**Pennsylvania Public Utility Commission**

**Technical Staff Initial Report**

**And Directed Questions**

**Stage 1**

Pittsburgh Water and Sewer Authority

Compliance Plan

Docket No. M-2018-2640802 (water)

Docket No. M-2018-2640803 (wastewater)

November 28, 2018

Corrected



Along with establishing a procedure to refer the Pittsburgh Water and Sewer Authority (PWSA) Compliance Plan (CP) to the Office of Administrative Law Judge (OALJ) for hearings, the September 26, 2018 Secretarial Letter at Docket Nos. M-2018-2640802 (water) and M-2018-2640803 (wastewater) also directed Commission technical staff to develop an initial report to accompany that referral to OALJ. The initial report was to consist of directed questions or issue areas to be developed and addressed by PWSA and interested Parties to assist the Commission in its review and approval of a CP consistent with the goals of 66 Pa. C.S. § 3204(b). Namely, that Section directs that the Compliance Plan work to:

bring [PWSA’s] existing information technology, accounting, billing, collection and other operating systems and procedures into compliance with the requirements applicable to jurisdictional water and wastewater utilities under this title and applicable rules, regulations and orders of the commission.

66 Pa. C.S. § 3204(b). In addition, Section 3204(c) provides direction on how the Commission is to conduct its review of the required Compliance Plan. That Section provides that the:

commission shall review the compliance plan filed by [PWSA] under subsection (b) and may order [PWSA] to file a new or revised compliance plan if the compliance plan fails to adequately ensure and maintain the provision of adequate, efficient, safe, reliable and reasonable service.

66 Pa. C.S. § 3204(c). The Technical Staff Initial Report and Directed Questions work to ensure that areas addressed in Section 3204(b) are subject to the review mandated by Section 3204(c). Also, the matters addressed in the Initial Report and Directed Questions are tentative given Commission authority to cause PWSA to reiterate its CP as necessary to achieve compliance with Section 3204(c). The CP generally follows the organizational structure of Commission regulations and the report follows suit. Because of this, Parties should not assign relative importance or priority based on whether issues appear earlier or later in the report.

As is directed in the Secretarial Letter to which this Initial Report is attached, PWSA and interested parties are to address the questions and issues in the report to the extent that each believes appropriate and necessary to obtain a Compliance Plan suitable for approval under 66 Pa. C.S. § 3204.

**Documents Supporting the Compliance Plan**

In various locations throughout the Compliance Plan (CP), PWSA indicates that the CP relies on other foundational documents. For example, PWSA references a Capital Improvement Plan at page 22 of the CP and a 40 Year Plan at CP page 28. While some version of these foundational documents may be publicly available, it is unclear which version of these PWSA would use in support of the CP. To that end, PWSA shall introduce into evidence those materials it intends to use as support for the CP. These include, but are not limited to, the following documents referenced in the CP:

1. The Organizational Plan referenced at CP page 9.
2. The formal plan to document all stormwater assets and conditions at CP page 14.
3. Memorandum of understanding between the City and PWSA for operation, maintenance, repair, and capital improvements related to stormwater and the City at CP pages 14-15.
4. The 2017 PWSA prepared responses to the U.S. EPA Municipal Separate Storm Sewer Systems stormwater permit at CP page 14.
5. The management audits referenced at CP page 17 including: The Performance Audit Report by the Office of City Comptroller; a City-sponsored assessment by Infrastructure Management Group (IMG); and the Pennsylvania Department of Environmental Protection (PA DEP) and U.S. EPA audits.
6. The PWSA Capital Improvement Plan for years 2017 – 2021 referenced at CP page 22.
7. The October 25, 2017 Administrative Order of the PA DEP referenced at CP page 22.
8. The schedule of Capital Improvement Projects filed by PWSA with the PA DEP on or about November 30, 2017 in response to the October 25, 2017 Administrative Order, if different from the PWSA Capital Improvement Plan for years 2017-2021 referenced at CP page 22.
9. The September 18-22, 2017 PA DEP Comprehensive Performance Evaluation for the Aspinwall Water Filtration Plant referenced at CP page 22.
10. The Wet Weather Feasibility Study, Wet Weather Plan and Long-term Wet Weather Control Plan referenced at CP page 24 to the extent that these affect the CP.
11. The Green First Plan referenced at CP page 25 to the extent that it affects the CP.
12. The PWSA 40 Year Plan referenced at CP page 28 (Chester Engineers, n. 28).
13. The 12-year plan “Pittsburgh’s Water Future 2030 and Beyond.”

