to be recovered through the TAP Rider should include the "Reconcilable TAP Arrearage Forgiveness Costs," defined as:

> The credits appearing on the TAP participant bills toward pre-existing arrearages (TAP arrearage forgiveness). Pre-existing arrears are those arrears appearing on the bill of a TAP participant in the month in which the TAP participant applies for TAP services net of a Low-Income Arrearage Embedded Lost Revenue Adjustment.

Id., citing PA St. 3, Sch. RDC-3 at 114.

Mr. Colton provides a proposed computation for an appropriate arrearage forgiveness element in the TAP Rider to be authorized in this case. PA Brief at 122-124.

Hearing Officer Recommendation
The Hearing Officer made no recommendation on this issue.

Exceptions
PWD disagrees with the inclusion of any reconcilable arrearage forgiveness in the determination of the reconcilable TAP surcharge rate at the current time. The Department states it is willing to consider the inclusion of arrearage forgiveness in the future pending changes to City policies and after consideration of other implications.

The Advocate notes that the Report makes no recommendation to the Board on the implementation of TAP arrearage forgiveness and associated revenue requirements. The Public Advocate incorporates by reference the position set forth in Main Brief. According to the Advocate, in approving a rate mechanism to recover arrearage forgiveness, the Board would be acting within the clear bounds of its jurisdiction over rates and charges.

Board Decision
Consistent with its position that the TAP rate must include an arrearage forgiveness component, the Public Advocate has proposed a mechanism and calculation for inclusion of the costs of such a component in the TAP Rider. The Department does not support the inclusion of such a component in the TAP Rider at this time but has noted its "willingness" to consider the inclusion of such a program in the future. PWD Exc. at 35.

As noted above, the Board agrees with the Public Advocate that the ordinance authorizing establishment of the TAP Rate explicitly calls for the development of an arrearage forgiveness program. The Board therefore has directed the Department to seek to work with other relevant City departments and the Public Advocate to come forward with such a program. At this time, however, there is no arrearage forgiveness component in the TAP Rate and it would therefore be premature to attempt to include the costs of such a program in the Tap Rider. The Board can revisit this issue when it is presented with an arrearage forgiveness program.

E. *ANNUAL TAP RECONCILIATION PROCESS*

Public Advocate
The Advocate argues that the Board should require that PWD's annual TAP rider reconciliation process include participation by the Public Advocate, as well as the right to request more detailed review via complaint or other submission to the Board. *Id.,* at 124, citing PA St. 3, Sch. RDC-3 at 114. The PA notes that while the majority of the framework for this TAP Rider has been

agreed to for purposes of presenting the framework to the Board, neither party can fully predict with precision how the TAP Rider will function in operation. *Id.*

The Advocate argues that in the event the TAP Rider is operating contrary to the Board's purposes, or in such a way as to substantially increase or alter rates and charges, the 2018 Rate Case decision should make available a means to reopen the review of the TAP Rider, by complaint or other mechanism. *Id.*

The Department
The Department states that it does not mean to minimize the procedural issues raised by the Advocate related to annual reconciliation. The Rate Board must establish its own procedures to review the TAP Rider which PWD believes should track analogous reconciliation proceedings in other regulatory agencies which, PWD contends, are typically carried out without a hearing. PWD Brief at 60, note 317.

Hearing Officer Recommendation
The Hearing Officer made no recommendation on this issue.

Exceptions
The Public Advocate repeats its statements from the Brief on the issue of the reconciliation process and states that the annual TAP reconciliation process should include participation by the Public Advocate as well as a right to request more detailed review via complaint or other submission to the Board. The Department reiterates its position that the reconciliation process can be carried out without the need for hearings.

Board Decision
With respect to future annual reviews of the TAP Rider reconciliation process, the Department envisions a straight-forward computational review by the Board. The Public Advocate, however, states that the annual reconciliation process should include participation by the Public Advocate as well as a right to request more detailed review via complaint or other submission to the Board. PA Exc. at 34.

The Board agrees that once the parameters of the TAP Rider are in place for a period of time, it is possible that the Board's review of the annual reconciliation may become a routine process consisting primarily of examining the numerical calculations provided by the Department. At this time, however, it appears that there remain a number of potential areas of substantive disagreement in the operation of the TAP Rider. While it is certainly the Board's hope that those disagreements can be resolved by the parties, the Board acknowledges that in the TAP Rider's first year or years of operation, the Board must be prepared to address such issues. While not trying to set forth the exact procedures for its future annual TAP Rider reviews at this time, the Board would note its agreement with the Public Advocate that the Board should permit

participation by affected participants and be prepared to resolve any conflicts through a public process if necessary.

F. *TAP RIDER FORMULA*

While the elements of the TAP Rider formula were in dispute during much of the proceeding, it is the Board's understanding that those issues have been clarified and resolved in accordance with the Department's and Public Advocate's lists of TAP Rider areas of agreement in their respective responses to Transcript Request 22. The Board therefore directs the Department to establish its TAP Rider in accordance with those agreements and the other elements of the Board's determination set forth above.

XII. *SHUT-OFF NOTICE, PRACTICES, AND RESTORATION FEE*

The Department
The Department argues that its shut-off policies are appropriate and meaningful, contrary to the claims of the Advocate. The Department notes that the form and content of the shut-off notices were developed by the Water Revenue Bureau and PWD by working together and with partners, such as Community Legal Services. PWD Brief at 71. The Department says its shut-off notices and practices are forthright, open, and in compliance with PWD Regulations. *Id.* The regulations direct the language and frequency of the shut-off notices. *Id.*, citing PWD Rebuttal Statement 4 at 13; See PWD Rates and Charges, Sections 100.4-6. According to the Department, the shut-off notices were recently updated and now contain language encouraging customers to apply for TAP. *Id.*

The Department challenges Mr. Colton's accusation that it issues shut-off notices with no intention of shutting off the customer's water. Mr. Colton states that the Department, "fails to disconnect service in 70% to more than 90% of the instances in which it issues a disconnect [sic] notice." *Id.*, citing PA Statement 3 at 105, lines 16-17. According to the Department, Mr. Colton misconstrues the shut-off data by not recognizing that shut-offs are not always completed in the same calendar month that notices are issued. *Id.* On average, avers the Department, it shuts off 36% of noticed customers and no evidence was presented to show how many customers avoided shut-offs because they paid the delinquency, entered into payment agreements, or applied for TAP after receiving a shut-off notice. Any of these conditions would result in the shut-off not taking place. *Id.*, citing Response to PA-ADV-61.

