BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

EDWARD BARCA

ON BEHALF OF
THE PITTSBURGH WATER
AND SEWER AUTHORITY

Docket Nos.
R-2020-3017951 (Water)
R-2020-3017970 (Wastewater)
P-2020-3019019 (DSIC)

TOPICS:
Financial Impacts of COVID-19
The PWSA's Financial Metrics
Non-Borrowed Year-End Cash
Debt Service Coverage
Multi-Year Rate Plan
Distribution System Improvement Charge
PAYGO

August 18, 2020

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION FOR THE RECORD.

A. My name is Edward Barca and I am the Director of Finance for The Pittsburgh Water and Sewer Authority ("PWSA" or "Authority").

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

A. Yes, I submitted Direct Testimony (PWSA St. 5) on March 6, 2020 and Supplemental Direct Testimony (PWSA St. 5-SD) on May 15, 2020.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. My Rebuttal Testimony responds to certain portions of direct testimony submitted by the Office of Consumer Advocate ("OCA"), the Bureau of Investigation and Enforcement ("I&E") and the Office of Small Business Advocate ("OSBA").

The primary purpose of my rebuttal testimony is to: (1) discuss the financial impact that COVID-19 has had on the PWSA; 2) address the financial metrics recommendations of various parties; 3) respond to arguments regarding the PWSA's multi-year rate plan 4) respond to arguments regarding PWSA's DSIC proposal; 5) respond to arguments regarding PAYGO financing.

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A. My testimony includes the following:

- COVID-19 has decreased revenues, increased unexpected expenses, and caused financial uncertainty for the foreseeable future. These factors further justify the proposed rate increase.
- The PWSA would not meet its financial metrics if any of the parties' revenue requirement recommendations were adopted.
- The proposed rate increase should be adopted as proposed by the PWSA.
- The proposed DSIC should be adopted as proposed by the PWSA.
- The use of PAYGO should be adopted as proposed by the PWSA.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring the following exhibits:

- Exh. EB-4: I&E Response to PWSA-I&E-IV-1
- Exh. EB-5: Moody's Investors Service Credit Opinion – October 15, 2018
- Exh. EB-6: OCA Responses to PWSA Discovery
- Exh. EB-7: Proposed PAYGO Projects To Be Paid Out Of Rates: FPFTY – FY2023 Forecasted period

II. IMPACTS OF COVID-19 ON THE PWSA'S FINANCIAL POSITION

Q. WHAT IMPACT HAS COVID-19 HAD ON THE PWSA'S REVENUES?

A. As of July 31, 2020, year-to-date revenues are down $6,359,970 or approximately 5%. This trend is expected to continue through the rest of the year with forecasted revenues expected to be down $28,298,353 or 11%. This decline in revenues further supports the approval of the PWSA's proposed rates. It cannot be expected that the PWSA will be able to continue to operate at current rate levels with a no shut off moratorium in place and growing accounts receivable balances. In addition, the PWSA must also support fixed costs as it relates to operating the water and sewer system while trying to comply with regulatory mandates.

Q. HAVE CAPITAL EXPENDITURES DECLINED AS A RESULT OF COVID-19?

A. No, capital expenditures continue to outpace last year's spending rate. As of July 31, 2020, year-to-date capital expenditures have increased $3,290,821 or approximately 6.6%. The PWSA did experience a slight decline in expenditures in April/May as a result of the Governor's Order to stop non-essential construction. However, as described in my Supplemental Direct Testimony, the PWSA expected this trend to reverse due to the large infrastructure projects that are ongoing or about to start. (PWSA St. No. 5-SD at 2). The fact that capital expenditures continue to outpace last year's spending rate is a strong indication that the PWSA's FPFTY construction projections continue to be reasonable and that the proposed rates need to be implemented in order to support critical capital improvements. Capital expenditures will only continue to increase as COVID-19 fears are mitigated and a vaccine is introduced to the public.

Q. HAS THE PWSA EXPERIENCED EXTRAORDINARY EXPENDITURES AS A RESULT OF COVID-19 AND, IF SO, HOW MUCH AND WHAT ARE THE EXPENDITURES?

A. Yes, as of July 31, 2020, the PWSA has incurred $1,109,433.79 in COVID expenditures. These expenditures are related to Personal Protective Equipment ("PPE"), COVID-19 testing, and COVID-19 related construction signage. It is expected that these expenditures will continue as long as the COVID-19 pandemic is ongoing. These unexpected expenditures and declining revenues further support the PWSA proposed rate increase.

Q. IS THE PWSA PURSUING COVID-19 RELIEF FUNDING?

A. Yes, the PWSA has a team of dedicated individuals who track and analyze all COVID-19 relief funding opportunities. Unfortunately, there are no funding opportunities currently available which the PWSA is eligible for. The PWSA will continue to monitor all potential funding opportunities.

III. <u>FINANCIAL METRICS</u>

Q. MR. BARCA CAN YOU SUMMARIZE THE OVERALL REVENUE REQUIREMENT RECOMMENDATIONS OF THE OPPOSING PARTIES.

A. OCA's primary position as explained by Mr. Rubin is that PWSA should not be awarded any rate increase. (OCA St. No. 1 at 1-29). If the Commission were to award PWSA rate increase, then other OCA Witnesses including Mr. Mugrace, Mr. Habr, Mr. Pavlovic, and Mr. Mierzwa support the view that only a $17.73 million increase (including DSIC) is justified. (See OCA St. Nos. 2-5). I&E takes the position that the PWSA's *current rates* be reduced by as much as $13.05 million. (I&E St. No. 1 at 6-7). OSBA merely claims that the PWSA should receive no rate increase. (OSBA St. No. 1 at 6-7). UNITED also recommends that the Commission deny PWSA any rate increase at the present time. (UNITED S.t NO. 1 at 7-8). Finally, the city of Pittsburgh does not express an opinion on PWSA's overall rate request but focuses on its position that the 2019 Cooperation Agreement must be given full effect. (City of Pittsburgh St. No. 2 at 23-24).

Q. WHAT WOULD BE THE EFFECT ON PWSA'S FINANCIAL METRICS IF THESE RECOMMENDATIONS WERE ADOPTED?

A. The PWSA would not be in compliance with its bond covenants if either of these revenue recommendations were adopted. I&E's recommendation would result in a senior debt service coverage of 0.87x and a total debt service coverage of 0.69x. OSBA's recommendation would result in a senior debt service coverage of 1.09x and a total debt service coverage of 0.87x. These levels are well below the minimum legal requirement. In addition, both recommendations would result in a negative days cash on hand position. This means that the PWSA would not have available cash to fund any of its operations. Also, adoption of no rate increase or a rate decrease would end PWSA's ability to continue to issue bonds, which would have grave consequences for PWSA's ability to continue its ongoing construction activities. This is due to the fact that PWSA would not be in compliance with the "Additional Bond Test."

Q. WHAT IS THE "ADDITIONAL BONDS TEST" AND WHAT IMPACT DOES THAT HAVE AN ISSUING BONDS?

A. As defined in Section 3.02 of the Amended and Restated Trust Indenture ("Indenture"), the PWSA must satisfy the following additional bonds test prior to issuing additional bonds:

- A certificate of (A) a Qualified Independent Consultant, stating that based on the Authority's financial records for a Test Period, the Authority would have been able to meet the Rate Covenant in Section 7.01, taking into account
    - (i) the maximum Annual Debt Service on the proposed Series of Additional Bonds in the current or any future Fiscal Year,
    - (ii) the additional Net Revenue from the rates, fees and other charges adjusted to reflect any rate increases that had not been in effect throughout the Test Period but that have been approved by and can be implemented by the Authority at the time of delivery of the proposed Series of Additional Bonds to go into effect within the following five years; and
    - (iii) additional Net Revenues that the Authority may realize from the addition to the System of the assets it proposes to finance through the issuance of the proposed Series of Additional Bonds or other funding sources within the following five years or (B) the Authorized Representative of the Authority stating that based on the Authority's financial records for a Test Period, the Authority has met the Rate Covenant in Section 7.01, taking into account the maximum Annual Debt Service on the proposed Series of Additional Bonds. In making the certifications required under this paragraph, the Authorized Representative of the Authority or the Qualified Independent Consultant, as applicable, shall determine and utilize the Additional Indebtedness Test Net Revenues in place of the Rate Covenant Net Revenues in determining whether the Authority would have been able to meet the Rate Covenant in Section 7.01.

In summary, the Additional Bonds Test requires that the PWSA meet its required debt service coverage ratios (i.e. Rate Covenant) taking into account current rates and the maximum annual debt service of a proposed series of bonds prior to issuing additional bonds. The Indenture does not allow the PWSA to factor in unauthorized future rate increases when calculating the additional bonds test. Failure to satisfy the additional bonds test prohibits the PWSA from issuing bonds.

Q. PLEASE DISCUSS HOW THE OVERALL REVENUE REQUIREMENT RECOMMENDATIONS OF I&E AND OSBA IMPACT THE PWSA'S ABILITY TO SATISY THE ADDITIONAL BONDS TEST.

A. None of the opposing parties has considered the Additional Bonds Test when determining their overall revenue requirement recommendation. Their recommendations will either 1) put a halt to all capital projects or 2) substantially cut to the operating budget to point were the PWSA would not have the resources available to provide safe and reliable services. The operating budget reductions would be well in excess of what any parties have recommended.

Table 1 below represents the impact of I&E's revenue requirement recommendation when calculating the additional bonds test in FPFTY. Scenario 1 shows that I&E's revenue recommendation would result in a senior debt service coverage of 0.78x and a total debt service coverage of 0.64x. This would prohibit the PWSA from issuing additional bonds in FY 2021, which would put a complete stop to all capital projects. Scenario 2 shows I&E's revenue recommendation with the required O&M reduction of $37,990,961 in order for the PWSA to meet its additional bonds test. This reduction in O&M expenses would result in massive layoffs, limit the resources needed to continue essential operations, and restrict the PWSA's ability to comply with regulatory requirements.

Table 1	**FY 2021** *COS* **Scenario 1** I&E Revenue Requirement Recommendation ($13.05 reduction in rates)	**FY 2021** *COS* **Scenario 2** I&E Revenue Requirement Recommendation ($13.05 reduction in rates)
Revenue	$ 245,646,136	$ 245,646,136
ALCOSAN Charges	(77,820,207)	(77,820,207)
Non-City Water Payments	(475,975)	(475,975)
Operating Expenses	(114,990,961)	(77,000,000)
Revenue Available for Debt Service	$ 52,358,993	$ 90,349,954
Existing Debt Service		
Senior Debt	$ 58,962,021	$ 58,962,021
Subordinate	4,877,900	4,877,900
PENNVEST	7,361,077	7,361,077
Revolver Interest	3,000,000	3,000,000
Subtotal: Existing Debt Service	$ 74,200,998	$ 74,200,998
Projected Debt Service		
2021 Senior New Money Bonds*	$ 8,213,195	$ 8,213,195
Subtotal: Proposed Debt Service	$ 8,213,195	$ 8,213,195
Debt Service Coverage		
Senior lien (min. req 1.25x)	0.78	1.34
Subordinate lien (min. req 1.10x)	0.64	1.10

*Includes the maximum annual debt service

Table 2 below represents the impact of no rate increase (consistent with OCA's primary recommendation and the recommendations of OSBA and UNITED) on PWSA's revenue requirement recommendation when calculating the Additional Bonds Test in FPFTY. Scenario 1 shows that the revenue recommendation would result in a senior debt service coverage of 0.97x and a total debt service coverage of 0.79x. Scenario 2 represents a revenue recommendation with the required O&M reduction of $24,990,961 in order for the PWSA to meet its Additional Bonds Test. Similar to I&E's revenue requirement recommendation, Scenario 1 would prohibit the PWSA from issuing bonds and scenario 2 would cut O&M expenses to an unsafe level.

