

**BEFORE THE
COMMONWEALTH OF PENNSYLVANIA
PUBLIC UTILITY COMMISSION**

Implementation of Chapter 32 of the	:	Docket No. M-2018-2640802
Public Utility Code Regarding Pittsburgh	:	Docket No. M-2018-2640803
Water and Sewer Authority – Stage 1	:	

DIRECT TESTIMONY

OF

ASHLEY E. EVERETTE

ON BEHALF OF

THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

April 5, 2019

Table of Contents

Introduction.....	1
Projected Expenditures	3
System of Accounts (52 Pa. Code § 65.16)	5
Annual Depreciation Reports (52 Pa. Code § 73.3).....	6
Capital Investment Plan Report (52 Pa. Code § 73.7)	7
PWSA Relationship with the City of Pittsburgh.....	9
Billing Arrangement with ALCOSAN	10
Billing Arrangement with Pennsylvania-American Water Company (PAWC)	12
Long Term Infrastructure Improvement Plan	14
Conclusion	17

1 **Introduction**

2 **Q. Please state your name, business address and occupation.**

3 A. My name is Ashley E. Everette. My business address is 555 Walnut Street, Forum Place,
4 5th Floor, Harrisburg, Pennsylvania 17101. I am currently employed as a Regulatory
5 Analyst by the Pennsylvania Office of Consumer Advocate (OCA).
6

7 **Q. Please describe your educational background and qualifications to provide**
8 **testimony in this case.**

9 A. I have a Master's degree in Business Administration and a Bachelor's degree in
10 Economics from the University of Illinois. I have testified before the Pennsylvania Public
11 Utility Commission in water, wastewater, electric and natural gas cases. My testimony
12 has included accounting, rate of return and policy issues in base rate cases, application
13 cases, petition cases, and complaint cases before the Commission. I testified in the
14 Pittsburgh Water and Sewer Authority (PWSA or Authority) base rate case in 2018,
15 which was PWSA's first rate case after coming under Commission jurisdiction. My
16 educational background and qualifications are further described in Appendix A.
17

18 **Q. Please describe the general nature of the Company's filing.**

19 A. The Authority's filing in this case is the Compliance Plan required by 66 Pa. C.S. § 3204.
20 PWSA was required to file a Compliance Plan with the Commission to bring it into
21 compliance with the Commission's rules and regulations.
22

1 **Q. What issues are you addressing in this case?**

2 A. In my testimony in this case, I am commenting on certain issues raised in the Compliance
3 Plan and PWSA's direct testimony. My testimony discusses PWSA's capital investments
4 and the reports PAWC is required by statute to make on its capital investments. I also
5 discuss PWSA's relationships with the City of Pittsburgh, the Allegheny County Sanitary
6 Authority (ALCOSAN), and Pennsylvania-American Water Company (PAWC). My
7 testimony includes recommendations regarding PWSA's Long Term Infrastructure
8 Improvement Plan (LTIIP). The recommendations made throughout this testimony are
9 summarized in the Conclusion section of my testimony.

10
11 The OCA is presenting five direct testimony statements in this case. OCA witness Scott
12 Rubin testifies in OCA Statement 2 regarding PWSA's transition to metered service,
13 private fire protection charges, negotiations with the City, lead service lines in the
14 distribution system, and contracts for wholesale service. OCA witness Barbara Alexander
15 testifies in OCA Statement 3 regarding PWSA's residential service termination policies
16 and practices. OCA witness Roger Colton testifies in OCA Statement 4 regarding
17 PWSA's customer assistance program and the future establishment of a universal service
18 plan. OCA witness Terry Fought testifies in OCA Statement 5 regarding PWSA's
19 unaccounted for water, customer meter age, and ownership of sewer laterals within public
20 rights-of-ways and easements.

1 **Projected Expenditures**

2 **Q. The Staff Directed Questions directed the parties to discuss PWSA's planned capital**
3 **improvements and the financing of those improvements. Did you review PWSA's**
4 **testimony on this matter?**

5 A. Yes, I reviewed PWSA's testimony regarding capital improvements and the bidding
6 process PWSA utilizes. Ms. Presutti discussed the financing needed to fund PWSA's
7 Capital Improvement Plan (CIP). She discussed that the 5-year CIP would be paid for by
8 a mixture of Pennvest funds, revenue bonds, and internally-generated funds.

9
10 **Q. Please describe each of these funding sources.**

11 A. Pennvest is the Pennsylvania Infrastructure Investment Authority. Pennvest provides
12 grant funds and low-interest financing for water, sewer and stormwater projects. Revenue
13 bonds are the long-term bonds PWSA accesses through the bond market. Internally-
14 generated funds are provided by ratepayers through water and sewer rates. Internally-
15 generated funds are sometimes referred to by PWSA as "PAYGO." At some point in the
16 future, PAYGO funds may include funds recovered through a distribution system
17 improvement charge (DSIC).¹

18
19 The OCA encourages PWSA to continue to seek sources of funding, including Pennvest
20 funding, that will mitigate rate impacts for PWSA's ratepayers.

21

¹ My testimony below describes the OCA's position on whether PWSA is able to use a cash flow DSIC at this time.

1 **Q. PWSA witness Presutti testified regarding PWSA’s distribution system**
2 **improvement charge (DSIC) in PWSA St. No. C-3. Do you have any comments**
3 **regarding PWSA’s DSIC proposals?**

4 A. Yes. Section 1357 of the Public Utility Code addresses the computation of a DSIC.² On
5 pages 4-5 of her testimony, Ms. Presutti outlines the DSIC PWSA may propose,
6 describing a DSIC mechanism that is similar to the cash-flow DSIC currently used by
7 Philadelphia Gas Works (PGW). Ms. Presutti states on page 4 of her testimony that the
8 DSIC “would permit PWSA to use PAYGO financing (PWSA would use all or a portion
9 of DSIC collections to fund, in cash, the construction of approved projects).”

10
11 As stated above, the cash-flow DSIC that Ms. Presutti describes is similar to the cash-
12 flow DSIC currently used by PGW. PGW’s cash-flow DSIC is specifically permitted by
13 Section 1357(c) of the Public Utility Code:

14 For city natural gas distribution operations, recoverable costs shall be amounts
15 reasonably expended or incurred to purchase and install eligible property and
16 associated financing costs, if any, including debt service, debt service coverage
17 and issuance costs. 66 Pa. C.S. 1357(c).
18

19 It is my understanding that but for the limited exception for city natural gas distribution
20 operations, all other utilities are entitled to recover only depreciation and pre-tax return
21 on eligible property, as prescribed in this same section:

22 Utilities may file tariffs establishing a sliding scale of rates or other method for
23 the automatic adjustment of the rates of the utility **to provide for recovery of the**
24 **depreciation and pretax return fixed costs** of eligible property, as approved by
25 the commission, that are completed and placed in service between base rate
26 proceedings.
27 66 Pa. C.S. 1357(c). (bolding added)

² Sections 1350-1360 of the Public Utility Code address utilities’ use of a DSIC to recover the fixed costs of eligible property.

1
2 To my knowledge, Chapter 32 does not provide an exception to the requirements of
3 Section 1357. Specifically, Section 3205(b) states that an authority “which establishes a
4 distribution system improvement charge shall comply with all applicable requirements of
5 Subchapter B of Chapter 13 (relating to distribution systems).” Accordingly, PWSA’s
6 DSIC would be required to be determined based on the recovery of depreciation and pre-
7 tax return rather than an amount equal to annual expenditures.

8
9 Given that PWSA’s rates are currently determined on the basis of cash flow rather than
10 rate base/rate of return, creating a DSIC that is compliant with Section 1357 may present
11 some challenges.³ It is my understanding that Section 3202(b) would permit PWSA to
12 request a waiver of Section 1357 in order to propose a DSIC that is calculated on the
13 basis of cash flow. If PWSA were to request such a waiver, the OCA would review the
14 proposal to determine if a cash-flow DSIC would result in just and reasonable rates for
15 PWSA’s customers.

16
17 **System of Accounts (52 Pa. Code § 65.16)**

18 **Q. Please discuss PWSA’s proposals regarding the transition to the NARUC Uniform**
19 **System of Accounts (USOA).**

20 A. On pages 6-8 of her testimony, Ms. Presutti describes PWSA’s process of manually
21 mapping its current chart of accounts to the USOA and the full conversion which will

³ For example, Ms. Presutti stated on page 10 of her direct testimony that although PWSA is not currently able to provide a depreciation report, this will not affect implementation of a DSIC because PWSA’s DSIC would use actual expenditures rather than depreciation expenses. A DSIC calculated pursuant to Section 1357 would require accurate depreciation calculations.

1 take place after PWSA implements its new Enterprise Resource Planning system. The
2 Compliance Plan states that “PWSA will have the ability to generate a report of financials
3 by the current system and by the USOA chart of accounts, perhaps as early as FY 2020,
4 but no later than 2021” (page 62).

5
6 Generally, the OCA does not oppose PWSA’s intended process. Due to the uncertainty of
7 when the transition to the USOA will be completed, the OCA requests semi-annual
8 progress reports showing and describing PWSA’s progress toward mapping existing
9 accounts to the USOA.

10
11 **Annual Depreciation Reports (52 Pa. Code § 73.3)**

12 **Q. The Commission directed parties to discuss PWSA’s plan regarding developing**
13 **depreciation reports. Please discuss whether the OCA has any recommendations**
14 **regarding PWSA’s depreciation reports.**

15 **A.** PWSA does not currently have complete or accurate records of its fixed assets (PWSA
16 St. No. C-3, page 8) and is therefore unable to provide a full depreciation report. PWSA
17 will be commissioning a fixed asset study this year (2019) that is expected to be
18 completed by 2021.

19
20 On pages 8-10 of her direct testimony, Ms. Presutti discussed the depreciation reports
21 PWSA will file in the future and indicated that partial depreciation reports could be
22 provided before full depreciation reports are available. Partial depreciation reports would
23 be useful as they would provide information as to the plant that is being placed into

1 service and existing plant for which PWSA has obtained records. The OCA recommends
2 that partial depreciation reports, showing known and newly constructed assets, be filed
3 annually while PWSA completes its depreciation study. Partial reports should describe
4 which assets are included (i.e. newly constructed assets or certain categories of older
5 assets).

6
7 **Capital Investment Plan Report (52 Pa. Code § 73.7)**

8 **Q. Please discuss PWSA's proposal regarding the filing of its Long-Term**
9 **Infrastructure Improvement Plan (LTIIIP) and Capital Investment Plan (CIP).**

10 A. On page 90 of the Compliance Plan, PWSA indicated that it intends to comply with the
11 CIP requirement in Section 73.7 of the Public Utility Code through the filing of its LTIIIP.
12 Specifically, on page 90 of its Compliance Plan, PWSA states:

13 As a newly regulated utility, PWSA plans to comply with the standards and
14 requirements listed in Section 73.8 and file its long-term infrastructure
15 improvement plan in the place of a capital investment plan report with the Office
16 of Special Assistants.
17

18 **Q. What do the Public Utility Commission regulations require regarding the filing of a**
19 **CIP?**

20 A. 52 Pa. Code § 73.7 requires water utilities with gross intrastate revenues in excess of \$20
21 million per year to file a capital investment plan report with the Commission every 5
22 years, on or before August 31 of the year it is due.

23
24 The regulations appear to allow a utility to meet the CIP requirement through filing the
25 same information elsewhere:

1 When the information required by this section has been provided in another
2 required report to the Commission, the utility shall notify the Office of Special
3 Assistants as to the location of the information...(52 Pa. Code § 73.8(6))
4

5 Accordingly, if all of the information required by Section 73.8 is provided in the LTIIIP
6 and PWSA files an LTIIIP every 5 years, and PWSA notifies the Commission when the
7 CIP is due that the information is provided in the LTIIIP, then PWSA's proposal may
8 comply with the requirements of Sections 73.7-73.8.
9

10 **Q. Is PWSA's LTIIIP necessarily sufficient to meet the CIP requirement?**

11 A. No. Mr. Weimar states on page 70 of his testimony that "The LTIIIP only addresses
12 property eligible for DSIC recovery." Section 73.8(1)-(3) requires the utility to include
13 all "plans for major project expansion, modification or other alteration of current and
14 proposed facilities." Thus, if PWSA has plans for any major expansions, modifications
15 or other alterations of facilities, which are not DSIC-eligible, it would still be required to
16 submit a CIP for those plans (with a reference to the LTIIIP for the DSIC-eligible plans).
17

18 **Q. What do you recommend regarding PWSA's CIP requirement?**

19 A. To the extent that PWSA has plans for any major expansions, modifications or other
20 alterations of facilities, for which the requirements of Section 73.8(1) through (3) are not
21 addressed in the LTIIIP, PWSA should still submit a CIP report for those plans to the
22 Commission.⁴
23

⁴ On page 22 of the Compliance Plan, PWSA lists projects in its Capital Improvement Plan that are not DSIC-eligible and not included in the LTIPP; for example, replacing chemical feed and mechanical equipment at the water treatment plant.

1 **PWSA Relationship with the City of Pittsburgh**

2 **Q. The Compliance Plan, pages 105-110, discusses PWSA's relationship with the City**
3 **of Pittsburgh. One of the issues discussed is the Cooperation Agreement which**
4 **provides for the services that the City and Authority provide to each other. On**
5 **pages 8-12 of her direct testimony, Ms. Lestitian discussed the current status of**
6 **PWSA's Cooperation Agreement with the City of Pittsburgh. Do you have any**
7 **comments on the Cooperation Agreement?**

8 A. Yes. The OCA agrees with PWSA that the Cooperation Agreement needs to be updated
9 so that the agreement accurately reflects the cost of services provided to the City and by
10 the City. If PWSA enters into a new agreement with the City, that agreement should
11 reflect the cost of services that are provided by the City to PWSA and vice versa. In order
12 to include the cost of services provided by the City in PWSA's rates, the costs charged to
13 PWSA must be supported by documentation so that the costs can be reviewed in each
14 rate case.

15
16 Ms. Lestitian stated in her direct testimony that PWSA has given the City notice that it is
17 terminating the Cooperation Agreement effective May 5, 2019 (page 8). If the City and
18 Authority do not establish an agreement before May 5, 2019, Ms. Lestitian states that
19 PWSA and the City will interact on a "transactional basis" which will reflect the actual
20 cost of providing services between the City and PWSA (PWSA St. No. C-2 and OCA-II-
21 1). The OCA agrees that services should be provided to the City at the actual cost of
22 providing those services (including overhead). Services provided by the City to PWSA
23 should be provided on the same basis. In the event that PWSA could obtain the same

1 service from another provider for a lesser cost, prudence would require that PWSA
2 evaluate and consider obtaining the service from a non-City vendor or negotiating a
3 lower cost with the City.
4

5 **Billing Arrangement with ALCOSAN**

6 **Q. Please summarize PWSA's relationship with ALCOSAN.**

7 A. As explained in PWSA's Compliance Plan, page 13, the wastewater collected by PWSA
8 is conveyed to the Allegheny County Sanitary Authority, or ALCOSAN, treatment
9 facilities. It is my understanding that ALCOSAN charges PWSA for treatment based on
10 the metered water usage of PWSA's customers. PWSA budgeted approximately \$83
11 million for ALCOSAN charges in 2019.⁵ PWSA passes the volumetric ALCOSAN
12 charge through on PWSA's wastewater bills. Costs that are not recovered through the
13 volumetric surcharge (e.g. uncollectible ALCOSAN charges) are recovered by PWSA
14 through base rates, through an expense PWSA described as Loss on ALCOSAN Billings
15 in its 2018 rate case. PWSA claimed a 2019 Loss on ALCOSAN Billings expense of
16 approximately \$3.7 million in its 2018 rate case.⁶
17

18 PWSA says that it does not terminate customers for failing to pay the ALCOSAN charges
19 that appear on their PWSA bills (PWSA St. No. C-2, page 18).
20

⁵ Docket Nos. R-2018-3002645 and R-2018-3002647, Exhibit DML-2, page 3.

⁶ Docket Nos. R-2018-3002645 and R-2018-3002647, Exhibit DML-2, page 1.

1 **Q. On pages 112-113 of the Compliance Plan, PWSA proposes a surcharge be applied**
2 **to customer bills as the means of recovering the ALCOSAN charges. On pages 17-18**
3 **of her testimony, Ms. Lestitian discussed this proposal. Please summarize PWSA’s**
4 **surcharge proposal.**

5 A. As described in the Compliance Plan and Ms. Lestitian’s testimony, PWSA is proposing
6 a surcharge that would recover billing costs and uncollected revenue costs related to
7 ALCOSAN charges.⁷ Ms. Lestitian says “PWSA is concerned that because ALCOSAN's
8 customers are not paying the cost of uncollected revenue or all billing costs, they are not
9 paying the full cost of wastewater treatment” (page 17).

10
11 **Q. Please discuss the ALCOSAN surcharge PWSA is proposing.**

12 A. All PWSA wastewater customers are also ALCOSAN customers, that is, all PWSA
13 wastewater is sent to ALCOSAN to be treated.⁸ All costs incurred by PWSA to pay
14 ALCOSAN are paid by wastewater customers.⁹ In PWSA’s 2018 base rate case, the
15 uncollectible expense related to the ALCOSAN billings was included in the wastewater
16 revenue requirement as an operating expense.¹⁰ Therefore, PWSA’s wastewater
17 customers pay both the primary charge (determined by ALCOSAN) and an additional
18 amount through their wastewater base rates to cover the cost of non-payment by other
19 PWSA wastewater customers.

⁷ Ms. Lestitian explained on page 17 of her testimony that while PWSA is requesting approval of the surcharge in this case, the surcharge would not be implemented until PWSA’s next base rate case.

⁸ See PWSA’s response to I&E-RE-40 at Docket Nos. R-2018-3002645 and R-2018-3002647, part e, which states “PWSA does not make payments to ALCOSAN for non-PWSA wastewater customers. All payments to ALCOSAN are for PWSA wastewater customers.

⁹ PWSA filed a combined water and wastewater revenue requirement for its 2018 base rate case. However, no wastewater costs were specifically transferred to the water revenue requirement in the Settlement.

¹⁰ See the Cost of Service and Rate Design Model from PWSA’s 2018 base rate case, the Revenue Requirement tab (labeled “RevReq”), line 36.

1
2 PWSA's proposal of a surcharge would move the uncollectible expense from base rates
3 into a surcharge. As noted on page 112 of the Compliance Plan, the proposed surcharge
4 would be revenue neutral; that is, it would not improve PWSA's revenue stream.

5
6 PWSA has not presented any information that demonstrates that it is better to recover this
7 cost in a surcharge rather than through base rates. Uncollectibles are an issue for every
8 public utility, and the expense of uncollectibles is recovered as part of the revenue
9 requirement. Furthermore, it is my understanding that Section 1408 of the Public Utility
10 Code prohibits surcharges for the recovery of uncollectible expense. I recommend that
11 the proposed ALCOSAN surcharge be denied.

12
13 **Billing Arrangement with Pennsylvania-American Water Company (PAWC)**

14 **Q. Please summarize PWSA's subsidy of Pennsylvania-American Water Company**
15 **(PAWC) customers' rates.**

16 A. Certain customers within PWSA's service territory receive wastewater service from
17 PWSA, but water service from PAWC. PAWC's water rates are currently higher than
18 PWSA's water rates for most customers. PAWC reflects a City of Pittsburgh discount on
19 these customers' bills which allows the customers to pay the same amount as they would
20 if they were served by PWSA. PWSA reimburses PAWC for the cost of this subsidy. It is
21 my understanding that PWSA's payment of this expense was required by the Cooperation
22 Agreement with the City of Pittsburgh (PWSA St. No. C-2, page 18). As stated above,
23 PWSA has given the City notice that it is terminating the Cooperation Agreement

1 effective May 5, 2019. In PWSA's 2018 base rate case, PWSA claimed an expense of
2 \$4.8 million for the cost of this subsidy (PWSA St. No. 2, page 10).

3
4 **Q. What affect does the subsidy have on the PAWC customers described above?**

5 A. The PAWC customers within PWSA's service territory receive reduced water bills
6 through the subsidy. A PAWC water customer using 4,000 gallons of water per month
7 currently pays \$61.10 per month.¹¹ A PWSA water customer with the same usage pays
8 \$60.39, so the current "discount" is \$0.71 (\$61.10 - \$60.39).¹²

9
10 **Q. In the Compliance Plan, PWSA proposes that the subsidy payment to PAWC be**
11 **eliminated in PWSA's next base rate case. Do you have any comments on this**
12 **proposal?**

13 A. Yes, the OCA agrees that PWSA's next base rate case is the appropriate time to address
14 the elimination of the subsidy payment. Depending on the rate increase approved for
15 PWSA in its next rate case, if the PWSA rates are the same or higher than PAWC's rates,
16 the subsidy may be automatically eliminated with the next PWSA rate increase. The
17 subsidy payment should end when new rates are established for PWSA customers in the
18 next case. The PAWC customers should receive notice from PAWC regarding the
19 elimination of the surcharge as it will change certain PAWC customers' bills.

20

¹¹ PAWC's current base rates are as follows: \$16.50 monthly customer charge and \$1.2217 per 100 gallons volumetric charge. PAWC has a currently-effective DSIC of 0.26% and a Tax Cuts and Jobs Act negative surcharge of 6.79%.

¹² The amount of the discount changes when the rates of either company change, including updates to PAWC's DSIC rate.

1 **Long Term Infrastructure Improvement Plan**

2 **Q. On February 21, 2019, the Compliance Plan proceeding was consolidated with**
3 **PWSA's Long Term Infrastructure Improvement Plan (LTIIIP) filing. Do you have**
4 **any comments on PWSA's LTIIIP?**

5 A. Yes. On September 28, 2018, PWSA filed a proposed Long-Term Infrastructure
6 Improvement Plan with the Commission. PWSA elected to file a unified LTIIIP for its
7 water and wastewater operations, noting that it has filed a consolidated revenue
8 requirement in its tariff filings (LTIIIP Petition, page 3). PWSA indicates that it plans to
9 rehabilitate, improve and replace DSIC-eligible aging infrastructure at a cost of
10 approximately \$648 million over the five-year period 2019 to 2023 (LTIIIP, page 42).
11 This is an increase compared to eligible spending in the historic period 2013 to 2018 of
12 \$80 million.

13
14 **Q. What is PWSA's DSIC-eligible infrastructure?**

15 A. PWSA's DSIC-eligible water property is limited to mains, valves and fire hydrants
16 (LTIIIP, page 5). PWSA's DSIC-eligible wastewater property is limited to pump stations,
17 manholes, combined sewer overflow outfalls, and sewer mains (including separate
18 sanitary, combined sanitary and storm, overflow, and sanitary force mains) (LTIIIP, pages
19 31-33).

20
21 **Q. Does the OCA have any recommendations regarding PWSA's LTIIIP?**

22 A. Yes. In response to TUS data requests, PWSA stated that it would be able to provide
23 certain information in the future. The OCA requests additional information be provided

1 in these areas: prioritization of main replacements, valve replacements, and the
2 computerized maintenance management system (CMMS). Each of these items are
3 discussed in more detail below.
4

5 **Q. Please summarize the additional information the OCA requests regarding the**
6 **material makeup of mains.**

7 A. The OCA's Comments on PWSA's LTIP noted that PWSA's prioritization of water
8 main replacement projects, other than lead pipe, appeared to be based on size without
9 consideration of the type of pipe. Mr. Weimar stated that PWSA is currently unable to
10 produce a report showing the material makeup of water and sewer mains (TUS-I-I), but
11 does intend to consider pipe material in the pipe evaluation program. Mr. Weimar states
12 that the material makeup of pipes is "a critical element" in main replacement, and
13 PWSA's master plans will formalize the prioritization program. PWSA expects the
14 master plans to be completed in 2019 (TUS-I-2).
15

16 **Q. In response to TUS-I-1 and TUS-I-2, Mr. Weimar indicated that certain**
17 **information about main replacements and valves is dependent on the update of the**
18 **geographic information system (GIS). Do you have any comment on this?**

19 A. Yes, as mentioned above, in response to TUS-I-1, Mr. Weimar stated that PWSA is
20 currently unable to produce a report showing the material makeup of water and sewer
21 mains. Mr. Weimar states that once PWSA has entered the pipe material or installation
22 date into its electronic system, it will be able to produce a comprehensive materials
23 report. Additionally, in response to TUS-I-2, Mr. Weimar explained that the GIS system

1 has to be updated to properly reflect valve types and sizes. Mr. Weimar expects that the
2 data presented in the LTIIP may be modified once PWSA's GIS is updated.

3
4 Mr. Weimar states that the GIS update is expected to be completed in about 24 months,
5 which is approximately February 2021 based on the date of PWSA's responses to TUS
6 data requests. The OCA requests that PWSA provide the comprehensive materials report
7 and updated information about the types and sizes of valves once the GIS is updated and
8 this information is available. Based on the timeframe identified by Mr. Weimar, it
9 appears that PWSA could provide this information to the Commission and the OCA by
10 March 31, 2021.

11
12 **Q. Please summarize the additional information the OCA requests regarding the**
13 **computerized maintenance management system (CMMS).**

14 A. The OCA's Comments on PWSA's LTIIP noted that PWSA indicates that it will develop
15 a computerized work order maintenance system to improve the management of day-to-
16 day maintenance of the system and emergent needs during water main breaks. In
17 response to TUS-I-8, Mr. Weimar stated that the CMMS project will be implemented for
18 Operations and Engineering users after the GIS update, i.e. in about 24 months. The
19 OCA recommends that PWSA notify the Commission and the OCA when the CMMS
20 project is implemented.

1 **Conclusion**

2 **Q. Please summarize your recommendations in this case.**

3 A. The recommendations made in this testimony are summarized below:

- 4 1. The OCA recommends that PWSA's proposed ALCOSAN surcharge be denied.
- 5 2. The OCA recommends that services provided by PWSA to the City be billed to
6 the City at the actual cost of providing those services (including overhead).
- 7 3. The OCA recommends that services provided by the City to PWSA be provided
8 based on actual cost, except in the event that PWSA could obtain the same service
9 from another provider for a lesser cost. In that case, PWSA should obtain the
10 service elsewhere, if appropriate, or negotiate the payment of a market-based rate
11 with the City.
- 12 4. The OCA recommends that PWSA meet the requirements of Section 73.8(1)
13 through (3) of the Commission's regulations, including the filing of a Capital
14 Investment Plan separate from its LTIP, if needed.
- 15 5. When the bill discount to Pittsburgh-area PAWC customers is to be ended, the
16 OCA recommends that these customers receive advance notice.
- 17 6. The OCA recommends that the following reports be provided, as detailed below:
 - 18 a. The OCA requests semi-annual progress reports showing and
19 describing PWSA's progress toward mapping existing accounts to the
20 USOA.
 - 21 b. The OCA recommends that partial depreciation reports, showing
22 known and newly constructed assets, be filed annually while PWSA
23 completes its depreciation study. Partial reports should describe which

1 assets are included (i.e. newly constructed assets or certain categories
2 of older assets).

3 c. The OCA requests that PWSA provide the comprehensive materials
4 report and updated information about the types and sizes of valves once
5 the GIS is updated and this information is available. Based on the
6 timeframe identified by Mr. Weimar, it appears that PWSA could
7 provide this information to the Commission and the OCA by March 31,
8 2021.

9 d. The OCA recommends that PWSA notify the Commission and the
10 OCA when the computerized maintenance management system
11 (CMMS) project is implemented
12

13 **Q. Does this conclude your testimony at this time?**

14 **A.** Yes, it does.

267341

APPENDIX A

**QUALIFICATIONS OF
ASHLEY E. EVERETTE**

Education

- 2012 M.B.A., University of Illinois
- 2010 B.A. Economics, University of Illinois

Positions

- 2012 – Present Regulatory Analyst, Pennsylvania Office of Consumer Advocate
- 2009 – 2012 Research Assistant, Center for Business and Regulation,
University of Illinois

Experience

I am currently employed by the Pennsylvania Office of Attorney General, Office of Consumer Advocate (OCA) as a Regulatory Analyst. At the OCA, my responsibilities include reviewing utility company filings with the Pennsylvania Public Utility Commission and analyzing the financial, economic, rate of return, and policy issues that are relevant to the filings. Additionally, my responsibilities include preparing recommendations for the OCA's involvement in utility filings with the PA PUC, writing testimony and presenting oral testimony on behalf of the OCA.