The Department faults the Public Advocate for failing to examine the actual shut-off process of the Department in his testimony. The Department's shut-off process is designed to target customers with the highest delinquency and contiguity to maximize efficiency. *Id.*, citing Response to PA-ADV-61. The Department states that it also strives to restore water to customers

the same day a work order to restore service is created. This commitment decreases the number of shut-offs that can be done in any given day. *Id.* at 73-74.

The Department concludes that the Board lacks the authority to direct the Department's business practices and further, the current practices are sound. *Id.* at 74. The Department also contends that its proposed increase in restoration fees is cost-based and should be accepted.

Public Advocate

The Advocate cites Mr. Colton's testimony as demonstrating that PWD's warnings that shut-offs will occur, and that actions must be taken to avoid shut-off, are, in the majority of instances, no different than the "wolf" cries of the boy in the Aesop's fable. *Id.* citing PA St. 3 at 103, n. 50. According to the Advocate, PWD fails to disconnect service in 70% to more than 90% of the instances in which it issues a shut-off notice. *Id.* The PA states that PWD cannot provide any data to show that the customers receiving these notices, and who are not shut-off, make payments due to the threat of the shut-off notice. *Id.* PWD fails to demonstrate that these practices are effective for collecting on delinquent accounts. *Id.*, citing PA St. 3 at 106:6-107:11. The Advocate cites Mr. Colton's recommendation that PWD make the following specific changes to its notice practices:

- PWD's notices should not state that customers must make payments immediately.
- PWD should cease threatening that shut-off will occur by a specified date unless PWD has actually determined that absent payment by the customer shut-off will occur.

Id., citing PA St. 3 at 104:12-13

The Advocate argues that, as a consequence of PWD practices, customers are receiving shut-off notices that are not meaningfully timed to provide a meaningful warning of shut-off. *Id.* The Advocate observes that customers may receive multiple shut-off notices, none of which PWD has any intention of acting upon, and not have service terminated for many, many months, purely because they are not located in sufficient proximity to the highest delinquent balance which is chosen for shut-off on a particular day. *Id.*

In light of PWD's shut-off practices, the Advocate also recommends that the Department's proposed increase in restoration fees from $60 to $85 in Fiscal Year 2019 and $105 in Fiscal Year 2020 should be denied.

Hearing Officer Recommendation

The Hearing Officer recommended that the Board seek the opinion of the Law Department, for the following reasons.

The Public Advocate does not make a strong connection here between the shut-off policy and the TAP or other rate. The Advocate argues that the Board should enter an order in this 2018 Rate Case: (1) finding that that PWD's shut-off notice practices require reform, and (2) denying PWD's request to increase its miscellaneous charge for restoration of service after termination for non-payment. PA Brief at 127.

Exceptions

The Department

The Department repeats that the Board should approve the Motion *in Limine*, further argues that the Board has no authority to direct program operations such as the one in question, and also argues that the Department's operations are reasonable.

Public Advocate

According to the Advocate, the Hearing Officer errs in recommending that the Board obtain guidance from the Law Department regarding PWD's unfair and deceptive shut-off notice practices.

The Public Advocate's two-part proposal is that the Board "enter an order in this 2018 Rate Case: (1) finding that that PWD's shut-off notice practices require reform, and (2) denying PWD's request to increase its miscellaneous charge for restoration of service after termination for non-payment."

The Advocate notes that the Report correctly addresses PWD's requested miscellaneous charge for restoration of service, recommending that the Public Advocate's proposal to reject PWD's increase be accepted and indicating the Department "has failed to support the need for the increases." In addition, however, as submitted by the Public Advocate, the Board's determination should specifically address PWD practices in recognition of the fact that PWD can resubmit its request to increase the restoration charge in a future rate proceeding, based on the cost of service recalculated as of such time, and after presumably addressing those deficiencies with [PWD's shut-off notice].

The Public Advocate submits that the Board should approve the two component parts of the Public Advocate's recommendation concerning PWD shut-off notice practices. Accordingly, for the reasons set forth in the Public Advocate's Main Brief (incorporated in its Exceptions by reference), the Public Advocate submits that the Board should find and conclude that PWD's shut-off notice practices require reform and deny PWD's requested increase in its miscellaneous restoration charge for service terminated due to non-payment.

Board Decision

In its testimony, the Public Advocate objected to the Department's shut-off notices and practices as well as the Department's proposed increase in the restoration charges that must be paid by

customers who wish to return to service after they are shut-off. The Department filed a Motion *in Limine* to exclude the Public Advocate's testimony regarding its shut-off notices and practices and urged the Board to allow its proposed increase in restoration charges.

As set forth above, the Board has denied the Department's Motion *in Limine* and has agreed to consider the evidence presented by the Public Advocate on this issue. The Board, however, does not believe it has authority to order or enforce any changes in the content of the Department's shut-off notices or to mandate changes in the Department's shut-off practices in this proceeding. While the Board declines to adopt the Public Advocate's request that the Board order changes to the Department's practices with respect to the issuance of shut-off notices, the Board agrees that the Department's proposal to increase the charge to customers for restoration of service has not been adequately justified by the Department. The Board determined that this increase could serve as an undue barrier to service and should not be adopted at this time. The charge for restoration of service will remain at $60.

XIII. ***LAND BANK***

The Land Bank

The Land Bank participated in this rate case "to ensure that the Land Bank receives a full exemption from all water, sewer, and storm water rates and charges for all unoccupied properties owned by the Land Bank." Land Bank Brief at 1. The Land Bank states that §16-705(5) of the Philadelphia Code specifically provides that "[f]or the duration of the time a property is held by the Land Bank, the Land Bank is authorized to exempt such property from all real estate taxes, *water*, *sewer*, *stormwater* and other municipal charges to the extent permitted by law." *Id.* (emphasis supplied).