Table 2	**FY 2021** *COS* **Scenario 3** OSBA Revenue Requirement Recommendation (No increase)	**FY 2021** *COS* **Scenario 4** OSBA Revenue Requirement Recommendation (No increase)
Revenue	$ 258,696,136	$ 258,696,136
ALCOSAN Charges	(77,820,207)	(77,820,207)
Non-City Water Payments	(475,975)	(475,975)
Operating Expenses	(114,990,961)	(90,000,000)
Revenue Available for Debt Service	$ 65,408,993	$ 90,399,954
Existing Debt Service		
Senior Debt	$ 58,962,021	$ 58,962,021
Subordinate	4,877,900	4,877,900
PENNVEST	7,361,077	7,361,077
Revolver Interest	3,000,000	3,000,000
Subtotal: Existing Debt Service	$ 74,200,998	$ 74,200,998
Projected Debt Service		
2021 Senior New Money Bonds*	$ 8,213,195	$ 8,213,195
Subtotal: Proposed Debt Service	$ 8,213,195	$ 8,213,195
Debt Service Coverage		
Senior lien (min. req 1.25x)	0.97	1.35
Subordinate lien (min. req 1.10x)	0.79	1.10

*Includes the maximum annual debt service

IV. NON-BORROWED YEAR-END CASH

Q. DID THE PARTIES INDICATE WHAT LEVEL OF CASH OR LIQUIDITY THEY BELIEVED WAS REASONABLE FOR THE PWSA TO HAVE AVAILABLE AT YEAR-END?

Yes. With I&E's recommended rate increase, I&E witness Spadaccio recommends year-end cash of $ 37,117,662. I&E St. 1 at 11; I&E Exhibit 1, Schedule 2 (Ending Cash). I&E calculates that this level of cash equals 150 days of cash. (I&E St. 1 at 11; I&E Exhibit 1, Schedule 2 – Days Cash on Hand).

Based on the OCA's recommendations, OCA witness Mugrace recommends year-end cash of $37,282,309. (OCA St. 2 at 58.) OCA calculates that this level of cash equals 121.12 days of cash. (OCA St. 2 at 58.)

Q. DO YOU AGREE WITH MR. KALCIC THAT THE ANALYSIS OF YEAR-END CASH SHOULD BE DISREGARDED IN ESTABLISHING JUST AND REASONABLE RATES FOR THE PWSA?

A. No. Days of cash is one of the key indicators that the PWSA (and the rating agencies) uses to track its financial requirements. In fact, the Commission's the Policy Statement[1] lists days of cash on hand as an item that must be included. Therefore, I do not agree that this metric can be disregarded.

Q. PLEASE DISCUSS THE PROPOSED LEVELS OF YEAR-END CASH BY I&E.

A. I&E's proposed rates claim would result in approximately 150 days of cash on hand. (I&E St. 1 at 12.) I do not agree with I&E's methodology to achieve this days cash on recommendation – which is to reduce current rates and expenditures. I&E's days of cash assertion is really completely hypothetical. This is because it assumes that, contrary to reality, the PWSA will actually receive the revenues that are imputed to it and that PWSA

[1] 52 Pa. Code § 69.2701-69.2703.

will not incur the expenditures that I&E witnesses have decided will not be incurred. These claims are based on invalid assumptions about the PWSA's likely level of expenditure in the test year and cannot be relied upon. As explained more fully in the Rebuttal Testimony of Ms. Presutti, PWSA fully believes that it will incur these levels of expenditure. Pretending as if these expenditures will not happen will cause PWSA to fail the Additional Bonds Test, as I discussed above, and put the PWSA is serious jeopardy of receiving a downgrade from the rating agencies.

In addition, assuming that the PWSA will be reducing expenditures does not make sense given that the PWSA is "ramping up" operations in order to address deferred maintenance as well as upgrade the water and sewer system and taking actions as necessary to comply with numerous Commission compliance requirements and other state mandated regulatory obligations.

Q. PLEASE DISCUSS THE PROPOSED LEVELS OF YEAR-END CASH BY OCA.

A. OCA's proposed rates claims to result in approximately 121 days cash on hand. (OCA St. at 8.) However, similar to I&E's methodology, I do not agree with OCA's recommendation to assume reductions in expenditures in order to achieve a wholly hypothetical days cash on hand level. Every indication is that the PWSA will expend the dollars that it has projected for the fully projected future test year. The only real way this will not happen is if OCA and I&E's completely unrealistic projections were adopted by the Commission and PWSA was forced to cut expenditures and halt its infrastructure improvement efforts. I believe such a result would be completely contrary to what the Commission hopes the PWSA will accomplish as it transitions to the Commission's jurisdiction and works to modernize and improve its operations to best serve the interests of PWSA's ratepayers.

Q. I&E WITNESS SPADACCIO CLAIMS THAT AT I&E'S PROPOSED RATES (WHICH REFLECTS A DECREASE FROM EXISTING LEVELS) THE PWSA WOULD NONETHELESS HAVE 150 DAYS OF CASH ON HAND WHICH HE CLAIMS IS "WELL WITHIN MOODY'S RANGE FOR THE AA RATING CATEGORY AND AT THE HIGH END FOR "A" RATED CREDITS" (I&E ST. 1 AT 12). DO YOU AGREE?

A. I do not agree with Mr. Spadaccio's methodology used to determine his recommended days cash on hand level. He is suggesting that the PWSA reduce both current rates and expenditures to achieve a higher level of cash. As I note above this is completely unrealistic and results from applying completely unrealistic assumptions about what the PWSA will actually incur in the FPFTY. Moreover, he is also speculating on how much the days cash on hand should be using Moody's US Municipal Utility Revenue Debt Scorecard, which provides a general indication of what the rating could be based on various factors. However, in the March 5, 2019 Issuer Comment (PWSA Exhibit EB-3), Moody's states that "the median days cash on hand for Moody's-rated water and sewer systems with annual revenues of more than $100 million is 392 days, which is more than three times the PWSA's current liquidity positions." There is no need to speculate on what the days cash on hand should be when the benchmark that Moody's provided to the PWSA is 392 days. The PWSA must strive to achieve this days cash on hand over time.

Q. PLEASE EXPLAIN WHY IT IS SO IMPORTANT FOR PWSA TO MAINTAIN AND IMPROVE ITS CREDIT RATINGS WITH THE VARIOUS RATING AGENCIES?

A. By maintaining and improving its credit ratings with the various rating agencies, PWSA will have access to cheaper borrowing rates in the municipal bond market – which ultimately benefits ratepayers. I&E's proposed rates, which are a decrease from existing levels, will be a major concern for the rating agencies that could result in a downgrade for the PWSA. In Discovery, Mr. Spadaccio acknowledges that Moody's revised the

PWSA's outlook from negative to stable largely crediting PUC oversight and a "significant" rate increase.[2] This clearly demonstrates that the level of rates is tied to the credit rating of the PWSA. Decreasing rates from the existing levels (as I&E is suggesting) could result in the PWSA outlook or ratings to be downgraded. In addition, decreasing rates during the COVID-19 pandemic does not make sense because the PWSA is relying on its current rates to support the utility shutoff moratorium, growing accounts receivable balances, and decreases in revenues.

V. DEBT SERVICE COVERAGE

Q. IN ITS DIRECT TESTIMONY, THE PWSA PROPOSED A REVENUE REQUIREMENT THAT WOULD PRODUCE DEBT SERVICE COVERAGE OF 1.82X FOR SENIOR DEBT AND 1.45X FOR TOTAL DEBT. I&E WITNESS SPADACCIO CLAIMS THAT I&E'S PROPOSED RATE DECREASE WOULD NONETHELESS MEAN A DEBT SERVICE COVERAGE RATIO OF 1.50X FOR SENIOR DEBT AND 1.20X FOR TOTAL DEBT, (I&E ST. 1 AT 24.) CAN YOU RESPOND?

A. Again, the I & E purported debt service coverage stems from I&E's purely hypothetical level of expenditures and revenues in the FPFTY. In fact there is every indication that the PWSA's budgeted level of expenditures are realistic. I&E's assumed level of revenues are fatally flawed because it assumes collection from the City of Pittsburgh of almost $10 million more than the PWSA is permitted to bill them under the 2019 Cooperation Agreement. I am informed by counsel, Act 70 has given the 2019 Cooperation Agreement the force and effect of law.[3] Accordingly, the I&E position actually results in senior debt service coverage of 0.87x and a total debt service coverage ratio of 0.69x in the FPFTY. Any reduction to the PWSA's debt service coverage ratio

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[2] See PWSA Exh. EB-4: I&E Response to PWSA-I&E-IV-1.

[3] This issue is discussed more in the Rebuttal Testimony of Ms. Lestitian. (PWSA St. No. 2-R).

signals to the bond market, current investors, and the rating agencies that there is an increased risk that of the PWSA will default on its bond payments. The levels implicit in the I&E testimony would be a complete disaster for the PWSA. Adopting them would result in a credit downgrade and/or increased financing costs, which are ultimately paid for by ratepayers. It should be noted that the PWSA's financial performance is still considered "fragile" since it was downgraded by Moody's in October 2018. Any decrease in key financial metrics (days cash on hand and debt service coverage) will be scrutinized by the rating agencies and the bond market.

Q. I&E WITNESS SPADACCIO SAYS THAT THE DEBT SERVICE COVERAGE RESULTING FROM I&E PROPOSED RATES WILL ALLOW "PWSA TO AT LEAST MAINTAIN, IF NOT PROVIDE SUPPORT FOR THE CONSIDERATION TO IMPROVE, ITS CREDIT RATING." (I&E ST. 1 AT 17). CAN YOU PROVIDE AN OVERALL RESPONSE?

A. Suggesting that the PWSA could improve its credit rating by weakening its debt service coverage ratio does not make sense. If that was the case, the PWSA would have been upgraded in October 2018 instead of being downgraded by Moody's. In addition, maintaining the current rating level implies that financial performance is also maintained. Decreasing the debt service coverage ratio will put the rating agencies "on watch" that the PWSA is experiencing financial difficulties.