Continuing Education

- NARUC Staff Subcommittee on Accounting and Finance Conference, March 2019
- NARUC Staff Subcommittee on Accounting and Finance Conference, March 2018
- IPU Advanced Regulatory Studies Program, Michigan State University, October 2015
- NARUC Staff Subcommittee on Accounting and Finance Conference, April 2015
- NARUC Staff Subcommittee on Accounting and Finance Conference, March 2014
- Camp NARUC, Michigan State University, August 2013
- NARUC Staff Subcommittee on Accounting and Finance Conference, April 2013
- SURFA Financial Forum, April 2013

Testimonies

The following is a list of cases in which I submitted testimony:

R-2018-3002645 Pa. P.U.C. v. Pittsburgh Water and Sewer Authority – Water

R-2018-3002647 Pa. P.U.C. v. Pittsburgh Water and Sewer Authority – Wastewater

A-2018-3003517 Application of Suez Water Pennsylvania for Approval of its Acquisition of the Water System Assets of Mahoning Township

A-2018-3003519 Application of Suez Water Pennsylvania for Approval of its Acquisition of the Wastewater System Assets of Mahoning Township

A-2018-3002437 Application of Pennsylvania-American Water Company for Approval of its Acquisition of the Wastewater System Assets of The Township of Sadsbury

R-2018-3000124 Pa. P.U.C. v. Duquesne Light Company

A-2018- 3001582 Application of Aqua Pennsylvania Wastewater Inc. for Approval of its Acquisition of the Wastewater System Assets of East Bradford Township

I-2016-2526085 Investigation of Delaware Sewer Co. Pursuant to Sec. 529 of the Public Utility Code

R-2017-2598203 Pa. P.U.C. v. Columbia Water Company

A-2017-2606103 Application of Pennsylvania-American Water Company for Approval of its Acquisition of the Wastewater System Assets of The Municipal Authority of the City of McKeesport

A-2017-2605434 Application of Aqua Pennsylvania Wastewater Inc. for Approval of its Acquisition of the Wastewater System Assets of Limerick Township

R-2017-2586783 Pa. P.U.C. v. Philadelphia Gas Works

A-2016-2580061 Application of Aqua Pennsylvania Wastewater Inc. for Approval of its Acquisition of the Wastewater System Assets of New Garden Township

R-2016-2531551 Pa. P.U.C. v. Wellsboro Electric Company

R-2016-2531550 Pa. P.U.C. v. Citizens' Electric Company

R-2016-2554150 Pa. P.U.C. v. City of DuBois – Bureau of Water

P-2015-2501500 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

C-2014-2447169 Tanya J. McCloskey, Acting Consumer Advocate v. Hidden Valley Utility Services, L.P. – Wastewater

C-2014-2447138 Tanya J. McCloskey, Acting Consumer Advocate v. Hidden Valley Utility Services, L.P. – Water

P-2014-2404341 Petition of Delaware Sewer Company

C-2014-2427655 Pa. Off. of Atty. General and Off. of Consumer Advocate v. Blue Pilot Energy, LLC
C-2014-2427659 Pa. Off. of Atty. General and Off. of Consumer Advocate v. Respond Power, LLC
C-2014-2427657 Pa. Off. of Atty. General and Off. of Consumer Advocate v. IDT Energy, Inc.
R-2015-2462723 Pa. P.U.C. v. United Water Pennsylvania
R-2014-2452705 Pa. P.U.C. v. Delaware Sewer Company
R-2014-2428304 Pa. P.U.C. v. Hanover Municipal Waterworks
R-2014-2402324 Pa. P.U.C. v. Emporium Water Company
R-2013-2390244 Pa. P.U.C. v. City of Bethlehem – Bureau of Water
R-2013-2370455 Pa. P.U.C. v. Penn Estates Utilities, Inc. – Sewer Division
R-2013-2360798 Pa. P.U.C. v. Columbia Water Company
R-2013-2350509 Pa. P.U.C. v. City of DuBois – Bureau of Water
R-2012-2310366 Pa. P.U.C. v. City of Lancaster – Sewer Fund

The following is a list of additional cases in which I participated but that settled prior to the filing of testimony:

R-2018-3003141 Pa. P.U.C. v. Borough of Indiana
R-2017-2618332 Pa. P.U.C. v. Pine-Roe Natural Gas Company, Inc.
R-2017-2603026 Pa. P.U.C. v. Manwalamink Water Company
R-2017-2603038 Pa. P.U.C. v. Manwalamink Sewer Company
R-2015-2506337 Pa. P.U.C. v. Twin Lakes Utilities, Inc.
R-2015-2478098 Pa. P.U.C. v. Appalachian Utilities, Inc.
R-2015- 2479955 Pa. P.U.C. v. Allied Utility Services, Inc.
R-2015-2470184 Pa. P.U.C. v. Borough of Schuylkill Haven Water Department
R-2015-2479962 Pa. P.U.C. v. Corner Water Supply and Service Corporation
R-2014-2430945 Pa. P.U.C. v. Plumer Water Company
R-2014-2427189 Pa. P.U.C. v. B.E. Rhodes Sewer Company
R-2014-2427035 Pa. P.U.C. v. Venango Water Company
R-2014-2144379 Pa. P.U.C. v. Herman Oil and Gas Company
R-2014-2420204 Pa. P.U.C. v. Pocono Waterworks Company Inc. – Water Division
R-2014-2420211 Pa. P.U.C. v. Pocono Waterworks Company Inc. – Wastewater Division
R-2014-2400003 Pa. P.U.C. v. Borough of Ambler Water Department
R-2013-2367108 Pa. P.U.C. v. Fryburg Water Company
R-2013-2367125 Pa. P.U.C. v. Cooperstown Water Company
R-2013-2350265 Pa. P.U.C. v. NRG Energy Center Harrisburg
R-2012-2336662 Pa. P.U.C. v. Rock Spring Water Company
R-2012-2315536 Pa. P.U.C. v. Imperial Point Water Company
R-2012-2330877 Pa. P.U.C. v. North Heidelberg Sewer Company
R-2012-2302261 Pa. P.U.C. v. Herman Riemer Gas Company

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, ASHLEY E. EVERETTE, hereby state that the facts set forth in my Direct Testimony, OCA Statement 1, 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).

DATE: April 5, 2019

Signed: Ashley E. Everette
ASHLEY E. EVERETTE

*269398

BEFORE THE
COMMONWEALTH OF PENNSYLVANIA
PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the	:	Docket No. M-2018-2640802
Public Utility Code Regarding Pittsburgh	:	Docket No. M-2018-2640803
Water and Sewer Authority – Stage 1	:	

Direct Testimony of
Scott J. Rubin

on Behalf of
the Pennsylvania Office of Consumer Advocate

April 5, 2019

Table of Contents

Introduction.....	1
Summary.....	3
Billing and Metering Issues.....	4
Standby Charges for Residential Private Fire Service.....	8
Regulatory Role for the Commission and OCA.....	12
PWSA’s Lead Remediation Program	13
Wholesale Pricing Authority.....	14
Conclusion	17

Appendix A: Curriculum vitae

Schedule SJR-1: PWSA responses to I&E RB-53 and RB-54

Introduction

Q. Please state your name and business address.

A. My name is Scott J. Rubin. My business address is 333 Oak Lane, Bloomsburg, PA.

Q. By whom are you employed and in what capacity?

A. I am an independent consultant and an attorney. My practice is limited to matters affecting the public utility industry.

Q. What is the purpose of your testimony in this case?

A. I have been retained by the Office of Consumer Advocate (“OCA”) to review certain aspects of the Compliance Plan and supporting testimony filed by the Pittsburgh Water and Sewer Authority (“PWSA” or “Authority”).

Q. What are your qualifications to provide this testimony in this case?

A. I have testified as an expert witness before utility commissions or courts in the District of Columbia; the province of Nova Scotia; and the states of Alaska, Arizona, California, Connecticut, Delaware, Illinois, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Mississippi, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, South Carolina, and West Virginia. I also have testified as an expert witness before various federal, state, and local legislative committees. I have served as a consultant to the staffs of four state utility commissions, as well as to several national utility trade associations, and state and local governments throughout the country. Prior to establishing my own consulting and law practice, I was employed by the Pennsylvania Office of Consumer Advocate from 1983 through January 1994 in increasingly responsible positions. From 1990 until I left state government, I was one of two senior

1 attorneys at the OCA. Among my other responsibilities in that position, I had a major
2 role in setting its policy positions on water and electric matters. In addition, I was
3 responsible for supervising the office's technical staff. During that time, I also testified
4 as an expert witness on rate design and other policy matters.

5 Throughout my career, I developed substantial expertise in matters relating to the
6 economic regulation of public utilities. I have published articles, contributed to books,
7 written speeches, and delivered numerous presentations, on both the national and state
8 level, relating to regulatory issues. I have attended numerous continuing education
9 courses involving the utility industry. I also have participated as a faculty member in
10 utility-related educational programs for the Institute for Public Utilities at Michigan State
11 University, the American Water Works Association ("AWWA"), and the Pennsylvania
12 Bar Institute. A copy of my curriculum vitae is attached as Appendix A.

13 **Q. Do you have any experience that is particularly relevant to the issues in this case?**

14 A. Yes, I do. I testified for the OCA in PWSA's recently completed rate case (Docket Nos.
15 R-2018-3002645 and R-2018-3002647) primarily concerning the cost-of-service studies
16 and residential rate design. I also addressed some issues (such as billing for unmetered
17 accounts) that have been deferred to this proceeding.

18 In addition, I have testified as an expert witness on cost-of-service studies, rate
19 design, other tariff issues, and numerous types of public policy issues in dozens of water
20 and wastewater utility rate cases, as well as similar issues in numerous energy utility rate
21 cases. I also have worked as a consultant to local government entities on rate design
22 issues – both to assist government-owned utilities in designing rates and to help

government agencies obtain reasonable rates from their utility. I also served on the editorial committee for the preparation of the major rate design manual for the water utility industry, AWWA's Manual M1: *Principles of Water Rates, Fees, and Charges* ("M1 Manual"). My work on the M1 Manual was for the fifth edition, published in 2000. The Manual is now in its seventh edition, published in 2017.

Summary

Q. Please summarize your recommendations.

A. My recommendations can be summarized as follows:

- I do not oppose PWSA's proposed five-year transition plan of unmetered accounts of the City of Pittsburgh and certain non-profit organizations to metered service. The plan, however, should be modified to include a flat-rate charge that also would ramp up during the five-year period. That is, in 2020 there should be a flat-rate charge based on the size of the service line serving the property that would approximate 20% of the average bill of metered customers with similar-sized service lines. In 2021 the flat rate would increase to 40% of the average bill for similar-sized service lines, and so on, so that by 2024 all City/non-profit properties would pay rates approximating the cost of service.
- I conclude that the Authority's tariff for private fire service includes significant costs that meet the definition of "standby charges" under Section 1326 of the Public Utility Code. Based on this, I conclude that PWSA is not compliance with Section 1326 of the Code.
- I recommend that in PWSA's next rate case, the Authority should calculate a separate rate for residential, private fire protection service that excludes all standby costs.
- I recommend that the Authority use its best efforts to negotiate a reasonable agreement with the City. If those efforts fail, then PWSA should begin the process of fully separating its operations from City government.
- I am concerned that PWSA makes it appear in this case that it does not have a plan to address lead service lines after 2019. The Authority should provide the Commission and the parties with a long-term plan for

addressing lead in its distribution system before it attempts to recover additional lead-related costs through rates.

- I recommend that PWSA should be required to file with the Commission under Section 507 any contracts or other agreements that it enters into for the provision of wholesale water or wastewater service to other municipalities or public authorities.

Q. Do you have any other preliminary matters to address?

A. Yes. A portion of my testimony deals with regulatory policy issues. Given the nature of public utility regulation, much of the public policy in this field is contained in decisions by regulatory agencies and courts; or in statutes, ordinances, or regulations. I may cite to these types of sources. This should not be taken as a legal opinion (though I am a regulatory attorney in Pennsylvania), but rather as sources supporting my expert opinion concerning appropriate public policy and regulatory practice.

Billing and Metering Issues

Q. Please summarize your understanding of the Authority's compliance with requirements in the Public Utility Code and Municipality Authorities Act that all customers receive bills for service.

A. At the present time, the Authority does not bill the City of Pittsburgh or certain non-profit entities (such as the Pittsburgh Zoo and others) for water service. I am advised by counsel that this is not consistent with provisions of Pennsylvania law that prohibit the provision of free water service by either a Commission-regulated utility or by a municipal authority.

Some of these properties have water meters installed, but many of them are not metered at the present time. Moreover, the properties that are not metered are not receiving bills under PWSA's tariff for unmetered service.

1 **Q. Does the Authority recognize that it is out of compliance with these requirements?**

2 A. Yes.

3 **Q. How does the Authority propose to come into compliance with billing and metering**
4 **requirements?**

5 A. The Authority states that it will take approximately five years to install meters on all
6 unmetered properties owned by the City or one of the favored non-profit entities. PWSA
7 proposes that it will begin billing accounts as they become metered based on a phase-in
8 schedule. PWSA has not made a commitment to begin billing unmetered City/non-profit
9 accounts prior to the installation of meters, but it states that it is “considering ... for
10 inclusion in its next base rate case” a proposal to bill City/non-profit accounts under a flat
11 rate until meters are installed.¹

12 **Q. Do you have any concerns with PWSA’s proposals regarding metering and billing of**
13 **City / favored non-profit accounts?**

14 A. Yes. First, I must point out that this problem has been ongoing for many years and has
15 nothing to do with the Authority coming under the Commission’s jurisdiction. The
16 Municipality Authorities Act (“MAA”) requires every municipal authority to charge non-
17 discriminatory rates and it prohibits the provision of free service to customers, except for
18 a very limited exclusion for a limited amount of free service to a non-profit entity.

19 Specifically, for decades the MAA has required that rates for service be
20 “reasonable and uniform.” 53 Pa. C.S. § 5607(d)(9). Further, in 2012 the MAA was
21 amended to add a new section that specifically prohibits a water or sewer authority from

¹ PWSA responses to I&E RB-53 and RB-54, attached hereto as Schedule SJR-1.

1 providing free or reduced-price service to municipalities or non-profit organizations,
2 except in limited circumstances. Act 73 of 2012 added 53 Pa. C.S. § 5612(a.1) which
3 reads as follows:

4 (a.1) Prohibition.

5 (1) Money of the authority may not be used for any grant, loan or other
6 expenditure for any purpose other than a service or project directly related
7 to the mission or purpose of the authority as set forth in the articles of
8 incorporation or in the resolution or ordinance establishing the authority
9 under section 5603 (relating to method of incorporation).

10 (2) A ratepayer to an authority shall have a cause of action in the court
11 of common pleas where the authority is located to seek the return of
12 money expended in violation of paragraph (1) from the recipient.

13 (3) Paragraph (1) shall not apply to the following:

14 (i) A monetary contribution to a nonprofit community organization
15 or activity that does not exceed \$1,000.

16 (ii) An in-kind service, including the provision of water or other
17 resources to a nonprofit community organization or activity, the value of
18 which does not exceed \$1,000.

19 (iii) An agreement for the joint purchase and use of equipment.

20 (iv) An agreement for the sharing of equipment during emergency
21 situations.

22 Thus, at least since 2012, and likely for much longer, the Authority has been out
23 of compliance with laws that prohibit the provision of free service to a municipality or
24 non-profit organization.

25 Second, I am troubled by the Authority's apparent lack of urgency in addressing
26 this long-standing compliance problem. I recognize that metering unmetered properties
27 can be a challenge, but that is why flat-rate tariffs exist. I do not take issue with the
28 Authority's plan to take five years to meter all City/non-profit properties, but I am deeply

concerned by the Authority's failure to commit to a plan to stop the practice of providing free service while the metering program progresses. That is, the Authority should be required to implement flat-rate billing for each property that is receiving service but is awaiting the installation of a meter.

Q. PWSA states that it plans to ramp up the charges to currently unmetered City / non-profit customers over a five-year period. What is your understanding of that proposal?

A. As I understand it, for City/non-profit customers who are currently unmetered and for whom meters are installed, the Authority is proposing to charge 20% of its typical tariffed rate in 2020, 40% in 2021, and so on until the formerly unmetered customers would pay full metered rates in 2024.

Q. Does the rate paid depend on when the meter is installed?

A. No. If a meter is installed in 2021, the account would be charged 40% of the tariffed rate. If the meter is not installed until 2024, the account would be charged the full tariffed rate.

Q. Do you oppose the transition plan?

A. I do not oppose the transition plan as long as it is coupled with a flat-rate charge that also would ramp up during the five-year period. That is, in 2020 there should be a flat-rate charge based on the size of the service line serving the property that would approximate 20% of the average bill of metered customers with similar-sized service lines. In 2021 the flat rate would increase to 40% of the average bill for similar-sized service lines, and so on. In that way, the transition from unmetered to metered service would be gradual for all properties. It also would provide a path forward that can be built into the budgets of

the City and the unmetered non-profit organizations. This approach also means that delays in the physical metering of properties would not seriously impact PWSA's collection of revenues from unmetered customers.

Standby Charges for Residential Private Fire Service

Q. On pages 74-75 of the Compliance Plan, PWSA states that it is currently in compliance with Section 1326 of the Public Utility Code (66 Pa. C.S. § 1326) that prohibits the imposition of a “standby charge on owners of residential structures equipped with automatic fire protection systems.” Do you agree with the Authority?

A. No, I do not agree with PWSA's conclusion that it is complying with Section 1326 of the Code. Initially, I note that the Commission has a short Policy Statement interpreting the terms “residential structure” and “standby charge.” 52 Pa. Code § 69.169. Of particular importance here, the Policy Statement defines a “standby charge” as “the charge for availability of water supply during fire emergencies.” The definition also notes that costs for upsizing meters or service lines, installing separate meters or service lines, or installing backflow prevention devices are not considered to be standby charges.

I also note that this definition is consistent with the Commission's interpretation of “standby charges” in the Superior Water Co. case in which it discussed this issue. *Pa. PUC v. Superior Water Co.*, 2000 Pa. PUC LEXIS 14; 199 P.U.R.4th 603 (2000). In that decision, the Commission noted that the utility had provided evidence that its private fire protection charge for residential customers was based on “separate and distinct investments to provide the service.” For example, the utility showed that it had “installed

1 in each residence two (2) shutoff valves and two (2) separate service lines one (1) for
2 normal residential usage and one (1) for fire protection service.” 2000 Pa. PUC LEXIS
3 14 at *21.

4 **Q. Has PWSA made a similar showing concerning its provision of private fire service**
5 **to residential structures?**

6 A. No. PWSA’s Compliance Plan does not provide any information concerning the
7 investment it has made to serve residential, private-fire customers. Moreover, PWSA’s
8 tariff for private fire service (Tariff Water - Pa. P.U.C. No. 1, Original Page No. 10,
9 effective March 1, 2019) does not distinguish between residential and non-residential
10 private fire service.

11 **Q. Did PWSA provide any information in its recently concluded rate case that shows**
12 **the costs being recovered through the private fire charge?**

13 A. Yes. The Authority’s cost-of-service study (“COSS”) in the rate case developed costs for
14 private fire service that actually are somewhat lower than the rates contained in the tariff.
15 The following discussion shows the categories of costs the Authority included in the
16 COSS. I had concerns with several aspects of the COSS; consequently I do not
17 necessarily accept the accuracy of the specific dollar amounts shown in each category.

18 Specifically, Table 1 compares the rates developed in the COSS and the rates
19 contained in the tariff effective March 1.²

² Cost of service from PWSA’s revised COSS dated 9/11/2018, RateDesign tab, rows 21-26; tariff rates from Tariff Water - Pa. P.U.C. No. 1, Original Page No. 10, effective March 1, 2019.

Table 1 Comparison of COSS and Tariff Rates for Private Fire Service (\$ per month)		
Meter Size / Line Size	Cost of Service	Tariff Rate
1" or less / 2"	29.31	31.60
1-1/2" to 3" / 3"	78.12	83.30
4" / 4"	167.11	177.57
6" or greater / 6" or greater	479.06	507.98

Importantly, the Authority's COSS in the rate case showed the elements of the cost of service. Table 2 is taken directly from the COSS in the rate case.³

Table 2 Elements of Private Fire Cost of Service from Rate Case COSS (in \$ per month)					
Meter Size	Meter	Billing	Readiness to Serve	Fire	Total
1" or less	3.91	3.57	8.44	13.39	29.31
1-1/2" to 3"	11.31	3.57	24.45	38.79	78.12
4"	24.82	3.57	53.63	85.10	167.11
6" or greater	72.15	3.57	155.92	247.42	479.06

In Table 2, the Meter and Billing charges are appropriately charged to residential, private fire customers. The readiness-to-serve charge, by definition, is a type of standby charge that is prohibited by Section 1326. Further, the "fire" cost category in the COSS includes the following cost categories: Treatment, Storage, Transmission & Distribution, and Administrative Support. The tariff contains a separate charge for the consumption of water by private fire connections, so it appears that the Treatment, Storage, and Administrative Support costs are not properly charged as part of the fixed fee to residential, private fire customers. Those costs are exactly the type of standby costs (having capacity available in a storage tank or treatment plant, for example) that are

³ PWSA's revised COSS dated 9/11/2018, RateDesign tab, rows 21-26.

1 prohibited by the statute. Further, there may be some element of Transmission &
2 Distribution costs that are customer-specific costs (the COSS does not separately identify
3 service-line costs; they are included in Transmission & Distribution costs), there may be
4 other aspects of that cost that are system-capacity costs that are excluded by the statute.

5 **Q. Can you quantify the amount of costs in the “Fire” category that are standby costs?**

6 A. I can provide an estimate. According to the COSS, 53% of the “Fire” costs are for
7 Treatment, Storage, and Administrative Support.⁴ The remaining 47% of the “Fire” costs
8 are for Transmission & Distribution. I do not have sufficient information to estimate the
9 amount of Transmission & Distribution costs that might be associated with separate
10 private fire service lines (if they exist on PWSA’s system).

11 **Q. What do you conclude?**

12 A. I conclude that the Authority’s tariff for private fire service includes significant costs that
13 meet the definition of “standby charges” under Section 1326 of the Code. Based on this,
14 I conclude that PWSA is not compliance with Section 1326 of the Code.

15 **Q. What do you recommend?**

16 A. I recommend that in PWSA’s next rate case, the COSS should calculate a separate rate
17 for residential, private fire protection service that excludes all standby costs. In that case,
18 the Authority should provide specific evidence of its investment (if any) in separate, or
19 larger, service lines, meters, and other customer-specific facilities (such as backflow
20 prevention devices) for residential customers with automatic fire protection systems.

⁴ PWSA’s revised COSS dated 9/11/2018, W>COS tab, rows 54 to 65.

Regulatory Role for the Commission and OCA

Q. The Authority has indicated that it may ask the Commission to use the Commission's power to "reform" the agreement between PWSA and the City if PWSA and the City cannot reach a new agreement. Do you have any concerns about the Authority's proposal?

A. Yes, I do. The Commission's power to reform contracts under Section 508 of the Public Utility Code is used very sparingly. Moreover, that procedure requires notice and hearing to the affected parties which I expect would include the City and the Authority, as well as the statutory advocates and presumably other customer representatives. In essence, then, PWSA's suggestion would turn the Commission into an arbitrator in a contract dispute between the City and PWSA.

When it concerns contracts between utilities and other parties, the utility must have the primary responsibility to negotiate agreements that it believes to be in the best interests of the utility and its customers. It then falls to the Commission to review the agreement to ensure that it is consistent with the public interest. Separately, in future rate cases, the Commission also can review charges incurred (or revenues received) pursuant to agreements to assure itself that the amounts are reasonable and prudent.

Q. What do you recommend?

A. I recommend that the Authority use its best efforts to negotiate a reasonable agreement with the City. If those efforts fail, then PWSA should begin the process of fully separating its operations from City government. That would include, for example, obtaining services (such as fleet maintenance and pension administration) from third

1 parties rather than relying on the City for those services. In my opinion, it would not be
2 effective to put the Commission in the untenable position of trying to mediate a contract
3 dispute between a municipal authority and the city that created the authority.

4 **PWSA's Lead Remediation Program**

5 **Q. Does PWSA have lead in its distribution system?**

6 A. Yes. PWSA acknowledges that, due to the age of portions of its distribution system, it
7 has thousands of service lines that are likely to contain lead.

8 **Q. Does PWSA have a plan to address lead in its distribution system?**

9 A. PWSA has a short-term plan to address the presence of lead in its system. The Authority
10 received a grant and loan from the Pennsylvania Infrastructure Investment Authority
11 ("Pennvest") to assist in paying for the removal of some lead service lines serving
12 residential properties. As I understand it, PWSA has not articulated its plans for lead
13 service line replacements beyond the end of 2019. In addition, PWSA is in the process of
14 adding a corrosion inhibitor to its water to reduce the likelihood of lead leaching into the
15 water.

16 **Q. Are these plans sufficient to alleviate concerns with lead contamination?**

17 A. No. PWSA recognizes that after this year it still will have thousands of lead service lines
18 in place. Thus far, however, PWSA has not presented a long-term plan for addressing
19 these lines.

20 **Q. Is the OCA concerned about the presence of lead in PWSA's system?**

21 A. Yes. The OCA is participating in PWSA's lead advisory committee and continues to
22 urge the Authority to work toward a permanent, long-term solution. The OCA and I

1 recognize that replacing lead service lines is expensive and time-consuming, but a
2 comprehensive plan must be developed so that PWSA can obtain funding and continue to
3 make progress.

4 **Q. Are there elements of a lead removal strategy that PWSA has not yet addressed?**

5 A. Yes. From my understanding, PWSA has not yet developed long-term plans to address
6 customer-owned lead service lines where the Authority's portion of the service line does
7 not contain lead; lead service lines serving multi-family buildings; or lead service lines
8 serving commercial properties.

9 **Q. What do you recommend?**

10 A. I recommend that PWSA provide the Commission and the parties with a long-term plan
11 for addressing lead in its distribution system before it attempts to recover additional lead-
12 related costs through rates.

13 Wholesale Pricing Authority

14 **Q. PWSA has claimed that agreements it enters into with municipalities do not need to**
15 **be approved by the Commission. Do you agree with the Authority?**

16 A. No, I do not. Section 507 of the Public Utility Code requires as follows: "Except for a
17 contract between a public utility and a municipal corporation to furnish service at the
18 *regularly filed and published tariff rates*, no contract or agreement between any public
19 utility and any municipal corporation shall be valid unless filed with the commission at
20 least 30 days prior to its effective date."⁵ From my reading of the Authority's tariff, it

⁵ 66 Pa. C.S. § 507 (emphasis added).

1 does not contain any rates for the provision of wholesale service to municipalities or
2 other municipal authorities.

3 **Q. Does the Authority have a tariff provision that concerns the provision of wholesale**
4 **service to municipalities or other authorities?**

5 A. Yes. Section I of the Authority's tariff contains the following provision that "applies to
6 all sales of water to other water utilities or public authorities for resale":

7 Contracts stipulating the negotiated rate and negotiated terms of Sale for
8 Resale service may be entered into between the Authority and Customer
9 or Applicant when the Authority, in its sole discretion, deems such
10 offering to be economically advantageous to the Authority. Service under
11 this rate is interruptible, and the Authority reserves the right to interrupt
12 service at Authority's discretion.⁶

13 While this provision authorizes the Authority to enter into contracts, in my
14 opinion it does not obviate the need for Commission review of such contracts under
15 Section 507. I reach this conclusion because the tariff provision does not contain a "filed
16 and published tariff rate" as required to be exempt from Section 507.

17 **Q. Why do you conclude that the tariff provision does not constitute a "filed and**
18 **published tariff rate"?**

19 A. I reach this conclusion because, particularly in the water industry, there is a well-defined
20 process for developing rates. As I mentioned at the outset of my testimony, about 20
21 years ago I helped to prepare the water industry's manual for setting rates and other
22 charges, the American Water Works Association's Manual M1, *Principles of Rates, Fees,*
23 *and Charges*. The most recent version of that manual was published in 2017. The
24 manual is now more than 400 pages long and goes into great detail concerning the

⁶ Tariff Water – Pa. P.U.C. No. 1, Original Page No. 16, effective Mar. 1, 2019.

1 procedures for establishing water rates. In simple terms, a rate is the amount that is
2 charged for the provision of a service. Technically, a rate refers to a unit charge; that is,
3 an amount that is assessed based on the amount of a service that is used (\$1 per 1,000
4 gallons, for example).

5 Whether the technical definition of a “rate” is used (a unit charge) or the more
6 general definition of a rate (as referring to any fee or charge for a service), I reach the
7 same conclusion. Section I of PWSA’s tariff does not contain a rate for the provision of
8 service. As a consequence, I conclude that Section I does not meet the exemption
9 requirement set forth in Section 507 of the Code.

10 In other words, Section I of PWSA’s tariff does not contain any rates, charges, or
11 fees. Specifically, no dollar amounts are stated in this provision of the tariff. Thus, there
12 is no “filed and published tariff rate” under which service can be provided. Indeed, the
13 tariff provision readily acknowledges this fact when it states that the contract between
14 PWSA and the municipality will contain “the negotiated rate.” If the rate is contained in
15 the contract, it cannot be contained in the tariff, as required to be exempt from
16 Commission filing under Section 507.

17 **Q. What do you recommend?**

18 A. I recommend that PWSA should be required to file with the Commission under Section
19 507 any contracts or other agreements that it enters into for the provision of wholesale
20 water or wastewater service to other municipalities or public authorities. The only way to
21 avoid that requirement would be for PWSA to amend its tariff in an appropriate

1 proceeding to provide specific rates under which it offers to provide sales for resale
2 service.