According to the Land Bank, in 2012, Pennsylvania adopted legislation enabling municipalities to establish land banks as a way to facilitate the return of vacant, abandoned, and tax-delinquent properties to productive use ("Land Bank Act"). *Id.* The Pennsylvania legislature recognized "an overriding public need to confront the problems caused by vacant, abandoned and tax-delinquent properties through the creation of new tools to enable municipalities to turn vacant, abandoned and tax-delinquent spaces into vibrant places." *Id.*

The Land Bank states that land banks deal with properties that are "neglected, blighted, may have little or no market value, may have clouded titles that make them unmarketable, and may have liens in excess of their market values." *Id.,* at 2 (citations omitted). Because repurposing blighted properties and returning them to the tax rolls presents major challenges, private investors and potentially responsible owners are often discouraged from redeveloping them. *Id.* (citation omitted). According to the Land Bank, to overcome such impediments, land banks were granted unique powers to acquire property, clear title, and extinguish liens, thereby making the property marketable and ready for transfer to a new, responsible owner. *Id.* (citation omitted).

In 2013, the City of Philadelphia adopted an ordinance creating the Philadelphia Land Bank. Philadelphia Code §16-700 *et seq. Id.* at 4. The Land Bank's mission is to "return vacant and underutilized property to productive use through a unified, predictable, and transparent process, thereby to assist in revitalizing neighborhoods, creating socially and economically diverse communities, and strengthening the City's tax base". *Id.* In pursuit of its mission, the Land Bank Ordinance empowers the Land Bank "to acquire real property or interests in real property through donation, gift, purchase, or any other legal means" *Id.* The Land Bank Act further provides that "a land bank may acquire real property or interests in real property by any means on terms and conditions and in a manner the land bank considers proper." *Id.*

The Land Bank argues that despite the significant benefits provided by the Land Bank, the Land Bank is not exempt from water, sewer, or storm water rates and charges, while the City, the Philadelphia Redevelopment Authority and the Philadelphia Housing Development Corporation are fully exempt. *Id.* at 6. The Land Bank avers that there is no justifiable reason for the Land Bank to have different water, sewer, and storm water rates and charges than the City, the Philadelphia Redevelopment Authority and the Philadelphia Housing Development Corporation when they all share the same purpose and have the same interests in combating blight. *Id.*

The Land Bank argues that because of its characteristics, it belongs to the same class of customers as City, the Philadelphia Redevelopment Authority and the Philadelphia Housing Development Corporation. On this basis, the Land Bank argues, it should get equal and non-discriminatory rate treatment, to wit exemption from charges. *Id.*, at 7-9.

The Land Bank states that the revenue loss from granting a full exemption from water, sewer, and storm water rates and charges for properties acquired from the City, the Philadelphia Redevelopment Authority and the Philadelphia Housing Development Corporation, or by other means, such as a judicial sale, is estimated to have only an extremely small impact on PWD revenue and not trigger the need for additional revenues for a rate increase in the upcoming rate periods. *Id.*

Other Participants

The Department did not oppose the proposal. No other participant commented on the proposal.

Hearing Officer Recommendation

The Hearing Officer recommended that the request of the Land Bank be granted for the reasons recited by the Department in its Brief describing the proposal:

> The Land Bank advances two justifications for its exemption: First, the Land Bank contends that it should be given the same treatment as the City, Philadelphia Redevelopment Authority ("PRA"), and Philadelphia Housing Development Corporation ("PHDC") when it comes to water, sewer, and storm water charges for vacant properties. The Philadelphia Code and ordinances provide for the abatement of water, sewer and

> storm water charges for vacant or unoccupied City property and properties acquired by PRA and PHDC. … [T]he Land Bank argues that properties held by it should receive the same abatement because the Land Bank is a City-related entity with the similar purpose of eliminating blight and revitalizing neighborhoods. …
>
> Second, the Land Bank contends that paying charges creates a financial burden on the Land Bank that impedes its ability to fulfill its mission. It explains that a substantial portion of the Land Bank's budgeted storm water charges are the direct result of the Land Bank acquiring and consolidating the City's, PRA's, and PHDC's surplus property, which totals 1,910 properties as of April 4, 2018. …Given the de minimis level of estimated revenue requirement shifts, the Land Bank's request should be granted.

PWD Brief at 74-75, footnotes omitted.

Exceptions

No participant filed exceptions to the Hearing Officer's recommendation on the Land Bank request.

Board Decision

As noted by the Hearing Officer at page 108 of her Report, the Land Bank participated in this proceeding in order "to ensure that the Land Bank receives a full exemption from all water, sewer, and storm water rates and charges for all unoccupied properties owned by the Land Bank." No participants in this proceeding objected to the Land Bank's request and the Hearing Officer recommended that the request be granted. Hearing Officer Report at 110. No Exceptions were filed to the Hearing Officer's Report.

For the reasons set forth in the Land Bank's testimony and the Hearing Officer's Report, the Board agrees that the Land Bank's request to exempt its unoccupied properties from all water, sewer and storm water rates should be granted.

XIV. *CONCLUSION*

For the reasons stated above, the Board hereby adopts the revenue requirement for Fiscal Years 2019 and 2020 set out in Table C-1, attached in Appendix A, and directs the Department to prepare and submit a tariff consistent with this rate determination.