Q. MR. HABR FOR OCA STATES THAT REQUIRING THE PWSA TO REALIZE A DEBT SERVICE COVERAGE RATIO OF 1.49X ON SENIOR DEBT AND 1.19X OVERALL DEBT "DOES NOT APPEAR" TO RESULT IN THE PWSA BEING DOWNGRADED. (OCA ST. NO. 3 AT 5). CAN YOU RESPOND?

A. The PWSA is barely two years removed from being downgraded from A2 to A3 by Moody's. Narrow coverage was one of the factors that led to the downgrade. Moody's specifically states in the Credit Opinion that downgraded the PWSA (PWSA Exhibit EB-5) that the median debt service coverage for Moody's-rated water and sewer systems in the US generating revenues of more than $100 million annually was 2.2x as of fiscal year 2017. As discussed in Mr. Huestis's Rebuttal Testimony, a senior debt service coverage ratio of 1.49x and overall debt service coverage of 1.19x is well below the PWSA's peer comparison, which puts the PWSA at risk for a further downgrade. It is crucial that the PWSA show a consistent trend in maintaining and improving its debt service coverage ratio given that the Moody's downgrade was recent.

Q. MR. HABR, EXAMINED THE PWSA'S DEBT SERVICE COVERAGE EXPERIENCE OVER THE PERIOD 2015-2019 AND TESTIFIED THAT THE "MEDIAN TOTAL DEBT SERVICE" – 1.49X SHOULD BE USED TO DETERMINE THE ALLOWED DEBT SERVICE COVERAGE IN THIS PROCEEDING BECAUSE IT IS "NOT BURDENSOME TO CUSTOMERS. (OCA ST. NO. 3 AT 6-7). WHAT IS YOUR RESPONSE?

A. Mr. Habr's methodology used to calculate his recommended senior debt service coverage ratio does not make sense. He uses the median total debt service coverage over the period 2015-2019 to recommend the senior debt service coverage ratio, which results in a lower debt service coverage recommendation. From his perspective, it would make more sense to use the median senior debt service coverage ratio over the period 2015-2019 to recommend the senior debt service coverage ratio. Mr. Habr states in Discovery that he used this methodology to "arrive at a debt service coverage ratio that does not add to the burden customers are carrying as a result of the COVID-19 pandemic while still providing PWSA with sufficient funds to maintain investment grade bond ratings."[4] However, as discussed in Mr. Huestis's Rebuttal Testimony, the median debt service coverage ratio for A3 rated utilities is 2.2x. This is substantially higher than Mr. Habr's recommended 1.49x coverage ratio.

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[4] See PWSA Exh. EB-6: Discovery Responses of OCA to PWSA-OCA-X-1.

The PWSA's proposed rates result in a senior debt service coverage of 1.82x and a total debt service coverage of 1.45x in FPFTY. Those coverage levels are more appropriate to ensure that customers are not burdened while supporting the PWSA's current bond ratings.

VI. MULTI-YEAR RATE PLAN ("MYRP")

Q. PLEASE SUMMARIZE I&E'S TESTIMONY REGARDING THE MULTI-YEAR RATE PLAN.

A. I&E opposes the Multi-Year Rate Plan. (I&E St. No. 1 at 23-24; I&E St. No. 3 at 49.) I&E witness Cline testified that it is not appropriate for a "new utility" with only one completed base rate proceeding to implement a multi-year rate plan, and claimed that the economic impacts of COVID-19 create additional uncertainty regarding revenue, expenses, and future borrowing costs. (I&E St. No. 3 at 49.) Mr. Cline's recommendation is based heavily upon an article by the National Regulatory Research Institute ("NRRI") from October 2016. (I&E St. No. 3 at 46-48; I&E Exh. No. 3 Schedule 12).

Q. AS A THRESHOLD MATTER, DO YOU AGREE WITH MR. CLINE THAT THE ONLY WAY TO ASSESS THE RELIABILITY OF PWSA'S ESTIMATIONS FOR THE MYRP IS TO DETERMINE THE HISTORICAL ACCURACY OF PWSA'S PREVIOUS PROJECTIONS?

A. No. That part of Mr. Cline's recommendation is based heavily upon an article by National Regulatory Research Institute ("NRRI") from October 2016. I&E St. 3 at 46-48; I&E Exhibit No. 3 Schedule 12. That article is not directly applicable to Pennsylvania, since it was written years before Act 58 of 2018 added Section 1330 to Chapter 13 of the Code.

Here, the difference between the projections used for the FPFTY (FY 2021) and the projections for FY 2022 is the addition in FY 2022 of the need to recover the anticipated additional debt service. (PWSA Statement No. 3, p. 20, lines 16-18.) This point was acknowledged by Mr. Spadaccio, (I&E St. 1 at 22), and, Mr. Cline, (I&E St. 3 at 45). It was also acknowledged by Mr. Mugrace, (OCA St. 2 at 5, 10-11). It follows that, with all other things being equal, the only measure that needs to be examined to determine if the MYRP for FY 2022 is just and reasonable is the level of additional debt service in FY 2022.

Since the additional debt service is the only material change, the projections for FY 2022 have a solid basis in the FPFTY. Ms. Presutti addresses claims regarding the accuracy and reliability of PWSA's projections in her Rebuttal Testimony and in opposition to claims by Mr. Cline, (I&E St. 3 at 53), and Mr. Rubin, (OCA St. 1 at 34-35), that the pandemic makes projections for FY 2022 less reliable. (PWSA St. No. 3-R)

Q. DO YOU AGREE WITH MR. CLINE'S CRITICISMS IN OPPOSITION TO A MYRP?

A. Respectfully, no, Mr. Cline's criticisms are subjective and do not make sense. The purpose of a multi-year rate plan is to increase efficiency and provide predictable funding in order to enable entities to better serve their ratepayers and the Commission has directed all utilities to avail themselves of a multi-year rate increase to reduce the burden of their ratepayers. Mr. Cline's opposition creates an unnecessary bureaucratic layer that results in the complete opposite – decreased efficiency and unpredictable funding. The length of time that the PWSA has been regulated is not relevant when evaluating whether to implement a multi-year rate plan. Otherwise, there would be a legal requirement defining how long entities need to be regulated before they would be eligible. Moreover, based on PWSA's experience (so far) with the transition to the Commission's jurisdiction, the associated tasks and obligations are likely to increase PWSA's expenses not <u>decrease</u> them as Mr. Cline appears to suggest (without any examples or information about when a transition to Commission-jurisdiction resulted in a cost-reduction). I would also note that anticipating increased expenses is consistent with I&E Witness Spadaccio's statement that PWSA needs more regulatory oversight, not less. (I&E St. No. 1 at 24). The economic impacts of COIVD-19 make the multi-year rate plan even more beneficial to the PWSA and its ratepayers. As I previously stated, COVID-19 has caused revenues to decrease and revenue requirements to increase. Having a predictable rate structure would provide the PWSA with the required revenues to plan for these unexpected revenues while maintaining and operating the system.

Q. MR. CLINE IS CONCERNED WITH IMPLEMENTING A MULTI-YEAR RATE PLAN IN PART BECAUSE PAST THE PWSA REVENUE AND EXPENSE PROJECTIONS DIFFERED FROM ACTUAL PERFORMANCE. (I&E ST. NO. 3 AT 48-49). PLEASE RESPOND TO THESE CONCERNS.

A. The PWSA is expanding its operations after decades of disinvestment. This includes, but is not limited to, increasing staffing levels, replacing aging infrastructure and updating IT systems and other equipment. The PWSA also has to comply with regulatory requirements resulting from this disinvestment. This creates stress on resources and the PWSA's ability to continue to make progress. Regardless, the PWSA continues to meet its regulatory requirements while "ramping up" operations to improve the entire water and sewer system. An example of this success was the PWSA's ability to satisfy its Consent Order and Agreement with the PA DEP in July, 2020 related to violations of the Lead and Cooper Rule. Mr. Cline needs to consider these factors to fully understand the PWSA's budgeting process as well as requirements for additional funds.

In addition, there is no profit motive behind any of the PWSA financial metrics or requests for additional funding. It is solely based on the revenue required to maintain and upgrade the system. Any annual surplus that the PWSA realizes is reinvested back into the system. This helps to mitigate future year revenue increases.

Finally, PWSA has budgeted a level O&M expense and only requests an increase in FY2022 to address the needed debt service.

Q. PLEASE DISCUSS MR. CLINE'S STATEMENTS THAT THE PWSA'S TRANSITION TO PUC JURISDICTION AND CONCERNS ABOUT MANAGEMENT CONTINUITY CREATE TOO MUCH UNCERTAINTY TO IMPLEMENT A MULTI-YEAR RATE PLAN. (I&E ST. NO. 3 AT 51).

A. The PWSA's transition to the PUC and concerns about management stability are irrelevant when evaluating the multi-year rate plan. As per Act 65 of 2017, the PUC was given jurisdiction over the PWSA on Dec. 21, 2017. This transition occurred almost three years ago and should not be used against the PWSA. The PWSA has clearly established itself as a respectable entity with the PUC considering it has succeeded in complying with all of its regulatory requirements to date. In addition, the PWSA has revamped its entire management team in 2018. This has refocused the PWSA to achieve the ultimate goal – providing safe and reliable services to its ratepayers. Moreover, as explained more fully in Mr. Pickering's Rebuttal Testimony, the recent executive level staffing changes illustrate the continued progression forward regarding PWSA's overall management.

Mr. Cline must understand that the PWSA has complex regulatory requirements that it must comply with along with aged infrastructure that needs to be replaced in order to continue to service ratepayers. The multi-year rate plan helps the PWSA achieve this goal.

Q. DID OTHER PARTIES RAISE CONCERNS WITH THE MULTI-YEAR RATE PLAN PROPOSAL?

A. Yes, OCA witnesses Rubin and Pavlovic also opposed the Multi-Year Rate Plan. (OCA St. No. 1 at 34-36; OCA St No. 4 at 4-13).

Q. WHY DOES MR. RUBIN OPPOSE THE MULTI-YEAR RATE PLAN?

A. Mr. Rubin opposes the multi-year rate plan for two reasons. First, he states that the COVID-19 pandemic has created significant uncertainty and questions the ability to reliably project expenses and revenues two years into the future. Second, given that the PWSA plans to file a stormwater rate case in late 2020, he argues that the PWSA should instead file a new rate case for all three services – water, wastewater, and stormwater – after this proceeding has concluded, with new rates taking effect in early 2022. (OCA St. 1 at 34-36.)

Q. HOW DO YOU RESPOND TO MR. RUBIN?

A. Similar to Mr. Cline's criticisms, Mr. Rubin must understand the economic impacts of COVID-19 further justify the implementation of the multi-year rate plan. It would bring a level of revenue certainty to the PWSA. This would help the PWSA to mitigate the negative financial impact caused by COVID-19 while increasing capital planning efforts. Mr. Rubin should focus on the facts – revenues are decreasing, unexpected expenses are increasing, and the PWSA's deferred maintenance and capital requirements continue to grow. Opposing the multi-year rate plan will make this unprecedented situation worse by causing further financial uncertainty. Moreover, if the ability to file an additional rate case were a valid reason for denying a multi-year rate increase then no multi-year increase would ever be granted.