**Projected Expenditures**

The PWSA Compliance Plan (CP) at page 7 notes that PWSA will increase its capital expenditures from approximately $60 million in 2018 to $155 million in 2019, $256 million in 2020, and $327 million in 2021. Parties should discuss:

A. PWSA projections beyond 2021 consistent with foundational documents such as the PWSA Capital Improvement Program, the 40 Year Plan, and the LTIIP at Docket Nos. P-2018-3005037 (water) and P-2018-3005039 (wastewater.)

B. The specific means and methods by which PWSA will finance such significant increases in annual capital expenditures e.g., with appropriate disaggregation between the sources of funds such as internally generated funds, outside borrowing, and potential grants.

C. Each of the projects in the Capital Improvement Plan (CIP) and how PWSA expects to finance those projects.

D. Whether the implementation of a Distribution System Improvement Charge (DSIC) is consistent with PWSA’s plans to increase capital spending and with the corresponding LTIIP.

**System and Operations Activities**

The CP at page 22 notes that PWSA is complying with a 2017 Administrative Order from the PA DEP to ensure completion of the most urgent water supply projects. The CP on page 22 also notes that PWSA’s CIP will address issues in the Aspinwall Plant and improvements to the rising main system. The CP further states that PWSA utilized PA DEP Administrative Orders to incorporate other key system upgrades and measures to improve system reliability and resilience in the CIP. Regarding these system reliability and resiliency projects, parties should discuss the following areas:

1. How PWSA will address projects specific to issues identified in the October 25, 2017 Administrative Order and CIP. The individual design engineer, company affiliation and the estimated cost, funding source, timeline, and milestone dates should be identified for each of the following projects:
   1. Aspinwall Treatment Plant Pretreatment Chemical System and Clarification Improvements;
   2. Aspinwall Treatment Plant Electrical and Backup Power Improvements;
   3. Large Diameter Water Main Improvements – Rising Mains 3 & 4 to Highland Reservoirs 1 & 2;
   4. Highland Reservoir Pump Station and Rising Main;
   5. Aspinwall Water Treatment Plant High Service Pumping;
   6. Aspinwall Clearwell Emergency Response Project;
   7. Aspinwall Clearwell Improvements;
   8. Aspinwall Pump Station to Lanpher Reservoir Rising Main Project;
   9. Lanpher Reservoir Improvements;
   10. Washout Disconnection Project;
   11. Highland Park Membrane Filtration Plant Improvements Project; and
   12. Bruecken Pump Station Improvements Project.
2. How PWSA will address the following projects specific to issues identified in the November 17, 2017 PWSA-PA DEP Consent Order and Agreement including the identity of the individual design engineer and the estimated cost, funding source, timeline, and milestone dates for each of the following projects:
   1. Addition of Several Orthophosphate Injection Points and Equipment for Corrosion Control Project;
   2. Lead Service Line Replacement Project, including how PWSA determined to limit its lead line replacement policy to single-family residential properties with services lines of 1-inch or less.
3. Whether PWSA can compile a list of water supply, production and storage projects and wastewater conveyance projects in a format like that of an LTIIP. Regarding water supply, production and storage projects and wastewater conveyance projects, the parties should:

1. Describe in detail the process that will be employed when selecting projects to be competitively bid;

2. Describe in detail how bids are solicited for those selected projects. Provide a summary and copy of the procedure(s) controlling the bidding process.

3. Describe if there is an existing contractor pre-qualification process in place and how contractors are evaluated for cost-effectiveness.

4. Provide an approximate number or percentage of projects that are to be competitively bid;

5. Describe any Request for Proposal (RFP) process or procedure utilized by PWSA and provide sample contract and RFP documents, if an RFP process or procedure exists; and

6. Describe how PWSA intends to finance each selected project.

**Comprehensive Performance Evaluation**

The CP does not address how the CP is integrated with the September 18-22, 2017 PA DEP Comprehensive Performance Evaluation for the PWSA Aspinwall Water Filtration Plant. Parties should discuss whether and how the CP adequately addresses that evaluation of the operation and management of the Aspinwall Water Filtration Plant.