APPENDIX A

RATE INCREASES AND FINANCIAL RESULTS

TABLE C-1: PROJECTED REVENUE AND REVENUE REQUIREMENTS
(in thousands of dollars)

Line No.	Description	Fiscal Year Ending June 30, 2017 (a)	2018	2019	2020	2021	2022	2023
	OPERATING REVENUE							
1	Water Service - Existing Rates	271,124	280,852	280,321	278,275	276,018	273,904	271,814
2	Wastewater Service - Existing Rates	413,732	430,818	431,108	428,705	425,776	422,912	420,084
3	Total Service Revenue - Existing Rates	684,856	711,670	711,430	706,981	701,795	696,816	691,898
	Additional Service Revenue Required (b)							
	Year / Percent Increase / Months Effective							
4	FY 2019 1.33% 10			7,884	9,461	9,461	9,461	9,461
5	FY 2020 1.20% 10				7,184	8,678	8,643	8,608
6	FY 2021 6.38% 10					38,305	46,480	46,175
7	FY 2022 5.92% 10						37,582	45,641
8	FY 2023 5.93% 10							39,619
9	Total Additional Service Revenue Required	-	-	7,884	16,645	56,444	102,166	149,504
10	Total Water & Wastewater Service Revenue	684,856	711,670	719,314	723,625	758,239	798,981	841,403
	Other Income (c)							
11	Other Operating Revenue	32,287	39,647	16,526	13,482	10,614	10,536	10,459
12	Debt Reserve Fund Interest Income	-	-	-	-	-	-	-
13	Operating Fund Interest Income	386	408	388	349	377	394	402
14	Rate Stabilization Interest Income	733	702	677	628	564	536	511
15	Total Revenues	718,260	752,427	736,905	738,084	769,794	810,448	852,775
	OPERATING EXPENSES							
16	Total Operating Expenses	(455,742)	(463,159)	(481,606)	(495,801)	(511,466)	(525,627)	(540,123)
	NET REVENUES							
17	Transfer From/(To) Rate Stabilization Fund	4,563	12,200	3,277	26,228	10,531	5,400	8,500
18	NET REVENUES AFTER OPERATIONS	267,082	301,468	258,576	268,511	268,859	290,221	321,152
	DEBT SERVICE							
	Senior Debt Service							
	Revenue Bonds							
19	Outstanding Bonds	(193,841)	(185,756)	(133,964)	(123,040)	(115,891)	(109,229)	(105,309)
20	Pennvest Parity Bonds	(11,816)	(11,500)	(11,682)	(11,636)	(11,636)	(11,636)	(11,636)
21	Projected Future Bonds	-	(22,770)	(53,201)	(71,803)	(79,272)	(102,371)	(130,022)
22	Total Senior Debt Service	(205,657)	(220,026)	(198,847)	(206,479)	(206,798)	(223,236)	(246,967)
23	TOTAL SENIOR DEBT SERVICE COVERAGE (L18/L22)	1.30 x	1.37 x	1.30 x	1.30 x	1.30 x	1.30 x	1.30 x
24	Subordinate Debt Service	-	-	-	-	-	-	-
25	Transfer to Escrow	(11,000)	(19,000)	-	-	-	-	-
26	Total Debt Service on Bonds	(216,657)	(239,026)	(198,847)	(206,479)	(206,798)	(223,236)	(246,967)
27	CAPITAL ACCOUNT DEPOSIT	(22,302)	(23,061)	(23,845)	(24,655)	(38,241)	(39,541)	(40,885)
28	TOTAL COVERAGE (L18/(L22+L24+L27))	1.17 x	1.24 x	1.16 x	1.16 x	1.09 x	1.10 x	1.11 x
	RESIDUAL FUND							
29	Beginning of Year Balance	15,189	15,065	15,000	15,038	15,069	15,043	15,041
30	Interest Income	54	54	54	54	54	54	54
	Plus:							
31	End of Year Revenue Fund Balance	28,122	39,381	35,884	37,376	23,820	27,444	33,300
32	Deposit for Transfer to City General Fund (d)	1,866	756	722	733	744	786	858
	Less:							
33	Transfer to Construction Fund	(28,300)	(39,500)	(35,900)	(37,400)	(23,900)	(27,500)	(33,300)
34	Transfer to City General Fund	(1,866)	(756)	(722)	(733)	(744)	(786)	(858)
35	Transfer to Debt Service Reserve Fund	-	-	-	-	-	-	-
36	End of Year Balance	15,065	15,000	15,038	15,069	15,043	15,041	15,095
	RATE STABILIZATION FUND							
37	Beginning of Year Balance	205,761	201,198	188,998	185,721	159,493	148,962	143,562
38	Deposit From/(To) Revenue Fund	(4,563)	(12,200)	(3,277)	(26,228)	(10,531)	(5,400)	(8,500)
39	End of Year Balance	201,198	188,998	185,721	159,493	148,962	143,562	135,062

(a) FY 2017 is projected and subject to change.

(b) Includes TAP Surcharge Revenue. The TAP Surcharge Revenue reflects billing adjusted for collections.

(c) Includes other operating and nonoperating income, including interest income on funds and accounts transferable to the Revenue Fund. Includes Debt Service Reserve Fund Release in FY 2017 and FY 2018. Other operating revenue (Line 11) includes projected contra revenue credits for Affordability Program Discounts in (also referred to as TAP Loss) FY 2018 to FY 2023. TAP Loss in FY 2019 to FY 2023 is adjusted for collections.

(d) Transfer of interest earnings from the Bond Reserve Account to the Residual Fund as shown in Line 32 to satisfy the requirements for the transfer to the City General Fund shown on Line 34.

TABLE C-1 TAP: PROJECTED REVENUE AND REVENUE REQUIREMENTS
TAP Surcharge
(in thousands of dollars)

Line No.	Description	Fiscal Year Ending June 30, 2017	2018	2019	2020	2021	2022	2023
	OPERATING REVENUE							
1	Water Service - Existing Rates	-	-	-	-	-	-	-
2	Wastewater Service - Existing Rates	-	-	-	-	-	-	-
3	Total Service Revenue - Existing Rates	-	-	-	-	-	-	-
	Additional Service Revenue Required (a)							
	Year / Percent Increase / Months Effective							
4	FY 2019 NA 10			7,884	9,461	9,461	9,461	9,461
5	FY 2020 NA 10				3,138	3,765	3,765	3,765
6	FY 2021 NA 10					2,655	3,186	3,186
7	FY 2022 NA 10						-	-
8	FY 2023 NA 10							-
9	Total Additional Service Revenue Required	-	-	7,884	12,598	15,881	16,412	16,412
10	Total Water & Wastewater Service Revenue	-	-	7,884	12,598	15,881	16,412	16,412
	Other Income							
11	Other Operating Revenue - TAP Credits (b)	-	-	(9,461)	(13,226)	(16,412)	(16,412)	(16,412)
12	Debt Reserve Fund Interest Income	-	-	-	-	-	-	-
13	Operating Fund Interest Income	-	-	-	-	-	-	-
14	Rate Stabilization Interest Income	-	-	-	-	-	-	-
15	Total Revenues	-	-	(1,577)	(628)	(531)	-	-
	OPERATING EXPENSES							
16	Total Operating Expenses	-	-	-	-	-	-	-
	NET REVENUES							
17	Transfer From/(To) Rate Stabilization Fund	-	-	1,577	628	531	-	-
18	NET REVENUES AFTER OPERATIONS	-	-	-	-	-	-	-

(a) The TAP Surcharge Revenue reflects billings adjusted for collections and September 1st implementation. Presented to reflect the annual incremental increase in TAP surcharge revenue aligned with an estimated increase in TAP Loss as shown in Line 11.