Q. DID THE PWSA CONSIDER ALL RELEVANT FACTORS IN THE COMMISSION'S POLICY STATEMENT AT 52 PA. CODE SECTION 69.3302 IN DEVELOPING THE MULTI-YEAR RATE PLAN?

A. Yes, the PWSA considered all factors listed in Section 69.3302 that are relevant to this type of alternative ratemaking mechanism. This includes cost and rate design factors, customer impact factors, administrative efficiency and regulatory lag factors, and reliability factors. Additionally, I am advised by counsel that Section 69.3302 provides a list of factors that the Commission *may* consider when evaluating alternative ratemaking mechanisms and rate designs, among other relevant factors. Ultimately, PWSA concluded that the MYRP proposal is a useful and reasonable approach to ratemaking for all the reasons I have discussed.

Q. MR. PAVLOVIC ARGUES THAT THE MULTI-YEAR RATE PLAN WILL NOT INCREASE ADMINISTRATIVE EFFICIENCY. (OCA ST NO. 4 AT 10-11). DO YOU AGREE?

A. No. One of the main reasons why the multi-year rate plan exist is to increase administrative efficiency. It helps entities to create more accurate organizational plans since rate levels are predetermined. Specifically, one of the areas that suffers when the multi-year rate plan is not in place is the budgeting cycle (both the Operating and Capital budget). The PWSA is required to have a PWSA Board approved Operating and Capital budgets in place by January 1 each year. Not knowing what the revenue levels will be for the following year forces the PWSA to "guess" what levels to assume when creating the budgets. This causes to the PWSA to be in a state of uncertainty until rates are finalized. As a result, capital projects are not initiated, operating budget contracts are not utilized, and staffing is held steady until rates are finalized. Thus, the less certain the PWSA is about revenue, the more negative impact on the normal functioning of the PWSA which is not in the interest of the PWSA's ratepayers.

Q. PLEASE RESPOND TO MR. PAVLOVIC'S POSITION THAT THE MULTI-YEAR RATE PLAN WILL NOT PROVIDE CERTAIN BENEFITS THAT THE PWSA HAS IDENTIFIED. (OCA ST. NO. 4 AT 11-13).

A. I do not agree with Mr. Pavlovic's position. He needs to realize that the multi-year rate plan would not be allowed if it eliminated "regulatory lag" and was a detriment to ratepayers. Having a multi-year rate plan would increase transparency by educating ratepayers on what rates will be in future years. It also allows the PWSA to implement better budgeting and capital planning practices since the revenue level are predetermined – which saves money.

Q. HOW DO YOU RESPOND TO MR. PAVLOVIC'S CRITICISMS THAT PWSA DID NOT PROPOSE ANY PERFOFMANCE METRICS TO ENSURE THE SAFETY AND RELIABILITY OF THE AUTHORITY'S SERVICE IS NOT DIMINISHED DURING THE MYRP PERIOD? (OCA ST. NO. 4 AT 7, 12).

A. This position does not appear to reflect the current reality of PWSA's transition to the jurisdiction of the Commission which has involved a thorough vetting of all of PWSA's systems and operations as part of the Commission's Compliance Plan proceeding (which is still on-going) with a resulting requirement that PWSA report on a monthly, quarterly, and annual cycle, various performance metrics for the organization. These reporting requirements are scheduled to continue through to October 2025. In addition, as explained in more detail in the Direct Testimony of Mr. Weimar, PWSA launched "Headwaters" publicly in January 2020 to measure PWSA's performance regarding five specific goals set forth in PWSA's 2017 "Focusing on the Future" Report. (PWSA St. No. 1 at 20-21). To the extent Mr. Pavlovic's view is rooted in the fear that PWSA will not continue to be well monitored and overseen by the Commission (and interested parties through the various on-going Compliance Plan Proceedings), there is simply no foundational support. I would also note that in Discovery, Mr. Pavlovic stated that he did not review PWSA's publicly available metrics through Headwaters and he also declined the opportunity to explain what types of performance metrics he would suggest for a MYRP.[5]

VII. THE PWSA's DSIC PROPOSAL

Q. HAVE THE PARTIES ALSO RAISED QUESTIONS ABOUT THE PWSA'S DSIC PROPOSAL?

A. Yes. OCA recommends a DSIC charge of 0% (for zero revenues). (OCA St. 2 at 8, 12; OCA St. 4; OCA St. 5). OCA witness Pavlovic states that the proposed DSIC is deficient. (OCA St. 4 at 3). OCA witness Mierzwa states that the infrastructure expenditures that the PWSA is proposing to recover through a DSIC should be recovered through the base rate process. (OCA St. 5 at 4). OCA witness Mierzwa further states that if the Commission approves a DSIC for the PWSA in this proceeding, then the charge should be 5% for both water and wastewater. (OCA St. 5 at 4, 8).

I&E recommends a DSIC charge of 5% for both water and wastewater. It does not agree with the PWSA's proposal to set the charge at 10%. (I&E St. 4 at 11). In doing so, Mr. Kubas states that both the PWSA's water and wastewater DSICs be set at 5%. (I&E St. 4 at 11, 14, 22). For clarity, I note that while the PWSA has a DSIC provision in its Tariff, it is not charging a DSIC currently and the Commission has not approved a DISC for the PWSA at any level. (I&E St. 8-9).

5 See PWSA Exh. EB-6: OCA Discovery Responses to OCA-V-1 and OCA-V-2.

OSBA recommends that the Commission cap any approved DSIC for the PWSA at 7.5%. (OSBA St. 1 at 4, 52.)

Q. PLEASE RESPOND TO MR. KUBAS' AND MR. MIERZWA'S CONCERN THAT THE DSIC CHARGES FOR WATER AND WASTEWATER SHOULD BE KEPT SEPARATE. (I&E ST. 4 AT 20-21; OCA ST. 5 AT 4, 8).

A. The proposals are separate. Each DSIC would be contained with the respective tariff, water or wastewater conveyance. In addition, the PWSA is only proposing to use the DSIC to fund "pay-as-you-go" ("PAYGO") expenditures. (OSBA St. 1 at 52).

Q. WOULD THERE BE SEPARATE ACCOUNTING MECHANISMS (BETWEEN WATER AND WASTEWATER) TO TRACK AND ACCOUNT FOR DSIC PROCEEDS AND EXPENDITURES?

A. Yes. This was never in doubt, since the PWSA agreed (in an earlier proceeding) to separately track and account for all DSIC proceeds and expenditures in a separate accounting mechanism, and to specifically designate all revenue collected through the DSIC to future DSIC-related spending, or refunds to customers, if necessary. (OCA St. 5 at 15.)

The PWSA further agreed, with regard to quarterly updates of the DSIC; to minimize over or undercollections, the PWSA agrees to adjust the DSIC percentage by October 1 if projected total billings and expenditures for the remainder of the year indicate that a material over or under collection of plus or minus 2% is likely to occur. However, the PWSA agrees to make adjustments in earlier quarters if it is able to accurately determine that a material over or under collection is likely to result by the end of the year. (OCA St. 5 at 14.)

To the extent that Mr. Mierzwa is suggesting that the PWSA is not living up to these prior agreements, he is wrong. The PWSA intends to honor these agreements. So, there is no need to explicitly adopt these prior agreements as conditions upon the approval of the DSIC, as recommended by OCA witness Mierzwa. (OCA St. 5 at 8-10, 14-15.)

Q. PLEASE RESPOND TO I&E WITNESS KUBAS' CRITICISMS OF COMPARISONS BY THE PWSA OF THE PWSA'S PROPOSED DSIC TO THE DSIC APPROVED FOR PHILADELPHIA GAS WORKS (PGW). (I&E ST. 4 AT 18-19.)

A. Both the PWSA and PGW operate on a cash flow basis. As explained, the PWSA modelled to the DSIC tariff provisions on the DSIC tariff provisions approved by the Commission for PGW.

The criticisms leveled by Mr. Kubas are not directed at the DSIC tariff provisions. His criticisms are directed at comparisons of the level of the DSIC. Moreover, I understand that PGW uses its DSIC to provide PAYGO funding to replace infrastructure that poses safety and reliability concerns. The PWSA will also be using its DSIC to fund infrastructure improvements that will make its system safer and more reliable (e.g., lead service lines).

Q. WHAT WOULD BE THE RESULT OF SETTING THE DSIC AT 0%?

A. The point of the DSIC is to fund annual capital replacements, extensions and improvements within the water and sewer system. This includes but is not limited to replacing meters, water laterals, sewer lines, valves, and hydrants. The full list of projects that would be eligible to be DSIC funded is included within the proposed LTIIP. The PWSA has historically lacked annual programs to replace infrastructure due to funding limitations. This has resulted in increased line breaks, poor quality of service, and service interruptions that are experienced today. The reason that the PWSA requested a DSIC is to implement a dedicated funding source to better service ratepayers by upgrading and improving the system. The motivation was not profit driven.

Setting the DSIC at 0% will restrict the PWSA's ability to proactively replace aged infrastructure and ratepayers will suffer as a result. In fact, most of the PWSA's capital dollars over the next 5-7 years are committed to large capital projects tied to regulatory mandates including its small diameter water main replacement program, through which PWSA is seeking to eliminate lead service lines in its system. This leaves minimal capital dollars available for the PWSA to start proactively replacing infrastructure, which would help to avoid being in this position in the future. Moreover, if the DSIC is set at 0% then the PWSA either must obtain the capital funding in its base rates or it will not be able to expend the funds. Ironically, I&E witness Spadaccio criticized the PWSA's proposal to establish an (additional) PAYGO amount in its base rates to provide additional cash to fund needed infrastructure improvements and argued that the preferred method of PAYGO funding would be through the DSIC (I&E St. 1 at 20-21). Mr. Spadaccio's testimony is directly contrary to OCA's 0% DSIC position.

Q. I&E'S DSIC RECOMMENDATION OF 5% WILL RESULT IN A REVENUE SHORTFALL OF APPROXIMATELY $9.83 MILLION COMPARED TO THE AMOUNT THAT WOULD BE RECOVERED UNDER THE PWSA'S PROPOSED DSIC. I&E ST. 4 AT 12. MR. KUBAS STATES THAT THIS SHORTFALL WILL BE COVERED BY ADDITIONAL PROPOSED REVENUE FROM UNMETERED CITY PROPERTIES. (I&E ST. 4 T 13-14, 19). PLEASE RESPOND.

A. One cannot speculate on what the PWSA could collect from unmetered City of Pittsburgh properties. Act 70 is now law and I am informed by counsel that the PWSA must follow the payment schedule that is defined in the Cooperation Agreement. This payment structure is reflected in the cost of service that was submitted as part of this tariff filing.