3 **Conclusion**

4 **Q. Does this conclude your direct testimony?**

5 A. Yes.

APPENDIX A

Appendix A

Scott J. Rubin

Attorney + Consultant

333 Oak Lane • Bloomsburg, PA 17815

Current Position

Public Utility Attorney and Consultant. 1994 to present. I provide legal, consulting, and expert witness services to various organizations interested in the regulation of public utilities.

Previous Positions

Lecturer in Computer Science, Susquehanna University, Selinsgrove, PA. 1993 to 2000.

Senior Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1990 to 1994.

I supervised the administrative and technical staff and shared with one other senior attorney the supervision of a legal staff of 14 attorneys.

Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1983 to 1990.

Associate, Laws and Staruch, Harrisburg, PA. 1981 to 1983.

Law Clerk, U.S. Environmental Protection Agency, Washington, DC. 1980 to 1981.

Research Assistant, Rockville Consulting Group, Washington, DC. 1979.

Current Professional Activities

Member, American Bar Association, Infrastructure and Regulated Industries Section.

Member, American Water Works Association.

Admitted to practice law before the Supreme Court of Pennsylvania, the New York State Court of Appeals, the United States District Court for the Middle District of Pennsylvania, the United States Court of Appeals for the Third Circuit, and the Supreme Court of the United States.

Served as peer reviewer for *Electricity Journal*, *Journal American Water Works Association*, *Journal of Benefit-Cost Analysis*, and *Utilities Policy*.

Previous Professional Activities

Member, American Water Works Association, Rates and Charges Subcommittee, 1998-2001.

Member, Federal Advisory Committee on Disinfectants and Disinfection By-Products in Drinking Water, U.S. Environmental Protection Agency, Washington, DC. 1992 to 1994.

Chair, Water Committee, National Association of State Utility Consumer Advocates, Washington, DC. 1990 to 1994; member of committee from 1988 to 1990.

Member, Board of Directors, Pennsylvania Energy Development Authority, Harrisburg, PA. 1990 to 1994.

Member, Small Water Systems Advisory Committee, Pennsylvania Department of Environmental Resources, Harrisburg, PA. 1990 to 1992.

Member, Ad Hoc Committee on Emissions Control and Acid Rain Compliance, National Association of State Utility Consumer Advocates, 1991.

Member, Nitrogen Oxides Subcommittee of the Acid Rain Advisory Committee, U.S. Environmental Protection Agency, Washington DC. 1991.

Education

J.D. with Honors, George Washington University, Washington, DC. 1981.

B.A. with Distinction in Political Science, Pennsylvania State University, University Park, PA. 1978.

Publications and Presentations (* denotes peer-reviewed publications)

1. "Quality of Service Issues," a speech to the Pennsylvania Public Utility Commission Consumer Conference, State College, PA. 1988.
2. K.L. Pape and S.J. Rubin, "Current Developments in Water Utility Law," in *Pennsylvania Public Utility Law* (Pennsylvania Bar Institute). 1990.
3. Presentation on Water Utility Holding Companies to the Annual Meeting of the National Association of State Utility Consumer Advocates, Orlando, FL. 1990.
4. "How the OCA Approaches Quality of Service Issues," a speech to the Pennsylvania Chapter of the National Association of Water Companies. 1991.
5. Presentation on the Safe Drinking Water Act to the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Seattle, WA. 1991.
6. "A Consumer Advocate's View of Federal Pre-emption in Electric Utility Cases," a speech to the Pennsylvania Public Utility Commission Electricity Conference. 1991.
7. Workshop on Safe Drinking Water Act Compliance Issues at the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Washington, DC. 1992.
8. Formal Discussant, Regional Acid Rain Workshop, U.S. Environmental Protection Agency and National Regulatory Research Institute, Charlotte, NC. 1992.
9. S.J. Rubin and S.P. O'Neal, "A Quantitative Assessment of the Viability of Small Water Systems in Pennsylvania," *Proceedings of the Eighth NARUC Biennial Regulatory Information Conference*, National Regulatory Research Institute (Columbus, OH 1992), IV:79-97.
10. "The OCA's Concerns About Drinking Water," a speech to the Pennsylvania Public Utility Commission Water Conference. 1992.
11. Member, Technical Horizons Panel, Annual Meeting of the National Association of Water Companies, Hilton Head, SC. 1992.
12. M.D. Klein and S.J. Rubin, "Water and Sewer -- Update on Clean Streams, Safe Drinking Water, Waste Disposal and Pennvest," *Pennsylvania Public Utility Law Conference* (Pennsylvania Bar Institute). 1992.

13. Presentation on Small Water System Viability to the Technical Assistance Center for Small Water Companies, Pa. Department of Environmental Resources, Harrisburg, PA. 1993
14. "The Results Through a Public Service Commission Lens," speaker and participant in panel discussion at Symposium: "Impact of EPA's Allowance Auction," Washington, DC, sponsored by AER*X. 1993.
15. "The Hottest Legislative Issue of Today -- Reauthorization of the Safe Drinking Water Act," speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, San Antonio, TX. 1993.
16. "Water Service in the Year 2000," a speech to the Conference: "Utilities and Public Policy III: The Challenges of Change," sponsored by the Pennsylvania Public Utility Commission and the Pennsylvania State University, University Park, PA. 1993.
17. "Government Regulation of the Drinking Water Supply: Is it Properly Focused?," speaker and participant in panel discussion at the National Consumers League's Forum on Drinking Water Safety and Quality, Washington, DC. 1993. Reprinted in *Rural Water*, Vol. 15 No. 1 (Spring 1994), pages 13-16.
18. "Telephone Penetration Rates for Renters in Pennsylvania," a study prepared for the Pennsylvania Office of Consumer Advocate. 1993.
19. "Zealous Advocacy, Ethical Limitations and Considerations," participant in panel discussion at "Continuing Legal Education in Ethics for Pennsylvania Lawyers," sponsored by the Office of General Counsel, Commonwealth of Pennsylvania, State College, PA. 1993.
20. "Serving the Customer," participant in panel discussion at the Annual Conference of the National Association of Water Companies, Williamsburg, VA. 1993.
21. "A Simple, Inexpensive, Quantitative Method to Assess the Viability of Small Water Systems," a speech to the Water Supply Symposium, New York Section of the American Water Works Association, Syracuse, NY. 1993.
22. * S.J. Rubin, "Are Water Rates Becoming Unaffordable?," *Journal American Water Works Association*, Vol. 86, No. 2 (February 1994), pages 79-86.
23. "Why Water Rates Will Double (If We're Lucky): Federal Drinking Water Policy and Its Effect on New England," a briefing for the New England Conference of Public Utilities Commissioners, Andover, MA. 1994.
24. "Are Water Rates Becoming Unaffordable?," a speech to the Legislative and Regulatory Conference, Association of Metropolitan Water Agencies, Washington, DC. 1994.
25. "Relationships: Drinking Water, Health, Risk and Affordability," speaker and participant in panel discussion at the Annual Meeting of the Southeastern Association of Regulatory Commissioners, Charleston, SC. 1994.
26. "Small System Viability: Assessment Methods and Implementation Issues," speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, New York, NY. 1994.

27. S.J. Rubin, "How much should we spend to save a life?," *Seattle Journal of Commerce*, August 18, 1994 (Protecting the Environment Supplement), pages B-4 to B-5.
28. S. Rubin, S. Bernow, M. Fulmer, J. Goldstein, and I. Peters, *An Evaluation of Kentucky-American Water Company's Long-Range Planning*, prepared for the Utility and Rate Intervention Division, Kentucky Office of the Attorney General (Tellus Institute 1994).
29. S.J. Rubin, "Small System Monitoring: What Does It Mean?," *Impacts of Monitoring for Phase II/V Drinking Water Regulations on Rural and Small Communities* (National Rural Water Association 1994), pages 6-12.
30. "Surviving the Safe Drinking Water Act," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, Reno, NV. 1994.
31. "Safe Drinking Water Act Compliance -- Ratemaking Implications," speaker at the National Conference of Regulatory Attorneys, Scottsdale, AZ. 1995. Reprinted in *Water*, Vol. 36, No. 2 (Summer 1995), pages 28-29.
32. S.J. Rubin, "Water: Why Isn't it Free? The Case of Small Utilities in Pennsylvania," *Utilities, Consumers & Public Policy: Issues of Quality, Affordability, and Competition, Proceedings of the Fourth Utilities, Consumers and Public Policy Conference* (Pennsylvania State University 1995), pages 177-183.
33. S.J. Rubin, "Water Rates: An Affordable Housing Issue?," *Home Energy*, Vol. 12 No. 4 (July/August 1995), page 37.
34. Speaker and participant in the Water Policy Forum, sponsored by the National Association of Water Companies, Naples, FL. 1995.
35. Participant in panel discussion on "The Efficient and Effective Maintenance and Delivery of Potable Water at Affordable Rates to the People of New Jersey," at The New Advocacy: Protecting Consumers in the Emerging Era of Utility Competition, a conference sponsored by the New Jersey Division of the Ratepayer Advocate, Newark, NJ. 1995.
36. J.E. Cromwell III, and S.J. Rubin, *Development of Benchmark Measures for Viability Assessment* (Pa. Department of Environmental Protection 1995).
37. S. Rubin, "A Nationwide Practice from a Small Town in Pa.," *Lawyers & the Internet – a Supplement to the Legal Intelligencer and Pa. Law Weekly* (February 12, 1996), page S6.
38. "Changing Customers' Expectations in the Water Industry," speaker at the Mid-America Regulatory Commissioners Conference, Chicago, IL. 1996, reprinted in *Water* Vol. 37 No. 3 (Winter 1997), pages 12-14.
39. "Recent Federal Legislation Affecting Drinking Water Utilities," speaker at Pennsylvania Public Utility Law Conference, Pennsylvania Bar Institute, Hershey, PA. 1996.
40. "Clean Water at Affordable Rates: A Ratepayers Conference," moderator at symposium sponsored by the New Jersey Division of Ratepayer Advocate, Trenton, NJ. 1996.

41. "Water Workshop: How New Laws Will Affect the Economic Regulation of the Water Industry," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, San Francisco, CA. 1996.
42. * E.T. Castillo, S.J. Rubin, S.K. Keefe, and R.S. Raucher, "Restructuring Small Systems," *Journal American Water Works Association*, Vol. 89, No. 1 (January 1997), pages 65-74.
43. * J.E. Cromwell III, S.J. Rubin, F.C. Marrocco, and M.E. Leevan, "Business Planning for Small System Capacity Development," *Journal American Water Works Association*, Vol. 89, No. 1 (January 1997), pages 47-57.
44. "Capacity Development – More than Viability Under a New Name," speaker at National Association of Regulatory Utility Commissioners Winter Meetings, Washington, DC. 1997.
45. * E. Castillo, S.K. Keefe, R.S. Raucher, and S.J. Rubin, *Small System Restructuring to Facilitate SDWA Compliance: An Analysis of Potential Feasibility* (AWWA Research Foundation, 1997).
46. H. Himmelberger, *et al.*, *Capacity Development Strategy Report for the Texas Natural Resource Conservation Commission* (Aug. 1997).
47. Briefing on Issues Affecting the Water Utility Industry, Annual Meeting of the National Association of State Utility Consumer Advocates, Boston, MA. 1997.
48. "Capacity Development in the Water Industry," speaker at the Annual Meeting of the National Association of Regulatory Utility Commissioners, Boston, MA. 1997.
49. "The Ticking Bomb: Competitive Electric Metering, Billing, and Collection," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, Boston, MA. 1997.
50. Scott J. Rubin, "A Nationwide Look at the Affordability of Water Service," *Proceedings of the 1998 Annual Conference of the American Water Works Association*, Water Research, Vol. C, No. 3, pages 113-129 (American Water Works Association, 1998).
51. Scott J. Rubin, "30 Technology Tips in 30 Minutes," *Pennsylvania Public Utility Law Conference*, Vol. I, pages 101-110 (Pa. Bar Institute, 1998).
52. Scott J. Rubin, "Effects of Electric and Gas Deregulation on the Water Industry," *Pennsylvania Public Utility Law Conference*, Vol. I, pages 139-146 (Pa. Bar Institute, 1998).
53. Scott J. Rubin, *The Challenges and Changing Mission of Utility Consumer Advocates* (American Association of Retired Persons, 1999).
54. "Consumer Advocacy for the Future," speaker at the Age of Awareness Conference, Changes and Choices: Utilities in the New Millennium, Carlisle, PA. 1999.
55. Keynote Address, \$1 Energy Fund, Inc., Annual Membership Meeting, Monroeville, PA. 1999.

56. Scott J. Rubin, "Assessing the Effect of the Proposed Radon Rule on the Affordability of Water Service," prepared for the American Water Works Association. 1999.
57. Scott J. Rubin and Janice A. Beecher, The Impacts of Electric Restructuring on the Water and Wastewater Industry, *Proceedings of the Small Drinking Water and Wastewater Systems International Symposium and Technology Expo* (Phoenix, AZ 2000), pp. 66-75.
58. American Water Works Association, *Principles of Water Rates, Fees, and Charges, Manual M1 – Fifth Edition* (AWWA 2000), Member, Editorial Committee.
59. Janice A. Beecher and Scott J. Rubin, presentation on "Special Topics in Rate Design: Affordability" at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
60. Scott J. Rubin, "The Future of Drinking Water Regulation," a speech at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
61. Janice A. Beecher and Scott J. Rubin, "Deregulation Impacts and Opportunities," a presentation at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
62. Scott J. Rubin, "Estimating the Effect of Different Arsenic Maximum Contaminant Levels on the Affordability of Water Service," prepared for the American Water Works Association. 2000.
63. * Janice A. Beecher and Scott J. Rubin, *Deregulation! Impacts on the Water Industry*, American Water Works Association Research Foundation, Denver, CO. 2000.
64. Scott J. Rubin, Methods for Assessing, Evaluating, and Assisting Small Water Systems, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2000.
65. Scott J. Rubin, Consumer Issues in the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2000.
66. "Be Utility Wise in a Restructured Utility Industry," Keynote Address at Be UtilityWise Conference, Pittsburgh, PA. 2000.
67. Scott J. Rubin, Jason D. Sharp, and Todd S. Stewart, "The Wired Administrative Lawyer," *5th Annual Administrative Law Symposium*, Pennsylvania Bar Institute, Harrisburg, PA. 2000.
68. Scott J. Rubin, "Current Developments in the Water Industry," *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2000.
69. Scott J. Rubin, "Viewpoint: Change Sickening Attitudes," *Engineering News-Record*, Dec. 18, 2000.
70. Janice A. Beecher and Scott J. Rubin, "Ten Practices of Highly Effective Water Utilities," *Opflow*, April 2001, pp. 1, 6-7, 16; reprinted in *Water and Wastes Digest*, December 2004, pp. 22-25.
71. Scott J. Rubin, "Pennsylvania Utilities: How Are Consumers, Workers, and Corporations Faring in the Deregulated Electricity, Gas, and Telephone Industries?" Keystone Research Center. 2001.

72. Scott J. Rubin, "Guest Perspective: A First Look at the Impact of Electric Deregulation on Pennsylvania," *LEAP Letter*, May-June 2001, pp. 2-3.
73. Scott J. Rubin, Consumer Protection in the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2001.
74. Scott J. Rubin, Impacts of Deregulation on the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2001.
75. Scott J. Rubin, "Economic Characteristics of Small Systems," *Critical Issues in Setting Regulatory Standards*, National Rural Water Association, 2001, pp. 7-22.
76. Scott J. Rubin, "Affordability of Water Service," *Critical Issues in Setting Regulatory Standards*, National Rural Water Association, 2001, pp. 23-42.
77. Scott J. Rubin, "Criteria to Assess the Affordability of Water Service," White Paper, National Rural Water Association, 2001.
78. Scott J. Rubin, Providing Affordable Water Service to Low-Income Families, presentation to Portland Water Bureau, Portland, OR. 2001.
79. Scott J. Rubin, Issues Relating to the Affordability and Sustainability of Rates for Water Service, presentation to the Water Utility Council of the American Water Works Association, New Orleans, LA. 2002.
80. Scott J. Rubin, The Utility Industries Compared – Water, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
81. Scott J. Rubin, Legal Perspective on Water Regulation, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
82. Scott J. Rubin, Regulatory Options for Water Utilities, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
83. Scott J. Rubin, Overview of Small Water System Consolidation, presentation to National Drinking Water Advisory Council Small Systems Affordability Working Group, Washington, DC. 2002.
84. Scott J. Rubin, Defining Affordability and Low-Income Household Tradeoffs, presentation to National Drinking Water Advisory Council Small Systems Affordability Working Group, Washington, DC. 2002.
85. Scott J. Rubin, "Thinking Outside the Hearing Room," *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2002.
86. Scott J. Rubin, "Update of Affordability Database," White Paper, National Rural Water Association. 2003.
87. Scott J. Rubin, *Understanding Telephone Penetration in Pennsylvania*, Council on Utility Choice, Harrisburg, PA. 2003.

88. Scott J. Rubin, *The Cost of Water and Wastewater Service in the United States*, National Rural Water Association, 2003.
89. Scott J. Rubin, What Price Safer Water? Presentation at Annual Conference of National Association of Regulatory Utility Commissioners, Atlanta, GA. 2003.
90. George M. Aman, III, Jeffrey P. Garton, Eric Petersen, and Scott J. Rubin, Challenges and Opportunities for Improving Water Supply Institutional Arrangements, *Water Law Conference*, Pennsylvania Bar Institute, Mechanicsburg, PA. 2004.
91. Scott J. Rubin, Serving Low-Income Water Customers. Presentation at American Water Works Association Annual Conference, Orlando, FL. 2004.
92. Scott J. Rubin, Thinking Outside the Bill: Serving Low-Income Water Customers. Presentation at National League of Cities Annual Congress of Cities, Indianapolis, IN. 2004.
93. Scott J. Rubin, Buying and Selling a Water System – Ratemaking Implications, *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2005.
94. *Thinking Outside the Bill: A Utility Manager's Guide to Assisting Low-Income Water Customers*, American Water Works Association. 2005; Second Edition published in 2014
95. * Scott J. Rubin, "Census Data Shed Light on US Water and Wastewater Costs," *Journal American Water Works Association*, Vol. 97, No. 4 (April 2005), pages 99-110, reprinted in Maxwell, *The Business of Water: A Concise Overview of Challenges and Opportunities in the Water Market.*, American Water Works Association, Denver, CO. 2008.
96. Scott J. Rubin, Review of U.S. Environmental Protection Agency Notice Concerning Revision of National-Level Affordability Methodology, National Rural Water Association. 2006.
97. * Robert S. Raucher, et al., *Regional Solutions to Water Supply Provision*, American Water Works Association Research Foundation, Denver, CO. 2007; 2nd edition published in 2008.
98. Scott J. Rubin, Robert Raucher, and Megan Harrod, The Relationship Between Household Financial Distress and Health: Implications for Drinking Water Regulation, National Rural Water Association. 2007.
99. * John Cromwell and Scott Rubin, *Estimating Benefits of Regional Solutions for Water and Wastewater Service*, American Water Works Association Research Foundation, Denver, CO. 2008.
100. Scott J. Rubin, "Current State of the Water Industry and Stimulus Bill Overview," in *Pennsylvania Public Utility Law* (Pennsylvania Bar Institute). 2009.
101. Scott J. Rubin, Best Practice in Customer Payment Assistance Programs, webcast presentation sponsored by Water Research Foundation. 2009.
102. * Scott J. Rubin, How Should We Regulate Small Water Utilities?, National Regulatory Research Institute. 2009.

- 103.* John Cromwell III, et al., *Best Practices in Customer Payment Assistance Programs*, Water Research Foundation, Denver, CO. 2010.
- 104.* Scott J. Rubin, What Does Water Really Cost? Rate Design Principles for an Era of Supply Shortages, Infrastructure Upgrades, and Enhanced Water Conservation, , National Regulatory Research Institute. 2010.
105. Scott J. Rubin and Christopher P.N. Woodcock, Teleseminar: Water Rate Design, National Regulatory Research Institute. 2010.
106. David Monie and Scott J. Rubin, Cost of Service Studies and Water Rate Design: A Debate on the Utility and Regulatory Perspectives, Meeting of New England Chapter of National Association of Water Companies, Newport, RI. 2010.
107. * Scott J. Rubin, A Call for Water Utility Reliability Standards: Regulating Water Utilities' Infrastructure Programs to Achieve a Balance of Safety, Risk, and Cost, National Regulatory Research Institute. 2010.
- 108.* Raucher, Robert S.; Rubin, Scott J.; Crawford-Brown, Douglas; and Lawson, Megan M. "Benefit-Cost Analysis for Drinking Water Standards: Efficiency, Equity, and Affordability Considerations in Small Communities," *Journal of Benefit-Cost Analysis*: Vol. 2: Issue 1, Article 4. 2011.
- 109.Scott J. Rubin, A Call for Reliability Standards, *Journal American Water Works Association*, Vol. 103, No. 1 (Jan. 2011), pp. 22-24.
- 110.Scott J. Rubin, Current Topics in Water: Rate Design and Reliability. Presentation to the Water Committee of the National Association of Regulatory Utility Commissioners, Washington, DC. 2011.
- 111.Scott J. Rubin, Water Reliability and Resilience Standards, *Pennsylvania Public Utility Law Conference* (Pennsylvania Bar Institute). 2011.
- 112.Member of Expert Panel, Leadership Forum: Business Management for the Future, Annual Conference and Exposition of the American Water Works Association, Washington, DC. 2011.
- 113.Scott J. Rubin, Evaluating Community Affordability in Storm Water Control Plans, *Flowing into the Future: Evolving Water Issues* (Pennsylvania Bar Institute). 2011.
- 114.Invited Participant, Summit on Declining Water Demand and Revenues, sponsored by The Alliance for Water Efficiency, Racine, WI. 2012.
- 115.* Scott J. Rubin, Evaluating Violations of Drinking Water Regulations, *Journal American Water Works Association*, Vol. 105, No. 3 (Mar. 2013), pp. 51-52 (Expanded Summary) and E137-E147. Winner of the AWWA Small Systems Division Best Paper Award.
- 116.* Scott J. Rubin, Structural Changes in the Water Utility Industry During the 2000s, *Journal American Water Works Association*, Vol. 105, No. 3 (Mar. 2013), pp. 53-54 (Expanded Summary) and E148-E156.
- 117.* Scott J. Rubin, Moving Toward Demand-Based Residential Rates, *The Electricity Journal*, Vol. 28, No. 9 (Nov. 2015), pp. 63-71, <http://dx.doi.org/10.1016/j.tej.2015.09.021>.

118. Scott J. Rubin, Moving Toward Demand-Based Residential Rates. Presentation at the Annual Meeting of the National Association of State Utility Consumer Advocates, Austin, TX. 2015.
119. * Stacey Isaac Berahzer, et al., *Navigating Legal Pathways to Rate-Funded Customer Assistance Programs: A Guide for Water and Wastewater Utilities*, American Water Works Association, et al. 2017.
120. * Janet Clements, et al., *Customer Assistance Programs for Multi-Family Residential and Other Hard-to-Reach Customers*, Water Research Foundation, Denver, CO. 2017.
121. Scott J. Rubin, Water Costs and Affordability in the US: 1990 to 2015, *Journal American Water Works Association*, Vol. 110, No. 4 (Apr. 2018), pp. 12-16.

Testimony as an Expert Witness

1. *Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. - Water Division*, Pa. Public Utility Commission, Docket R-00922404. 1992. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate.
2. *Pa. Public Utility Commission v. Shenango Valley Water Co.*, Pa. Public Utility Commission, Docket R-00922420. 1992. Concerning cost allocation, on behalf of the Pa. Office of Consumer Advocate
3. *Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. - Water Division*, Pa. Public Utility Commission, Docket R-00922482. 1993. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
4. *Pa. Public Utility Commission v. Colony Water Co.*, Pa. Public Utility Commission, Docket R-00922375. 1993. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
5. *Pa. Public Utility Commission v. Dauphin Consolidated Water Supply Co. and General Waterworks of Pennsylvania, Inc.*, Pa. Public Utility Commission, Docket R-00932604. 1993. Concerning rate design and cost of service, on behalf of the Pa. Office of Consumer Advocate
6. *West Penn Power Co. v. State Tax Department of West Virginia*, Circuit Court of Kanawha County, West Virginia, Civil Action No. 89-C-3056. 1993. Concerning regulatory policy and the effects of a taxation statute on out-of-state utility ratepayers, on behalf of the Pa. Office of Consumer Advocate
7. *Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. - Water Division*, Pa. Public Utility Commission, Docket R-00932667. 1993. Concerning rate design and affordability of service, on behalf of the Pa. Office of Consumer Advocate
8. *Pa. Public Utility Commission v. National Utilities, Inc.*, Pa. Public Utility Commission, Docket R-00932828. 1994. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
9. *An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company*, Ky. Public Service Commission, Case No. 93-434. 1994. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Utility and Rate Intervention Division.
10. *The Petition on Behalf of Gordon's Corner Water Company for an Increase in Rates*, New Jersey Board of Public Utilities, Docket No. WR94020037. 1994. Concerning revenue requirements and rate design, on behalf of the New Jersey Division of Ratepayer Advocate.

11. *Re Consumers Maine Water Company Request for Approval of Contracts with Consumers Water Company and with Ohio Water Service Company*, Me. Public Utilities Commission, Docket No. 94-352. 1994. Concerning affiliated interest agreements, on behalf of the Maine Public Advocate.
12. *In the Matter of the Application of Potomac Electric Power Company for Approval of its Third Least-Cost Plan*, D.C. Public Service Commission, Formal Case No. 917, Phase II. 1995. Concerning Clean Air Act implementation and environmental externalities, on behalf of the District of Columbia Office of the People's Counsel.
13. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of the Dayton Power and Light Company and Related Matters*, Ohio Public Utilities Commission, Case No. 94-105-EL-EFC. 1995. Concerning Clean Air Act implementation (case settled before testimony was filed), on behalf of the Office of the Ohio Consumers' Counsel.
14. *Kennebec Water District Proposed Increase in Rates*, Maine Public Utilities Commission, Docket No. 95-091. 1995. Concerning the reasonableness of planning decisions and the relationship between a publicly owned water district and a very large industrial customer, on behalf of the Maine Public Advocate.
15. *Winter Harbor Water Company, Proposed Schedule Revisions to Introduce a Readiness-to-Serve Charge*, Maine Public Utilities Commission, Docket No. 95-271. 1995 and 1996. Concerning standards for, and the reasonableness of, imposing a readiness to serve charge and/or exit fee on the customers of a small investor-owned water utility, on behalf of the Maine Public Advocate.
16. *In the Matter of the 1995 Long-Term Electric Forecast Report of the Cincinnati Gas & Electric Company*, Public Utilities Commission of Ohio, Case No. 95-203-EL-FOR, and *In the Matter of the Two-Year Review of the Cincinnati Gas & Electric Company's Environmental Compliance Plan Pursuant to Section 4913.05, Revised Cost*, Case No. 95-747-EL-ECP. 1996. Concerning the reasonableness of the utility's long-range supply and demand-management plans, the reasonableness of its plan for complying with the Clean Air Act Amendments of 1990, and discussing methods to ensure the provision of utility service to low-income customers, on behalf of the Office of the Ohio Consumers' Counsel.
17. *In the Matter of Notice of the Adjustment of the Rates of Kentucky-American Water Company*, Kentucky Public Service Commission, Case No. 95-554. 1996. Concerning rate design, cost of service, and sales forecast issues, on behalf of the Kentucky Office of Attorney General.
18. *In the Matter of the Application of Citizens Utilities Company for a Hearing to Determine the Fair Value of its Properties for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, and to Approve Rate Schedules Designed to Provide such Rate of Return*, Arizona Corporation Commission, Docket Nos. E-1032-95-417, *et al.* 1996. Concerning rate design, cost of service, and the price elasticity of water demand, on behalf of the Arizona Residential Utility Consumer Office.
19. *Cochrane v. Bangor Hydro-Electric Company*, Maine Public Utilities Commission, Docket No. 96-053. 1996. Concerning regulatory requirements for an electric utility to engage in unregulated business enterprises, on behalf of the Maine Public Advocate.
20. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Monongahela Power Company and Related Matters*, Public Utilities Commission of Ohio, Case No. 96-

106-EL-EFC. 1996. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.

21. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cleveland Electric Illuminating Company and Toledo Edison Company and Related Matters*, Public Utilities Commission of Ohio, Case Nos. 96-107-EL-EFC and 96-108-EL-EFC. 1996. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
22. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters*, Public Utilities Commission of Ohio, Case Nos. 96-101-EL-EFC and 96-102-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
23. *An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company (Phase II)*, Kentucky Public Service Commission, Docket No. 93-434. 1997. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Public Service Litigation Branch.
24. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters*, Public Utilities Commission of Ohio, Case No. 96-103-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
25. *Bangor Hydro-Electric Company Petition for Temporary Rate Increase*, Maine Public Utilities Commission, Docket No. 97-201. 1997. Concerning the reasonableness of granting an electric utility's request for emergency rate relief, and related issues, on behalf of the Maine Public Advocate.
26. *Testimony concerning H.B. 1068 Relating to Restructuring of the Natural Gas Utility Industry*, Consumer Affairs Committee, Pennsylvania House of Representatives. 1997. Concerning the provisions of proposed legislation to restructure the natural gas utility industry in Pennsylvania, on behalf of the Pennsylvania AFL-CIO Gas Utility Caucus.
27. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cleveland Electric Illuminating Company and Toledo Edison Company and Related Matters*, Public Utilities Commission of Ohio, Case Nos. 97-107-EL-EFC and 97-108-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
28. *In the Matter of the Petition of Valley Road Sewerage Company for a Revision in Rates and Charges for Water Service*, New Jersey Board of Public Utilities, Docket No. WR92080846J. 1997. Concerning the revenue requirements and rate design for a wastewater treatment utility, on behalf of the New Jersey Division of Ratepayer Advocate.
29. *Bangor Gas Company, L.L.C., Petition for Approval to Furnish Gas Service in the State of Maine*, Maine Public Utilities Commission, Docket No. 97-795. 1998. Concerning the standards and public policy concerns involved in issuing a certificate of public convenience and necessity for a new natural gas utility, and related ratemaking issues, on behalf of the Maine Public Advocate.

30. *In the Matter of the Investigation on Motion of the Commission into the Adequacy of the Public Utility Water Service Provided by Tidewater Utilities, Inc., in Areas in Southern New Castle County, Delaware*, Delaware Public Service Commission, Docket No. 309-97. 1998. Concerning the standards for the provision of efficient, sufficient, and adequate water service, and the application of those standards to a water utility, on behalf of the Delaware Division of the Public Advocate.
31. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters*, Public Utilities Commission of Ohio, Case No. 97-103-EL-EFC. 1998. Concerning fuel-related transactions with affiliated companies and the appropriate ratemaking treatment and regulatory safeguards involving such transactions, on behalf of the Ohio Consumers' Counsel.
32. *Olde Port Mariner Fleet, Inc. Complaint Regarding Casco Bay Island Transit District's Tour and Charter Service*, Maine Public Utilities Commission, Docket No. 98-161. 1998. Concerning the standards and requirements for allocating costs and separating operations between regulated and unregulated operations of a transportation utility, on behalf of the Maine Public Advocate and Olde Port Mariner Fleet, Inc.
33. *Central Maine Power Company Investigation of Stranded Costs, Transmission and Distribution Utility Revenue Requirements, and Rate Design*, Maine Public Utilities Commission, Docket No. 97-580. 1998. Concerning the treatment of existing rate discounts when designing rates for a transmission and distribution electric utility, on behalf of the Maine Public Advocate.
34. *Pa. Public Utility Commission v. Manufacturers Water Company*, Pennsylvania Public Utility Commission, Docket No. R-00984275. 1998. Concerning rate design on behalf of the Manufacturers Water Industrial Users.
35. *In the Matter of Petition of Pennsgrove Water Supply Company for an Increase in Rates for Water Service*, New Jersey Board of Public Utilities, Docket No. WR98030147. 1998. Concerning the revenue requirements, level of affiliated charges, and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
36. *In the Matter of Petition of Seaview Water Company for an Increase in Rates for Water Service*, New Jersey Board of Public Utilities, Docket No. WR98040193. 1999. Concerning the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
37. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters*, Public Utilities Commission of Ohio, Case Nos. 98-101-EL-EFC and 98-102-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
38. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Dayton Power and Light Company and Related Matters*, Public Utilities Commission of Ohio, Case No. 98-105-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
39. *In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Monongahela Power Company and Related Matters*, Public Utilities Commission of Ohio, Case No. 99-

- 106-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
40. *County of Suffolk, et al. v. Long Island Lighting Company, et al.*, U.S. District Court for the Eastern District of New York, Case No. 87-CV-0646. 2000. Submitted two affidavits concerning the calculation and collection of court-ordered refunds to utility customers, on behalf of counsel for the plaintiffs.
 41. *Northern Utilities, Inc., Petition for Waivers from Chapter 820*, Maine Public Utilities Commission, Docket No. 99-254. 2000. Concerning the standards and requirements for defining and separating a natural gas utility's core and non-core business functions, on behalf of the Maine Public Advocate.
 42. *Notice of Adjustment of the Rates of Kentucky-American Water Company*, Kentucky Public Service Commission, Case No. 2000-120. 2000. Concerning the appropriate methods for allocating costs and designing rates, on behalf of the Kentucky Office of Attorney General.
 43. *In the Matter of the Petition of Gordon's Corner Water Company for an Increase in Rates and Charges for Water Service*, New Jersey Board of Public Utilities, Docket No. WR00050304. 2000. Concerning the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
 44. *Testimony concerning Arsenic in Drinking Water: An Update on the Science, Benefits, and Costs*, Committee on Science, United States House of Representatives. 2001. Concerning the effects on low-income households and small communities from a more stringent regulation of arsenic in drinking water.
 45. *In the Matter of the Application of The Cincinnati Gas & Electric Company for an Increase in Gas Rates in its Service Territory*, Public Utilities Commission of Ohio, Case No. 01-1228-GA-AIR, *et al.* 2002. Concerning the need for and structure of a special rider and alternative form of regulation for an accelerated main replacement program, on behalf of the Ohio Consumers' Counsel.
 46. *Pennsylvania State Treasurer's Hearing on Enron and Corporate Governance Issues*. 2002. Concerning Enron's role in Pennsylvania's electricity market and related issues, on behalf of the Pennsylvania AFL-CIO.
 47. *An Investigation into the Feasibility and Advisability of Kentucky-American Water Company's Proposed Solution to its Water Supply Deficit*, Kentucky Public Service Commission, Case No. 2001-00117. 2002. Concerning water supply planning, regulatory oversight, and related issue, on behalf of the Kentucky Office of Attorney General.
 48. *Joint Application of Pennsylvania-American Water Company and Thames Water Aqua Holdings GmbH*, Pennsylvania Public Utility Commission, Docket Nos. A-212285F0096 and A-230073F0004. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Pennsylvania Office of Consumer Advocate.
 49. *Application for Approval of the Transfer of Control of Kentucky-American Water Company to RWE AG and Thames Water Aqua Holdings GmbH*, Kentucky Public Service Commission, Case No. 2002-00018. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Kentucky Office of Attorney General.

50. *Joint Petition for the Consent and Approval of the Acquisition of the Outstanding Common Stock of American Water Works Company, Inc., the Parent Company and Controlling Shareholder of West Virginia-American Water Company*, West Virginia Public Service Commission, Case No. 01-1691-W-PC. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Consumer Advocate Division of the West Virginia Public Service Commission.
51. *Joint Petition of New Jersey-American Water Company, Inc. and Thames Water Aqua Holdings GmbH for Approval of Change in Control of New Jersey-American Water Company, Inc.*, New Jersey Board of Public Utilities, Docket No. WM01120833. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
52. *Illinois-American Water Company, Proposed General Increase in Water Rates*, Illinois Commerce Commission, Docket No. 02-0690. 2003. Concerning rate design and cost of service issues, on behalf of the Illinois Office of the Attorney General.
53. *Pennsylvania Public Utility Commission v. Pennsylvania-American Water Company*, Pennsylvania Public Utility Commission, Docket No. R-00038304. 2003. Concerning rate design and cost of service issues, on behalf of the Pennsylvania Office of Consumer Advocate.
54. *West Virginia-American Water Company*, West Virginia Public Service Commission, Case No. 03-0353-W-42T. 2003. Concerning affordability, rate design, and cost of service issues, on behalf of the West Virginia Consumer Advocate Division.
55. *Petition of Seabrook Water Corp. for an Increase in Rates and Charges for Water Service*, New Jersey Board of Public Utilities, Docket No. WR3010054. 2003. Concerning revenue requirements, rate design, prudence, and regulatory policy, on behalf of the New Jersey Division of Ratepayer Advocate.
56. *Chesapeake Ranch Water Co. v. Board of Commissioners of Calvert County*, U.S. District Court for Southern District of Maryland, Civil Action No. 8:03-cv-02527-AW. 2004. Submitted expert report concerning the expected level of rates under various options for serving new commercial development, on behalf of the plaintiff.
57. *Testimony concerning Lead in Drinking Water*, Committee on Government Reform, United States House of Representatives. 2004. Concerning the trade-offs faced by low-income households when drinking water costs increase, including an analysis of H.R. 4268.
58. *West Virginia-American Water Company*, West Virginia Public Service Commission, Case No. 04-0373-W-42T. 2004. Concerning affordability and rate comparisons, on behalf of the West Virginia Consumer Advocate Division.
59. *West Virginia-American Water Company*, West Virginia Public Service Commission, Case No. 04-0358-W-PC. 2004. Concerning costs, benefits, and risks associated with a wholesale water sales contract, on behalf of the West Virginia Consumer Advocate Division.
60. *Kentucky-American Water Company*, Kentucky Public Service Commission, Case No. 2004-00103. 2004. Concerning rate design and tariff issues, on behalf of the Kentucky Office of Attorney General.

61. *New Landing Utility, Inc.*, Illinois Commerce Commission, Docket No. 04-0610. 2005. Concerning the adequacy of service provided by, and standards of performance for, a water and wastewater utility, on behalf of the Illinois Office of Attorney General.
62. *People of the State of Illinois v. New Landing Utility, Inc.*, Circuit Court of the 15th Judicial District, Ogle County, Illinois, No. 00-CH-97. 2005. Concerning the standards of performance for a water and wastewater utility, including whether a receiver should be appointed to manage the utility's operations, on behalf of the Illinois Office of Attorney General.
63. *Hope Gas, Inc. d/b/a Dominion Hope*, West Virginia Public Service Commission, Case No. 05-0304-G-42T. 2005. Concerning the utility's relationships with affiliated companies, including an appropriate level of revenues and expenses associated with services provided to and received from affiliates, on behalf of the West Virginia Consumer Advocate Division.
64. *Monongahela Power Co. and The Potomac Edison Co.*, West Virginia Public Service Commission, Case Nos. 05-0402-E-CN and 05-0750-E-PC. 2005. Concerning review of a plan to finance the construction of pollution control facilities and related issues, on behalf of the West Virginia Consumer Advocate Division.
65. *Joint Application of Duke Energy Corp., et al., for Approval of a Transfer and Acquisition of Control*, Case Kentucky Public Service Commission, No. 2005-00228. 2005. Concerning the risks and benefits associated with the proposed acquisition of an energy utility, on behalf of the Kentucky Office of the Attorney General.
66. *Commonwealth Edison Company proposed general revision of rates, restructuring and price unbundling of bundled service rates, and revision of other terms and conditions of service*, Illinois Commerce Commission, Docket No. 05-0597. 2005. Concerning rate design and cost of service, on behalf of the Illinois Office of Attorney General.
67. *Pennsylvania Public Utility Commission v. Aqua Pennsylvania, Inc.*, Pennsylvania Public Utility Commission, Docket No. R-00051030. 2006. Concerning rate design and cost of service, on behalf of the Pennsylvania Office of Consumer Advocate.
68. *Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Public Service Company d/b/a AmerenCIPS, and Illinois Power Company d/b/a AmerenIP, proposed general increases in rates for delivery service*, Illinois Commerce Commission, Docket Nos. 06-0070, et al. 2006. Concerning rate design and cost of service, on behalf of the Illinois Office of Attorney General.
69. *Grens, et al., v. Illinois-American Water Co.*, Illinois Commerce Commission, Docket Nos. 5-0681, et al. 2006. Concerning utility billing, metering, meter reading, and customer service practices, on behalf of the Illinois Office of Attorney General and the Village of Homer Glen, Illinois.
70. *Commonwealth Edison Company Petition for Approval of Tariffs Implementing ComEd's Proposed Residential Rate Stabilization Program*, Illinois Commerce Commission, Docket No. 06-0411. 2006. Concerning a utility's proposed purchased power phase-in proposal, in behalf of the Illinois Office of Attorney General.
71. *Illinois-American Water Company, Application for Approval of its Annual Reconciliation of Purchased Water and Purchased Sewage Treatment Surcharges Pursuant to 83 Ill. Adm. Code 655*, Illinois Commerce

Commission, Docket No. 06-0196. 2006. Concerning the reconciliation of purchased water and sewer charges, on behalf of the Illinois Office of Attorney General and the Village of Homer Glen, Illinois.

72. *Illinois-American Water Company, et al.*, Illinois Commerce Commission, Docket No. 06-0336. 2006. Concerning the risks and benefits associated with the proposed divestiture of a water utility, on behalf of the Illinois Office of Attorney General.
73. *Joint Petition of Kentucky-American Water Company, et al.*, Kentucky Public Service Commission, Docket No. 2006-00197. 2006. Concerning the risks and benefits associated with the proposed divestiture of a water utility, on behalf of the Kentucky Office of Attorney General.
74. *Aqua Illinois, Inc. Proposed Increase in Water Rates for the Kankakee Division*, Illinois Commerce Commission, Docket No. 06-0285. 2006. Concerning various revenue requirement, rate design, and tariff issues, on behalf of the County of Kankakee.
75. *Housing Authority for the City of Pottsville v. Schuylkill County Municipal Authority*, Court of Common Pleas of Schuylkill County, Pennsylvania, No. S-789-2000. 2006. Concerning the reasonableness and uniformity of rates charged by a municipal water authority, on behalf of the Pottsville Housing Authority.
76. *Application of Pennsylvania-American Water Company for Approval of a Change in Control*, Pennsylvania Public Utility Commission, Docket No. A-212285F0136. 2006. Concerning the risks and benefits associated with the proposed divestiture of a water utility, on behalf of the Pennsylvania Office of Consumer Advocate.
77. *Application of Artesian Water Company, Inc., for an Increase in Water Rates*, Delaware Public Service Commission, Docket No. 06-158. 2006. Concerning rate design and cost of service, on behalf of the Staff of the Delaware Public Service Commission.
78. *Central Illinois Light Company, Central Illinois Public Service Company, and Illinois Power Company: Petition Requesting Approval of Deferral and Securitization of Power Costs*, Illinois Commerce Commission, Docket No. 06-0448. 2006. Concerning a utility's proposed purchased power phase-in proposal, in behalf of the Illinois Office of Attorney General.
79. *Petition of Pennsylvania-American Water Company for Approval to Implement a Tariff Supplement Revising the Distribution System Improvement Charge*, Pennsylvania Public Utility Commission, Docket No. P-00062241. 2007. Concerning the reasonableness of a water utility's proposal to increase the cap on a statutorily authorized distribution system surcharge, on behalf of the Pennsylvania Office of Consumer Advocate.
80. *Adjustment of the Rates of Kentucky-American Water Company*, Kentucky Public Service Commission, Case No. 2007-00143. 2007. Concerning rate design and cost of service, on behalf of the Kentucky Office of Attorney General.
81. *Application of Kentucky-American Water Company for a Certificate of Convenience and Necessity Authorizing the Construction of Kentucky River Station II, Associated Facilities and Transmission Main*, Kentucky Public Service Commission, Case No. 2007-00134. 2007. Concerning the life-cycle costs of a planned water supply source and the imposition of conditions on the construction of that project, on behalf of the Kentucky Office of Attorney General.

82. *Pa. Public Utility Commission v. Pennsylvania-American Water Company*, Pennsylvania Public Utility Commission, Docket No. R-00072229. 2007. Concerning rate design and cost of service, on behalf of the Pennsylvania Office of Consumer Advocate.
83. *Illinois-American Water Company Application for Approval of its Annual Reconciliation of Purchased Water and Purchased Sewage Treatment Surcharges*, Illinois Commerce Commission, Docket No. 07-0195. 2007. Concerning the reconciliation of purchased water and sewer charges, on behalf of the Illinois Office of Attorney General.
84. *In the Matter of the Application of Aqua Ohio, Inc. to Increase Its Rates for Water Service Provided In the Lake Erie Division*, Public Utilities Commission of Ohio, Case No.07-0564-WW-AIR. 2007. Concerning rate design and cost of service, on behalf of the Office of the Ohio Consumers' Counsel.
85. *Pa. Public Utility Commission v. Aqua Pennsylvania Inc.*, Pennsylvania Public Utility Commission, Docket No. R-00072711. 2008. Concerning rate design, on behalf of the Masthope Property Owners Council.
86. *Illinois-American Water Company Proposed increase in water and sewer rates*, Illinois Commerce Commission, Docket No. 07-0507. 2008. Concerning rate design and demand studies, on behalf of the Illinois Office of Attorney General.
87. *Central Illinois Light Company, d/b/a AmerenCILCO; Central Illinois Public Service Company, d/b/a AmerenCIPS; Illinois Power Company, d/b/a AmerenIP: Proposed general increase in rates for electric delivery service*, Illinois Commerce Commission Docket Nos. 07-0585, 07-0586, 07-0587. 2008. Concerning rate design and cost of service studies, on behalf of the Illinois Office of Attorney General.
88. *Commonwealth Edison Company: Proposed general increase in electric rates*, Illinois Commerce Commission Docket No. 07-0566. 2008. Concerning rate design and cost of service studies, on behalf of the Illinois Office of Attorney General.
89. *In the Matter of Application of Ohio American Water Co. to Increase Its Rates*, Public Utilities Commission of Ohio, Case No. 07-1112-WS-AIR. 2008. Concerning rate design and cost of service, on behalf of the Office of the Ohio Consumers' Counsel.
90. *In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for Authority to Increase Rates for its Gas Service*, Public Utilities Commission of Ohio, Case Nos. 07-829-GA-AIR, et al. 2008. Concerning the need for, and structure of, an accelerated infrastructure replacement program and rate surcharge, on behalf of the Office of the Ohio Consumers' Counsel.
91. *Pa. Public Utility Commission v. Pennsylvania American Water Company*, Pennsylvania Public Utility Commission, Docket No. R-2008-2032689. 2008. Concerning rate design, cost of service study, and other tariff issues, on behalf of the Pennsylvania Office of Consumer Advocate.
92. *Pa. Public Utility Commission v. York Water Company*, Pennsylvania Public Utility Commission, Docket No. R-2008-2023067. 2008. Concerning rate design, cost of service study, and other tariff issues, on behalf of the Pennsylvania Office of Consumer Advocate.

93. *Northern Illinois Gas Company d/b/a Nicor Gas Company*, Illinois Commerce Commission, Docket No. 08-0363. 2008. Concerning rate design, cost of service, and automatic rate adjustments, on behalf of the Illinois Office of Attorney General.
94. *West Virginia American Water Company*, West Virginia Public Service Commission, Case No. 08-0900-W-42T. 2008. Concerning affiliated interest charges and relationships, on behalf of the Consumer Advocate Division of the Public Service Commission of West Virginia.
95. *Illinois-American Water Company Application for Approval of its Annual Reconciliation of Purchased Water and Purchased Sewage Treatment Surcharges*, Illinois Commerce Commission, Docket No. 08-0218. 2008. Concerning the reconciliation of purchased water and sewer charges, on behalf of the Illinois Office of Attorney General.
96. *In the Matter of Application of Duke Energy Ohio, Inc. for an Increase in Electric Rates*, Public Utilities Commission of Ohio, Case No. 08-0709-EL-AIR. 2009. Concerning rate design and cost of service, on behalf of the Office of the Ohio Consumers' Counsel.
97. *The Peoples Gas Light and Coke Company and North Shore Gas Company Proposed General Increase in Rates for Gas Service*, Illinois Commerce Commission, Docket Nos. 09-0166 and 09-0167. 2009. Concerning rate design and automatic rate adjustments on behalf of the Illinois Office of Attorney General, Citizens Utility Board, and City of Chicago.
98. *Illinois-American Water Company Proposed Increase in Water and Sewer Rates*, Illinois Commerce Commission, Docket No. 09-0319. 2009. Concerning rate design and cost of service on behalf of the Illinois Office of Attorney General and Citizens Utility Board.
99. *Pa. Public Utility Commission v. Aqua Pennsylvania Inc.*, Pennsylvania Public Utility Commission, Docket No. R-2009-2132019. 2010. Concerning rate design, cost of service, and automatic adjustment tariffs, on behalf of the Pennsylvania Office of Consumer Advocate.
100. *Apple Canyon Utility Company and Lake Wildwood Utilities Corporation Proposed General Increases in Water Rates*, Illinois Commerce Commission, Docket Nos. 09-0548 and 09-0549. 2010. Concerning parent-company charges, quality of service, and other matters, on behalf of Apple Canyon Lake Property Owners' Association and Lake Wildwood Association, Inc.
101. *Application of Aquarion Water Company of Connecticut to Amend its Rate Schedules*, Connecticut Department of Public Utility Control, Docket No. 10-02-13. 2010. Concerning rate design, proof of revenues, and other tariff issues, on behalf of the Connecticut Office of Consumer Counsel.
102. *Illinois-American Water Company Annual Reconciliation Of Purchased Water and Sewage Treatment Surcharges*, Illinois Commerce Commission, Docket No. 09-0151. 2010. Concerning the reconciliation of purchased water and sewer charges, on behalf of the Illinois Office of Attorney General.
103. *Pa. Public Utility Commission v. Pennsylvania-American Water Co.*, Pennsylvania Public Utility Commission, Docket Nos. R-2010-2166212, et al. 2010. Concerning rate design and cost of service study for four wastewater utility districts, on behalf of the Pennsylvania Office of Consumer Advocate.
104. *Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Public Service Company d/b/a AmerenCIPS, Illinois Power Company d/b/a AmerenIP Petition for accounting order*, Illinois Commerce

- Commission, Docket No. 10-0517. 2010. Concerning ratemaking procedures for a multi-district electric and natural gas utility, on behalf of the Illinois Office of Attorney General.
105. *Commonwealth Edison Company Petition for General Increase in Delivery Service Rates*, Illinois Commerce Commission Docket No. 10-0467. 2010. Concerning rate design and cost of service study, on behalf of the Illinois Office of Attorney General.
106. *Pa. Public Utility Commission v. City of Lancaster Bureau of Water*, Pennsylvania Public Utility Commission, Docket No. R-2010-2179103. 2010. Concerning rate design, cost of service, and cost allocation, on behalf of the Pennsylvania Office of Consumer Advocate.
107. *Application of Yankee Gas Services Company for Amended Rate Schedules*, Connecticut Department of Public Utility Control, Docket No. 10-12-02. 2011. Concerning rate design and cost of service for a natural gas utility, on behalf of the Connecticut Office of Consumers' Counsel.
108. *California-American Water Company*, California Public Utilities Commission, Application 10-07-007. 2011. Concerning rate design and cost of service for multiple water-utility service areas, on behalf of The Utility Reform Network.
109. *Little Washington Wastewater Company, Inc., Masthope Wastewater Division*, Pennsylvania Public Utility Commission Docket No. R-2010-2207833. 2011. Concerning rate design and various revenue requirements issues, on behalf of the Masthope Property Owners Council.
110. *In the matter of Pittsfield Aqueduct Company, Inc.*, New Hampshire Public Utilities Commission Case No. DW 10-090. 2011. Concerning rate design and cost of service on behalf of the New Hampshire Office of the Consumer Advocate.
111. *In the matters of Pennichuck Water Works, Inc. Permanent Rate Case and Petition for Approval of Special Contract with Anheuser-Busch, Inc.*, New Hampshire Public Utilities Commission Case Nos. DW 10-091 and DW 11-014. 2011. Concerning rate design, cost of service, and contract interpretation on behalf of the New Hampshire Office of the Consumer Advocate.
112. *Artesian Water Co., Inc. v. Chester Water Authority*, U.S. District Court for the Eastern District of Pennsylvania Case No. 10-CV-07453-JP. 2011. Concerning cost of service, ratemaking methods, and contract interpretation on behalf of Chester Water Authority.
113. *North Shore Gas Company and The Peoples Gas Light and Coke Company Proposed General Increases in Rates for Gas Service*, Illinois Commerce Commission, Docket Nos. 11-0280 and 11-0281. 2011. Concerning rate design and cost of service on behalf of the Illinois Office of Attorney General, the Citizens Utility Board, and the City of Chicago.
114. *Ameren Illinois Company: Proposed general increase in electric delivery service rates and gas delivery service rates*, Illinois Commerce Commission, Docket Nos. 11-0279 and 11-0282. 2011. Concerning rate design and cost of service for natural gas and electric distribution service, on behalf of the Illinois Office of Attorney General and the Citizens Utility Board.
115. *Pa. Public Utility Commission v. Pennsylvania-American Water Co.*, Pennsylvania Public Utility Commission, Docket No. R-2011-2232243. 2011. Concerning rate design, cost of service, sales forecast,

and automatic rate adjustments on behalf of the Pennsylvania Office of Consumer Advocate.

116. *Aqua Illinois, Inc. Proposed General Increase in Water and Sewer Rates*, Illinois Commerce Commission, Docket No. 11-0436. 2011. Concerning rate design and cost of service on behalf of the Illinois Office of Attorney General.
117. *City of Nashua Acquisition of Pennichuck Corporation*, New Hampshire Public Utilities Commission, Docket No. DW 11-026. 2011. Concerning the proposed acquisition of an investor-owned utility holding company by a municipality, including appropriate ratemaking methodologies, on behalf of the New Hampshire Office of Consumer Advocate.
118. *An Application by Heritage Gas Limited for the Approval of a Schedule of Rates, Tolls and Charges*, Nova Scotia Utility and Review Board, Case NSUARB-NG-HG-R-11. 2011. Concerning rate design and cost of service, on behalf of the Nova Scotia Consumer Advocate.
119. *An Application of Halifax Regional Water Commission for Approval of a Cost of Service and Rate Design Methodology*, Nova Scotia Utility and Review Board, Case NSUARB-W-HRWC-R-11. 2011. Concerning rate design and cost of service, on behalf of the Nova Scotia Consumer Advocate.
120. *National Grid USA and Liberty Energy Utilities Corp.*, New Hampshire Public Utilities Commission, Docket No. DG 11-040. 2011. Concerning the costs and benefits of a proposed merger and related conditions, on behalf of the New Hampshire Office of Consumer Advocate.
121. *Great Northern Utilities, Inc., et al.*, Illinois Commerce Commission, Docket Nos. 11-0059, et al. 2012. Concerning options for mitigating rate impacts and consolidating small water and wastewater utilities for ratemaking purposes, on behalf of the Illinois Office of Attorney General.
122. *Pa. Public Utility Commission v. Aqua Pennsylvania, Inc.*, Pennsylvania Public Utility Commission, Docket No. R-2011-2267958. 2012. Concerning rate design, cost of service, and automatic rate adjustment mechanisms, on behalf of the Pennsylvania Office of Consumer Advocate.
123. *Golden State Water Company*, California Public Utilities Commission, Application 11-07-017. 2012. Concerning rate design and quality of service, on behalf of The Utility Reform Network.
124. *Golden Heart Utilities, Inc. and College Utilities Corporation*, Regulatory Commission of Alaska, Case Nos. U-11-77 and U-11-78. 2012. Concerning rate design and cost of service, on behalf of the Alaska Office of the Attorney General.
125. *Illinois-American Water Company*, Illinois Commerce Commission, Docket No. 11-0767. 2012. Concerning rate design, cost of service, and automatic rate adjustment mechanisms, on behalf of the Illinois Office of Attorney General.
126. *Application of Tidewater Utilities, Inc., for a General Rate Increase in Water Base Rates and Tariff Revisions*, Delaware Public Service Commission, Docket No. 11-397. 2012. Concerning rate design and cost of service study, on behalf of the Staff of the Delaware Public Service Commission.
127. *In the Matter of the Philadelphia Water Department's Proposed Increase in Rates for Water and Wastewater Utility Services*, Philadelphia Water Commissioner, FY 2013-2016. 2012. Concerning rate

design and related issues for storm water service, on behalf of Citizens for Pennsylvania's Future.

128. *Corix Utilities (Illinois) LLC, Hydro Star LLC, and Utilities Inc. Joint Application for Approval of a Proposed Reorganization*, Illinois Commerce Commission, Docket No. 12-0279. 2012. Concerning merger-related synergy savings and appropriate ratemaking treatment of the same, on behalf of the Illinois Office of Attorney General.
129. *North Shore Gas Company and The Peoples Gas Light and Coke Company*, Illinois Commerce Commission, Docket Nos. 12-0511 and 12-0512. 2012. Concerning rate design, cost of service study, and automatic rate adjustment tariff on behalf of the Illinois Office of Attorney General.
130. *Pa. Public Utility Commission v. City of Lancaster Sewer Fund*, Pennsylvania Public Utility Commission, Docket No. R-2012-2310366. 2012. Concerning rate design, cost of service, and cost allocation, on behalf of the Pennsylvania Office of Consumer Advocate.
131. *Aquarion Water Company of New Hampshire*, New Hampshire Public Utilities Commission, Docket No. DW 12-085. 2013. Concerning tariff issues, including an automatic adjustment clause for infrastructure improvement, on behalf of the New Hampshire Office of Consumer Advocate.
132. *In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Electric Distribution Rates*, Public Utilities Commission of Ohio, Case No. 12-1682-EL-AIR, et al. 2013. Concerning rate design and tariff issues, on behalf of the Office of the Ohio Consumers' Counsel.
133. *In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Natural Gas Distribution Rates*, Public Utilities Commission of Ohio, Case No. 12-1685-GA-AIR, et al. 2013. Concerning cost-of-service study, rate design, and tariff issues, on behalf of the Office of the Ohio Consumers' Counsel.
134. *In the Matter of the Application of The Dayton Power and Light Company to Establish a Standard Service Offer in the Form of an Electric Security Plan*, Public Utilities Commission of Ohio, Case No. 12-426-EL-SSO, et al. 2013. Concerning rate design, on behalf of the Office of the Ohio Consumers' Counsel.
135. *Application of the Halifax Regional Water Commission, for Approval of Amendments to its Schedule of Rates and Charges and Schedule of Rules and Regulations for the delivery of water, public and private fire protection, wastewater and stormwater services*, Nova Scotia Utility and Review Board, Matter No. M05463. 2013. Concerning rate design, cost-of-service study, and miscellaneous tariff provisions, on behalf of the Consumer Advocate of Nova Scotia.
136. *California Water Service Co. General Rate Case Application*, California Public Utilities Commission, Docket No. A.12-07-007. 2013. Concerning rate design, phase-in plans, low-income programs, and other tariff issues, on behalf of The Utility Reform Network.
137. *Application of The United Illuminating Company to Amend its Rate Schedules*, Connecticut Public Utility Regulatory Authority, Docket No. 13-01-19. 2013. Concerning sales forecast, rate design, and other tariff issues, on behalf of the Connecticut Office of Consumer Counsel.
138. *Application of Aquarion Water Company of Connecticut to Amend its Rate Schedules*, Connecticut Public Utility Regulatory Authority, Docket No. 13-02-20. 2013. Concerning sales forecast and rate

design on behalf of the Connecticut Office of Consumer Counsel.