(b) Includes projected contra revenue credits for Affordability Program Discounts (also referred to as TAP Loss) in FY 2019 to FY 2023 adjusted for collection factor.

TABLE C-4

COMBINED UTILITY: COMPARISON OF TYPICAL BILL FOR RESIDENTIAL CUSTOMERS UNDER EXISTING AND PROPOSED RATES

(1)	(2)	(3)	(4)	(5)	(6)	(7)
		FY 2018	FY 2019		FY 2020	
Meter Size	Monthly Use	Existing Rates	Proposed Rates	% Proposed of Existing	Proposed Rates	% Proposed of FY 2019
Inches	Mcf	$	$	%	$	%
5/8	0.0	28.73	27.69	-3.6	28.02	1.2
5/8	0.2	43.84	43.15	-1.6	43.69	1.3
5/8	0.3	51.39	50.87	-1.0	51.52	1.3
5/8	0.4	58.95	58.60	-0.6	59.35	1.3
5/8	0.5	66.50	66.33	-0.3	67.19	1.3
5/8	0.6	74.05	74.06	0.0	75.02	1.3
5/8	0.7	81.61	81.79	0.2	82.85	1.3
5/8	0.8	89.16	89.51	0.4	90.68	1.3
5/8	1.7	157.15	159.07	1.2	161.18	1.3
5/8	2.7	228.90	231.93	1.3	235.14	1.4
5/8	3.3	270.98	274.51	1.3	278.40	1.4

Note: FY 2020 figures reflect an assumed TAP Rate Rider Surcharge rates, which are subject to annual reconcilation. Final FY 2020 figures may vary.

Mcf - Thousand cubic feet

TABLE C-5

COMBINED UTILITY: COMPARISON OF EXAMPLE BILLS FOR NON-RESIDENTIAL CUSTOMERS UNDER EXISTING AND PROPOSED RATES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				FY 2018	FY 2019		FY 2020	
Meter Size	Monthly Use	Impervious Area	Gross Area	Existing Rates	Proposed Rates	% Proposed of Existing	Proposed Rates	% Proposed of FY 2019
Inches	Mcf	sf	sf	$	$	%	$	%
5/8	0.0	1,794	2,110	39.72	39.22	(1.3)	39.75	1.3
5/8	0.2	1,794	2,110	54.83	54.68	(0.3)	55.41	1.3
5/8	0.3	1,794	2,110	62.38	62.41	0.0	63.24	1.3
5/8	0.4	1,794	2,110	69.93	70.13	0.3	71.08	1.3
5/8	0.5	1,794	2,110	77.49	77.86	0.5	78.91	1.3
5/8	0.6	4,000	5,500	108.48	111.01	2.3	112.69	1.5
5/8	0.7	4,000	5,500	116.04	118.74	2.3	120.52	1.5
5/8	0.8	26,000	38,000	380.80	405.41	6.5	413.00	1.9
5/8	1.7	26,000	38,000	448.78	474.96	5.8	483.49	1.8
5/8	2.7	4,000	5,500	263.33	268.88	2.1	272.81	1.5
5/8	3.3	4,000	5,500	305.41	311.46	2.0	316.06	1.5
5/8	11.0	7,000	11,000	881.83	897.47	1.8	911.50	1.6
1	1.7	7,700	7,900	242.87	249.48	2.7	253.26	1.5
1	5.0	22,500	24,000	638.60	661.82	3.6	672.87	1.7
1	8.0	7,700	7,900	686.31	698.48	1.8	709.30	1.5
1	17.0	22,500	24,000	1,480.16	1,513.46	2.2	1,537.95	1.6
2	7.6	1,063	1,250	618.89	619.86	0.2	628.79	1.4
2	16.0	22,500	24,000	1,442.73	1,470.32	1.9	1,493.83	1.6
2	33.0	66,500	80,000	3,137.98	3,222.07	2.7	3,275.74	1.7
2	100.0	7,700	7,900	7,170.97	7,255.55	1.2	7,369.55	1.6
4	30.0	7,700	7,900	2,373.97	2,383.34	0.4	2,419.39	1.5
4	170.0	10,500	12,000	11,636.59	11,744.37	0.9	11,937.18	1.6
4	330.0	26,000	38,000	21,704.93	21,913.24	1.0	22,287.77	1.7
4	500.0	140,000	160,000	33,479.97	33,884.60	1.2	34,475.90	1.7
6	150.0	10,500	12,000	10,560.12	10,633.89	0.7	10,805.20	1.6
6	500.0	41,750	45,500	32,531.42	32,820.01	0.9	33,387.57	1.7
6	1,000.0	26,000	38,000	63,249.76	63,789.76	0.9	64,908.69	1.8
6	1,500.0	140,000	160,000	95,408.90	96,320.12	1.0	98,022.12	1.8
8	750.0	10,500	12,000	47,807.63	48,171.92	0.8	49,010.03	1.7
8	1,500.0	66,500	80,000	94,771.23	95,586.30	0.9	97,270.96	1.8
8	2,000.0	26,000	38,000	125,205.27	126,247.79	0.8	128,477.52	1.8
8	3,000.0	140,000	160,000	187,449.41	189,108.15	0.9	192,475.95	1.8
10	600.0	22,500	24,000	38,904.68	39,166.91	0.7	39,842.40	1.7
10	1,700.0	41,750	45,500	107,070.42	107,933.91	0.8	109,835.22	1.8
10	3,300.0	26,000	38,000	204,695.76	206,367.66	0.8	210,041.34	1.8
10	6,000.0	140,000	160,000	370,588.90	373,744.02	0.9	380,442.77	1.8

(a) Examples with gross area less than 5,000 square feet reflect an impervious area of 85% of the gross area consistent with PWD Regulations section 304.3.