Q. PLEASE COMMENT ON OSBA'S DSIC RECOMMENDATION OF 7.5%. (OSBA ST. NO. 1 AT 51-54).

A. Any reduction to the DSIC cap of 10% (assuming that these funding amounts are not transferred to base rates which I do not believe OSBA is recommending) increases the chance of failures within the water and sewer system, which will cost ratepayers even more to repair. As I previously stated, the reason that the PWSA has requested a DSIC is to implement a dedicated funding source to better service ratepayers by upgrading and improving the system. Put another way – the DSIC is being requested for the benefit of ratepayers. The DSIC will enable the PWSA to implement annual replacement cycles for the infrastructure so that the PWSA can return to a world class utility.

As Mr. Kalcic states in St. 1 at 53, 4-6, the PWSA will need to increase water and wastewater rates in order to make up for the reduction in the DSIC. This supports the need to increase revenue to supply the PWSA with enough funding to complete capital requirements. However, the PWSA believes it is more equitable for ratepayers to fund the DSIC at 10% rather than reducing the DSIC and making up the difference in base rates. This will bring reassurance to ratepayers and the PUC that every dollar collected through the DSIC is being put to use on specific projects (as defined in the LTIIP).

Q. PLEASE RESPOND TO THE OBSERVATION OF MR. KUBAS THAT THE COMMISSION HAS LIMITED DISC CHARGES ABOVE 5% TO "LIMITED CIRCUMSTANCES." (I&E ST. 4 AT 12-13.)

A. I disagree with this observation. As stated in the PWSA's Petition, the Commission is empowered to, upon petition, grant a waiver of the 5% in order to ensure and maintain adequate, efficient, safe, reliable and reasonable service. *See* 66 Pa.C.S. § 1358(a)(1).

I understand that, in the past, the Commission allowed water utilities to implement DSIC charges of 7.5%. *See* 66 Pa.C.S. § 1358(a)(2). Mr. Kalcic characterizes this fact as being based on a "statutory DSIC rate cap" for water and wastewater utilities. (OSBA St. 1 at 52.)

Q. PLEASE RESPOND TO THE OBSERVATION OF MR. KUBAS THAT, ON A COMBINED BASIS, THE COMBINED DSIC CHARGES WOULD BE THE HIGHEST OF OTHER COMBINED UTILITIES. (I&E ST. 4 AT 13, 15-17).

A. I agree with this statement but do not believe that this fact is particularly relevant. The PUC has never regulated a municipal water and sewer utility with the amount of capital needs that the PWSA has, many of which are required to improve the safety and guard the health of our customers. Thus, having DSIC charges higher than any other regulated utility would be appropriate. Profit motives were not considered when requesting the DSIC. Rather, the PWSA analyzed the amount of capital needs required to continue to service current ratepayers while improving the water and sewer system for the next generation.

Q. PLEASE RESPOND TO THE DIRECT TESTIMONY OF MR. KUBAS AND MR. MIEZWA WHEREIN THEY STATE THAT THE PWSA HAS NOT DEMONSTRATED THE NEED FOR A DSIC CHARGE HIGHER THAN 5%. (I&E ST. 4 AT 13, 14-15; OCA ST. 5 AT 5-7.)

A. I disagree with that statement. The PWSA is currently under a Consent Order and Agreement to replace the Clearwell at the Water Treatment Plant as well as an Administrative Order to upgrade the Membrane Filtration Plant. In addition, the PWSA just satisfied its Consent Order and Agreement in July, 2020 related to violations of the Lead and Copper Rule. All of these regulatory mandates are a direct result of the lack of investment in the water and sewer system. Aside from a major failure within the system, these mandates clearly demonstrate the need for a DSIC. The PWSA could have mitigated these expensive regulatory mandates if funding for annual infrastructure replacements had been available in prior years. It should also be noted that the rate increase that went into effect in March, 2019 supported the PWSA's ability to satisfy the Consent Order and Agreement related to violations of the Lead and Copper Rule. This demonstrates the PWSA ability to restore the water and sewer system as additional funding is approved. Implementing the proposed rates and DSIC will only help the PWSA to continue to restore its infrastructure.

Q. PLEASE RESPOND TO I&E'S POSITION THAT THE PWSA IS "FORFEITING" AVAILABLE REVENUE. (I&E ST. 4 AT 12-13.)

A. Mr. Kubas states that the PWSA is forfeiting revenue from City properties and from unmetered City customers. (I&E St. 4 at 12-13.) However, I am advised by counsel that this position is no longer relevant now that Act 70 is law. The General Assembly has mandated that the PWSA must follow all requirement within the 2019 Cooperation Agreement with the City of Pittsburgh and that reality must be reflected in evaluating our need for infrastructure improvement investment.

Q. PLEASE RESPOND TO RECOMMENDATION THAT THE COMMISSION DENY THE PWSA'S REQUEST FOR WAIVER AND PROPOSAL TO UTILIZE AN ANNUAL, LEVELIZED CHARGE AS THE BASIS FOR ITS DSIC. (OCA ST. 5 AT 4, 8, 14.)

A. Like PGW, the only other cash flow basis municipal utility that the PUC regulates, the PWSA has requested an annual, levelized charge as a basis for its DSIC because it represents the most efficient way to administer a DSIC for a municipal utility using the DSIC to finance construction on a PAYGO basis. Without levelizing the DSIC the PWSA would be consigned to recovering cash expenditures after it had made them, resulting in additional cash working capital burdens on the Authority. Levelization results in the PWSA receiving the required level of funding throughout the year on a timely basis to complete capital projects while ensuring that ratepayers are not overcharged.

Municipal utilities are different from private utilities in that there are additional requirements and controls in place related to project controls and the procurement of project contracts. These controls are in place to protect public ratepayer dollars. While these controls are beneficial, they can prolong the timeline to complete and administer projects. Having an annual, levelized DSIC in place supports the timeline for these additional requirements/controls while ensuring ratepayers are not overcharged. The PWSA should not be compared to how private companies administer their DSIC charge since they are not required to follow the same standards as municipal entities.

Q. OCA WITNESS PAVLOVIC STATES THAT THE PWSA'S PROPOSED DSIC IS NOT TIED IN ANY MEANINGFUL WAY TO ITS CIP. (OCA ST. 4 AT 14, 19.)

A. The PWSA' DSIC proposal, like PGWs' actual DSIC, uses a levelized charge so that, on an annual basis, the PWSA will collect the recoverable costs for eligible plant additions that have been or are anticipated to be placed in service during the calendar year. At the end of this period, the PWSA will compare the amount collected with the amounts the PWSA actually expended to install eligible plant additions and refund any over recovery to ratepayers. Mr. Pavlovic is concerned that since the projected cost are not developed before the fiscal year, there is no way to compare expenditures on DSIC-eligible projects with DSIC revenues collected. (OCA St. 4 at 19-20.) That concern is misplaced because the PWSA (like PGW) must track both expenditures on DSIC-eligible projects and DSIC revenues collected and reconcile them after the year is completed. As any overcollection will be returned in the next year ratepayers will be completely protected.

Q. PLEASE RESPOND TO OCA WITNESS PAVLOVIC'S OPINION THAT THE PROPOSED DSIC IS DEFICIENT REGARDING STATUTORY AND COMMISSION REQUIREMENTS. (OCA ST. 4 AT 3.)

A. Mr. Pavlovic opines that the PWSA's proposed DSIC "is deficient regarding statutory and Commission requirements." (OCA St. 4 at 3). He claims that the PWSA's proposed DSIC will only be "consistent with the relevant requirements, if (1) the PWSA is in compliance with an approved LTIIP and (2) the Commission grants the requests in the PWSA's waiver petition." (OCA St. 4 at 16.)

Mr. Pavlovic correctly notes that "the Commission has not given final approval of the PWSA's LTIIP." (OCA ST. 4 at 16.) I would note, however, that on April 27, 2020, the PWSA filed its Amended Long-Term Infrastructure Improvement Plan[6] as directed by the Commission's March 26, 2020 Order in the consolidated compliance plan proceeding and we expect final PUC approval shortly.

I understand that the lack of an approved LTIIP does not preclude the Commission from granting the requests in the PWSA's waiver petition. The approval of the DSIC would establish the parameters of the charge itself. The approval of the PWSA's LTIIP would establish the eligible projects, since the LTIIP describes the PWSA's plans to implement a program to rehabilitate, improve, and replace aging water and sewer infrastructure and water lead service lines at an accelerated pace for the five-year period from 2019 to 2023. *See* Petition at 2. That plan prioritizes the acceleration of the PWSA: (a) lead service line replacement ("LSLR") program and (b) small diameter water main replacement ("SDWMR") program and is consistent with PWSA's current goal is to eliminate all public-side lead service lines from its system (and all associated private side lines for which the PWSA is authorized to and can feasibly replace) by 2026 through principally its SDWMR. *See* Petition at 2.

If the Commission decides to act upon the requested waivers and the DSIC prior to the approval of the PWSA's LTIIP the implementation of the Commission-approved DSIC by the PWSA would be subject to the Commission's subsequent approval of an LTIIP. This is the process that was followed when PGW successfully petitioned to

6 *Implementation of Chapter 32 of the Public Utility Code Re: Pittsburgh Water and Sewer Authority*, Docket No.s. M-2018-2640802 and M-2018-2640803, Order entered March 26, 2020 at 113, Ordering Paragraph No. 13 ("Stage 1 Compliance Plan Order")

increase its DSIC from 5% to 7.5%.[7] That being said, the PWSA's DSIC proposal is currently based on the Commission's approval of the PWSA requested waivers. If the waivers are granted by the Commission, the PWSA's DSIC (as proposed) will be compliant with the applicable directives. If any of the requested waivers are not granted or if additional conditions are imposed by the Commission, the PWSA will conform to the applicable directives - if it still intends to implement a DSIC.

Q. OCA WITNESS MIERZWA'S IS CONCERNED THAT PAYGO FINANCING IS INCONSISTENT WITH THE REGULATORY CONCEPT THAT THE COSTS ASSOCIATED WITH UTILITY INVESTMENTS SHOULD BE RECOVERED OVER THE USEFUL LIFE OF THE INVESTMENTS. (OCA ST. 5 AT 12-13.) CAN YOU COMMENT?

A. The PWSA has included two PAYGO funding sources within the tariff filing – one source of funding is from base rates and the other is from the DSIC. The source of funding through base rates specifically supports IT upgrades and vehicle replacement (items not eligible to be supported by the DSIC). It does not make sense to use debt to fund these assets because they have a very short useful life (less than 7 years). In addition, issuing debt for these items would be inefficient because the term of the bonds would be less than 7 years and the issuance amount would be less than $10 million on an annual basis. Issuing long-term debt would also not be smart financial management because the term of the bond would far exceed to useful of the asset funded.