**52 Pa. Code § 65.2 - Accidents**

The CP at page 49 discusses PWSA’s compliance with Chapter 65. Regarding 52 Pa. Code § 65.2, Parties should discuss when and how PWSA intends to notify Commission staff of reportable accidents via the one-page accident form UCTA-8.

**52 Pa. Code § 65.7 - Metered Service**

The CP at pages 55-56 discusses PWSA’s plans for metering customers and indicates that it does not expect to fully comply with the Commission’s metering requirements for approximately five years. The CP indicates that PWSA intends to use contractors to achieve full compliance within that time and recover some costs from the City of Pittsburgh (City). Regarding these proposals, parties should discuss:

1. Why contractors are necessary for this program.
2. Whether the Public Utility Code provides for any proposed charge for meter installation and other related appurtenances (i.e., additional plumbing, meter pits, backflow prevention devices, etc.) and if PWSA’s proposed tariff adequately addresses requirements for meter installation and other related appurtenances.
3. Whether the CP complies with the provisions of 52 Pa. Code § 65.7(b) requiring notice to customers that explains the responsibilities of the customer and PWSA regarding meters.
4. Whether and how the 5-year time horizon for the metering of municipal buildings can be accelerated.

**52 Pa. Code § 65.8 - Meters**

The CP at pages 56-58 indicates that PWSA has as many as 50,000 meters out of compliance with Commission meter testing requirements and plans to achieve compliance by 2022. Regarding PWSA’s plan for meter testing and replacement, parties should discuss:

1. How PWSA might comply with the Commission’s metering requirements through detailed year-over-year compliance schedules and supporting documentation.
2. If PWSA’s indicated goal to test and replace 10-25% of the 2,800 commercial meters on an annual basis is adequate to achieve compliance by the 2022 goal.
3. The appropriateness of the 2022 goal.
4. Any formulas that PWSA may seek to use to establish rates for testing meters larger than 2 inches.
5. If any meters without test records exist within the system.
6. The adequacy of the meter testing facilities proposed and currently available.
7. The feasibility of immediately implementing a meter testing triage plan with the following hierarchy:
8. Testing out-of-compliance meters used to provide high volume service.
9. Testing out-of-compliance meters used to provide mid-volume service.
10. Testing out-of-compliance meters used to provide residential and other low-volume service.
11. Providing for customer-generated meter testing requests.

**52 Pa. Code § 65.11 - Mandatory Conservation Measures**

The CP at pages 59-60 indicates that jurisdictional utilities shall file plans of their contingent mandatory conservation measures with the Commission as part of their tariff rules and regulations and that, while PWSA does not currently have a contingency plan, the topic is included in the utility’s emergency response plan and anticipates compliance by 2020.

1. Parties should examine the language in the PWSA proposed tariff to determine if provisions for voluntary and mandatory water restrictions (pages 60-62 of proposed tariff) are adequately addressed.
2. Parties should review, on a confidential basis, the PWSA Emergency Response Plan.
3. Parties should discuss whether PWSA should aggressively pursue interconnections with other regional water suppliers to enhance system resiliency.

**52 Pa. Code § 65.12 - Notice of Desire to Have Service Discontinued**

The CP at page 60 indicates that a customer who is about to vacate any premises or who wishes to have service discontinued shall give at least 3 days’ notice to the utility, specifying the service discontinuation date. Parties should discuss:

1. PWSA’s proposed tariff, which requires 7 days’ notice to discontinue service (pages 41-42 of proposed tariff).
2. The language and format of PWSA’s current suspension and termination notices.
3. PWSA’s method of providing suspension and termination notices to the customer.

**52 Pa. Code § 65.14 - Measurement**

The CP at page 61 indicates that PWSA is working with a consultant and several contractors to reestablish operation of the intake meters and an additional meter at Fox Chapel Pump Station to be operational at end of 2018. Parties should discuss whether:

1. This aspect of the CP satisfies Section 65.14 (b).
2. This work should be detailed and included in PWSA’s Capital Improvement/Investment Plan.
3. The CP adequately addresses the raw water meter analysis presented in the PWSA 40 Year Plan of 2012 at page 4-40, Table 4-3.