(b) FY 2020 figures reflect an assumed TAP Rate Rider Surcharge rates, which are subject to annual reconcilation. Final FY 2020 figures may vary.

Mcf - Thousand cubic feet

sf - square feet

TABLE C-8: PROJECTED FLOW OF FUNDS - CAPITAL IMPROVEMENTS FUND (in thousands of dollars)

Line No.	Description	Fiscal Year Ending June 30, 2017	2018	2019	2020	2021	2022	2023
	Disposition of Bond Proceeds							
1	Proceeds From Sale of Bonds	313,651	-	280,000	295,000	305,000	340,000	335,000
	Transfers:							
2	Debt Reserve Fund (a)	11,888	-	-	5,974	319	22,975	17,194
3	Cost of Bond Issuance (b)	1,762	-	1,568	1,652	1,708	1,904	1,876
4	Construction Fund (c)	300,000	-	278,432	287,374	302,973	315,121	315,930
5	Total Issue	313,651	-	280,000	295,000	305,000	340,000	335,000
	Construction Fund							
6	Beginning Balance	283,140	392,111	137,331	147,765	159,228	175,601	182,482
7	Transfer From Bond Proceeds	300,000	-	278,432	287,374	302,973	315,121	315,930
8	Capital Account Deposit	29,458	23,061	23,845	24,655	38,241	39,541	40,885
9	Penn Vest Loan	-	-	-	-	-	-	-
10	Transfer from Residual Fund	28,300	39,500	35,900	37,400	23,900	27,500	33,300
11	Interest Income on Construction Fund	1,213	951	512	552	602	643	662
12	Total Available	642,111	455,623	476,020	497,746	524,943	558,406	573,259
13	Net Cash Financing Required	250,000	318,292	328,255	338,518	349,342	375,924	387,540
14	Ending Balance	392,111	137,331	147,765	159,228	175,601	182,482	185,719
	Debt Reserve Fund							
15	Beginning Balance	218,617	219,505	200,505	200,505	206,479	206,798	229,773
16	Transfer From Bond Proceeds	11,888	-	-	5,974	319	22,975	17,194
17	Debt Service Reserve Release	(11,000)	(19,000)	-	-	-	-	-
18	Ending Balance	219,505	200,505	200,505	206,479	206,798	229,773	246,967
19	Interest Income on Debt Reserve Fund	1,866	756	722	733	744	786	858

(a) Amount of Debt Reserve Fund estimated based on outstanding and proposed debt service payments.

(b) Cost of bonds issuance assumed at 0.56 percent of issue amount. FY 2017 based on actual issuance costs.

(c) Deposits equal proceeds from sale of bonds less transfers to Debt Reserve Fund and Costs of Issuance.

TABLE W-18
WATER: PROPOSED RATES FOR GENERAL SERVICE

SERVICE CHARGE

Line No.	Meter Size	(1) FY 2019 Monthly	(2) FY 2020 Monthly
	Inches	$	$
1	5/8	5.12	5.21
2	3/4	5.47	5.55
3	1	6.62	6.70
4	1-1/2	8.83	8.88
5	2	12.26	12.32
6	3	19.39	19.44
7	4	35.27	35.39
8	6	66.12	66.29
9	8	100.48	100.66
10	10	147.20	147.50
11	12	239.66	239.52

QUANTITY CHARGE

Line No.	Monthly Water Usage	FY 2019 Charge per Mcf	FY 2020 Charge per Mcf
		$	$
12	First 2 Mcf	44.85	44.80
13	Next 98 Mcf	38.54	38.56
14	Next 1,900 Mcf	29.87	29.88
15	Over 2,000 Mcf	29.05	29.06

Mcf - Thousand cubic feet

TABLE WW - 18
WASTEWATER: PROPOSED RATES FOR GENERAL SERVICE SANITARY SEWER

METER BASED SERVICE CHARGE			
Line No.	Meter Size	(1) FY 2019 Monthly Charge	(2) FY 2020 Monthly Charge
	Inches	$	$
1	5/8	7.04	7.01
2	3/4	8.95	8.93
3	1	13.06	13.07
4	1 1/2	22.89	22.97
5	2	35.25	35.42
6	3	63.46	63.82
7	4	107.93	108.49
8	6	212.60	213.81
9	8	336.27	338.27
10	10	485.42	488.25
11	12	881.42	887.22

QUANTITY CHARGE			
Line No.		FY 2019 Charge per Mcf	FY 2020 Charge per Mcf
		$	$
12	All billable water usage	30.82	31.25
13	Groundwater Charge	13.76	13.86

SURCHARGE RATES			
Line No.		FY 2019 Charge per lb	FY 2020 Charge per lb
		$	$
14	BOD (excess of 250 mg/l)	0.395	0.397
15	SS (excess of 350 mg/l)	0.390	0.388