139. *Ameren Illinois Company, Proposed General Increase in Natural Gas Delivery Service Rates*, Illinois Commerce Commission, Docket No. 13-0192. 2013. Concerning rate design and revenue allocation, on behalf of the Illinois Office of Attorney General and Citizens Utility Board.
140. *Commonwealth Edison Company, Tariff filing to present the Illinois Commerce Commission with an opportunity to consider revenue neutral tariff changes related to rate design*, Docket No. 13-0387. 2013. Concerning rate design and cost of service study issues, on behalf of the Illinois Office of Attorney General.
141. *In the Matter of the Potomac Electric Power Company for Authority to Increase Existing Retail Rates and Charges for Electric Distribution Service*, District of Columbia Public Service Commission, Formal Case No. 1103. 2013. Concerning rate design, revenue allocation, and cost-of-service study issues, on behalf of the District of Columbia Office of Peoples' Counsel.
142. *Pa. Public Utility Commission v. Pennsylvania-American Water Co.*, Pennsylvania Public Utility Commission, Docket No. R-2013-2355276. 2013. Concerning rate design, revenue allocation, and regulatory policy, on behalf of the Pennsylvania Office of Consumer Advocate.
143. *In the Matter of the Revenue Requirement and Transmission Tariff Designated as TA364-8 filed by Chugach Electric Association, Inc.*, Regulatory Commission of Alaska, U-13-007. 2013. Concerning rate design and cost-of-service study issues, on behalf of the Alaska Office of the Attorney General.
144. *Ameren Illinois Company: Tariff filing to present the Illinois Commerce Commission with an opportunity to consider revenue neutral tariff changes related to rate design*, Docket No. 13-0476. 2013. Concerning rate design and cost of service study issues, on behalf of the Illinois Office of Attorney General.
145. *Pa. Public Utility Commission v. City of Bethlehem Bureau of Water*, Pennsylvania Public Utility Commission, Docket No. R-2013-2390244. 2014. Concerning rate design, cost of service study, and revenue allocation on behalf of the Pennsylvania Office of Consumer Advocate.
146. *In the Matter of the Tariff Revision Designated as TA332-121 filed by the Municipality of Anchorage d/b/a Municipal Light and Power Department*, Regulatory Commission of Alaska, U-13-184. 2014. Concerning rate design and cost-of-service study issues, on behalf of the Alaska Office of the Attorney General.
147. *Pa. Public Utility Commission v. Pike County Light and Power Co. - Gas*, Pennsylvania Public Utility Commission, Docket No. R-2013-2397353. 2014. Concerning rate design and revenue allocation on behalf of the Pennsylvania Office of Consumer Advocate.
148. *Pa. Public Utility Commission v. Pike County Light and Power Co. - Electric*, Pennsylvania Public Utility Commission, Docket No. R-2013-2397237. 2014. Concerning rate design, cost of service study, and revenue allocation on behalf of the Pennsylvania Office of Consumer Advocate.
149. *The Peoples Gas Light and Coke Company North Shore Gas Company Proposed General Increase In Rates for Gas Service*, Illinois Commerce Commission, Docket Nos. 14-0224 and 14-0225. 2014. Concerning rate design on behalf of the Illinois Office of the Attorney General and the Environmental

Law and Policy Center.

150. *Apple Valley Ranchos Water Company*, California Public Utilities Commission, Docket No. A.14-01-002. 2014. Concerning rate design and automatic rate adjustment mechanisms on behalf of the Town of Apple Valley.
151. *Application by Heritage Gas Limited for Approval to Amend its Franchise Area*, Nova Scotia Utility and Review Board, Matter No. M06271. 2014. Concerning criteria, terms, and conditions for expanding a utility's service area and using transported compressed natural gas to serve small retail customers, on behalf of the Nova Scotia Consumer Advocate.
152. *Notice of Intent of Entergy Mississippi, Inc. to Modernize Rates to Support Economic Development, Power Procurement, and Continued Investment*, Mississippi Public Service Commission Docket No. 2014-UN-132. 2014. Concerning rate design and tariff issues, on behalf of the Mississippi Public Utilities Staff.
153. *Pa. Public Utility Commission v. City of Lancaster Bureau of Water*, Pennsylvania Public Utility Commission, Docket No. R-2014-2418872. 2014. Concerning rate design, cost of service study, and revenue allocation on behalf of the Pennsylvania Office of Consumer Advocate.
154. *Pa. Public Utility Commission v. Borough of Hanover Municipal Water Works*, Pennsylvania Public Utility Commission, Docket No. R-2014-2428304. 2014. Concerning rate design, cost of service study, and revenue allocation on behalf of the Pennsylvania Office of Consumer Advocate.
155. *Investigation of Commonwealth Edison Company's Cost of Service for Low-Use Customers In Each Residential Class*, Illinois Commerce Commission, Docket No. 14-0384. 2014. Concerning rate design on behalf of the Illinois Office of Attorney General.
156. *Application of the Halifax Regional Water Commission, for Approval of its Schedule of Rates and Charges and Schedule of Rules and Regulations for the Provision of Water, Public and Private Fire Protection, Wastewater and Stormwater Services*, Nova Scotia Utility and Review Board, Matter No. M06540. 2015. Concerning rate design, cost of service study, and tariff issues on behalf of the Nova Scotia Consumer Advocate.
157. *Testimony concerning organization and regulation of Philadelphia Gas Works*, Philadelphia City Council's Special Committee on Energy Opportunities. 2015.
158. *Testimony concerning proposed telecommunications legislation*, Maine Joint Standing Committee on Energy, Utilities, and Technology. 2015.
159. *Pa. Public Utility Commission v. United Water Pennsylvania, Inc.*, Pennsylvania Public Utility Commission, Docket No. R-2015-2462723. 2015. Concerning rate design, cost of service study, and revenue allocation on behalf of the Pennsylvania Office of Consumer Advocate.
160. *Ameren Illinois Company Proposed General Increase in Gas Delivery Service Rates*, Illinois Commerce Commission, Docket No. 15-0142. 2015. Concerning rate design on behalf of the Illinois Office of Attorney General.

161. *Maine Natural Gas Company Request for Multi-Year Rate Plan*, Maine Public Utilities Commission, Docket No. 2015-00005. 2015. Concerning rate design and automatic rate adjustment tariffs on behalf of the Maine Office of the Public Advocate.
162. *Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Provide for a Standard Service Offer*, Public Utilities Commission of Ohio, Case No. 14-1297-EL-SSO. 2015. Concerning rate design and proposed rate discounts on behalf of the Office of the Ohio Consumers' Counsel.
163. *An Application of the Halifax Regional Water Commission, for approval of revisions to its Cost of Service Manual and Rate Design for Stormwater Service*, Nova Scotia Utility and Review Board, Matter No. M07147. 2016. Concerning stormwater rate design and cost of service, on behalf of the Nova Scotia Consumer Advocate.
164. *In the Matter Of An Application By Heritage Gas Limited For Enhancement To Its Existing Residential Retro-Fit Assistance Fund*, Nova Scotia Utility and Review Board, Matter No. M07146. 2016. Concerning costs and benefits associated with utility system expansion, on behalf of the Nova Scotia Consumer Advocate.
165. *In the Matter of the Application of UNS Electric, Inc. for the Establishment of Just and Reasonable Rates and Charges*, Arizona Corporation Commission, Docket No. E-04204A-15-0142. 2016. Concerning rate design and residential demand charges on behalf of Arizona Utility Ratepayer Alliance.
166. *In the Matter of Application of Water Service Corporation of Kentucky for a General Adjustment in Existing Rates*, Kentucky Public Service Commission, Case No. 2015-00382. 2016. Concerning rate design and service area consolidation on behalf of the Kentucky Office of the Attorney General.
167. *Massachusetts Electric Company and Nantucket Electric Company*, Massachusetts Department of Public Utilities, Docket No. DPU 15-155. 2016. Concerning rate design and cost-of-service studies on behalf of the Massachusetts Office of Attorney General.
168. *In the Matter of Abenaki Water Company*, New Hampshire Public Utilities Commission, Docket No. DW 15-199. 2016. Concerning rate design on behalf of the New Hampshire Office of the Consumer Advocate.
169. *In the Matter of an Application by Heritage Gas Limited for Approval of its Customer Retention Program*, Nova Scotia Utility and Review Board Matter No. M07346. 2016. Concerning a regulatory response to competition and potential business failure on behalf of the Nova Scotia Consumer Advocate.
170. *Joint Application of Pennsylvania-American Water Company and the Sewer Authority of the City of Scranton*, Pennsylvania Public Utility Commission Docket No. A-2016-2537209. 2016. Concerning the lawfulness, costs and benefits, and ratemaking treatment of a proposed acquisition of a combined wastewater and storm water utility on behalf of the Pennsylvania Office of Consumer Advocate.
171. *Application of The United Illuminating Company to Amend its Rate Schedules*, Connecticut Public Utility Regulatory Authority Docket No. 16-06-04. 2016. Concerning rate design, cost-of-service study, and other tariff issues on behalf of the Connecticut Office of Consumer Counsel.

172. *Ameren Illinois Company Tariff filing to present the Illinois Commerce Commission with an opportunity to consider revenue neutral tariff changes related to rate design*, Illinois Commerce Commission Docket No. 16-0387. 2016. Concerning rate design and cost-of-service study on behalf of the Illinois Office of the Attorney General.
173. *Unitil Energy Systems, Inc.*, New Hampshire Public Utilities Commission Docket No. 16-384. 2016. Concerning rate design and cost-of-service study on behalf of the New Hampshire Office of Consumer Advocate.
174. *Liberty Utilities (Granite State Electric) Corp.*, New Hampshire Public Utilities Commission Docket No. 16-383. 2016. Concerning rate design and cost-of-service study on behalf of the New Hampshire Office of Consumer Advocate.
175. *Arizona Public Service Co.*, Arizona Corporation Commission Docket No. E-01345A-16-0123. 2017. Concerning rate design and cost-of-service study on behalf of the Arizona Utility Ratepayer Alliance.
176. *Commonwealth Edison Company, Tariff filing to present the Illinois Commerce Commission with an opportunity to consider revenue neutral tariff changes related to rate design*, Illinois Commerce Commission Docket No. 17-0049. 2017. Concerning rate design and cost of service study issues, on behalf of the Illinois Office of Attorney General.
177. *NSTAR Electric Company and Western Massachusetts Electric Company*, Massachusetts Department of Public Utilities Docket No. D.P.U. 17-05. 2017. Concerning rate design and cost of service study issues, on behalf of the Massachusetts Office of Attorney General.
178. *In the Matter of the Tariff Revision Designated as TA857-2 Filed by Alaska Power Company*, Regulatory Commission of Alaska No. U-16-078. 2017. Concerning rate design and cost of service study issues on behalf of the Alaska Office of the Attorney General.
179. *In the Matter of the Application of Minnesota Power for Authority to Increase Rates for Electric Utility Service in Minnesota*, Minnesota Public Utilities Commission Docket No. E015/GR-16-664. 2017. Concerning rate design and cost of service study issues on behalf of AARP.
180. *Pennsylvania Public Utility Commission v. Pennsylvania-American Water Company*, Pennsylvania Public Utility Commission, Docket No. R-2017-2595853. 2017. Concerning rate design, cost of service, and policy issues, on behalf of the Pennsylvania Office of Consumer Advocate.
181. *Aqua Illinois, Inc. Proposed Rate Increases for Water and Sewer Services*, Illinois Commerce Commission, Docket No. 17-0259. 2017. Concerning rate design and single-tariff pricing, on behalf of the Illinois Office of Attorney General.
182. *Petition of Pennsylvania-American Water Company for Approval of Tariff Changes and Accounting and Rate Treatment Related to Replacement of Lead Customer-Owned Service Pipes*, Pennsylvania Public Utility Commission, Docket No. P-2017-2606100. 2017. Concerning public policy and ratemaking issues associated with the replacement of customer-owned lead service lines, on behalf of the Pennsylvania Office of Consumer Advocate.
183. *In the Matter of Application and Notice of Change in Natural Gas Rates of Montana-Dakota Utilities Co.*, North Dakota Public Service Commission, Case No. PU-17-295. 2017. Concerning rate design and

cost of service study issues, on behalf of AARP.

184. *Aqua Illinois, Inc. Petition for the Issuance of a Certificate of Public Convenience and Necessity to Operate a Water and Wastewater System in the Village of Peotone*, Illinois Commerce Commission, Docket No. 17-0314. 2018. Concerning rate consolidation and rate design, on behalf of the Illinois Office of Attorney General.
185. *Application of the Connecticut Light and Power Company d/b/a Eversource Energy to Amend its Rate Schedules*, Connecticut Public Utilities Regulatory Authority, Docket No. 17-10-46. 2018. Concerning rate design issues, on behalf of the Connecticut Office of Consumer Counsel.
186. *Application by Heritage Gas for Approval of a Long-Term Natural Gas Transportation Contract and Cost Recovery Mechanism*, Nova Scotia Utility and Review Board, Matter M08473. 2018. Concerning evaluation of costs, benefits, and risks of a long-term natural gas pipeline contract, on behalf of the Consumer Advocate of Nova Scotia.
187. *Boston Gas Company and Colonial Gas Company*, Massachusetts Department of Public Utilities, D.P.U. 17-170. 2018. Concerning class revenue allocation and rate design, on behalf of the Massachusetts Office of Attorney General.
188. *In the Matter of the Application of Maryland-American Water Company for Authority to Adjust its Existing Schedule of Tariffs and Rates*, Maryland Public Service Commission, Case No. 9487. 2018. Concerning cost-of-service study, on behalf of the Staff of the Maryland Public Service Commission.
189. *Joint Application and Petition of South Carolina Electric & Gas Company and Dominion Energy, Inc. for review and approval of a proposed business combination between SCANA Corporation and Dominion Energy, Inc., as may be required, and for a prudence determination regarding the abandonment of the V.C. Summer Units 2 & 3 Project and associated merger benefits and cost recovery plans*, South Carolina Public Service Commission, Docket No. 2017-370-E. 2018. Concerning regulatory policy, prudence of decision-making, and cost sharing, on behalf of AARP.
190. *Application of Transource Pennsylvania, LLC for approval of the Siting and Construction of the 230 kV Transmission Line Associated with the Independence Energy Connection - East and West Projects in portions of York and Franklin Counties, Pennsylvania*, Pennsylvania Public Utility Commission, Docket Nos. A-2017-2640195, et al. 2018. Concerning regulatory policy and benefit-cost analysis for a proposed high-voltage electric transmission line, on behalf of the Pennsylvania Office of Consumer Advocate.
191. *Pa. Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Pennsylvania Public Utility Commission, Docket Nos. R-2018-3002645, et al. 2018. Concerning cost-of-service study and rate design for a water and wastewater utility, on behalf of the Pennsylvania Office of Consumer Advocate.
192. *West Virginia-American Water Company Rule 42T Tariff Filing to Increase Rates and Charges*, West Virginia Public Service Commission, Case No. 18-0573-W-42T, et al. 2018. Concerning revenue decoupling, on behalf of the Consumer Advocate Division.
193. *Philadelphia Gas Works and Philadelphia Facilities Management Corporation Petition for Approval and Recommendation for Approval of Certain Transactions and Contracts for the Purchase, Storage, Distribution and/or Transmission of Natural and Other Gas, and also Certain Transactions and Contracts Respecting Real Property Owned by the City of Philadelphia and Operated by the*

Philadelphia Gas Works, Philadelphia Gas Commission. 2018. Concerning regulatory policy and cost-benefit analysis for a proposed public-private partnership, on behalf of the Philadelphia Public Advocate.

194. *Pa. Public Utility Commission v. Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc.*, Pennsylvania Public Utility Commission, Docket Nos. R-2018-3003558, et al. 2018. Concerning rate design, class revenue allocation, and automatic rate adjustment mechanism, on behalf of the Pennsylvania Office of Consumer Advocate.

195. *In the Matter of Commission Initiated Investigation into Rates and Revenue Requirements and Customer Service and Communication Issues Pertaining to Central Maine Power Company*, Maine Public Utilities Commission, Docket No. 2018-00194. 2019. Concerning cost-of-service studies and rate design, on behalf of the Maine Office of Public Advocate.

196. *Northern Illinois Gas Company d/b/a Nicor Gas Company: Proposed general increase in gas rates*, Illinois Commerce Commission, Docket No. 18-1775. 2019. Concerning rate design, cost-of-service study, class revenue allocation, and automatic rate adjustment mechanisms, on behalf of the Illinois Office of the Attorney General.

SCHEDULE SJR-1

Response of Pittsburgh Water and Sewer Authority (“PWSA”) Page 1 of 2
to the Interrogatories of the Bureau of Investigation and Enforcements,
Set I&E-RB-12 through I&E-RB-56
Docket No. M-2018-2640802 and Docket No. M-2018-2640803

Request: I&E-RB-53 On p. 109 of the PWSA Compliance Plan filed on September 28, 2018, PWSA indicates that because the plumbing at many of the non-metered locations was not designed to accept meters, a significant amount of re-plumbing and/or construction may be required at some sites. Is PWSA able to provide more detail regarding the type and number of locations that are not designed to accept meters?

Response: PWSA’s current plan to implement rates for unmetered and/or unbilled usage (including City Usage) is address in PWSA St. No. C-1, pp 26-31. As agreed to in the settlement, PWSA is considering the proposal for a flat rate for both water and wastewater for all unmetered and unbilled municipal and government properties or buildings served by PWSA for inclusion in its next base rate case.

Response Robert A. Weimar, Executive Director
Provided by: The Pittsburgh Water and Sewer Authority

Dated: February 28, 2019

Response of Pittsburgh Water and Sewer Authority (“PWSA”) Page 2 of 2
to the Interrogatories of the Bureau of Investigation and Enforcements,
Set I&E-RB-12 through I&E-RB-56
Docket No. M-2018-2640802 and Docket No. M-2018-2640803

Request: I&E-RB-54 Pending completion of metering requirements, discuss whether PWSA has any plans to charge a flat rate to customers receiving unmetered service that are currently not charged a flat rate.

Response: See PWSA St. No. C-1 at 26-31 which describes PWSA’s current plan for implementing rates for all unmetered and/or unbilled city usage. PWSA is proposing a phase/step approach for several reasons including the fact that the City is not currently prepared to immediately begin making payments for water at sites that are not metered and neither the City nor PWSA has a suitable way to determine the amount of water being used at those sites, or proper level of charges without the ability to meter. Therefore, PWSA does not believe that immediately charging the City on an “unmetered” basis for all of its locations is appropriate or reasonable. However and consistent with the rate case settlement agreement, PWSA is in the process of considering the proposal for a flat rate for both water and wastewater unmetered and unbilled municipal and government properties or buildings served by PWSA for inclusion in the next base rate.

Response Robert A. Weimar, Executive Director
Provided by: The Pittsburgh Water and Sewer Authority

Dated: February 27, 2019

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, SCOTT J. RUBIN, hereby state that the facts set forth in my Direct Testimony, OCA Statement 2, 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).

DATE: April 5, 2019

Signed: _____


SCOTT J. RUBIN

*269476

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

**IMPLEMENTATION OF CHAPTER 32 OF THE
PUBLIC UTILITY CODE REGARDING
PITTSBURGH WATER AND SEWER AUTHORITY – STAGE 1**

DOCKET NOS. M-2018-2640802 and M-2018-2640803

TESTIMONY

OF

BARBARA R. ALEXANDER

Barbara Alexander Consulting LLC

ON BEHALF OF THE

OFFICE OF CONSUMER ADVOCATE

April 5, 2019

1 **I. INTRODUCTION AND SUMMARY**
2

3 Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

4 A. My name is Barbara R. Alexander. I am the sole member of Barbara Alexander Consulting
5 LLC. My address is 83 Wedgewood Dr., Winthrop, ME 04364. I appear in this case as a
6 witness on behalf of the Office of Consumer Advocate (OCA).

7 Q. PLEASE DESCRIBE YOUR BACKGROUND AND QUALIFICATIONS.

8 A. I have a 30-year experience as an expert in consumer protection, service quality, and low
9 income programs for public utilities and retail alternative energy suppliers. I was the
10 Director of the Consumer Assistance Division for the Maine Public Utilities Commission
11 from 1986-1996 and have operated my own consulting practice for public advocates and
12 consumers since that time. I have testified in over 30 U.S. and Canadian jurisdictions,
13 including testimony before the Pennsylvania Public Utility Commission in many
14 proceedings. My C.V. attached to this testimony as Exhibit BA-1 lists all my publications
15 and testimony associated with my consulting practice.

16 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY REGARDING THE PITTSBURGH
17 WATER AND SEWER AUTHORITY?

18 A. Yes. I filed Direct and Surrebuttal Testimony on behalf of the OCA in the Pittsburgh
19 Water and Sewer Authority (PWSA or Authority) base rate case in Docket Nos. R-2018-
20 3002645 and R-2018-3002647.

21 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

22 A. I am filing Direct Testimony on behalf of the OCA in response to the Testimony filed on
23 February 14, 2019 by Ms. Julie Quigley, director of Administration for the PWSA (PWSA

1 St. No. C-4). Ms. Quigley's Testimony on PWSA's Compliance Plan and the Supplement
2 to the Compliance Plan addressed the Commission's Directed Questions and certain
3 provisions of the settlement of the base rate case¹ relating to PWSA's residential billing,
4 collection, and service termination policies and practices, as well as issues relating to
5 PWSA's customer service performance.

6 Q. DO YOU HAVE EXHIBITS ATTACHED TO YOUR TESTIMONY?

7 A. Yes. I attach my C.V. as Exhibit BA-1 and PWSA's response to OCA-I-2, Attachment A
8 as Exhibit BA-2.

9 Q. WILL YOU ADDRESS ALL THE CUSTOMER SERVICE PERFORMANCE AND
10 CONSUMER PROTECTION COMPLIANCE ISSUES INCLUDED IN THE RATE
11 CASE SETTLEMENT AND ADDRESSED BY MS. QUIGLEY IN HER TESTIMONY?

12 A. No. The Commission has ordered that certain customer service performance and consumer
13 protection issues included in the Settlement as issues that would be addressed in the
14 Compliance Plan will be resolved in a Stage 2 proceeding that will follow collaborative
15 workshops and meetings to be held in 2019. However, the Commission has directed that
16 termination-related notices and practices be addressed in this Stage 1 consideration of
17 PWSA's Compliance Plan. I will address the termination issues in response to Ms.
18 Quigley's Compliance Plan Testimony. I assume that Ms. Quigley's testimony concerning
19 the status of other requirements of the Settlement related to consumer protection and
20 customer service performance will be addressed in Stage 2 of this proceeding and will not
21 be viewed as dispositive of those issues at this time.

¹ See Pa. P.U.C. v. Pittsburgh Water and Sewer Authority, Docket Nos. R-2018-3002645 (water) and R-2018-3002647 (wastewater) ("Settlement").

1 **II. TERMINATION OF SERVICE FOR RESIDENTIAL CUSTOMERS**

2
3 Q. DOES PWSA COMPLY WITH THE TERMINATION PRACTICES MANDATED BY
4 CHAPTER 56 OF THE COMMISSION'S REGULATIONS?

5 A. Not in one important requirement. PWSA continues to claim that the utility is not required
6 to attempt contact with the residential customers "immediately preceding" the termination
7 of service. PWSA should immediately reform its termination policies to require an attempt
8 at personal contact with the residential customer at the customer's premises prior to actual
9 termination of service as required by Chapter 56. 52 Pa. Code §§ 56.94, 56.334. This issue
10 is not one that is properly deferred or subject to further discussions in the informal
11 workshops since it is a plain language requirement of Chapter 56 that is recognized by
12 other Pennsylvania utilities. Furthermore, the basic training for PWSA's field agents
13 charged with conducting termination of residential customers for nonpayment or other
14 involuntary reasons should be modified to document the obligation to comply with this
15 requirement and the rights reflected in the Commission's regulations at the time of
16 termination of service.

17 Q. PLEASE COMMENT ON MS. QUIGLEY'S TESTIMONY AT PAGES 13-16
18 REGARDING HER INTERPRETATION OF THE PLAIN LANGUAGE OF THE
19 COMMISSION'S REGULATIONS THAT MANDATES THAT A UTILITY ATTEMPT
20 CONTACT WITH THE CUSTOMER IMMEDIATELY PRIOR TO TERMINATION OF
21 SERVICE.

22 A. It has been black letter law for many years in Pennsylvania that Chapter 56 requires a utility
23 to attempt contact with the customer "immediately preceding" the termination of service,
24 a phrase that Ms. Quigley ignores or that she interprets to refer to attempts at contact by

1 phone or posting of required notices that occur prior to the termination at the customer's
2 premises. This obligation to "knock on the door" is widely understood and implemented
3 by other public utilities in Pennsylvania, even those who have installed smart meters that
4 have the capability of remote disconnection. The regulations, at 52 Pa. Code Sec. 56.93
5 (water utilities) and 56.333 (wastewater utilities), state that a written termination notice can
6 be posted at the residence only if the utility is "unsuccessful in attempting to personally
7 contact a responsible adult occupant during the home visit." Clearly, the attempt at
8 "personal contact" means more than attempting a phone call or posting a notice after the
9 termination has already occurred. The Commission's Final Implementation Order for the
10 process of integrating PWSA into the Commission's jurisdiction explicitly stated that
11 terminations after April 1, 2018 must comply with the regulations at 52 Pa. Code Sections
12 56.81-131, "including but not limited to compliance with the general notice provisions and
13 contents of termination notices, **and personal contact requirements**. PWSA may not
14 terminate customers, after April 1, for whom these regulatory requirements were not
15 followed."² [Emphasis added.] The Commission should order PWSA to immediately
16 adopt internal policies and procedures to comply with the plain language meaning of this
17 requirement.

18 Q. IS IT CORRECT THAT POSTING THE TERMINATION NOTICE AT THE
19 CUSTOMERS' PREMISES AFTER TERMINATION HAS OCCURRED IS A
20 SUBSTITUTE FOR ATTEMPTING CONTACT BEFORE THE TERMINATION
21 ITSELF?

22 A. No. Ms. Quigley's reliance on the posted notice fails to recognize that the obligation to

² Final Implementation Order, at 19.

1 attempt contact must occur prior to the termination itself. The wording “immediately
2 preceding” should be sufficient grounds to reject Ms. Quigley’s reliance on a posted notice
3 after the termination has occurred to justify compliance with this statutory and regulatory
4 obligation.

5 Q. PLEASE COMMENT ON MS. QUIGLEY’S CITATIONS, AT PAGES 14-15, TO
6 SEVERAL COMMISSION ORDERS THAT SHE CLAIMS SUPPORT HER POSITION
7 THAT PWSA IS NOT REQUIRED TO ATTEMPT CONTACT WITH THE
8 RESIDENTIAL CUSTOMER AT THE TIME OF TERMINATION OF SERVICE.

9 A. Ms. Quigley’s citations do not support her position. She cites to *Juffe v. Metropolitan*
10 *Edison Company*, Docket No. F-2010-2192131, Initial Decision (March 16, 2012),
11 approved by Final Order (May 4, 2012) (“There is no requirement that Respondent make
12 personal contact with Complainant, only that an attempt is made. Leaving a written notice
13 in a conspicuous place at the residence is sufficient to satisfy the notice requirement.”).
14 However, the record of this decision makes clear that the electric utility did in fact attempt
15 personal contact with the customer at the time of termination of service. In other words,
16 the Commission’s statement quoted by Ms. Quigley only confirms the obligation to
17 “attempt” contact and does not require that termination be halted if the attempt to contact
18 the customer is not successful.