**52 Pa. Code § 65.16 - System of Accounts**

The CP at page 63indicates that PWSA will have the ability to generate reports of financials under the NARUC uniform system of accounts (NARUC USOA) as early as 2020, but no later than 2021. Parties should discuss whether:

1. The PWSA proposal to generate financial reports by the NARUC USOA, in lieu of a full conversion to the NARUC USOA, adequately complies with Section 65.16.
2. The PWSA proposed timeline for implementation is reasonable and appropriate.

**52 Pa. Code § 65.17 - Standards of Design**

The CP at page at 64 indicates that PWSA has been actively working to replace all 4-inch diameter distribution mains to comply with Section 65.17, and that there are still 27 miles of 4-inch diameter main remaining in the system. Parties should discuss:

1. Where the 27 miles of 4-inch diameter mains exist in PWSA’s distribution system.
2. When PWSA plans to have the 27 miles of 4-inch diameter mains replaced with pipe of a diameter of 6 inches or greater.

**52 Pa. Code § 65.20 - Water Conservation Measures**

The CP at page 67 indicates that PWSA does not currently meet the Section 65.20 standard. Parties should discuss and explain:

1. How PWSA will meet the requirements of Section 65.20 (1)-(7).
2. How PWSA’s leak detection efforts will be incorporated into its Capital Improvement/Investment Plan.
3. Whether the CP adequately addresses the leak detection issues identified in the PWSA 40 Year Plan of 2012 at Task 4.7 pages 4-34 through 4-48.

**52 Pa. Code § 65.21 - Duty of Public Utility to Make Line Extensions**

The CP at pages 67-69 indicates that PWSA does not plan to comply with Section 65.21, and will instead, subject to Commission approval, follow the PWSA Policies and Procedures related to line extensions, as provided in its 2018 Tariff Filing Rules and Regulations and as permitted by the Municipality Authorities Act. Parties should discuss:

1. The appropriateness of PWSA following the Municipal Authorities Act in lieu of the Public Utility Code.
2. PWSA proposed tariff rules and regulations related to line extensions to evaluate compliance with the Public Utility Code.

**52 Pa. Code § 65.22 - Customer Advance Financing, Refunds and Facilities on Private Property**

The CP at pages 68-69 indicates that PWSA’s policy on line extensions is detailed in the rules and regulations section of its tariff filing and is consistent with the requirements of the Pennsylvania Municipality Authorities Act. Parties should discuss:

1. The appropriateness of PWSA following the Municipal Authorities Act in lieu of the Public Utility Code regarding Section 65.22.
2. PWSA proposed tariff rules and regulations, related to customer advance financing, refunds and facilities on private property to evaluate compliance with the Public Utility Code.

**52 Pa. Code § 65.23 - Special Utility Service**

The CP at page 69 indicates that PWSA policy on line extensions is detailed in the rules and regulations section of its tariff filing and is consistent with the requirements of the Pennsylvania Municipality Authorities Act. Parties should discuss:

1. The appropriateness of PWSA following the Municipal Authorities Act in lieu of the Public Utility Code regarding line extensions.
2. PWSA’s proposed tariff rules and regulations, related to customer advance financing, refunds and facilities on private property to evaluate compliance with the Public Utility Code.
3. PWSA’s understanding of Special Utility Service versus line extensions under 52 Pa. Code § 65.21.

**52 Pa. Code § 67.1 - Service Outages**

The CP at pages 70-71 indicates that, while PWSA currently has a process to notify the Commission for unscheduled service interruptions as required by Section 67.1(b), PWSA is in the process of updating its emergency response plan to include a comprehensive standard operating procedure (SOP) related to notifying the Commission during periods of unscheduled service interruptions, to be completed within the next 6 months. Parties should discuss how the notification process developed in the SOP for Section 67.1 comports with the notification SOPs developed for 52 Pa. Code §§ 65.2, 65.11, and 69.1603.