Mcf-Thousand cubic feet
mg/l-milligrams per liter

APPENDIX B

BOARD ADJUSTMENTS TO REVENUE REQUIREMENTS AND FINANCIAL METRICS

Impacts from Rate Board Decision Adjustments	2019	2020	Notes
Previously Agreed Upon Adjustments as Adopted by the Rate Board			
Additional Staffing Operating Labor Expense	(21,000)	(43,000)	Reflects application of Actual to Budget Factor consistent with cost classification.
Debt Interest Rate & Bond Issuance Costs	(731,000)	(1,979,000)	Use of 5.25 % interest rate for debt issuance and revised cost of Bond Issuance (from 1.0% to 0.56%) in FY 2019 and FY 2020.
Capacity to Pay Energy Costs	(969,000)	(969,000)	Reduces budgeted amount for Power in FY 2019 and FY 2020 by $1,493,250. Further adjusted for actual-to-budget factor of 75.62%.
Chemicals	(1,180,000)	(1,225,000)	Reduces FY 2019 escalation from 6.7% to 0%.
Rate Board Decisions			
Chemicals (FY 2020 escalation reduced from 3.8% to 2.0%)	-	(317,000)	Reflects Board decision with regard to FY 2020 escalation factor for chemical expenses.
Other Class 200 (Escalation reduced from 3.4% to 3.3%)	(105,000)	(217,000)	Board accepted PWD's position (3.3%). Original filing utilized 3.4%.
Normalize Rate Proceeding Expenses	(1,413,080)	(1,413,080)	Normalization of Rate Proceeding Expenses per Rate Board Decision.
Normalize TAP Implementation Expenses	(550,000)	(550,000)	Normalization of TAP Implementation Expenses per Rate Board Decision.
Capital Account Deposit			Board Approved 1.0%
Capital Account Deposit	(11,922,000)	(12,328,000)	Reflects reduction from 1.5% to 1.0%
Residual Fund Transfer	11,922,000	12,328,000	Increased residual fund transfer to match reduction in capital account deposit. Required for cash financing / debt service coverage.
Public Fire Protection	(7,866,000)	(7,866,000)	Assume funded via a General Fund Transfer. Reflected on Line No. 1 of Table C-1 beginning in FY 2019.

Notes:

Table C-1 reflects overall impacts of adjustments to revenue requirements, miscellaneous revenues and financial metrics.

APPENDIX C

MATRIX OF BOARD MEMBER VOTES ON ISSUES IN THE RATE PROCEEDING

	Mr. POPOWSKY	Ms. OLANIPEKUN-LEWIS	Mr. EWING	Ms. JOHNSON	Ms. POZEFSKY
General Exception / Extension of Rate Proceeding PA EXC I	Deny PA exception	Deny PA exception	Deny PA exception	Absent	Deny PA exception
Necessity for Rate Increase PA EXC II	Deny PA exception	Deny PA exception	Deny PA exception	Absent	Deny PA exception
Due Process / Recusal PA EXC III	Deny PA exception	Deny PA exception	Deny PA exception	Absent	Deny PA exception
Motion *in Limine* PWD EXC 2D PA EXC III Report pp. 11-13	Deny PWD motion	Deny PWD motion	Deny PWD motion	Deny PWD motion	Deny PWD motion
Rate Period/Test Years PWD EXC A2 PA EXC IV Report pp. 17-26	Two year rate period	Two year rate period	Two year rate period	Absent	Two year rate period

Notes:

	Mr. POPOWSKY	Ms. OLANIPEKUN-LEWIS	Mr. EWING	Ms. JOHNSON	Ms. POZEFSKY
Debt Service Coverage PWD EXC A2 PA EXC V Report pp. 27-31	1.3 debt service coverage ratio target	1.3 debt service coverage ratio target	1.3 debt service coverage ratio target	Absent	1.3 debt service coverage ratio target
Rate Stabilization & Residual Funds PWD EXC A3 PA EXC VII Report pp. 25-27, 39	Combined $150 million target for Rate Stabilization & Residual Funds	Combined $150 million target for Rate Stabilization & Residual Funds	Combined $150 million target for Rate Stabilization & Residual Funds	Absent	Combined $150 million target for Rate Stabilization & Residual Funds
PAY-GO Financing PWD EXC A4 PA EXC V Report pp. 32-34	20% capital project PAY-GO cash financing target	20% capital project PAY-GO cash financing target	20% capital project PAY-GO cash financing target	Absent	20% capital project PAY-GO cash financing target
Capital Account Deposit PWD EXC A5 PA EXC V Report p. 34	1% deposit rate	1% deposit rate	1% deposit rate	Absent	1% deposit rate
Capital Program Spend Rate PWD EXC B1 PA EXC VI Report pp. 34-39	90% spend rate	90% spend rate	90% spend rate	Absent	90% spend rate

Notes:

	Mr. POPOWSKY	Ms. OLANIPEKUN-LEWIS	Mr. EWING	Ms. JOHNSON	Ms. POZEFSKY
SMIP/GARP PA EXC IX Report pp. 41-45	Increase of $10 million approved	Increase of $10 million approved	Increase of $10 million approved	Absent	Increase of $10 million approved
Power & Gas Costs PWD EXC B2(a) PA EXC X-A Report pp. 46-48, 60-62	PWD rates approved for Fiscal Years 2019 & 2020 only	PWD rates approved for Fiscal Years 2019 & 2020 only	PWD rates approved for Fiscal Years 2019 & 2020 only	Absent	PWD rates approved for Fiscal Years 2019 & 2020 only
General Costs, Class 200 Expense & Class 800 Transfer PWD EXC B2(b) PA EXC X-C Report pp. 50-52; 64-66	PWD rates approved Note: 3.3% rate for Class 200, not 3.4%	PWD rates approved Note: 3.3% rate for Class 200, not 3.4%	PWD rates approved Note: 3.3% rate for Class 200, not 3.4%	Absent	PWD rates approved Note: 3.3% rate for Class 200, not 3.4%
Chemical Costs PWD EXC B2(c) PA EXC X-B Report pp. 48-50; 62-64	2% increase in Fiscal Year 2020	2% increase in Fiscal Year 2020	2% increase in Fiscal Year 2020	Absent	2% increase in Fiscal Year 2020
Normalization-Rate Case Expense PWD EXC B2(d) PA EXC XIII Report Supplement pp. 1-8	Normalize over two years	Normalize over two years	Normalize over two years	Absent	Normalize over two years

Notes:

	Mr. POPOWSKY	Ms. OLANIPEKUN-LEWIS	Mr. EWING	Ms. JOHNSON	Ms. POZEFSKY
Normalization-TAP Implementation Costs PWD EXC B2(d) PA EXC XIII Report Supplement pp. 1-8	Normalize over two years	Normalize over two years	Normalize over two years	Absent	Normalize over two years
Debt Interest Rate PWD EXC B2(e) PA EXC XI Report pp.	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate
Miscellaneous Charge-Restoration PWD EXC B2(f) PA EXC XVIII Report pp. 90-93	Keep restoration charge unchanged at $60	Keep restoration charge unchanged at $60	Keep restoration charge unchanged at $60	Keep restoration charge unchanged at $60	Keep restoration charge unchanged at $60
Collection Factors PA EXC XII Report pp. 52-59	Use PWD figure of 96.54% collection factor	Use PWD figure of 96.54% collection factor	Use PWD figure of 96.54% collection factor	Use PWD figure of 96.54% collection factor	Use PWD figure of 96.54% collection factor
TAP Administrative Costs PA EXC XV Report pp. 81-82	Deny PA exception	Deny PA exception	Deny PA exception	Absent	Deny PA exception