The PAYGO funding source from the DSIC supports an array of eligible assets with different useful lives. However, using the DSIC as a source of PAYGO is the best option for two reasons: 1) there are DSIC eligible projects (such a meter replacements)

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[7] *See Petition of Philadelphia Gas Works for Waiver of Provisions of Act 11 to Increase the Distribution System Improvement Charge CAP and to Permit Levelization of DSIC Charges,* Docket No. P-2015-2501500, et al, Opinion and Order entered January 28, 2016 and Opinion and Order on Reconsideration entered July 6, 2016. PGW's DSIC percentage increase was approved subject to the Commission's approval of its LTIIP reflecting this higher DSIC allowance.

that have a short useful life. As previously explained, these projects are best funded using PAYGO given the inefficiencies of using debt (short-term or long-term); and 2) continuing to utilize debt to fund all capital projects will cause the system to be more overleveraged than it already is. For example, the Issuer Comment released by Moody's Investors Service on March 5, 2019 (PWSA Exhibit EB-3) states that "PWSA has adopted a $2.3 billion capital improvement plan, to be primarily funded with debt. This will significantly increase the authority's already outsized leverage position." Ignoring this fact would be irresponsible and will cause harm to ratepayers by limiting the amount of work that can be completed in the future. Pursuing a mix of funding sources (i.e. PAYGO, debt, Federal/State funding) is in the best interest the PWSA and its ratepayers.

Q. PLEASE RESPOND TO OCA WITNESS PAVLOVIC'S OPINION THAT THE PROPOSED DSIC VIOLATES BOTH THE REGULATORY PRINCIPLE OF RATABLE RECOVERY OF PLANT IN SERVICE ASSET COSTS AND INTERGENERATIONAL EQUITY. (OCA ST. 4 AT 3, 14, 21, 24-25.)

A. I do not agree with Mr. Pavlovic's opinion. He is misrepresenting intergenerational equity as it relates to the transmission/distribution and collection/conveyance systems. Piping infrastructure as a "whole system" is never replaced at one time like a pump station or treatment facility. Instead, utilities implement replacement projects each year to replace piping infrastructure. Even though this infrastructure may have a long useful life, it is prudent for utilities to establish a schedule of planned, systematic replacement of piping infrastructure each year. Utilities should plan to replace approximately 1-2% of their transmission/distribution and collection/conveyance systems each year, in perpetuity, so that they will eventually replace the whole system (after 50-70 years) and then start over again. Therefore, for this practice to truly adhere to the intergenerational equity argument, utilities should finance this programmatic annual replacement of piping infrastructure using cash, or PAYGO, in each given year. This ensures each generation is paying their fair share of piping system replacement.

Additionally, I would point out (again) that the PWSA's proposal to utilize the DSIC to finance capital improvements with cash expenditures in the year in which the asset is installed (PAYGO) is exactly the same as PGW's DSIC, which is also entirely devoted to financing capital improvements on a PAYGO basis.

Q. PLEASE RESPOND TO MR PAVLOCIC'S CONCERN THAT THE DSIC WOULD REDUCE THE ADMINISTRATIVE EFFICIENCY OF THE PWSA'S RATEMAKING. (OCA ST. 4 AT 14, 27.)

A. Mr. Pavlocic contradicts himself by supporting "regulatory lag" as it relates to the PWSA's proposed MRP by stating in ST. 4, 11 (3-5) "The administrative efficiency, from PWSA's perspective, and the elimination of regulatory lag would be to the detriment of its ratepayers and the public interest". However, he believes the PWSA's DSIC proposal should not be accepted because it adds an additional layer of administrative burden (i.e. "regulatory lag") on the resources of the PWSA, the Commission, and interested parties. Mr. Pavlocic's arguments clearly do not make sense.

The PWSA agreed to separately track and account for all DSIC proceeds and expenditures in a separate accounting mechanism, and to specifically designate all revenue collected through the DSIC to DSIC-related spending, or refund any over collections to customers, if necessary. This would not add an administrative burden to the PWSA because all revenues and capital costs are closely monitored now. The PWSA has the tools in place to easily implement these additional reporting requirements. This would also not be an administrative burden to the Commission or the interested parties because what the PWSA is proposing is the same process for how PGW administers their DSIC – meaning it is not a new concept for the Commission or interest parties.

Q. PLEASE RESPOND TO MR PAVLOCIC'S CONCERN THAT THE DSIC IS REDUNDANT. (OCA ST. 4 AT 14, 25.)

A. I do not agree with these concerns. Mr. Pavlocic argues that the DSIC is redundant because the PWSA should be using long-term debt to fund DSIC recoverable costs. He is not considering PWSA does use long term debt and that the PAYGO financing from the DSIC will facilitate the PWSA's approach of diversifying its funding sources to 1) maintain the lowest possible rates/charges, 2) complete critical infrastructure projects and 3) ensure that the system does not become more overleveraged more than it already is. Ignoring this approach and suggesting long-term debt should be the only source of funding is going to set the PWSA up for failure in the future. This failure would result in not enough debt capacity to fund capital needs.

VIII. PAYGO FINANCING

Q. PLEASE DESCRIBE THE PWSA'S PROPOSED SOURCES OF PAYGO FINANCING ESTABLISHED FOR THE FPFTY?

A. There are two proposed sources. First, all of the revenues from the DSIC would be used for PAYGO financing. Second, additional $7.0 million (which would be recovered through base rates) would be used for PAYGO financing.

Q. DID ANY OF THE PARTIES COMMENT ON THAT PROPOSAL?

A. Yes. I&E witness Spadaccio recommends that the entire $7.0 million (which would be recovered through base rates) be rejected. (I&E St. 1 at 19-20). In doing so, he implies that PAYGO funding should come from the Rate Stabilization Fund. (I&E St. 1 at 19-20).

In contrast, OCA witness Mugrace accepts PAYGO funding of $7,068,647. (OCA St. 2 at 57). He states that, in lieu of issuing additional debt to finance capital expenditures, PAYGO has the ability to lower debt costs and reducing potential rate impacts to ratepayers. (OCA St. 2 at 57).

Q. PLEASE RESPOND TO I&E WITNESS SPADACCIO'S POSITION THAT, RATHER THAN USE A GENERIC PAYGO LINE ITEM, THE PWSA SHOULD INSTEAD INCORPORATE SPECIFIC CAPITAL PROJECTS INTO ITS FPFTY PROJECTIONS TO BE SUPPORTED EITHER BY BASE RATES OR DSIC AND THAT DSIC IS THE PREFERRED MEANS OF FINANCING CONSTRUCTION ON A PAYGO BASISC. (I&E ST. 1 AT 20.)

A. The reason that the PWSA requested a PAYGO line item to be paid out of base rates is because there are capital assets that are not eligible to be funded by the DSIC. These assets have a short useful life and include new vehicle costs and IT upgrades. Included in the PWSA Exhibit EB-7 are the specific projects that make-up the PAYGO line item for FPFTY and the forecasted period in FY 2022 and FY 2023.

Q. PLEASE RESPOND TO I&E'S WITNESS SPADACCIO'S POSITION THAT NO PAYGO ALLOWANCE SHOULD BE PERMITTED IN BASE RATES BECAUSE THE RATE STABILIZATION FUND SERVES A VERY SIMILAR PURPOSE TO THE PAYGO. (I&E ST. 1 AT 21.)

A. I disagree with this statement. The rate stabilization fund should not be used to fund any capital expenses. The rate stabilization fund is designed to be a safety net to ensure that the PWSA can meet the required debt service coverage ratios at the end of each year in the event of unforeseen events, such a COVID-19. Taking away this safety net and using it for other purposes negatively impacts the PWSA's financial stability.

Q. PLEASE RESPOND TO I&E WITNESS SPADACCIO'S POSITION THAT PENNVEST FUNDING IS PREFERABLE TO PAYGO AND SHOULD BE USED INSTEAD OF A BASE RATE PAYGO ALLOWANCE. (I&E ST. 1 AT 21-22.)

A. The PAYGO capital expenses that are included in base rates are to cover items that are not eligible to be DSIC funded (such as vehicles and IT upgrades). These PAYGO expenses are not eligible to be funded by PENNVEST. Thus, base rates are the best place to fund these PAYGO expenses.

Q. OCA WITNESS HABR STATES THAT YOUR CLAIM THAT PAYGO FUNDING IS CHEAPER THAN DEBT FUNDING CAN ONLY BE BASED ON THE INTEREST EXPENSE ASSOCIATED WITH OUTSTANDING DEBT. (OCA ST. 3 AT 7-8). HE FURTHER STATES THAT PWSA HAS FAILED TO CONSIDER THE OPPORTUNITY COST OF MONEY FOR CUSTOMERS. (OCA ST. 3 AT 9-10). PLEASE RESPOND.

A. Mr. Habr 1) fails to include debt service coverage as a cost and 2) fails to recognize the cumulative cost of successive bond issuances. The PWSA is planning to issue new bonds every year. To compare the cost of financing assets with PAYGO verses debt financing one must consider that to finance the same increment of new construction each year through bonds, the cost is not the interest rate on a single bond, it's the interest rate PLUS the debt service coverage on bonds issued every year for the foreseeable future. As the figure I included in my direct testimony shows, the cost to the ratepayers of funding a portion of the CIP with debt rather than a DSIC becomes more expensive in a relatively short period of time.

Q. MR. HABR ALSO SUGGESTS THAT PAYGO FUNDING IS NOT PREFERRED TO BOND FUNDING BECAUSE BOND FUNDING SPREADS OUT THE COST OF THE CONSTRUCTION OVER A LONGER PERIOD THEREBY CHARGING THE CUSTOMERS WHO USE THE NEW FACILITY WITH THE COST IN THE SAME WAY THAT DEPRECIATION EXPENSE WOULD. (OCA ST. NO. 3 AT 7-8). IS THAT TRUE?

A. This is incorrect on several levels. First, as a cash flow regulated entity, the PWSA does not actually recover the cost of installing a new facility through depreciation expense in its rates, in the way that a rate of return/rate base utility does. It recovers it's investment through the charging of the long term debt costs or PAYGO. Because of this there is no financing vehicle that matches the service life of most water assets.

IX. <u>CONCLUSION</u>

Q. DOES THAT COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes; however, I do reserve the right to supplement this testimony as may be appropriate.

PWSA Exh. EB-4

Pennsylvania Public Utility Commission v.
Pittsburgh Water and Sewer Authority
Docket Nos. R-2020-3017951 (Water) & R-2020-3017970 (Wastewater)

Petition of Pittsburgh Water and Sewer Authority For Waiver of Provisions of Act 11 to Increase the DSIC CAP, to Permit Levelization of DSIC Charges, and to Authorize the Pay-As-You-Go Method of Financing
Docket No. P-2020-3019019

Responses of the Bureau of Investigation and Enforcement to the Pennsylvania Water and Sewer Authority's Interrogatories - Set IV
Witness: Anthony Spadaccio

PWSA-IV-1 Reference I&E St. No. 1 (Spadaccio) at 12 (lines 15-16), does Mr. Spadaccio acknowledge that Moody's downgraded the PWSA in October of 2018 from A2 to A3 largely due to a narrowing cash position? If yes, does Mr. Spadaccio agree that the PWSA must continue to increase the level of cash on hand in order to maintain its current rating?