**52 Pa. Code § 69.87 - Tariff Provisions That Limit the Liability Of Utilities for Injury or Damage as a Result of Negligence or Intentional Torts**

The CP at page 73 indicates that PWSA includes a limitation of liability section on page 58 of its proposed water tariff and on page 52 of its proposed wastewater tariff. Parties should discuss:

1. The company-specific dollar amount for the proposed limitation that will become effective at the time PWSA’s proposed tariff is approved.
2. The reasonableness of the company specific dollar amount and how that amount was calculated, including the potential applicability to intentional torts, and incidents involving the actions of third parties where the physical and cyber protection of PWSA’s facilities and systems may be at issue.
3. Application of the tariff to matters involving the replacement of PWSA and customer-owned lead water service lines.

**52 Pa. Code § 69.169 - Policy Statement Interpreting Terms Included in 66 Pa. C.S. § 1326, *Standby charge***

The CP at page 74 indicates that the PWSA private fire protection charge is not the same as an impermissible “standby charge.” Parties should discuss:

1. If PWSA’s charge conforms to 66 Pa. C.S. § 1326 and the definition in 52 Pa. Code § 69.169.
2. Whether residential customers are served by separate domestic and fire service lines.

**52 Pa. Code § 69.261 - Customer Assistance Program (CAP)**

The CP at pages 75-76 indicates that, while 52 Pa. Code Sections 69.261 – 69.267 apply only to electric and large natural gas companies, PWSA has nevertheless implemented a CAP developed on Commission recommended designs and has modeled its CAP on a program used by the Pennsylvania-American Water Co. Parties should discuss:

1. Whether and how the PWSA CAP complies with 52 Pa. Code § 69.265(1) and § 69.266 and 66 Pa. C.S. § 1304.
2. The appropriateness of PWSA establishing a CAP.
3. The appropriateness of PWSA dedicated funding for private lead line replacements for CAP customers only and if this complies with 66 Pa. C.S. § 1304.
4. The reasonableness of PWSA’s private lead line replacement project for CAP customers considering the recent October 17, 2018 PENNVEST loan and grant awarded to PWSA.

**52 Pa. Code § 69.1601 - Unscheduled Service Interruptions and Associated Actions**

The CP at page 79 identifies that the PWSA existing emergency management plan (EMP) addresses the emergency management procedures described in 52 Pa. Code Sections 69.1601 - 69.1603. The CP also indicates that PWSA is currently in process of updating its EMP to follow the National Incident Management System’s public information system according to 52 Pa. Code Section 69.1602. Parties should discuss how PWSA may comply with the notice provisions of 52 Pa. Code § 69.1603 which require notice to Commission personnel as soon as possible upon a utility becoming aware of an unscheduled service interruption.

**52 Pa. Code § 73.3 - Annual Depreciation Reports**

The CP at page 87 indicates that PWSA does not currently have the capability to produce a depreciation report that includes the detail the Commission requires. The CP further indicates that PWSA plans to comply with the requirements listed in 52 Pa. Code Section 73.3 and file its first annual depreciation report with the Bureau of Fixed Utility Services within 5 years. Parties should discuss:

1. Whether PWSA employs enterprise fund governmental accrual accounting and whether this is required by law or regulation for reporting purposes. If PWSA does use enterprise fund governmental accounting, parties should provide detail on the current accrual accounting employed by PWSA regarding:
   1. Capitalization.
   2. Depreciation of property, plant, and equipment fixed assets.
   3. Long-term liabilities and any accrued unfunded pension plan liability disclosed and listed on the PWSA balance sheet.
2. Whether PWSA will be required to file a waiver requesting relief from filing this report.
3. The appropriateness of PWSA’s plan to file an annual depreciation report meeting the requirements of Section 73.3 within 5 years.
4. Whether PWSA could file a partial annual depreciation report detailing only known and newly constructed assets.
5. Whether accurate depreciation accounting and reporting is relevant and necessary for the potential implementation of a distribution system improvement charge (DSIC) mechanism.