Notes:

	Mr. POPOWSKY	Ms. OLANIPEKUN-LEWIS	Mr. EWING	Ms. JOHNSON	Ms. POZEFSKY
Agreed-Upon Revenue Requirement Adjustments PA EXC VIII Report p. 40	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Absent	Adopt agreement between Water Department & Public Advocate
Fire Protection PWD EXC C1 Report pp. 105-107	Deny PWD exception	Deny PWD exception	Deny PWD exception	Absent	Deny PWD exception
Cost Allocation PWD EXC C2 PLUG EXC 1 Report pp. 93-105	Retain PWD allocation; direct Water Department to provide rate structure report	Retain PWD allocation; direct Water Department to provide rate structure report	Retain PWD allocation; direct Water Department to provide rate structure report	Retain PWD allocation; direct Water Department to provide rate structure report	Retain PWD allocation; direct Water Department to provide rate structure report
Rate Allocation PWD EXC C2 PLUG EXC 1 Report pp. 93-105	Retain PWD allocation; direct Water Department to provide rate structure report	Retain PWD allocation; direct Water Department to provide rate structure report	Retain PWD allocation; direct Water Department to provide rate structure report	Retain PWD allocation; direct Water Department to provide rate structure report	Retain PWD allocation; direct Water Department to provide rate structure report
TAP Implementation Issues PWD EXC 2D PA EXC XIV Report pp. 68-75	Water Department directed to provide report regarding PA TAP implementation recommendations & TAP participation statistics	Water Department directed to provide report regarding PA TAP implementation recommendations & TAP participation statistics	Water Department directed to provide report regarding PA TAP implementation recommendations & TAP participation statistics	Water Department directed to provide report regarding PA TAP implementation recommendations & TAP participation statistics	Water Department directed to provide report regarding PA TAP implementation recommendations & TAP participation statistics

Notes:

	Mr. POPOWSKY	Ms. OLANIPEKUN-LEWIS	Mr. EWING	Ms. JOHNSON	Ms. POZEFSKY
TAP Arrearage Forgiveness PWD EXC C3(b) PA EXC XVI, XVII-B Report pp. 82-83	Direct Water Department to work with Law Department, Revenue Department, and Public Advocate to develop arrearage forgiveness program	Direct Water Department to work with Law Department, Revenue Department, and Public Advocate to develop arrearage forgiveness program	Direct Water Department to work with Law Department, Revenue Department, and Public Advocate to develop arrearage forgiveness program	Direct Water Department to work with Law Department, Revenue Department, and Public Advocate to develop arrearage forgiveness program	Direct Water Department to work with Law Department, Revenue Department, and Public Advocate to develop arrearage forgiveness program
TAP Rider Areas of Agreement PWD EXC C3 PA EXC XVII Report pp. 75-76	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate
TAP Low Income Collection Factor PWD EXC C3(a) PA EXC XVIII-B Report pp. 78-80; 85-86	Adopt proposed Water Department factor; request PWD analysis of low-income collection factor	Adopt proposed Water Department factor; request PWD analysis of low-income collection factor	Adopt proposed Water Department factor; request PWD analysis of low-income collection factor	Adopt proposed Water Department factor; request PWD analysis of low-income collection factor	Adopt proposed Water Department factor; request PWD analysis of low-income collection factor
TAP Apportionment of Revenue Loss PWD EXC C3(c) PA EXC XVIII-B Report pp. 86-87	Adopt Water Department "revenue requirements" apportionment model	Adopt Water Department "revenue requirements" apportionment model	Adopt Water Department "revenue requirements" apportionment proposal	Adopt Water Department "revenue requirements" apportionment proposal	Adopt Water Department "revenue requirements" apportionment proposal
TAP Rider Inclusion of Arrearage Forgiveness PWD EXC C3(b) PA EXC XVII-B Report p. 86	Premature: arrearage program not yet in effect	Premature: arrearage program not yet in effect	Premature: arrearage program not yet in effect	Premature: arrearage program not yet in effect	Premature: arrearage program not yet in effect

Notes:

	Mr. POPOWSKY	Ms. OLANIPEKUN-LEWIS	Mr. EWING	Ms. JOHNSON	Ms. POZEFSKY
TAP Reconciliation Process PWD EXC C3 PA EXC XVII-B Report p. 84	Adopt Public Advocate exception: Rate Board open to further ratemaking process regarding TAP rider	Adopt Public Advocate exception: Rate Board open to further ratemaking process regarding TAP rider	Adopt Public Advocate exception: Rate Board open to further ratemaking process regarding TAP rider	Adopt Public Advocate exception: Rate Board open to further ratemaking process regarding TAP rider	Adopt Public Advocate exception: Rate Board open to further ratemaking process regarding TAP rider
TAP Rider Formula PWD EXC C3 PA EXC XVII-A Report pp. 75-78	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate	Adopt agreement between Water Department & Public Advocate
Shut-Off Notices PA EXC XVIII Report pp. 89-90	Deny PA exception	Deny PA exception	Deny PA exception	Deny PA exception	Deny PA exception
Land Bank Report p. 108-110	Accept Land Bank exemption	Accept Land Bank exemption	Accept Land Bank exemption	Accept Land Bank exemption	Accept Land Bank exemption
Skiendzielewski Appeal Report p. 110-111 & Prior Hearing Officer Orders[1]	• Deny appeal • Adopt Hearing Officer recommendations	• Deny appeal • Adopt Hearing Officer recommendations	• Deny appeal • Adopt Hearing Officer recommendations	• Deny appeal • Adopt Hearing Officer recommendations	• Deny appeal • Adopt Hearing Officer recommendations

Notes:

[1] Daniel W. Cantú-Hertzler, Senior Attorney, recused himself from discussion of this matter.