19 Ms. Quigley also cites to *Linda Spotti v. Equitable Gas Company, LLC*, Docket No.
20 C-2012-2305688, Initial Decision (May 24, 2013), approved by Final Order July 19, 2013)
21 (“The evidence establishes that a personal contact was attempted but unsuccessful and a
22 three-day notice was posted on a door at the Service Address on May 2, 2012.”). This
23 decision also makes clear that the utility did attempt contact at the customer’s premises

1 prior to the termination of service, but was unsuccessful, again, reflecting the proper
2 understanding of the Commission's rules.

3 A third citation included in Ms. Quigley's testimony (*Thomas Crock v. Duquesne*
4 *Light Company*, Docket No. C-2008-2071881, Initial Decision (July 29, 2009), approved
5 by Final Order (Sept. 18, 2009)) is also not helpful to PWSA's position on whether a utility
6 is obligated to attempt contact at the customer's premises immediately prior to termination
7 of service. This case was a formal complaint filed by a customer who alleged that he had
8 not received proper written notice of termination of service. The Initial Decision recites
9 facts that do not address whether Duquesne attempted contact at the premises prior to
10 termination of service because the customer's complaint did not go to that issue at all.³
11 Therefore, it is not appropriate to suggest that this resolution of a formal customer
12 complaint is relevant to the issue of whether or how the utility has an obligation to attempt
13 personal contact prior to termination of service.

14 Q. IS A PUBLIC UTILITY IN PENNSYLVANIA REQUIRED TO NEGOTIATE
15 PAYMENT PLANS WITH CUSTOMERS AT THE TIME OF THIS PERSONAL
16 CONTACT IMMEDIATELY PRIOR TO TERMINATION?

17 A. No. In her testimony, Ms. Quigley raises a concern regarding PWSA's personnel
18 accepting payments on-site, stating, "PWSA does not have the resources to enable field
19 personnel to negotiate a payment arrangement or accept payment on site, and, therefore,
20 they are not able to resolve the issue driving the termination." PWSA St. No. C-4, at 13,
21 18-21. In addition, she states, "Even if PWSA were to actively seek out persons in the

³ The Initial Decision is available through the Commission's docketing system:
<http://www.puc.state.pa.us/pcdocs/1051163.docx> The Commission dismissed the complaint following this Initial
Decision without further discussion.

1 field to speak with them about the pending termination, these personnel are not trained to
2 negotiate payment arrangements, nor are they equipped to process payment in real time.”
3 PWSA St. No. C-4 at 15, 12-14. Ms. Quigley’s concern that links accepting payment
4 with negotiating payment arrangements overstates the regulation. Nor is a utility
5 employee or agent required to accept cash in the field. If there is a need for PWSA to
6 clarify its responsibilities if contact is made and payment is offered, that is an appropriate
7 topic for discussion in the Stage 2 proceeding and the informal discussion workshops.
8 However, to use this issue as an excuse not to attempt contact with the customer at the
9 time of termination of service is not reasonable. As a result, Ms. Quigley’s concern
10 about this aspect of the requirement is not dispositive in the implementation of this
11 provision of Chapter 56. However, I should note that several Pennsylvania utilities (e.g.,
12 Peoples Natural Gas distribution companies) do accept payment at the time of
13 termination of service.

14 Q. WHAT ABOUT MS. QUIGLEY’S CONCERN, AT PAGES 13-16, ABOUT THE
15 SAFETY OF PWSA’S FIELD EMPLOYEES AT THE TIME OF TERMINATION OF
16 SERVICE?

17 A. Ms. Quigley’s claim that PWSA would need to hire security guards to accompany
18 employees that attempt personal contact at the time of termination of service is not a
19 reasonable assumption in light of the practices of other Pennsylvania public utilities.
20 PWSA St. C-4, at 14, 9-10. There is no basis to assume that the attempt at personal
21 contact immediately prior to termination will cause any additional safety related concerns
22 compared to the actual act of termination itself. Of course, any utility employee should
23 be instructed to leave the premises to seek proper assistance if there is any concern for

1 personal safety. There is no rule of the Commission that would suggest that field actions
2 by utility employees be undertaken without regard to personal safety concerns. Other
3 Pennsylvania utilities conform to this requirement to attempt contact at the time of
4 termination of service and PWSA should consult with other utilities to adopt best
5 practices regarding training and instructions on how to respond to situations that appear
6 to threaten employee safety.

7 Q. DO YOU AGREE THAT PWSA HAS PROPERLY TRAINED ITS FIELD
8 PERSONNEL IN HOW TO RESPOND TO CONTACTS WITH CUSTOMERS AT
9 THE TIME OF TERMINATION OF SERVICE?

10 A. No. Ms. Quigley states that PWSA's field personnel and contractors are trained to handle
11 customer contacts should they occur with regard to termination of service and that the
12 rights related to medical emergency and Protection from Abuse Orders will be honored.
13 She states in her testimony, "Field personnel are directed to advise any responsible adult
14 occupant they encounter to provide the person with PWSA's Customer Service
15 Telephone."⁴ However, there is no evidence that PWSA has trained its field personnel on
16 how to respond to customer contacts in the field if these issues arise or customers allege
17 protections that require that termination be halted and a dispute recognized. When asked
18 to provide the training materials given to PWSA field agents with regard to termination
19 of service, the materials provided describe a high level listing of the Chapter 56
20 protections and certain changes to the termination process. However, none of these

⁴ Direct Testimony of Ms. Quigley, PWSA Statement No. C-4, at 11. See, also her testimony at 13, "If PWSA is unable to personally contact the customer via telephone (or the customer does not make payment to satisfy the outstanding amount), PWSA field personnel go to the residence to post the written notice of termination. PWSA field personnel will provide the PWSA Customer Service contact telephone number when they encounter customers during this process.'

1 materials explicitly train field agents on their obligation to attempt contact with
2 residential customers at the time of termination of service or how to handle interactions
3 with customers who allege their rights set forth in Chapter 56 to avoid termination of
4 service. Nor do the training materials instruct PWSA field agents to direct the customer
5 to call the PWSA call center.⁵

6 Q. IS IT SUFFICIENT, AS MS. QUIGLEY STATES, AT PAGES 13-15, FOR PWSA TO
7 INSTRUCT ITS FIELD AGENTS TO INFORM CUSTOMERS WHO QUESTION
8 TERMINATION OR SEEK TO AVOID TERMINATION TO CALL THE PWSA
9 CALL CENTER?

10 A. No. First, while Ms. Quigley states that field personnel are instructed to direct customers
11 to contact PWSA's call center in order to avoid termination, the training materials do not
12 address this instruction.⁶ The document referenced by PWSA does list the Chapter 56
13 protections, but the materials do not include any training to field agents on how to handle
14 customer interactions on these matters at the time of termination of service. There is no
15 explicit instruction in the training materials to halt termination if the customer alleges any
16 of these rights. Nor is there any explicit instruction to the field agents to direct customers
17 to call the PWSA call center. Second, while I understand that PWSA field agents may
18 not be required to accept cash payments and negotiate payment plans, these field agents
19 should be trained and instructed when and why to recognize valid customer reasons to

⁵ PWSA Response to OCA-I-2, Attachment A (CP).

⁶ OCA-I-3 (CP) asked PWSA to confirm and describe how PWSA field agents are trained to implement the 52 Pa. Code §§ 56.94 and 56.334 provision that requires that any employee who has a personal contact with a customer at the time of termination of service must be able to respond to a customer's declaration of payment made, a medical emergency, a dispute or complaint pending, or that payment in full is tendered, "then termination may not occur." PWSA's response stated that its field agents are so trained and pointed to page 10 of the slide presentation provided in response to OCA-I-2, Attachment A.

1 halt the termination process and to accept, for example, oral declarations of medical
2 emergency and other Protection From Abuse (PFA) situations. If the field agent is
3 instructed to halt termination when a customer seeks to negotiate a payment arrangement
4 or alleges that payment was made that day or the prior day and refer the customer to the
5 PWSA call center for the implementation of these issues, that is appropriate. However,
6 field agents should be trained to recognize potentially harmful conditions and indicia of
7 potential harm if termination should occur and be given specific instructions on how to
8 respond to such situations, including back channel communications with managers and
9 other appropriate PWSA personnel. However, the lack of any specific training or
10 directives on these issues and the specific rights mentioned in 52 Pa. Code Sec. 56.94
11 (water utilities) and 56.334 (wastewater utilities), should be remedied immediately.⁷

12 Q. DOES THIS COMPLETE YOUR TESTIMONY AT THIS TIME?

13 A. Yes.

⁷ The Settlement at D.7 requires PWSA to revise internal medical certificate policies, train all employees to temporarily stop termination if informed of medical emergency, and make additional policy changes to conform to Ch. 14 and Ch. 56. The revised and updated training materials attached to Ms. Quigley's testimony (Exhibit JAQ-C-8) and provided to the Informal Discussion Workshops to date focus on training customer service representatives at the call center and do not address field agent training on how these issues should be handled during the termination of service.

Exhibit BA-1

BARBARA R. ALEXANDER

BARBARA ALEXANDER CONSULTING LLC

83 Wedgewood Dr.
Winthrop, ME 04364

Telephone: (207)395-4143
E-mail: barbalex@ctel.net

Recent Clients:

The Utility Reform Network (TURN) (California)
Pennsylvania Office of Consumer Advocate
Public Counsel Unit, Attorney General, Washington
Arkansas Attorney General
The Public Utility Project of New York
Ohio Office of Consumer Counsel
District of Columbia Office of People's Counsel
Delaware Division of Public Advocate
Maryland Office of People's Counsel

Areas of Expertise:

- Default Service, Consumer Protection, Service Quality, and Universal Service policies and programs associated with the alternative rate plans and mergers;
- Consumer Protection and Service Quality policies and programs associated with the regulation of competitive energy and telecommunications providers;
- The regulatory policies associated with the regulation of Credit, Collection, Consumer Protection, Low Income, and Service Quality programs and policies for public utilities;
- Rate design and pricing policies applicable to residential customers; and
- Advanced Metering Infrastructure and Grid Modernization costs and benefits, time-based pricing proposals, and performance standards.

Prior Employment

DIRECTOR

*Consumer Assistance Division
Maine Public Utilities Commission*

1986-96

Augusta, Maine

One of five division directors appointed by a three-member regulatory commission and part of commission management team. Direct supervision of 10 employees, oversight of public utility consumer complaint function, appearance as an expert witness on customer services, consumer protection, service quality and low income policy issues before the PUC. Chair, NARUC Staff Subcommittee on Consumer Affairs.

SUPERINTENDENT

1979-83

Bureau of Consumer Credit Protection

Department of Professional and Financial Regulation

Augusta, Maine

Director of an independent regulatory agency charged with the implementation of Maine Consumer Credit Code and Truth in Lending Act. Investigations and audits of financial institutions and retail creditors, enforcement activities, testimony before Maine Legislature and U.S. Congress.

Education

JURIS DOCTOR

1973-76

University of Maine School of Law

Portland, Maine

Admitted to the Bar of the State of Maine, September 1976. Currently registered as “inactive.”

B.A. (WITH DISTINCTION) IN POLITICAL SCIENCE

University of Michigan

1964-68

Ann Arbor, Michigan

Publications and Testimony

“How to Construct a Service Quality Index in Performance-Based Ratemaking”, The Electricity Journal, April, 1996

“The Consumer Protection Agenda in the Electric Restructuring Debate”, William A. Spratley & Associates, May, 1996

Direct Testimony on behalf of the Telecommunications Workers Union, Telecom Public Notice 96-8, Price Cap Regulation and Related Issues, Canadian Radio-Television and Telecommunications Commission, September, 1996. [Analysis of and recommendations concerning the need to regulate service quality in move to price cap regulation]

Direct Testimony on behalf of Public Counsel Section, Office of Attorney General, Docket No. UE-960195, Application by Puget Sound Power and Light Co. And Washington Natural Gas Co. For Approval of Merger), Washington Utilities and Transportation Commission, September, 1996 [Need for and design of a Service Quality Index for both electric and gas business units as part of a multi-year rate plan]

Consumer Protection Proposals for Retail Electric Competition: Model Legislation and Regulations”, Regulatory Assistance Project, Gardiner, ME, October, 1996

Direct and Rebuttal Testimony on behalf of the Citizens Utility Board (IL), Docket 96-0178, Illinois Commerce Commission, CUB v. Illinois Bell Telephone Co., January 22, 1997; July, 1997. [Analysis of recent service quality performance and recommendations for changes in current service quality performance plan]

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, Restructuring Proceedings before the Pennsylvania PUC: PECO Energy; Pennsylvania Power and Light Co.; GPU Energy; Duquesne Light Co.; West Penn Power Co., UGI-Electric, Pennsylvania Power Co., Pike County Light and Power Co. (1997 and 1998). [Specific consumer protection, consumer education and supplier-utility-customer interactions necessary for move to electric restructuring]

“The Transition to Local Telecommunications Competition: A New Challenge for Consumer Protection”, Public Counsel Section, Washington Attorney General, October, 1997. [Reprinted in part in NRRI Quarterly Bulletin, Vol. 19, N0.1, Spring, 1998]

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of Ratepayer Advocate, Restructuring Proceedings before the New Jersey Board of Public Utilities: Public Service Electric and Gas, Jersey Central (GPU), Rockland Electric Co., Atlantic Electric Co., March-April, 1998. [Phase-in and customer enrollment, Code of Conduct, consumer protections associated with the provision of Provider of Last Resort service]

Oppenheim, Gerald (NCLC) and Alexander, Barbara, Model Electricity Consumer Protection Disclosures, A Report to the National Council on Competition and the Electric Industry, April 1998.

Direct and Reply Testimony on behalf of the Maryland Office of People’s Counsel, Investigation into Certain Unauthorized Practices (Slamming and Cramming), Case. No. 8776, before the Maryland Public Service Commission, 1998 and 1999.

Direct Testimony on behalf of the Maryland Office of People’s Counsel, Universal Service Issues, Case No. 8745, before the Maryland Public Service Commission, November 20, 1998.

“Cramming is the Last Straw: A Proposal to Prevent and Discourage the Use of the Local Telephone Bill to Commit Fraud,” NRRI Quarterly Bulletin, Fall. 1998.

Alexander, Barbara, Retail Electric Competition: A Blueprint for Consumer Protection, U.S. Department of Energy, Office of Energy and Renewable Energy, Washington, D.C., October 1998.

Alexander, Barbara, “Consumer Protection Issues in Electric Restructuring for Colorado: A Report to the Colorado Electricity Advisory Panel,” on behalf of the Colorado Office of Consumer Counsel, February 1999.

Testimony on Proposed Interim Rules (Consumer Protection, Customer Enrollment, Code of Conduct, Supplier Licensing) on behalf of the New Jersey Division of Ratepayer Advocate before the New Jersey BPU, May 1999.

Direct Testimony on behalf of AARP, West Virginia PUC Investigation into Retail Electric Competition (consumer protection, universal service, Code of Conduct), June 15, 1999.

Direct and Surrebuttal Testimony on behalf of the Pennsylvania OCA, Natural Gas Restructuring proceedings (8 natural gas utilities): consumer protection; consumer education; code of conduct, before the Pennsylvania PUC, October 1999-April 2000.

Comments on Draft Rules addressing Slamming and Cramming (Docket No. RMU-99-7) on behalf of the Iowa Office of Consumer Advocate, before the Iowa Utilities Board, October 1999.

Alexander, Barbara, "Door to Door Sales of Competitive Energy Services," LEAP Letter, January-February 2000 [Wm. A. Spratley & Associates, Columbus, OH]

Direct Testimony on behalf of the Maine Office of Public Advocate, Central Maine Power Company Alternative Regulation Plan [Docket 99-666] on service quality issues, before the Maine PUC, May 2000.

Direct Testimony on behalf of AARP, Universal Service Programs and Funding of low-income programs for electric and natural gas service, before the New Jersey Board of Public Utilities, Docket No. EX000200091, July, 2000.

Comments (on behalf of NASUCA and AARP) on Uniform Business Practices Reports, May and September 2000.

Direct Testimony on behalf of the Pennsylvania OCA, Verizon-Pennsylvania Structural Separation Plan on service quality, customer service and consumer protection issues [Docket No. M-00001353] before the Pennsylvania PUC, October 2000.

Direct and Rebuttal Testimony on behalf of the Maine Office of Public Advocate, Verizon-Maine Alternative Form of Regulation on service quality issues [Docket No. 99-851] before the Maine PUC, January and February 2001.

Direct and Rebuttal Testimony on behalf of the Citizens Utility Board, Nicor Gas Customer Select Pilot Program, on consumer protection and regulation of competitive natural gas suppliers [Docket Nos. 00-0620 and 00-0621] before the Illinois Commerce Commission, December 2000 and February 2001.

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate on consumer protection and service quality issues associated with the pending merger between GPU Energy and FirstEnergy, before the Pennsylvania PUC, Docket Nos. A-110300F0095 and A-110400F.0040 (February and March, 2001)

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of Ratepayer Advocate on consumer protection, service quality, and universal service issues associated with the pending merger between GPU Energy and FirstEnergy, before the New Jersey Board of Public Utilities, Docket No. EM00110870 (April 2001).

Alexander, Barbara, "Default Service: What Should be Done When the Experiment Goes Awry?" (April 2001)

Responsive Testimony on behalf of the New Jersey Division of Ratepayer Advocate on service quality issues associated with a Plan for Alternative Regulation by Verizon-New Jersey, before the New Jersey Board of Public Utilities, Docket No. To01020095 (May 2001).

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of Ratepayer Advocate on service quality, consumer protection, and universal service issues associated with the pending merger between Conectiv and Pepco, before the New Jersey Board of Public Utilities, BPU Docket No. EM101050308 (September and November 2001).

Direct Testimony on behalf of the Public Interest Advocacy Centre (and others) on service quality regulation in the context of price cap rate plans, before the Canadian Radio-Television and Telecommunications Commission, Docket No. CRTC 2001-37 (August 2001).

Alexander, Barbara, "Default Service: What Should be Done when the Experiment Goes Awry?" An Update to the April 2001 paper (October 2001).

Expert Witness Report, Sparks v. AT&T and Lucent Technologies, October 2001 [National class action lawsuit concerning the leasing of residential telephones]

Expert Witness Report, Brown v. Reliant Energy, November 2001 [Claim of negligence in death of elderly resident after disconnection of electric service]

Comments on behalf of the Pennsylvania Office of Consumer Advocate on consumer protection, disclosure, and education program Guidelines applicable to local exchange telephone competition, before the Pennsylvania PUC, January 2002.

Alexander, Barbara, "Default Service for Retail Electric Competition: Can Residential and Low-Income Customers be Protected When the Experiment Goes Awry?" (April 2002) Available at www.ncat.org/liheap/pubs/barbadefault3.doc

Comments on behalf of AARP before the California PUC on CARE (low income program) concerning Rapid Deployment, Rulemaking 01-08-027 (2001 and 2002).

Comments on behalf of Citizens Utility Board before the Illinois Commerce Commission on Proposed Rule to Allow the Use of Credit Scoring to Determine When a Deposit May be Required, ICC Docket No. 01-0644, June 24, 2002.

Comments on behalf of Consumer Groups before the Texas PUC on Rulemaking Proceeding to Amend Requirements for Provider of Last Resort Service, Docket No. 25360, June 28, 2002.

Direct Testimony on behalf of the New Jersey Division of Ratepayer Advocate before the Board of Public Utilities on Joint Petition of New Jersey-American Water Co. and Thames Water Aqua Holding for Approval of a Change in Control of New Jersey-American Water Co., Docket No. WM01120833, July 18, 2002.

Alexander, Barbara, Consumer Education Programs to Accompany the Move to Retail Electric Competition, prepared for the National Association of State Utility Consumer Advocates (NASUCA), July 2002. Available at www.nasuca.org

Direct Testimony on behalf of New Jersey Division of Ratepayer Advocate before the Board of Public Utilities on Petition of NUI Utilities d/b/a Elizabethtown Gas Co. for Approval of Increased Base Tariff Rates and Charges for Gas Service, Docket No. GR02040245, September 6, 2002.

Alexander, Barbara, An Analysis of Residential Energy Markets in Georgia, Massachusetts, Ohio, New York, and Texas, prepared for the National Energy Affordability and Accessibility Project, National Center for Appropriate Technology, September 2002. Available at www.ncat.org/neaap

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC on Philadelphia Gas Works' Gas Restructuring Filing, Docket No. M-00021612, September 2002 and November 2002.

Direct Testimony on behalf of Consumer Groups before the Texas PUC on Notice and Request of Mutual Energy CPL and Mutual Energy WTU for Approval of Changes in Ownership and Affiliation, Docket No. 25957, October 15, 2002.

Comments on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Advanced Notice of Proposed Rulemaking for Revision of Chapter 54 Pertaining to Electric Generation Supplier Licensing, Docket No. L-00020158, March 5, 2003.

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of Ratepayer Advocate before the New Jersey BPU on Jersey Central Power & Light's base rate case proceeding (service quality and reliability of service), Docket No. ER02080506, ERT02080507, and ER02070417, December 2002 and February 2003.

Alexander, Barbara, "Managing Default Service To Provide Consumer Benefits In Restructured States: Avoiding Short-Term Price Volatility" (National Center for Appropriate Technology, June 2003). Available at: <http://neaap.ncat.org/experts/defservintro.htm>

Comments and Reply Comments on behalf of New Jersey AARP before the New Jersey Board of Public Utilities on Basic Generation Service, Docket No. EO03050394 (August and September 2003).

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of the Ratepayer Advocate before the New Jersey BPU on rate case proceedings for New Jersey-American Water Co., Elizabethtown Water Co., and Mt. Holly Water Co. (service quality and low-income programs and policies), Dockets Nos. WR03070509-WR03070511 (December 2003).

Comments on behalf of the Texas Legal Services Center and other Consumer Groups before the Public Utility Commission of Texas, Proposed Revisions to Chapter 25, Substantive Rules Applicable to Electric Service Providers, Project No. 27084 (December 2003).

Alexander, Barbara, "Natural Gas Price Volatility: Regulatory Policies to Assure Affordable and Stable Gas Supply Prices for Residential Customers," (2004), available at <http://www.ncat.org/liheap/news/Feb04/gaspricevol.htm>

Alexander, Barbara, "Montana's Universal Systems Benefit Programs and Funding for Low Income Programs: Recommendations for Reform: A Report to AARP" (January 2004).

Comments and Reply Comments on behalf of the Colorado Office of Consumer Counsel before the Public Utilities Commission of Colorado, In the Matter of the Proposed Repeal and Reenactment of all Rules Regulating Gas Utilities (Docket No. 03R-520G) and Electric Utilities (Docket No. 03R-519E) (February and September 2004).

Direct, Rebuttal, and Supplemental Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of Duquesne Light Co. for Approval of Plan for Post-Transition Period POLR Services, Docket No. P-00032071 (February-April 2004).

Comments on behalf of AARP before the California PUC, Order Instituting Rulemaking on the Commission's Own Motion to Establish Consumer Rights and Consumer Protection Rules Applicable to All Telecommunications Utilities, R. 00-02-004 (March 2004).

Comments and Reply Comments on behalf of AARP before the Maine PUC, Inquiry into Standard Offer Supply Procurement for Residential and Small Commercial Customers, Docket No. 2004-147 (April 2004).

Comments on behalf of Wisconsin Citizens' Utility Board before the Wisconsin Public Service Commission's Gas Service Standards, Docket No. 1-AC-210 (July 2004).

Comments on behalf of the Colorado Office of Consumer Counsel before the Public Utilities Commission of Colorado, In the Matter of the Proposed Repeal and Reenactment of all Rules Regulating Telephone Utilities and Providers (Docket No. 03R-524T) (September 2004).

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Investigation of Metropolitan Edison Co., Pennsylvania Electric Co. and Pennsylvania Power Co. Reliability Performance, Docket no. I-00040102, [customer service and reliability performance] (June 2004).

Direct and Surrebuttal Testimony on behalf of the Vermont Department of Public Service before the Vermont Board of Public Utilities, Investigation into Successor Alternative Regulatory Plan for Verizon Vermont, Docket 6959 [Service Quality] (November 2004 and March 2005).

Alexander, Barbara, "Vermont Energy Programs for Low-Income Electric And Gas Customers: Filling The Gap" (November 2004), Prepared for AARP Vermont.

Direct and Surrebuttal Testimony on behalf of Wisconsin Citizens' Utility Board before the Wisconsin Public Service Commission, Application of Wisconsin Power and Light Co. for Authority to Increase Retail Electric, Natural Gas and Ripon Water Rates, Docket No. 6680-UR-114 [customer service, credit and collection programs and expenses, low income programs, fixed bill program] (April 2005).

Comments on behalf of the Maine Office of Public Advocate before the Maine Public Utilities Commission, Inquiry into Revisions to Chapter 81, Residential Utility Service Standards for Credit and Collection Programs, and Chapter 86, Disconnection and Deposit Regulations for Nonresidential Utility Service, Docket No. 2005-005 (April and May 2005).

Direct and Rebuttal Testimony on behalf of AARP Montana before the Montana Public Service Commission, Northwestern Energy Electric Cost Tracker, Docket No. D2004.6.90 [Default Service cost recovery policies and integration with low income programs] (December 2004 and July 2005).

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utilities Commission, Joint Application of PECO Energy Co. and Public Service Electric and Gas Co. for Approval of the Merger of Public Service Enterprise Group, Inc. with and into Exelon Corporation, Docket No. A-110550F0160 [customer service, reliability of service, low income programs] (June 2005).

Direct Testimony on behalf of Illinois Citizens' Utility Board, City of Chicago, and Community Action for Fair Utility Practice, before the Illinois Commerce Commission, Petition to Initiate Rulemaking with Notice and Comment for Approval of Certain Amendments to Illinois Administrative Code Part 280 Concerning Deposit Requests and Deposit Refunds by Utilities, Docket No. 05-0237 (June 2005).

Direct Testimony on behalf of The Utility Reform Network (TURN) before the California Public Utilities Commission, Order Instituting Rulemaking on the Commission's Own Motion to Establish Consumer Rights and Consumer Protection Rules Applicable to All Telecommunications Utilities, Docket R-00-02-004 (August 2005).

Alexander, Barbara, Red Flags for Consumer Protection Policies Governing Essential Electric and Gas Utility Services: How to Avoid Adverse Impacts on Low-Income Consumers, prepared under contract with Oak Ridge National Laboratory Energy Division (October 2005).

Comments on behalf of Texas Office of Public Utility Counsel, Texas Legal Services Center, Texas Ratepayers' Organization to Save Energy and AARP Texas, before the Texas PUC, Evaluation of Default Service for Residential Customers and Review of Rules Relating to the Price to Beat and Provider of Last Resort, Project No. 31416 (March 2006) [Default service policies]

Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, In the Matter of the Petition of the Pennsylvania Power Co. for Approval of an Interim Provider of Last Resort Supply Plan, Docket No. P-00052188 [Default Service policies] (December 2005 and January 2006).

Direct and Rebuttal Testimony on behalf of the Maine Office of Public Advocate before the Maine PUC, Investigation into Verizon Maine's Alternative Form of Regulation, Docket No. 2005-155 [Retail Service Quality] (January and May 2006).

Alexander, Barbara, "State Developments Changing for Default/Standard Retail Electric Service," Natural Gas & Electricity, September 2006.