**52 Pa. Code § 73.5 - Service Life Study Report**

The CP at page 89 indicates that PWSA plans to file a service life study report with the Office of Special Assistants every five years, filing its first report within 5 years from the beginning of its Commission regulation, April 1, 2018. Parties should discuss the feasibility of PWSA providing a service life study report detailing all known and newly constructed assets and the appropriateness of PWSA’s plan to file a service life study report within 5 years. Parties should note that the report should be filed with the Commission’s Bureau of Technical Utility Services, not with the Office of Special Assistants.

**52 Pa. Code § 73.7 - Capital Investment Plan Report**

The CP at page 90 states that PWSA’s most recent Capital Improvement Plan was completed in 2017 for the period of 2017 through 2021. However, PWSA plans to file its long-term infrastructure improvement plan (LTIIP) in the place of capital investment plan (CIP) report. Parties should discuss:

1. Whether the CIP should be considered in conjunction with the LTIIP.
2. How PWSA will provide cost information to the Commission for projects that are not included in its LTIIP.

**52 Pa. Code § 101 - Public Utility Preparedness through Self-Certification**

The CP at pages 93-94 identifies PWSA plans to within the next 6 months develop physical security, cyber security, emergency response, and business continuity plans that meet the requirements of Chapter 101 of the Commission’s regulations. Parties should discuss whether PWSA should consult with Commission staff regarding its completed plans similar to the consultation directed by the Commission in its Order of August 11, 2016, approving the sale of Pike County Light and Power Company at Docket No. A-2015-2517036, Ordering Paragraph 20.

**PWSA Relationship with the City of Pittsburgh**

**PWSA Services Contract with the City of Pittsburgh (Cooperation Agreement)**

The CP at page 107 indicates that PWSA will negotiate with the City to revise the Cooperation Agreement (CP Appendix B) and file the revised agreement under 66 Pa. C.S. § 507 by December 31, 2018. The CP indicates that if the agreement cannot be negotiated by December 31, 2018, it may be appropriate for the Commission to institute an investigation to determine 1) the services provided to PWSA by the City and 2) the associated costs. The CP also indicates that this agreement will address public fire protection. The CP further indicates that after the investigation the Commission should utilize its power under 66 Pa C.S. § 508 to vary or reform the agreement as necessary.

CP Appendix B consists of a copy of the cooperation agreement between PWSA and the City of Pittsburgh, effective January 1, 1995. The agreement provides, among other things, that the City provide certain ongoing services to the PWSA and PWSA is to compensate the City for those services. Regarding the Cooperation Agreement, parties should discuss:

1. Those services and related costs that PWSA can identify and quantify and the basis for those costs, e.g., market, cost plus, or other method.
2. Whether PWSA can identify all categories of costs associated with the Cooperation Agreement.
3. Whether PWSA receives any services from the City of Pittsburgh at no cost.
4. The potential for PWSA to terminate the Cooperation Agreement with the City, or otherwise allow the agreement to lapse, in favor of market-based procurement practices.
5. Whether the Cooperation Agreement, or any other agreement, provides the City with free or discounted wastewater service, stormwater service, or otherwise restricts the application of non-consumption fixed charges (i.e., customer charges) for water service.
6. The extent to which the Public Utility Code overrides the binding arbitration provisions of the Cooperation Agreement.
7. As recommended at CP page 107, whether the Commission may exercise jurisdiction under 66 Pa. C.S. § 508 to revise the Cooperation Agreement and the most appropriate procedural vehicle for any such revision.

**Capital Lease Agreement**

The CP at page 107 indicates that PWSA satisfied the minimum lease payment terms of the Capital Lease Agreement with the City of Pittsburgh during the initial three years of the Capital Lease Agreement and that PWSA may acquire all system assets for $1 in 2025. Parties should discuss whether:

A. PWSA has provided the City of Pittsburgh with equivalent compensation for the value of PWSA since the inception of the Capital Lease Agreement.

B. The City’s acceptance of that consideration/compensation binds the City to the $1 transfer of 2025 if PWSA seeks to exercise that option.

**Residency Requirement**

The CP does not discuss whether any residency requirements may apply to applicants for employment with PWSA or to PWSA employees. The parties should discuss whether employment with PWSA is subject to a residency requirement, and if so, how. Parties should also discuss how such residency requirements for employment are consistent with PWSA safety and reliability obligations under the Public Utility Code and 52 Pa. Code §§ 69.801 – 69.809.