Response: **Mr. Spadaccio acknowledges that PWSA's narrow cash position was one of several factors that lead to Moody's downgraded rating of A3 from A2. Obviously, more cash on hand leads to higher liquidity and supports higher credit ratings. As an example, another factor that led to the downgrade was the Authority's operating and maintenance inefficiencies. In the June 4, 2019 Moody's Credit Opinion (PWSA Exhibit EB-3), subsequent to PWSA's initial base rate case, its credit rating outlook was revised from negative to stable largely crediting PUC oversight and a "significant" rate increase.**

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission, *et al*	:	R-2020-3017951
	:	C-2020-3019348
v.	:	C-2020-3019305
	:	
Pittsburgh Water and Sewer Authority - Water	:	
Pennsylvania Public Utility Commission, *et al*	:	R-2020-3017970
	:	C-2020-3019349
	:	C-2020-3019302
v.	:	
	:	
Pittsburgh Water and Sewer Authority – Wastewater	:	
Petition of Pittsburgh Water and Sewer Authority	:	P-2020-3019019
For Waiver of Provisions of Act 11 to Increase	:	
The DSIC CAP, to Permit Levelization of DSIC	:	
Charges, and to Authorize the Pay-As-You-Go	:	
Method of Financing	:	

VERIFICATION

I, Anthony Spadaccio, hereby state that the facts set forth in my foregoing responses are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at any hearing. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities).

August 6, 2020
Date

/s/ Anthony Spadaccio
Anthony Spadaccio

PWSA Exh. EB-5

MOODY'S
INVESTORS SERVICE

CREDIT OPINION
15 October 2018

Rate this Research

Contacts

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CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Pittsburgh Water & Sewer Authority, PA

Update following downgrade to A3; outlook negative

Summary

Pittsburgh Water & Sewer Authority, PA's credit profile is highly constrained by its narrow cash position, with roughly 60 days' cash on hand expected at the close of 2018, well below average for similarly sized peers. While we expect definitive improvements to operations and controls given Pennsylvania Public Utility Commission oversight, effective as of April 2018, the Authority is also pressured by the need for major capital spending. The system's infrastructure has been impaired by years of disinvestment. Coupled with a substantial consent decree through ALCOSAN and elevated lead levels in the city's water, the Authority will necessarily add to its already high leverage in the near term.

Moody's downgraded Pittsburgh Water & Sewer Authority, PA's First Lien Revenue Bonds to A3 from A2 on October 15, 2018. Approximately $570 million of first lien revenue debt was affected by the rating action. The outlook remains negative.

Credit strengths

» Diverse, urban Pittsburgh (A1 stable) service area, supported by strong “eds & meds” presence

» Considerable size; system assets include water conveyance and treatment, and sewer conveyance that ties to ALCOSAN

» Significant rate increase just implemented; PUC oversight should bring improvements and controls

Credit challenges

» Substantial debt burden; debt ratio is 116%

» Narrow coverage and liquidity

» Long term inadequate maintenance of infrastructure has led to severe inefficiencies and has contributed to a projected $2.3 billion in capital improvement needs; plan to be implemented over ten years

» Projected doubling (roughly) of the capital budget within one year’s time presents further challenges to planning and administration

» Exposure to a large regional consent decree through ALCOSAN

» Elevated lead levels in water persist

Rating outlook

The negative outlook reflects our concern that historical operating and maintenance inefficiencies will continue, posing a challenge to full implementation of a much needed capital improvement plan. While the PUC has taken on an oversight role, and we expect the effects of regulation to be generally positive, PWSA is still in the beginning stages of addressing its major capital needs and operating deficiencies.

In the absence of substantially improved maintenance of the Authority's infrastructure, and a substantially improved liquidity position, the negative outlook reflects our expectation of continued downward rating pressure.

Factors that could lead to an upgrade

» Meaningful reduction in leverage

» Substantial improvement in liquidity that is maintained over several reporting periods.

Factors that could lead to a downgrade

» Further narrowing of debt service coverage and liquidity position

» Inability to raise rates with necessary frequency to meet debt service coverage covenants while also funding significant deferred capital improvements

» New revenues not deployed effectively to address near term infrastructure and operating needs

» Escalation of environmental concerns, particularly lead levels in treated drinking water

Key indicators

Exhibit 1

System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	43 years				
System Size - O&M (in $000s)	$157,220				
Service Area Wealth: MFI % of US median	87.1%				
Legal Provisions					
Rate Covenant (x)	1.10				
Debt Service Reserve Requirement	DSRF funded at lesser of standard 3-prong test (Aa)				
Management					
Rate Management	A				
Regulatory Compliance and Capital Planning	Baa				
Financial Strength					
	2013	2014	2015	2016	2017
Operating Revenue ($000)	$142,657	$164,255	$174,164	$180,727	$202,996
System Size - O&M ($000)	$109,254	$125,766	$131,694	$148,593	$173,392
Net Revenues ($000)	$47,112	$53,014	$57,455	$49,174	$47,071
Net Funded Debt ($000)	$761,001	$756,321	$747,615	$727,526	$817,394
Annual Debt Service ($000)	$43,770	$47,519	$58,346	$59,380	$57,818
Annual Debt Service Coverage (x)	1.08	1.12	0.98	0.83	0.81
Cash on Hand	113 days	91 days	78 days	53 days	23 days
Debt to Operating Revenues (x)	5.3x	4.6x	4.3x	4.0x	4.0x

Source: Moody's Investors Service and Pittsburgh Water & Sewer Authority audited financial statements

Profile

PWSA is an authority of the city of Pittsburgh, providing water treatment and conveyance to 84% of the city's population and sewer conveyance for the entire city.

Detailed credit considerations

Service Area and System Characteristics: Large and Stable Pittsburgh Service Area; Considerable Aged Infrastructure Concerns

The authority provides water distribution and wastewater collection and conveyance for the city of Pittsburgh and neighboring municipalities. The city's healthy and growing economy, as well as its exposure to the strong “eds & meds” presence from healthcare and higher education institutions, are positives for the authority.

The authority's 10 largest customers (33% of revenues) include Riverbend Properties (formerly Bay Valley Foods), Fox Chapel Authority (Aa3 no outlook), University of Pittsburgh (Aa1 stable), Carnegie Mellon University, Allegheny County (A1 positive), the city's public housing authority, and a state prison. All of the authority's five largest customers have been in the city for at least 75 years.

The authority continues to maintain an ample water supply, providing water to a population of approximately 306,000. The system is permitted to draw up to 100 million gallons per day (MGD) from the Allegheny River, its sole water source, though average demand for water is well below that level, at 70 MGD. The authority treats drinking water at one plant located on the river, as well as a microfiltration plant at one of its reservoirs. The authority has capacity to store approximately 3 days' worth of finished water for uninterrupted supply to its customers.

The authority does not treat wastewater. It transmits all of its sewage to the Allegheny County Sanitary Authority (ALCOSAN, revenue bonds rated A1). There is no contractual limit to the amount of sewage that can be conveyed, however, during wet weather events, the existing system frequently overflows.

The system currently experiences unusually large water loss. The authority estimates that it loses close to 50% of its pumped water annually due to its aged infrastructure and insufficient maintenance. This is perhaps an over-estimate, but definitive loss is not currently calculable, as key points of the system are not metered. A modernization of the metering system with mapping is a crucial part of the authority's latest five year Capital Improvement Plan (CIP). Other important improvements include engaging enough personnel to carry out maintenance of the system's general infrastructure up to current industry standards. These kinds of ordinary updates and infrastructure improvements are sorely lacking today, adding to cost inefficiencies, and exacerbating the natural wear and tear on an already aged system.

In April of 2016, the authority was ordered by the Pennsylvania Department of Environmental Protection (PADEP) to test for lead in the drinking water treated by PWSA, related to an unauthorized use of alternative corrosion control chemicals. Samples from 100 homes in June 2016 found lead of 22 parts per billion (ppb) at the 90th percentile. The EPA action level for lead at the 90th percentile is 15ppb, at which level additional testing in terms of frequency and number of samples is required and mitigation efforts are needed. About 83% of sample results were below the action level and some were non-detect. The authority believes these lead readings are due to lead in the pipes bringing water to individual homes, rather than lead in system mains. The largely random dispersion of where high lead levels have been found seems to support this hypothesis.

In June 2018, the authority had its first lead level reading below the EPA threshold in two years, at 10ppb at the 90th percentile. The authority continues to comply with pipe replacement requirements, and will continue to test for lead through December 2018.

Debt Service Coverage and Liquidity: Rate Increase To Strengthen Debt Service Coverage

Liquidity and reserve levels continue to narrow, with the authority reporting an $11 million operating deficit in 2017, reducing cash to $11 million at year end 2017, or a very narrow 29 days' cash on hand in the operating fund. When reserve funds are included, the days cash calculation improves to 54 days, though this is well below the authority's own historical operating norms as well as deficient versus similarly sized peers. Median days' cash on hand for Moody's-rated water and sewer systems in the US generating revenues of more than $100 million annually is 392 days.

Also as of audited 2017 financials, debt service coverage absent the use of free cash is below one time, at 0.81x, falling below the previous years' coverage of 0.96x. We note that PWSA is not in violation of its bond covenants, as its indenture allows for the use of free cash to meet debt service requirements through fiscal year 2018. Beginning in 2019, however, the authority must meet a 1.10x coverage test on its consolidated debt service and a 1.25x coverage test on its senior debt service without the use of free cash. Notably, median debt service coverage for the above referenced peer group is 2.2x as of fiscal 2017, again well above PWSA's coverage ratio.

The authority implemented a 28% rate increase in early 2018 in order to meet its new covenant requirements. It also applied for a subsequent 17% rate increase with the PUC in July, thought the commission has 270 days to approve or deny the request, which could delay further revenue increases until the first quarter of 2019. The authority has publicly projected a -$7.5 million operating deficit for fiscal 2018. We believe this estimate to be conservative, largely due to the fact that the authority has not begun several projects that it had originally budgeted for the year. This should provide PWSA with a reserve cushion that is more favorable than current projections indicate, but the deferred projects are necessary and integral to the system's basic operations; continued delays to system maintenance are a strong credit negative.

The authority's substantial fixed cost burden also continues to pose credit concern. Total debt service, including ordinary swap payments, was a considerable $52 million during fiscal year 2017, or 39% of total operating revenue. Debt service is the second largest expense the authority has after its "direct operating expense" of $70 million. This level of fixed costs is problematic, as it reduces financial flexibility and crowds out other spending. The authority will necessarily increase its debt burden in the near term to address the beginning stages of its $2.3 billion CIP.

We further note that at the time of our last review, the authority had expected 2017 to end with a surplus, while the actual result was a material deficit. The authority's fiscal challenges continue to be exacerbated by poor management and high turnover in senior administration. Unreliable information will also continue to pose negative credit pressure for the authority.