Direct and Rebuttal Testimony on behalf of the Government and Consumer Parties (CUB, Attorney General of Illinois) before the Illinois Commerce Commission, Petition to Initiate Rulemaking with Notice and Comment for Approval of Certain Amendments to Illinois Administrative Code Part 280, Docket No. 06-0379 (May and September 2006). [Consumer Protection rules]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, In Re Application of UGI Utilities, Inc., UGI Utilities Newco, Inc., and Southern Union Co., Docket Nos. A-120011F2000, A-125146, A-125146F5000 (June 2006). [Customer Service, Service Quality, and Universal Services]

Direct and Rebuttal Testimony on behalf of the Maryland Office of People's Counsel before the Maryland PSC, In The Competitive Selection of Electricity Supplier/Standard Offer or Default Service for Investor-Owned Utility Small Commercial Customers and, Delmarva Power and Light and Potomac Electric Power Residential Customers, Case No. 9064 (August and September 2006). [Default Service policies]

Direct and Rebuttal Testimony on behalf of the Maryland Office of People's Counsel before the Maryland PSC, In The Matter of the Optimal Structure of the Electric Industry of Maryland, Case No. 9063 (October and November 2006). [Default service policies]

Comments on behalf of AARP Maine before the Maine PUC on various dockets and notices concerning the implementation of Standard Offer Service for residential customers, Docket Nos. 2006-314, 2006-557, and 2006-411 (July-November 2006). [Default service policies]

Comments on behalf of AARP District of Columbia before the District of Columbia PSC, In the Matter of the Development and Designation of Standard Offer Service in the District of Columbia, Case No. 1017 (2006). [Default service policies]

Comments on behalf of AARP New Jersey before the New Jersey Board of Public Utilities, In the Matter of the Establishment of a Universal Service Fund Pursuant to Section 12 of the Electric Discount and Energy Competition Act of 1999, Docket No. EX00020091 (August 2006) [Recommendations for USF program changes]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Joint Application of Equitable Resources, Inc. and the People's Natural Gas Co., d/b/a Dominion Peoples, for Approval of the Transfer of All Stock Rights of the Latter to the Former and for the Approval of the Transfer of All Stock of Hope Gas, Inc., d/b/a/ Dominion Hope to Equitable Resources, Inc., Docket No. A-122250F5000 (September and October 2006). [Customer Service, Service Quality, and Universal Service issues]

Direct Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Pennsylvania PUC v. Natural Fuel Gas Distribution Corp., Docket No. R-00061493 (September 2006) [Supplier Purchase of Receivables Program]

Direct Testimony on behalf of AARP Montana before the Montana Public Service Commission, Joint Application of NorthWestern Energy and BBI to purchase NorthWestern Energy, Docket No. 2006.6.82 [December 2006] [Conditions for approval of merger; low income and customer service programs]

Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition by PPL Electric Utilities Corp. for Approval of a Competitive Bridge Plan, Docket No. P-00062227 (December 2006) [Default Service policies]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Application of Duquesne Light Company for a Certificate of Public Convenience Under Section 1102(a)(3) of the Public Utility Code Approving the Acquisition of Duquesne Light Holding, Inc. by Merger, Docket A-110150F0035 (December 2006 and January 2007) [Conditions for approval of merger; low income and customer service programs]

Testimony before the House Least Cost Power Procurement Committee, Illinois General Assembly, on HB 1510, on behalf of AARP [March 22, 2007]

Rebuttal and Surrebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of Duquesne Light Co. for Approval of Default Service Plan for January 1, 2008 to December 31, 2010, Docket No. P-00072247 [April 2007] [Default Service policies]

Comments and Reply Comments on behalf of AARP New Jersey before the Board of Public Utilities BGS Working Group concerning BGS procurement policies and proposed demand response program, (March-May 2007) [Default Service policies]

Comments on behalf of AARP New Jersey to the New Jersey BPU Staff on draft proposed USF regulations (May 2007) [Low income program design and implementation]

Alexander, Barbara, Smart Meters, Real Time Pricing, And Demand Response Programs: Implications For Low Income Electric Customers (May 2007)

Direct and Surrebuttal Testimony on behalf of Maine Office of Public Advocate before the Maine Public Utilities Commission, Re: Joint Application for Approvals Related to Verizon's Transfer of Property and Customer Relations to Company to be Merged with and into FairPoint Communications, Inc., Docket 2007-67 (July and September 2007) [Service Quality and Customer Service Conditions for Merger]

Testimony on behalf of AARP Montana before the Montana Public Service Commission, In the Matter of Montana Dakota Utilities Co., Public Service Commission Investigation and Direction on Electric and Natural Gas Universal System Benefits, Docket No. D2006.1.2 (July 30, 2007) [Design and funding for low income programs]

Direct and Surrebuttal Testimony on behalf of Maine Office of Public Advocate before the Maine Public Utilities Commission, Central Maine Power Co. Chapter 120 Information (Post ARP 2000) Transmission and Distribution Utility Revenue Requirement and Rate Design And Request for Alternative Rate Plan, Docket No. 2007-215 (August 30, 2007 and February 2008) [AMI deployment]

Direct and Reply Testimony on behalf of AARP Maryland before the Maryland Public Service Commission, In the Matter of the Commission's Investigation of Investor-Owned Electric Companies' Standard Offer Service for Residential and Small Commercial Customers in Maryland, Case No. 9117, Phase I and II (September 2007) [Default Service policies]

Testimony on behalf of AARP Maryland before the Maryland Public Service Commission, In the Matter of the Commission's Investigation of Advanced Metering Technical Standards, Demand Side Management Competitive Neutrality, and Recovery of Costs of Advanced Meters and Demand Side Management Programs, Case 9111 (November 2, 2007) [Default Service policies; AMI deployment]

Comments on behalf of AARP District of Columbia before the D.C. Public Service Commission, In the Matter of The Application Of Potomac Electric Power Co. For Authorization to Establish A Demand Side Management Surcharge and an Advanced Metering Infrastructure Surcharge And to Establish a DSM Collaborative and an AMI Advisory Group, Formal Case No. 1056 (August 10, September 10, November 13, 2007, April 2008) [Default Service policies; AMI deployment]

Comments on behalf of AARP District of Columbia before the D. C. Public Service Commission, Re: The Petition of the Office of the People's Counsel for the District of Columbia for an Investigation into the Structure of the Procurement Process for Standard Offer Service, Formal Case No. 1047 (November 2007) [Default Service policies]

Direct, Rebuttal and Surrebuttal testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of the West Penn Power Co. d/b/a Allegheny Power for Approval of its Retail Electric Default Service Program and Competitive Procurement Plan for Service at the Conclusion of the Restructuring Transition Period, Docket No. P-00072342 (February-March 2008) [Default service procurement policies]

Testimony on behalf of AARP before the Virginia Commission on Electric Utility Restructuring in the General Assembly on HB 1523 and SB 311 (January 2007) [Electric Utility Integrated Resource Planning]

Testimony on behalf of AARP before the Ohio House of Representatives on SB 221 (February 2008) [Default Service procurement policies for post-transition period]

Alexander, Barbara, The Federalization Of Energy Prices: How Policies Adopted By The Federal Energy Regulatory Commission Impact Electricity Prices For Residential Customers: A Plain Language Primer (March 2008)

Comments on behalf of AARP before the New Jersey Board of Public Utilities, In the Matter of the Universal Service Fund, Docket Nos. EO07110888 and EX00020091 (April 2008) [low income program; automatic enrollment]

Direct and Surrebuttal testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, PUC v. Columbia Gas of Pennsylvania, Inc., Docket No. R-2008-2011621 (May and June 2008) [rate case: retail gas competition and Purchase of Receivables program]

Direct Testimony on behalf of Public Counsel and the Energy Project before the Washington Utilities and Transportation Commission, WUTC v. Puget Sound Energy, Inc., Docket Nos. UE-072300 and UG-072301 (May 2008) [revisions to Service Quality Index; storm cost recovery; fixed customer charge; low income program funding]

Direct Testimony on behalf of Public Counsel and the Energy Project before the Washington Utilities and Transportation Commission, In the matter of the Application of Puget Holdings LLC and Puget Sound Energy for an Order Authorizing Transaction, Docket No. U-072375 (June 2008) [Conditions for Sale: customer service; low income programs]

Direct Testimony on behalf of Local 223, UWUA before the Michigan Public Service Commission, In the Matter of the application of Detroit Edison Co. for authority to increase its rates, Case No. U-15244 (July 2008) [Customer Service standards; Advanced Metering proposal]

Reply Testimony on behalf of AARP before the Mississippi Public Service Commission, Proceeding to Review Statewide Energy Generation Needs, Docket No. 2008-AD-158 (August 2008) [Integrated Resource Planning]

Comments on behalf of Local 223, UWUA before the Michigan Public Service Commission, In the matter, on the Commission's own Motion, to investigate the development of minimum functionality standards and criteria for advanced metering infrastructure (AMI), Case No. U-15620 { August 2008) [Advanced Metering policies and standards]

Direct and Rebuttal Testimony on behalf of Illinois Citizens Utility Board and AARP before the Illinois Commerce Commission, Citizens Utility Board, Citizens Action/Illinois and AARP vs. Illinois Energy Savings Corp. d/b/a U.S. Energy Savings Corp., Complaint pursuant to 220 ILCS 5/19-110 or 19-115, Docket 08-0175. (August and November 2008) [Investigation of marketing activities and licensing conditions of an alternative gas supplier]

Direct Testimony on behalf of Ohio Partners for Affordable Energy before the Public Utilities Commission of Ohio on filings by electric utilities pursuant to SB 221: Market Rate Option plan filed by FirstEnergy (Case No. 08-936-EL-SSO), Electric Security Plan filed by FirstEnergy (Case No. 08-935-EL-SSO), and Electric Security Plan filed by AEP Ohio (Case No.08-917-EL-SSO & Case No. 08-918-EL-SSO) (September-November 2008) [Default Service procurement policies; energy efficiency and smart meter proposals]

Reply, Surrebuttal, and Supplemental Testimony on behalf of Maryland Office of People's Counsel before the Maryland Public Service Commission, In the Matter of Appropriate Forms of Regulating Telephone Companies, Case No. 9133 (August and October 2008; July 2009) [service quality performance conditions for alternative rate regulation of Verizon-MD]

Comments on behalf of AARP before the Idaho Public Utilities Commission, In the Matter of the Application Of Idaho Power Co. for a Certificate of Public Convenience and Necessity to Install Advanced Metering Infrastructure (“AMI”) Technology Throughout its Service Territory, Case No. IPC-E-08-16 (December 2008) [Smart Meter costs and benefits]

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Application for the Authority and Necessary Certificates of Public Convenience to Transfer all of the Issued and Outstanding Shares of Capital Stock of the Peoples Natural Gas Co. d/b/a Dominion Peoples, Currently owned by Dominion Resources, Inc. to Peoples Hope Gas Companies LLC, an Indirect Subsidiary of Babcock & Brown Infrastructure Fund North America LP, and to Approve the Resulting Change in Control of the Peoples Natural Gas Co. d/b/a Dominion Peoples, Docket No. A-2008-2063737 (December 2008 and July 2009) [Proposed conditions relating to Service Quality and Universal Service programs]

Rebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PPL Electric Utilities Corp. for Approval of a Default Service Program and Procurement Plan, Docket No. P-2008-2060309 (January 2009) [Retail Market Programs]

Rebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PECO Energy Co. for Approval of its Default Service Program and Rate Mitigation Plan, Docket No. P-2008-2062739 (January 2009) [Retail Market Programs]

Comments on behalf of AARP before the Mississippi Public Service Commission, In Re: Order Establishing Docket to Consider standards established by the Energy Independence and Security Act of 2007, Docket No. 2008-ad-477 (February 2009) [PURPA Policies; Integrated Resource Planning; Time-Based Pricing]

Co-Author of Comments on behalf of The Utility Reform Network (TURN) before the California Public Utilities Commission, Order Instituting Rulemaking to consider Smart Grid Technologies Pursuant to Federal Legislation and on the Commission’s own Motion to Actively Guide Policy in California’s Development of a Smart Grid System, Docket R. 08-12-009 (2009 and 2010) [Smart Grid policies]

Direct and Rebuttal Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Department of Public Utilities, Investigation by the Department of Public Utilities on its Own Motion into the Preparation and Response on Fitchburg Gas & Electric Co. d/b/a Unitil to the December 12, 2008 Winter Storm, D.P.U. 09-01-A (March and April 2009) [Investigation of storm restoration practices]

Testimony on behalf of UWUA Local 132 before the California Public Utilities Commission, Southern California Gas Co. Advanced Metering Infrastructure, Docket No. A.08-09-023 (April 2009) [Advanced metering deployment]

Direct and Rebuttal Testimony on behalf of the Delaware Public Service Commission Staff before the Delaware Public Service Commission, In the Matter of the Investigation into the Business and Marketing Practices of Horizon Power and Light, LLC, Docket No. 355-08 (April and June 2009) [Investigation into marketing and contract practices of licensed electricity supplier]

Testimony on behalf of AARP before the District of Columbia Public Service Commission, In the Matter of the Application of Potomac Electric Power Co. for Authority to Establish a Demand Side Management Surcharge and an Advanced Metering Infrastructure Surcharge and to Establish a DSM Collaborative and an AMI Advisory Group, Formal Case No. 1056 (June 2009) [Advanced Metering proposal]

Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of Metropolitan Edison Co. and Pennsylvania Electric Co. for Approval of its Default Service Program, Docket Nos. P-2009-2093053 and P-2009-2093054 (June 2009) [Default Service policies]

Alexander, Barbara, with the Assistance of Mitchell, Cynthia and Court, Gill, Renewable Energy Mandates:

An Analysis Of Promises Made And Implications For Low Income Customers, Prepared under contract with Oak Ridge National Laboratory UT-Battelle, LLC, Purchase Order No. 4000091296 (June 2009).

Direct Testimony on behalf of the People of the State of Illinois and AARP before the Illinois Commerce Commission, Petition of Commonwealth Edison Co. to Approve and Advanced Metering Infrastructure Pilot, Docket No. 09-0263 (July 2009). [Advanced Metering pilot design and scope]

Direct Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Massachusetts Department of Public Utilities, Massachusetts Electric Company & Nantucket Electric Company d/b/a National Grid, Smart Grid Pilot Proposal, Docket No. 09-32 (August 2009) [Advanced Metering pilot design]

Direct Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Massachusetts Department of Public Utilities, Fitchburg Gas and Electric Co., d/b/a/ Unitil, Smart Grid Pilot Proposal, Docket No. 09-31 (August 2009) [Advanced Metering pilot design]

Direct Testimony on behalf of AARP before the Maryland Public Service Commission, In the Matter of Potomac Electric Power Company and Delmarva Power and Light Company Request for the Deployment of Advanced Meter Infrastructure, Case No. 9207 (October 2009) [Advanced Metering deployment costs and benefits; dynamic pricing proposals]

Direct Testimony on behalf of AARP before the Maryland Public Service Commission, Application of Baltimore Gas and Electric Company for Authorization to Deploy A Smart Grid Initiative and to Establish a Tracker Mechanism For the Recovery of Costs, Case No. 9208 (October 2009) [Advanced Metering deployment costs and benefits; dynamic pricing proposals]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PPL Electric Utilities Corporation Requesting Approval of a Voluntary Purchase of Accounts Receivables Program and Merchant Function Charge, Docket No. P-2009-2129502 (October 2009) [Retail competition policies: purchase of receivables programs]

Direct and Cross Reply Testimony on behalf of The Energy Project (Washington) before the Washington Utilities and Transportation Commission, In the Matter of the Petition of Avista Corporation, D/B/A Avista Utilities, For an Order Authorizing Implementation of a Natural Gas Decoupling Mechanism and to Record Accounting Entries Associated With the Mechanism. Docket No. UG-060518 (*consolidated*) (August and September 2009) [Natural gas decoupling proposal; impact on low income customers]

Direct Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Massachusetts Department of Public Utilities, NSTAR Electric Co. Smart Grid Pilot Proposal, Docket No. 09-33 (November 2009) [Advanced Metering pilot design]

Direct Testimony on behalf of Public Counsel Section, Attorney General of Washington, before the Washington Utilities and Transportation Commission, In the Matter of the Joint Application of Verizon Communications Inc. and Frontier Communications Corporation For an Order Declining to Assert Jurisdiction Over, or, in the Alternative, Approving the Indirect Transfer of Control of Verizon Northwest Inc., Docket No. UT-090842 (November 2009) [Service Quality Conditions]

Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of Duquesne Light Company for Approval of Default Service Plan for the Period January 1, 2011 through May 31, 2011, Docket No. P-2009-2135500 (January 2010) [Retail Competition policies]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of The Citizens Utility Board (CUB), The City Of Chicago, and The People Of The State Of Illinois (Attorney General), before the Illinois Commerce Commission, Revision of 83 Ill. Adm. Code 280, Docket No. 06-0703 (January 2010, October 2010, February 2011) [Consumer Protection policies governing electric, natural gas, and water utility service]

Direct and Surrebuttal Testimony on behalf of Maine Office of Consumer Advocate, before the Maine PUC, Central Maine Power Co., Petition Requesting That the Commission Issue an Order to Modify CMP's Service Quality Indicators by Eliminating Or Changing the Current MPUC Complaint Ratio and to Waive Penalties, Docket No. 2009-217 (February and July 2010) [Evaluation of Request for Waiver of Penalty]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of UGI Utilities, Inc.—Gas Division for Approval to Voluntarily Implement a Purchase of Receivables Program and Merchant Function Charge And Of a Potential Affiliated Interest Agreement Between UGI Utilities, Inc.—Gas Division And Affiliated Entities, Docket No. P-2009-2145498 (April and May 2010) [Purchase of Receivables Program Conditions]

Direct Testimony on behalf of the Massachusetts Attorney General, before the Massachusetts Department of Public Utilities, Western Massachusetts Electric Co. Smart Grid Pilot Proposal, Docket D.P.U. 09-34 (May 2010) [Smart Meter and Pricing Pilot evaluation and conditions]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of PECO Energy Company for Approval of its Natural Gas Supplier Purchase of Receivables Program, Docket No. P-2009-2143588 (March, April, and May 2010) [Purchase of Receivables Program Conditions]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of Columbia Gas of Pennsylvania, Inc. for Approval to Voluntarily Implement a Modified Purchase of Receivables Program Pursuant to SEARCH Filing Requirement and Interim Purchase of Receivables Guidelines, Docket No. P-2009-2099333 (February and March 2010) [Purchase of Receivables Program Conditions]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of PECO Energy Company for Approval of its Revised Electric Purchase of Receivables Program, Docket No. P-2009-2143607 (February and March 2010) [Purchase of Receivables Program Conditions]

Alexander, Barbara, "Dynamic Pricing? Not So Fast. A Residential Consumer Perspective," The Electricity Journal (July 2010) (<http://dx.doi.org/10.1016/j.tej.2010.05.014>) [Opposition to Mandatory Time-Based Pricing for residential customers]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Joint Application of West Penn Power Company doing business as Allegheny Power Company, Trans-Allegheny Interstate Line Company and FirstEnergy Corporation for a Certificate of Public Convenience Under Section 1102(A)(3) of the Public Utility Code Approving a Change of Control of West Penn Power Company and Trans-Allegheny Interstate Line Company, Docket Nos. A-2010-2176520 and A-2010-2176732 (August, September and October 2010) [Service Quality, Customer Service, and Universal Service Program Conditions]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of T.W. Phillips Gas and Oil Co. for Approval of Purchase of Receivables Program, Docket No. P-2009-2099192 (August 2010) [Purchase of Receivables Program Conditions]

Direct Testimony on behalf of AARP, before the Maryland PSC, Application of Baltimore Gas and Electric Company for Authorization to Deploy a Smart Grid Initiative and to Establish a Tracker Mechanism and For the Recovery of Costs, [Petition for Rehearing] Case No. 9208 (August 2010) [Smart Meter Costs and Benefits; Consumer Protections]

Alexander, Barbara, Who Owns And Can Monetize The Greenhouse Gas Emission Reductions That Result From the DOE Low-Income Weatherization Assistance Program? Prepared under contract with Oak Ridge National Laboratory UT-Battelle, LLC, Purchase Order No. 4000091296 (September 2010)

Direct Testimony on behalf of Consumer Advocate Division before the Public Service Commission of West Virginia, Monongahela Power Co. and the Potomac Edison Co., both doing business as Allegheny Power Co., and FirstEnergy Corp. and Trans-Allegheny Interstate Line, Case No. 10-0713-E-PC (October 14, 2010) [Merger: Service Quality, Customer Service, and Universal Service Program Conditions]

Rebuttal Testimony on behalf of the Office of People's Counsel, before the Maryland Public Service Commission, In the Matter of the Merger of FirstEnergy Corp. and Allegheny Energy, Case No. 9233 (October 22, 2010) [Default Service Policies]

Direct Testimony on behalf of Consumer Advocate Division before the Public Service Commission of West Virginia, Appalachian Power Co. and Wheeling Power Co., Case No. 10-0699-E-42T (November 10, 2010) [Base Rate Case: reforms to ameliorate rate impacts on low income customers; remote disconnection tariff proposal]

Direct and Rebuttal Testimony on behalf of AARP, before the Illinois Commerce Commission, Commonwealth Edison Co. Petition for Approval of an Alternative Rate Regulation Plan, Docket No. 10-0257 (November and December 2010) [Analysis of consumer protections and risks in alternative rate plan]

Rebuttal Testimony on behalf of the Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Pennsylvania PUC v. Peoples Natural Gas Co., LLC 2010 Base Rate Proceeding, Docket No. R-20102201702 (February 23, 2011) [Purchase of Receivables program]

Expert Report of Barbara Alexander on Behalf of Plaintiffs, Benjamin Berger, individually and on behalf of all other similarly situated and the general public, vs. The Home Depot USA, Inc, U.S. District Court, Central District of California, Western Division, Case SACV 10-678 SJO (PLAX), March 1, 2011 (Negative Option Sales Method for "tool rental protection")

Direct Testimony on behalf of the Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Application for all the Authority and the Necessary Certificates of Public Convenience to Transfer All of the Issued and Outstanding Shares of Capital Stock of T.W. Phillips Gas and Oil Co., currently owned by TWP, Inc., to LDC Holdings II LLC, an indirect Subsidiary of SteelRiver Infrastructure Fund North America LP, and to Approve the Resulting Change in Control of T.W. Phillips Gas and Oil Co., Docket No. A-2010-2210326 (March 31, 2011) [Service Quality, Customer Service, and Universal Service Program Conditions]

Comments on behalf of AARP before the Public Service Commission of the District of Columbia, Pepco's Proposed AMI Consumer Education Plan, Formal Case No. 1056 (March 30, 2011)

Comments on behalf of AARP before the Public Service Commission of the District of Columbia, Notice of Proposed Rulemaking, Reliability of Service, Formal Case No. 766, 982, 991, and 1002 (April 11, 2011) [Restoration of Service for Major Outage Events]

Direct and Rebuttal testimony on behalf of the Attorney General of Arkansas before the Arkansas Public Service Commission, In The Matter Of The Application Of Oklahoma Gas And Electric Company For Approval Of The Deployment Of Smart Grid Technology In Arkansas And Authorization Of A Recovery Rider And Regulatory Asset, Docket No. 10-109-U (May and June 2011) (Smart Grid costs and benefits; cost recovery; conditions)

Alexander, Barbara, "Retail Electric Competition: Default Service Policies and Residential Customer Migration," Report to AARP (May 2011).

Direct Testimony on behalf of AARP before the Maryland Public Service Commission, In the Matter of Potomac Electric Power Co and Delmarva Power and Light Co. Request for the Deployment of Advanced Meter Infrastructure, Case No. 9207 (June 16, 2011) (Analysis of amended AMI business case; costs and benefits; conditions)

Direct and Reply Comments on behalf of Citizens Utility Board of Oregon before the Public Utility Commission of Oregon, Docket No. UM 1415 (September and October 2011) (Rate Design; time-varying rates)

Alexander Barbara, "The Status of AMI and Dynamic Pricing Programs In Georgia, Alabama, Arkansas, Florida, Louisiana, And Mississippi," Report for AARP (October 2011).

Direct Testimony on behalf of AARP before the Oklahoma Corporation Commission, In The Matter Of The Application of Oklahoma Gas And Electric Company, For An Order Of The Commission Authorizing Applicant To Modify Its Rates, Charges, And Tariffs For Retail Electric Service In Oklahoma, Cause No. PUD 201100087 (November 9, 2011 and November 16, 2011) (revenue requirement and rate design)

Comments on behalf of AARP before the Maryland Public Service Commission, Proposed Revisions to Reliability and Customer Service Regulations, RM 43 (November 16, 2011) (reliability performance standards and customer call center standards)

Direct Testimony on behalf of AARP before the Public Service Commission of the District of Columbia, In the Matter of The Application for Potomac Electric Power Co. for Authority to Increase Existing Retail Rates and Charges for Electric Distribution Service, Formal Case No. 1087 (December 14, 2011) (AMI cost recovery, Reliability Infrastructure Mechanism surcharge, customer care costs)

Direct Testimony on behalf of AARP and the People of the State of Illinois before the Illinois Commerce Commission, Commonwealth Edison Company, Approval of Multi-Year Performance Metrics Pursuant to Section 16-108(f) and (f-5) of the Public Utilities Act, Docket No. 11-0772 (January 30, 2012) (Performance Metrics relating to AMI deployment; remote disconnection of service)

Direct, Rebuttal, and Surrebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, West Penn Power Company, Approval of Default Service Programs, Docket Nos. P-2011-2273650, et al. (February, March and April 2012) (Retail Opt-in Auction, Customer Referral Programs)

Direct Testimony on behalf of the Massachusetts Office of the Attorney General before the Massachusetts Department of Public Utilities, Western Massachusetts Electric Co. 2011 Winter Storm Investigation, Docket No. D.P.U. 11-119-C (March 9, 2012) (Analysis of communications with customers and state and local officials in storm restoration)

Direct Testimony on behalf of AARP and the People of the State of Illinois before the Illinois Commerce Commission, Ameren Utilities, Approval of Multi-Year Performance Metrics Pursuant to Section 16-108(f) and (f-5) of the Public Utilities Act, Docket No. 12-0089 (March 19, 2012) (Performance Metrics for AMI Deployment; remote disconnection of service)

Direct and Rebuttal Testimony on behalf of the Massachusetts Office of the Attorney General before the Massachusetts Department of Public Utilities, National Grid 2012 Smart Grid Pilot Proposal, Docket No. D.P.U. 11-129 (April and May 2012) [Analysis of proposed smart meter and dynamic pricing pilot proposal]

Comments on behalf of AARP before the Maryland Public Service Commission, Dynamic Pricing Implementation Working Group Report, Case Nos. 9207 and 9208 (May 14, 2012) [Design and implementation of Peak Time Rebate programs for Pepco and BGE]

Comments on behalf of AARP before the Public Service Commission of the District of Columbia, Notice of Proposed Rulemaking, Major Event Outage Restoration Plans, Formal Case No. 766, 982, 991, and 1002 (May 29, 2012) [Regulatory reporting requirements for major event outage restoration plans]

Direct Testimony on behalf of The Utility Reform Network (TURN) before the Public Utilities Commission of the State of California, In the Matter of the Application of Pacific Gas and Electric Company Smart Grid Pilot Deployment Project, Application 11-11-017 (May 16, 2012) [Analysis of proposed customer education pilot]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PECO Energy Co. for Approval of its Default Service Program, Docket No. P-2012-2283641 (April and May 2012) [Retail Opt-In Auction and Customer Referral Programs]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Equitable Gas Co. Request for Approval of Tariffs, Docket Nos. R-2012-2304727, R-2012-2304731, and R-2012-2304735 (July 25, 2012) [Purchase of Receivables Program]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PPL Electric Utilities, Inc. for Approval of a Default Service Program and Procurement Plan for the Period June 1, 2013 through May 31, 2015, Docket No. P-2012-2302074 (July and August 2012) [Retail Opt-In Auction and Customer Referral Programs]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of Duquesne Light Co. for Approval of Default Service Plan for the Period June 1, 2013 through May 31, 2015, Docket No. P-2012-2301664 (July, August, and September 2012) [Retail Opt-In Auction and Customer Referral Programs]

Affidavit and Expert Report on behalf of Plaintiffs, Bellermann v. Fitchburg Gas & Electric Co., Commonwealth of Massachusetts, Civil Action No. 09-00023 (August 23, 2012) [Analysis of utility storm restoration response]

Direct Testimony on behalf of the Public Utility Law Project (New York) before the New York State Public Service Commission, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation For Electric and Gas Service, Case No. 12-E-0201 and 12-G-0202 (August 31, 2012) [Rate case: low income programs, credit and collection policies, service quality]

Comments on behalf of AARP before the Maryland Public Service Commission, In the Matter of the Electric Service Interruptions in the State of Maryland due to the June 29, 2012 Derecho Storm, Case No. 9298 (September 10, 2012) [Analysis of customer communications in major storm restoration for Pepco and BGE]

Comments on behalf of the Ohio Partners for Affordable Energy before the Ohio Public Utility Commission, In the Matter of the Commission's Review of its Rules for Competitive Retail Natural gas Service, Case No. 12-925-GA-ORD, and In the Matter of the Commission's Review of its Rules for Competitive Retail Electric Service, Case No. 12-1924-EL-ORD (January 2013) [retail market regulations, consumer protections, licensing, disclosures]

Direct and Cross Rebuttal Testimony on behalf of Texas Legal Services Center and Texas Ratepayers' Organization to Save Energy before the Public Utility Commission of Texas, Petition by Homeowners United for Rate Fairness to Review Austin Rate Ordinance No. 20120607-055, PUC Docket No. 40627 (February 2013) [low income programs]

Testimony on behalf of AARP before the Connecticut Senate Finance Revenue and Bonding Committee in opposition to proposal for auction of electric customers to retail suppliers, SB 843 (March 4, 2013)

Comments and Reply Comments on behalf of AARP before the Ohio Public Utility Commission, In the Matter of the Commission's Investigation of the Retail Electric Service Market, Case No. 12-3151-EL-COI (March and April 2013) [retail market reforms, default service, and consumer protections]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of UGI Utilities, Inc.—Electric Division for Approval of a Default Service Plan and Retail Market

Enhancement Programs for 2014-2017, Docket Nos. P-2013-235703 (June 2013) [Retail Market Enhancement programs; referral program]

Direct Testimony on behalf of the Government of the District of Columbia before the District of Columbia Public Service Commission, In the Matter of the Application of the Potomac Electric Power Co. for Authority to Increase Existing Retail Rates and Charges for Electric Distribution Service, Formal Case No. 1103 (August 2013) [low income discount program]

Comments and Reply Comments on behalf of AARP before the Arizona Corporation Commission, Generic, In The Matter of The Commission's Inquiry Into Retail Electric Competition, Docket No. E-00000W-13-0135 (July and August 2013) [implementation of retail electric competition]