**Unmetered and/or Unbilled Usage (including City Usage)**

The CP at pages 108 - 110 indicates that PWSA is aware of between 200-400 City-owned and/or operated locations where it either does not bill the City for water service or where it neither meters nor bills the City for water service. The CP indicates that PWSA estimates that all unbilled and unmetered facilities can be metered within five years and proposes to implement rates by a phase-in approach, with the City not fully billed until the fifth year that the meter is in place (20% first year, 40% second year, etc.) Parties should discuss:

1. Estimated revenue loss associated with unmetered and unbilled usage.
2. The legality of the proposed PWSA step billing approach.
3. The feasibility of estimating usage based on engineering estimates on all currently unmetered customers and billing immediately based on those estimates.
4. Whether initiating the 20/40/60/80/100 percent step billing proposal immediately based on those engineering estimates would be feasible and legal.
5. Whether any 20/40/60/80/100 percent billing program should be phased as opposed to stepped.
6. The feasibility of immediately applying the monthly customer charge to any known but unbilled or unmetered customer prior to the installation of a meter.
7. The feasibility of immediately implementing a metering and billing triage plan with the following hierarchy:

1. Metering/estimating and billing high volume customers.

2. Metering/estimating and billing mid-volume customers.

3. Metering/estimating and billing residential and other low-volume customers.

1. If any of the 200-400 City-owned and/or operated locations that are unbilled for water service are billed for wastewater service.
2. How PWSA plans to address and implement charges for public fire hydrants.

**Billing Arrangement with the Allegheny County Sanitary Authority (ALCOSAN)**

The CP at page 112 indicates that PWSA is proposing to impose a surcharge on its customers to account for uncollected revenue, billing, and collection expenses associated with ALCOSAN wastewater treatment charges. Regarding this proposal parties should discuss:

1. Why PWSA is responsible for ALCOSAN receivables if it merely serves as an ALCOSAN billing agent.
2. Whether and why it is reasonable for PWSA to purchase ALCOSAN receivables at 100% of the outstanding balance.
3. Whether disputed ALCOSAN charges should be re-coursed to ALCOSAN because services provided by ALCOSAN may be non-jurisdictional.
4. Whether PWSA may terminate a customer because the customer failed to pay what may be a non-jurisdictional charge.
5. Whether the Commission has the authority to revise the PWSA contract with ALCOSAN pursuant to 53 P.S. §§ 3102.501-3102.507, 66 Pa. C.S. §508 or any other applicable statute.

**Billing Arrangement with Pennsylvania-American Water Company (PAWC)**

The CP at page 112 indicates that PWSA is proposing that the subsidy payment to PAWC be eliminated in PWSA’s next base rate case for water service. Parties should discuss the feasibility of setting a date certain by which this subsidy shall be eliminated or phased out.

**Plan to Address Lead Levels in Water Supply and the Replacement of Lead Service Lines**

The CP at pages 119-120 reiterates that the Commission directed the CP to address, *inter alia*, lead levels in the water supply and replacement of lead service lines. Regarding PWSA’s outlined plan to continue lead service line replacements, parties should discuss:

1. PWSA’s continued funding of the replacement program beyond 2019.
2. The reasonableness of PWSA’s private lead line replacement plan considering the recent October 17, 2018 PENNVEST loan and grant awarded to PWSA.
3. PWSA’s criteria or policy for replacing customer owned lead service lines and whether or not this policy complies with 66 Pa. C.S. § 1304.
4. Whether the PWSA lead line replacement policy of limiting replacements to single-family residential properties with service lines of 1-inch or less is consistent with 66 Pa. C.S. § 1501.
5. The relationship between the replacement program for customer-owned lead service lines and the potential implementation of a DSIC mechanism.

**Plan to Address Non-Revenue Water**

The CP at page 121-122 indicates that PWSA is not able to make a meaningful assessment of its Non-Revenue Water (NRW) because it lacks an accurate means of determining flows into and out of the water distribution system. The CP indicates that PWSA estimates NRW at 50% of water produced and plans to have meters in place by 2021 and that PWSA also plans to implement a comprehensive leak surveying program consistent with AWWA standards and procedures.