LIQUIDITY

The authority has projected ending days' cash on hand for 2018 to be a narrow 56.8 days' including reserve monies, and a meager 8.8 days' when reserves are excluded. Our best estimates, based on year-to-date financials as of October 2018, show a somewhat more favorable cash position. Should the authority's original projections actually be realized, liquidity concerns would further pressure the credit profile.

Liquidity for capital expenditures is supported by an $150 million revolving credit facility with JP Morgan Chase Bank, NA (Aa2 (cr)). An emergency $20 million liquidity line is in place with PNC Bank, NA (A2 (cr)).

Debt and Legal Covenants

The authority introduced a new indenture in 2017, which strengthened the rate covenant. The new requirement is 125% of senior debt service coverage plus 110% of subordinate debt service coverage. Free cash will no longer be used to increase coverage under the new indenture. The new test is effective for fiscal year 2019.

DEBT STRUCTURE

The additional borrowing implied by the authority's capital needs will increase an already elevated debt burden. The authority's total debt is equal to 116% of fixed assets, well above similarly sized peers. The outstanding debt amortizes slowly, with only 36% of principal scheduled to be repaid in the next 10 years.

The authority maintains pronounced risks associated with its debt profile in the face of already-narrow coverage levels. The authority's $675 million of bonded debt includes $570 million of senior-lien bonds, and $104 million of privately placed subordinate-lien bonds. The authority also maintains $33 million outstanding in PennVest loans and an $80 million revolving credit facility, of which $52 million is currently drawn. With the 2017 indenture, the PennVest loans and JPM revolving credit facility, previously third lien debt, will now be allowable as parity to the subordinate bonds.

All of the subordinate-lien bonds and roughly $219 million of senior-lien bonds are variable rate (approximately 48% of total bonds outstanding). The 48% rate is down from a high of 55%. Assured Guaranty Municipal Holdings Inc. (Baa2 stable / A2 insurance financial strength) insures much of the authority's variable rate bonds and all of the authority's swaps, and provides the surety policy for all debt service reserve funds. This counterparty concentration may adversely impact the authority should AGM's credit quality deteriorate. In addition, the authority's VRDO debt requiring liquidity and credit support is provided by Bank of America, N.A. (23%, A1 (cr)), and PNC Bank, N.A. (45%, A1 (cr)). The remaining variable rate debt is privately placed.

DEBT-RELATED DERIVATIVES

The authority has entered into floating-to-fixed rate swaps in connection with all of its variable rate debt ($322 million) under ISDA Master Agreements with JPMorgan (64%) and Merrill Lynch and Co., Inc. (36%, Baa1 RUR), whereby the authority pays a fixed interest rate semi-annually (4% on average) and receives SIFMA monthly.

AGM provides swap insurance for all swaps and, despite a negative $91 million aggregate mark-to-market as of October 2017, no collateral is required to be posted unless an Insurer Event occurs. The amortization schedule for each swap mirrors that of the corresponding bonds and the swaps terminate at bond maturity. For all of the swaps, per the 2017 indenture, regularly scheduled swap payments are subordinate to subordinate bond debt service. Early termination is optional for the authority only, and termination by the counterparty depends upon specified termination events, including the downgrade of PWSA's underlying rating below investment grade. An authority termination payment would be subordinate to first and second lien debt service payments.

PENSIONS AND OPEB

The authority's employees participate in the city's pension program. However, the authority itself is under no obligation to the city to fund any portion of the city pension plan.

Management and Governance

Continued turnover at the senior managing level of the authority is a considerable credit concern and, in our view, has negatively impacted the authority's ability to provide accurate and timely information.

Management volatility is particularly concerning here, since the system has overwhelming capital needs, not only in its infrastructure, but also in its technology systems. Strong leadership will be critical given the proposed plan. In order to achieve the improvements set out in the CIP, even if only near term projects are considered, the authority will require consultants, extensive planning, and sizeable staff increases. Without strong governance, continued unresolved inefficiencies are a major concern. The authority also manages an extensive swap portfolio and a relatively tight liquidity position; strong governance of its finances is also crucial to the authority's future success.

The authority is currently managed by a seven member board, with at least six members appointed by the mayor and one by the city council. The authority provides water at no cost to city-owned buildings and public areas. The city and authority are in the process of renegotiating their cooperation agreement to more accurately reflect the exchange of services provided.

Pennsylvania's Public Utility Commission began oversight of the authority in April 2018. The PUC is responsible for regulating the authority's rate making, operating effectiveness, and debt issuance. We expect that the PUC will help to bring standardization and effective governance to the authority's future operations. While we expect the PUC to approve rate increases that will help PWSA to comply with its bondholder covenants, but the approval process for increases can be lengthy, and could pose short term pressures for the authority.

REPORT NUMBER 1145668

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Moody's
INVESTORS SERVICE

PWSA Exh. EB-6

Pennsylvania Public Utility Commission
v.
Pittsburgh Water and Sewer Authority (PWSA)
Docket Nos. R-2020-3017951 (Water)
R-2020-3017970 (Sewer)
2020 Base Rate Case Proceeding

Petition of Pittsburgh Water and Sewer Authority for Waiver of Provisions of Act 11
Docket No. P-2020-3019019

RESPONSE TO
PWSA INTERROGATORIES TO OCA, SET V

1. Reference OCA St. No. 4 at 7 (Pavlovic), identify the specific performance metrics OCA recommends should be a part of PWSA's proposed Multi-Year Rate Plan. Please provide specificity regarding the nature of the specific metric, the evaluation criteria, and the optimal target or benchmark for each metric.

Response:

Dr. Pavlovic does not recommend that PWSA adopt an MRP at this time and makes no recommendations regarding specific performance metrics.

Pennsylvania Public Utility Commission
v.
Pittsburgh Water and Sewer Authority (PWSA)
Docket Nos. R-2020-3017951 (Water)
R-2020-3017970 (Sewer)
2020 Base Rate Case Proceeding

Petition of Pittsburgh Water and Sewer Authority for Waiver of Provisions of Act 11
Docket No. P-2020-3019019

RESPONSE TO
PWSA INTERROGATORIES TO OCA, SET V

2. Reference OCA St. No. 4 at 7 (Pavlovic), has OCA evaluated PWSA's Organizational Performance Improvement Dashboard available at https://headwaters.pgh2o.com/? Please explain why or why not the metrics reported therein are insufficient to support the ability to evaluate PWSA's performance for purposes of evaluating a Multi-Year Rate Plan proposal.

Response:

Because PWSA has neither presented the referenced dashboard metrics as a functional part of its proposed MRP nor explained how the dashboard metrics would impact the proposed MRP rates, Dr. Pavlovic has not evaluated the dashboard metrics and has no opinion regarding the dashboard metrics.

Pennsylvania Public Utility Commission
v.
Pittsburgh Water and Sewer Authority (PWSA)
Docket Nos. R-2020-3017951 (Water)
R-2020-3017970 (Sewer)
2020 Base Rate Case Proceeding

Petition of Pittsburgh Water and Sewer Authority for Waiver of Provisions of Act 11
Docket No. P-2020-3019019

RESPONSE TO
PWSA INTERROGATORIES TO OCA, SET X

1. Reference OCA St. No. 3 (Habr) at 6 (lines 7-8), can Mr. Habr explain why the proposed senior debt service coverage ratio was based on the median total debt service coverage ratio from the 2015 through 2019 period rather than the median senior debt service coverage ratio for that same period?

Response:

Dr. Habr noted at OCA Statement 3, page 5 beginning at line 2, that his "goal is to arrive at a debt service coverage ratio that does not add to the burden customers are carrying as a result of the COVID-19 pandemic while still providing PWSA with sufficient funds to maintain investment grade bond ratings." The 1.49 debt service coverage ratio fulfils these criteria.

Sponsoring witness: David Habr

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	Docket Nos. R-2020-3017951 (Water)
v.	:	C-2020-3019348
	:	R-2020-3017970 (WW)
Pittsburgh Water and Sewer Authority	:	C-2020-3019349
	:	
Petition of Pittsburgh Water and Sewer Authority for Waiver of Provisions of Act 11 to Increase the DSIC CAP, to Permit Levelization of DSIC Charges, and to Authorize the Pay-As-You-Go Method of Financing	:	Docket No. P-2020-3019019

VERIFICATION

I, Dante Mugrace, hereby state that the facts set forth in my response to Pittsburgh Water and Sewer Authority's Interrogatories, Set IX, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: August 13, 2020
*293932

Signature: Dante Mugrace
Dante Mugrace

Consultant Address: PCMG and Associates
90 Moonlight Court
Toms River, NJ 08753

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority	: : : : :	Docket Nos. R-2020-3017951 (Water) C-2020-3019348 R-2020-3017970 (WW) C-2020-3019349
Petition of Pittsburgh Water and Sewer Authority for Waiver of Provisions of Act 11 to Increase the DSIC CAP, to Permit Levelization of DSIC Charges, and to Authorize the Pay-As-You-Go Method of Financing	: : : : :	Docket No. P-2020-3019019

VERIFICATION

I, David S. Habr, hereby state that the facts set forth in my response to Pittsburgh Water and Sewer Authority's Interrogatories, Set IX, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: August 13, 2020
*293941

Signature: David S. Habr
David S. Habr

Consultant Address: Habr Economics
213 Cornuta Way
Nipomo, CA 93444-5020

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority	: : : :	Docket Nos. R-2020-3017951 (Water) C-2020-3019348 R-2020-3017970 (WW) C-2020-3019349
Petition of Pittsburgh Water and Sewer Authority for Waiver of Provisions of Act 11 to Increase the DSIC CAP, to Permit Levelization of DSIC Charges, and to Authorize the Pay-As-You-Go Method of Financing	: : : : : :	Docket No. P-2020-3019019

VERIFICATION

I, Karl R. Pavlovic, hereby state that the facts set forth in my response to Pittsburgh Water and Sewer Authority's Interrogatories, Set IX, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: August 13, 2020
*293938

Signature: Karl R. Pavlovic
Karl R. Pavlovic

Consultant Address: PCMG and Associates, LLC.
22 Brookes Avenue
Gaithersburg, MD 20877

PWSA Exh. EB-7

Proposed PAYGO Projects To Be Paid Out Of Rates

		FY 2021	FY 2022	FY 2023
Enterprise Resource Planning (IT Upgrade)	$	5,909,647	4,298,794	-
Vehicle and Major Equipment Upgrade		1,204,000	-	3,199,234
GIS System Upgrades: Water (IT Upgrade)		-	800,000	600,000
Computerized Maintenance Management System (IT Upgrade)		-	-	3,335,531
TOTAL	**$**	**7,113,647**	**5,098,794**	**7,134,765**

VERIFICATION

I, Edward Barca, hereby state that: (1) I am the Director of Finance for The Pittsburgh Water and Sewer Authority ("PWSA"); (2) the facts set forth in my testimony are true and correct (or are true and correct to the best of my knowledge, information and belief); and, (3) I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: August 18, 2020

Edward Barca
Deputy Director of Finance/Treasurer
The Pittsburgh Water and Sewer Authority