In addition, the PWSA 40 Year Plan of 2012 indicates at page 4-36, table 4-2 that while domestic average daily metered consumption has declined approximately 64% from 1996 to 2009 consistent with declines in population (page 4-35, figure 4-48), domestic average daily *unmetered* consumption increased over that time. Also, table 4-2 shows that unaccounted for water increased approximately 144% and the Other category increased approximately 682% over that same period.

In reviewing PWSA’s plan to address NRW, parties should discuss:

1. The PWSA definitions of NRW and Lost and Unaccounted for Water and how those definitions may differ from those commonly used by the Commission.
2. The adequacy of PWSA’s plan to address NRW and unaccounted-for water.
3. The appropriateness of the proposed meter installation timeline.

1. When PWSA intends to file its first AWWA Water Audit (Due April 30th Annually) with the Commission as required by the November 10, 2011 Final Implementation Order at Docket M-2008-2062697.
2. The timeline for implementation of a comprehensive leak surveying program and the associated costs.

**Bulk Water: Sales for Resale**

The CP at page 123 indicates that PWSA has contracts for the sale of water by PWSA to other water utilities or public authorities, and to the extent deemed necessary, sales for resale agreements will be dealt with in PWSA’s next water base rate cases. In addition, the PWSA 40 Year Plan of 2012 lists 14 interconnections through which PWSA provides water to neighboring systems (page 2-16, Table 2-3). Regarding PWSA compliance to 66 Pa. C.S. § 507, parties should discuss:

1. Why PWSA should not immediately file with the Commission copies of its current contracts and/or agreements for the sale of water to other water utilities or public authorities, pursuant to 66 Pa. C.S. §§ 505 and 507.
2. Whether such unfiled agreements are valid under the Public Utility Code.
3. Whether each contract and/or agreement adheres to PWSA tariffs.
4. Whether PWSA maintains a map of all interconnection points its distribution system with other public water service providers.
5. Whether each interconnection is subject to emergency use only or if it is used to provide bulk water sales.
6. Whether each interconnection is metered.
7. Any issues related to the estimated water loss provision of the Pittsburgh & Municipal Authority of the Borough of West View 1979 Agreement.

**Bulk Wastewater Conveyance Agreements**

The CP at page 124 indicates that PWSA has contracts for the conveyance of wastewater from other utilities or public authorities through PWSA’s wastewater conveyance system to ALCOSAN’s system and proposes that to the extent deemed necessary, bulk wastewater conveyance agreements will be dealt with in PWSA’s next wastewater base rate cases.

In addition, the PWSA 40 Year Plan of 2012 indicates at page 2-19 that PWSA provides wastewater conveyance to 23 neighboring municipalities. Page 2-20, figure 2-2 of the 40 Year Plan indicates that PWSA provides direct flow to 19 municipalities and another 9 municipalities for which PWSA provides service via inter-municipal connections. Further, page 2-23, figure 2-6 of the 40 Year Plan appears to indicate that 26 municipalities are tributary to PWSA sewer systems.

When reviewing issues surrounding PWSA bulk wastewater conveyance agreements parties should discuss:

1. Whether PWSA is required to file with the Commission copies of its current contracts and/or agreements for wastewater conveyance with other utilities, municipalities, or public authorities, pursuant to 66 Pa. C.S. §§ 505 and 507.
2. If the terms of any existing bulk wastewater conveyance agreements have the effect of causing PWSA to provide wastewater conveyance at a financial loss.
3. The cost structure and standards by which future bulk wastewater conveyance agreements will be examined to determine an appropriate incremental system contribution.
4. Whether systems that utilize PWSA wastewater conveyance infrastructure should be required to contribute to the integrity of that infrastructure.
5. If PWSA intends to be financially responsible for both conveyance and treatment costs for bulk wastewater customers long-term.
6. If the provisions of the PWSA O’Hara Township 1991 Shut-off Agreement are consistent with termination procedures in 53 Pa. Stat. §§ 3102.501-3102.507.
7. The scope, potential rate effect, and status of any existing, proposed or contemplated agreement between PWSA and ALCOSAN for the transfer of operation and maintenance responsibilities for certain multi-municipal trunk line sewers currently operated and maintained by PWSA.