Comments on behalf of AARP before the Delaware Public Service Commission, Rulemaking for Retail Electric Competition, PSC Regulation Docket No. 49 (September 2013) [consumer protection regulations for retail electric competition]

Direct Testimony on behalf of AARP before the New Jersey Board of Public Service, In the Matter of the Petition of Public Service Electric and Gas Co. for Approval of the Energy Strong Program, Docket No. EO13020155 and GO13020156 (October 2013) [reliability programs; cost recovery mechanism]

Direct Testimony on behalf of Canadian Office and Professional Employee's Union, Local 378, before the British Columbia Utilities Commission, Re: Fortis BC Energy, Inc. Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018, Project No. 3698719 (December 2013) [Service Quality Index]

Direct Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PPL Electric Corp. for Approval of a New Pilot Time-of-Use Program, Docket No. P-2013-2389572 (January 2014) [Design of pilot TOU program; bid out to competitive energy supplier]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of FirstEnergy Companies (Met-Ed, Penelec, Penn Power, and West Penn) for Approval of a Default Service Programs, Docket Nos. P-2013-2391368, et al. (January-March 2014) [Retail market enhancement programs, referral program]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PPL Electric Utilities for Approval of a Default Service Program and Procurement Plan for June 2013-May 2015, Docket No. P-2013-2389572 (January-May 2014) [Retail market enhancement programs, referral program]

Direct and Rebuttal Testimony on behalf of AARP before the Corporation Commission of Oklahoma, Application of Public Service Company of Oklahoma for Adjustment to Rates and Charges and Terms and Conditions of Service for Electric Service in the State of Oklahoma, Cause No. PUD-201300217 (March and May 2014) [AMI cost/benefit analysis and cost recovery; riders and surcharges; customer charge; low income program]

Direct and Reply Testimony on behalf of the District of Columbia Government through its Department of Environment before the Public Service Commission of the District of Columbia, In the Matter into the Investigation into the Issues Regarding the Implementation of Dynamic Pricing in the District of Columbia, Formal Case No. 1114 (April and May 2014) [Dynamic pricing policies and programs for residential customers]

Comments on behalf of AARP before the Delaware Public Service Commission, Rulemaking for Retail Electric Competition, PSC Regulation Docket No. 49 (Revised) (June 2, 2014) [consumer protection regulations for retail electric competition]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of Duquesne Light Company for Approval of Default Service Plan For the Period June 1,

2015 through May 31, 2017, Docket No. P-2014-2418242 (July and August 2014) [retail market enhancement programs, referral program]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PECO Energy Co. for Approval of its Default Service Plan for the Period June 1, 2015 through May 31, 2017, Docket No. P-2014-2409362 (June 2014) [retail market enhancement programs, referral program]

Alexander, Barbara, "An Analysis of State Renewable Energy and Distributed Generation Mandates on Low Income Consumers: Recommendations for Reform" (Oak Ridge National Laboratory, DOE, September 2014)

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Pennsylvania PUC v. West Penn Power, Metropolitan Edison, Penn Power, and Penelec, Dockets Nos. R-2014-2428742-24287245 (November 2014 and January 2015) [FirstEnergy rate cases: customer service; reliability of service; estimated billing protocols; proposed Storm Damage Expense Rider; tariff revisions]

Comments on behalf of Delaware Division of the Public Advocate before the Delaware Public Service Commission, Rulemaking for Retail Electric Competition, PSC Regulation Docket No. 49 (Revised) (January 2015) [consumer protection regulations for retail electric competition]

Reply Testimony of Barbara Alexander before the Public Service Commission of Maryland, In the Matter of the Investigation into the Marketing, Advertising and Trade Practices of Major Energy Electric Services, LLC and Major Energy Services, LLC, Case No. 9346(b) (March 2015) [unfair and deceptive practices; compliance with MD statutes and regulations for electric generation supplier]

Reply Testimony of Barbara Alexander before the Public Service Commission of Maryland, In the Matter of the Investigation into the Marketing, Advertising and Trade Practices of XOOM Energy Maryland LLC, Case No. 9346(a) (March 2015) [unfair and deceptive practices; compliance with MD statutes and regulations for electric generation supplier]

Direct, Surrebuttal and Supplemental Surrebutal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Commonwealth of Pennsylvania by Attorney General Kathleen Kate, through the Bureau of Consumer Protection and Tanya McCloskey, Acting Consumer Advocate v. Respond Power, Docket No. C-2014-2427659 (May-October 2015) [unfair and deceptive practices; compliance with PA statutes and regulations for electric generation supplier]

Direct Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission, on behalf of the Pennsylvania Office of Consumer Advocate and Bureau of Consumer Protection, Attorney General, Commonwealth of Pennsylvania by Attorney General Kathleen Kate, through the Bureau of Consumer Protection and Tanya McCloskey, Acting Consumer Advocate v. IDT Energy, Inc., Docket No. C-2014-2427657 (April 2015) [unfair and deceptive practices; compliance with PA statutes and regulations for electric generation supplier]

Affidavit of Barbara Alexander before the Pennsylvania Public Utility Commission, on behalf of the Pennsylvania Office of Consumer Advocate and Bureau of Consumer Protection, Attorney General, Commonwealth of Pennsylvania by Attorney General Kathleen Kate, through the Bureau of Consumer Protection and Tanya McCloskey, Acting Consumer Advocate v. Blue Pilot Energy, LLC, Docket No. C-2014- 2427655 (June 2015) [unfair and deceptive practices; compliance with PA statutes and regulations for electric generation supplier]

Direct Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission, on behalf of the Pennsylvania Office of Consumer Advocate and Bureau of Consumer Protection, Attorney General, Commonwealth of Pennsylvania by Attorney General Kathleen Kate, through the Bureau of Consumer Protection and Tanya McCloskey, Acting Consumer Advocate v. Blue Pilot Energy, LLC, Docket No. C-2014- 2427655 (September 2015) [unfair and deceptive practices; compliance with PA statutes and regulations for electric generation supplier]

Reply Testimony of Barbara Alexander before the Public Service Commission of Maryland, In the Matter of the Investigation into the Marketing, Advertising and Trade Practices of Blue Pilot Energy, Case No. 9346(c) (July 31, 2015) [unfair and deceptive practices; compliance with MD statutes and regulations for electric generation supplier]

Direct Testimony of Barbara Alexander before the Washington Utilities and Transportation Commission, on behalf of Public Counsel and the Energy Project, WUTC v. Avista Utilities, Dockets UE-150204 and UG-150205, (July 2015) [Analysis of request for smart meter (AMI) deployment and business case.]

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission on behalf of the Office of Consumer Advocate, Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Co., Pennsylvania Power Co., and West Penn Power Co. [FirstEnergy] for Approval of their Default Service Program and Procurement Plan for the Period June 1, 2017 through May 31, 2019, Docket Nos. P-2015-2511333, et. al. (January-February 2016) [Retail Market Enhancement Programs: standard offer program and shopping for low income customers]

Alexander, Barbara and Briesemeister, Janee, Solar Power on the Roof and in the Neighborhood: Recommendations for Consumer Protection Policies (March 2016).

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission on behalf of the Office of Consumer Advocate, Petition of PPL Electric Utilities Corp. for Approval of a Default Service Program and Procurement Plan for the Period June 1, 2017 through May 31, 2021, Docket No. P-2015-2526627 (April-May 2016) [Retail Market Enhancement Programs: standard offer program and shopping for low income customers]

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission on behalf of the Office of Consumer Advocate, Petition of PECO Energy Co. for Approval of its Default Service Program for the Period from June 1, 2017 through May 31, 2019, Docket No. P-2016-2534980 (June-July 2016) [Retail Market Enhancement Programs: standard offer program and shopping for low income customers]

Direct, Rebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission on behalf of the Office of Consumer Advocate, Petition of Duquesne Light Co. for Approval of Default Service Plan for the Period June 1, 2017 through May 31, 2021, Docket No. P-2016-2543140 (July-August 2016) [Retail Market Enhancement Programs: standard offer program and shopping for low income customers]

Briesemeister, Janee and Alexander, Barbara, Residential Consumers and the Electric Utility of the Future, American Public Power Association (June 2016)

Direct Testimony of Barbara Alexander before the Washington Utilities and Transportation Commission on behalf of the Public Counsel and The Energy Project, Washington UTC v. Avista Corp. d/b/a Avista Utilities, Dockets UE-160228 and UG-160229 (August 2016) [Base Rate Case and AMI Project analysis of costs and benefits]

Alexander, Barbara, *Analysis of Public Service Co. of Colorado's "Our Energy Future" Initiative: Consumer Concerns and Recommendations*, AARP White Paper (December 2016), attached to the Direct Testimony of Corey Skluzak on behalf of the Colorado Office of Consumer Counsel, Docket No. 16A-0588E (Exhibit CWS-35).

Direct Testimony of Barbara Alexander before the Public Utilities Commission of Ohio on behalf of the Office of Consumer Counsel, In the Matter of the Application of Ohio Power Co. for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan, Case No. 16-1852-EL-SSO (May 2017) [Response to proposal for new surcharge for certain distribution grid investments]

Alexander, Barbara, Analysis and Evaluation of PEPCO's Root-Cause Analysis Report: District of Columbia Customer Satisfaction, prepared for the District of Columbia Office of People's Counsel and submitted to the D.C. Public Service Commission in Formal Case No. 1119 (May 2017)

Direct Testimony of Barbara Alexander before the Arkansas Public Service Commission on behalf of the Attorney General of Arkansas, Application of Entergy Arkansas, Inc. for an Order to find Advanced Metering Infrastructure to be in the Public Interest, Docket No. 16-06-U (June 2017) [Analysis of AMI business case; consumer protection policies]

Rebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utilities Commission on behalf of the Office of Consumer Advocate, Pennsylvania PUC, et al., v. Philadelphia Gas Works, Docket No. R-2017-2586783 (June 2017) [Purchase of Receivables Program, customer shopping issues]

Direct and Surrebuttal Testimony of Barbara Alexander before the Maryland Public Service Commission on behalf of the Office of People's Counsel, In the Matter of the Application of Potomac Electric Power Co. for Adjustments to its Retail Rates for the Distribution of Electric Energy, Case No. 9443 (June and August 2017) [Service Quality and Reliability of Service]

Direct Testimony of Barbara Alexander before the Washington Utilities and Transportation Commission, on behalf of the Washington State Office of Attorney General, Public Counsel Unit, W.U.T.C. v. Puget Sound Energy, Dockets UE-170033 and UG_170034 (June 2017) [Base Rate Case: Service Quality Index; customer services]

Direct and Surrebuttal Testimony of Barbara Alexander before the Maryland Public Service Commission on behalf of the Office of Peoples Counsel, In the Matter of the Merger of AltaGas Ltd. And WGL Holdings, Inc., Case No. 9449 (August and September 2017) [Merger: conditions for service quality and reliability of service]

Supplemental Testimony in Opposition to Joint Stipulation and Recommendations of Barbara Alexander before the Public Utilities Commission of Ohio on behalf of the Office of Consumer Counsel, In the Matter of the Application of Ohio Power Co. for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan, Case No. 16-1852-EL-SSO (October 11, 2017) [Response to Stipulation approving new surcharge for certain distribution grid investments]

Direct and Rebuttal Testimony of Barbara Alexander on behalf of The Public Utility Project of New York, before the New York Public Service Commission, Case 15-M-0127 In the Matter of Eligibility Criteria for Energy Service Companies, Case 12-M-0476 Proceeding on Motion of the Commission to Assess Certain Aspects of the Residential and Small Non-residential Retail Energy Markets in New York State, and Case 98-M-1343 In the Matter of Retail Access Business Rules (November and December 2017) [Analysis of New York retail energy market for residential customers; recommendations for reform]

Comments of Barbara Alexander before the Delaware Public Service Commission, on behalf of the Delaware Division of the Public Advocate, In the Matter of the Review of Customer Choice in the State of Delaware, Docket No. 15-1693 (December 22, 2017) [Proposals for retail market enhancement programs]

Alexander, Barbara, Analysis and Evaluation of PEPCO's Supplemental Root-Cause Analysis Report: District of Columbia Customer Satisfaction prepared for the District of Columbia Office of People's Counsel and submitted to the D.C. Public Service Commission in Formal Case No. 1119 (January 2018)

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander on behalf of the Office of Consumer Advocate, before the Pennsylvania Utility Commission, Joint Petition of Metropolitan Edison Company Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company For Approval of their Default Service Program and Procurement Plan for the Period June 1, 2019 Through May 31, 2023, Docket Nos. P-2017-2637855, et seq. (February, March, and April 2018) [Retail Market Enhancement Programs in a default service proceeding]

Direct Testimony of Barbara Alexander on behalf of the Arizona Corporation Commission Staff, before the Arizona Corporation Commission, In the Matter of the Application of Brooke Water, LCC for increase in water rates, Docket No. W-03039A-17-0295 (May 15, 2018) [Analysis of customer service, call center performance, and compliance with prior Commission orders]

Alexander, Barbara, “Residential Demand Charges: A Consumer Perspective,” EUCI Conference, Nashville, TN (May 2018)

Direct Testimony of Barbara Alexander in Opposition to the Joint Stipulation and Recommendation on behalf of the Office of the Ohio Consumers’ Counsel, before the Public Utility Commission of Ohio, Case No. 17-0032-EL-AIR et seq. (June 15, 2018) [Analysis of the prudence of Duke Energy Ohio’s Advanced Metering Infrastructure Deployment and request for inclusion of costs in rate base]

Alexander, Barbara, “Time to End the Retail Energy Market Experiment for Residential Customers,” Harvard Electricity Policy Group (June 2018)

Rebuttal Testimony of Barbara Alexander on behalf of the Office of Consumer Advocate, before the Pennsylvania Public Utility Commission, PUC v. Columbia Gas of Pennsylvania, Inc., Docket No. R-2018-2647577 (July 3, 2018) [Analysis of gas utility billing policies for non-commodity services and retail natural gas suppliers]

Direct Testimony of Barbara Alexander on behalf of TURN and Center for Accessible Technology before the California Public Utility Commission, 2018 Rate Design Window, Docket No. A.17-12-011, et al. (October 26, 2018) [Consumer Protections to Accompany the Transition to Default Time of Use Rates for residential customers; analysis of customer education and messaging]

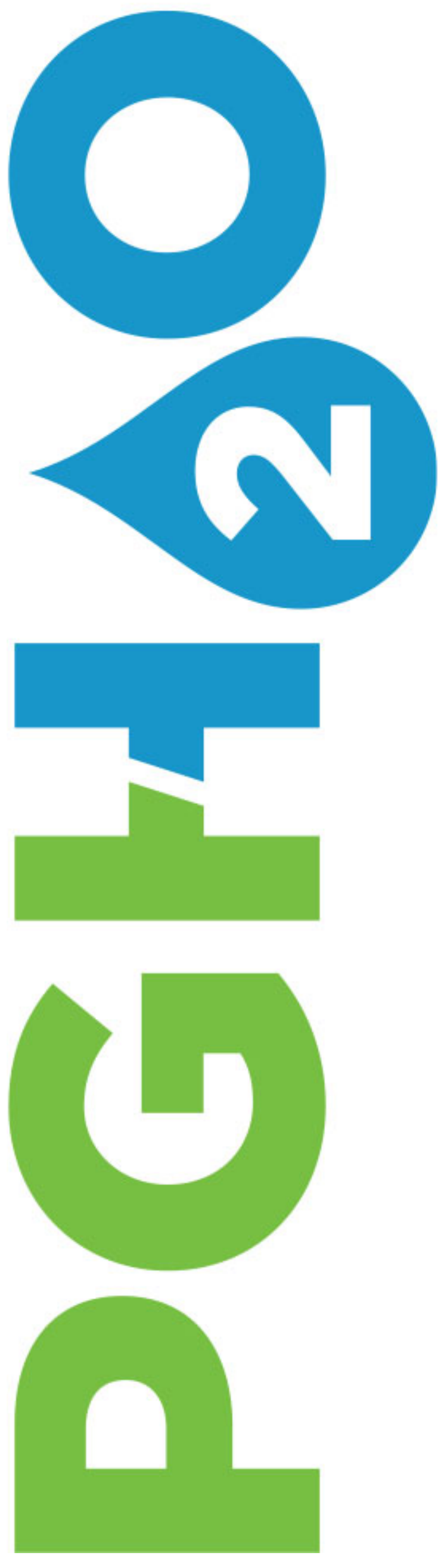
Direct and Surrebuttal Testimony of Barbara Alexander on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Utility Commission, PUC vs. Pittsburgh Water and Sewer Authority, Docket Nos. R-2018-3002645, R-2018-3002647 (September and October 2018) [Analysis of compliance with Pennsylvania consumer protection and service quality performance of a large water and sewer utility; base rate case]

Direct Testimony of Barbara Alexander on behalf of TURN before the California Public Utility Commission, Southern California Edison Charge Ready 2 Infrastructure and Market Education Programs, Docket No. A.18-06-015 (November 30, 2018) [Analysis of proposed mass market customer education proposal]

Presentations and Training Programs:

- Presentation on Consumer Protection Policies for Solar Providers, New Mexico Public Regulatory Commission, Santa Fe, NM, January 2017
- Presentation on Residential Rate Design Policies, National Energy Affordability and Energy Conference, Denver, CO., June 2016
- Presentation on “Regulatory-Market Arbitrage: From Rate Base to Market and Back Again,” before the Harvard Electricity Policy Group, Washington, D.C., March 2016.
- Presentation on Residential Rate Design and Demand Charges, NASUCA, November 2015.
- Alexander, Barbara, “Residential Demand Charges: A Consumer Perspective,” presentation for Harvard Electricity Policy Group, Washington, D.C., June 2015.
- Presentation on “Future Utility Models: A Consumer Perspective,” for Kleinman Center for Energy Policy, U. of Pennsylvania, August 2015.
- Presentation, EUCI Workshop on Demand Rates for Residential Customers, Denver, CO [May 2015]
- Presentation, Smart Grid Future, Brookings Institute, Washington, DC [July 2010]
- Participant, Fair Pricing Conference, Rutgers Business School, New Jersey [April 2010]
- Presentation on Smart Metering, National Regulatory Conference, Williamsburg, VA [May 2010]
- Presentation on Smart Metering, Energy Bar Association Annual Meeting, Washington, DC [November 2009]
- Presentation at Workshop on Smart Grid policies, California PUC [July 2009]
- National Energy Affordability and Energy Conference (NEAUC) Annual Conference
- NARUC annual and regional meetings
- NASUCA annual and regional meetings
- National Community Action Foundation’s Annual Energy and Community Economic Development Partnerships Conference
- Testimony and Presentations to State Legislatures: Virginia, New Jersey, Texas, Kentucky, Illinois, and Maine
- Training Programs for State Regulatory Commissions: Pennsylvania, Georgia, Kentucky, Illinois, New Jersey
- DOE-NARUC National Electricity Forum
- AIC Conference on Reliability of Electric Service
- Institute of Public Utilities, MSU (Camp NARUC) [Instructor 1996-2006]
- Training Programs on customer service and service quality regulation for international regulators (India and Brazil) on behalf of Regulatory Assistance Project
- Georgia Natural Gas Deregulation Task Force [December 2001]
- Mid Atlantic Assoc. of Regulatory Utility Commissioners [July 2003]
- Illinois Commerce Commission’s Post 2006 Initiative [April 2004]
- Delaware Public Service Commission’s Workshop on Standard Offer Service [August 2004]

Exhibit BA-2



Pittsburgh
Water & Sewer
Authority

PA PUC Training Resolving Customer Issues in the Field

April 2018

PWSA Customer Complaint Procedures

- Overview/Training Objectives
- Pennsylvania Public Utility Commission (PA PUC)
- PA PUC Bureau of Consumer Services (BCS)
- Field Operations Focus and Goals
- Create an Accurate/Complete Work Order/Foreman's Report
- New "Shut Off" Posting for Non-Pay/Non-Access Shuts
- Follow-up/Referral

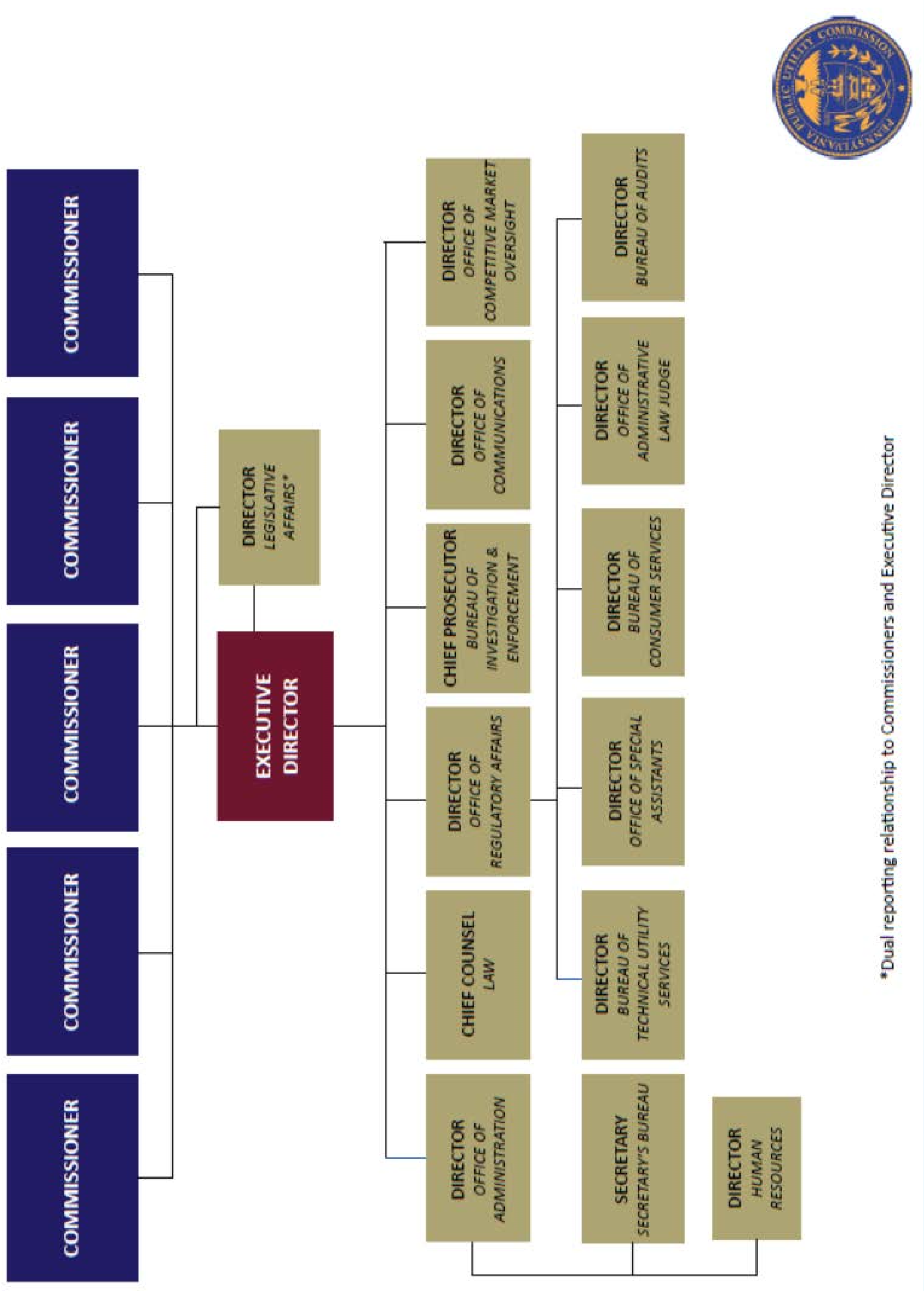
PA Public Utility Commission

- Established by Legislature
- Five Commissioners
 - Appointed for staggered five year terms
 - Subject to approval by Legislature
- Balance needs of both utilities and ratepayers
- Administration of the Commission
- Twelve bureaus with more than 500 employees
 - Bureaus act in advisory capacity or serve in a prosecutorial role
 - Informal and Formal Proceedings



PENNSYLVANIA
PUBLIC UTILITY COMMISSION

PUC Organizational Chart



PWSA and PUC Oversight

- **December 21, 2017**
 - Governor Wolf signed Act 65 of 2017 into law
 - PUC now has jurisdiction over quality, reliability and adequacy of service
- **January 18, 2018**
 - Tentative Implementation Order issued
 - PUC conducted “listening sessions” and accepted public comment
- **March 15, 2018**
 - Final Implementation Order issued effective April 1, 2018

Changes in Place

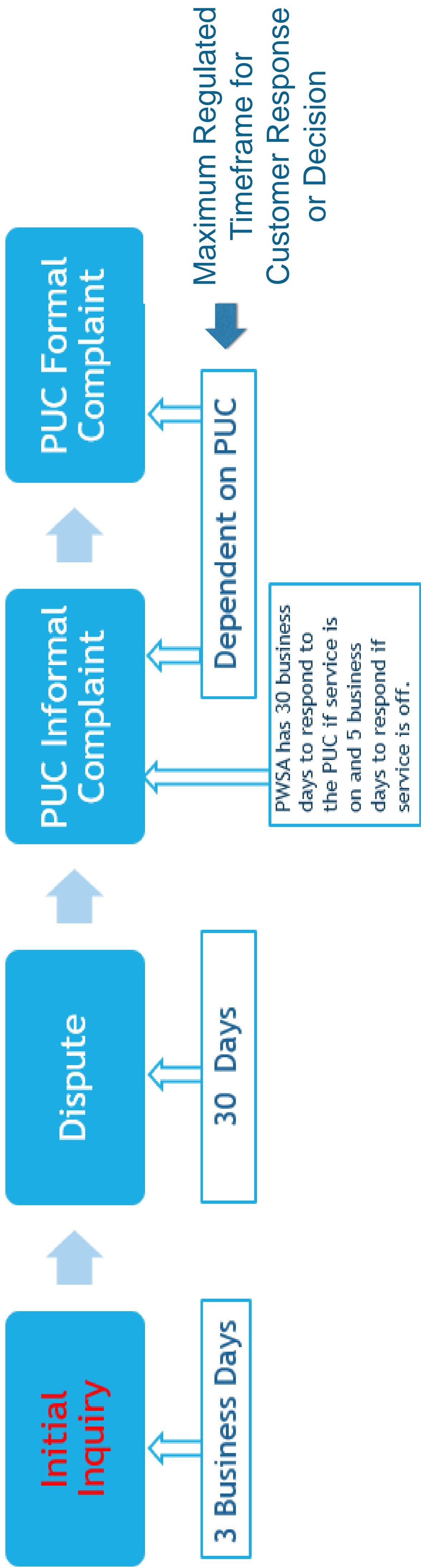
- Must now comply with Rules and Regulations of PA PUC
 - Specifically 52 PA Code, Chapter 56, Standards and Billing for Residential Utility Service
- Process for resolving customer issues, payment arrangements, and termination procedures have changed
- Exoneration Board was replaced by PA PUC Complaint Process
- Day to day operations look the same

PWSA's Complaint Policy

Goal: Resolve issue at first contact

- If not resolved at first contact, **create an accurate and complete record in your Work Order/Foreman's Report** and refer to a Field Operations Manager to resolve within a three (3) day time frame
- If not resolved within 3 days, the complaint is referred to PWSA's Compliance Group via email to PUCCompliance@pgh20.com
 - Compliance Group investigates and responds to the customer
 - A Utility Report is prepared and sent to the customer upon request

The Dispute Process



Termination Notice Procedures

- Service can be terminated if the customer did not 1) pay his/her bills, 2) keep a payment agreement, 3) allow PWSA access to its meter or other equipment.
- 10 Day Notice, which is active for up to 60 days
- 3 Day Notice attempts personal contact; completed via automated, outbound call. If PWSA's records indicate that the call was answered, this meets the personal contact requirement.
- 48 Hour Notice (only issued December through March)
- **Notice is posted to property when shut is performed.**
- Immediate termination for unauthorized use, fraud, tampering or tariff violations

Special Protections for Customers

- Medicals signed by a licensed physician or a nurse practitioner must be accepted for any member of the household; termination is then stayed for 30 days.
- A medical can be renewed for an additional 30 days, as long as current bills are paid.
- Service must be restored within 24-hours.
- Customers with a Protection from Abuse Order (PFA) or Court Order must send a copy to Customer Service.
- When a PFA is received, the termination is stayed. Their service cannot be terminated in the winter (December 1st through March 31st), and these customers are eligible for additional payment arrangements.

Questions



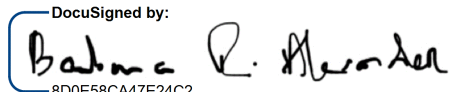
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, BARBARA R. ALEXANDER, hereby state that the facts set forth in my Direct Testimony, OCA Statement 3, 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).

DATE: April 5, 2019

Signed: 
8D0E58CA47E24C2...
BARBARA R. ALEXANDER

*269477

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

**IMPLEMENTATION OF
CHAPTER 32 OF THE PUBLIC
UTILITY CODE REGARDING
PITTSBURGH WATER AND
SEWER AUTHORITY – STAGE 1**

)
)
)
) Docket M-2018-2640802 (water)
) Docket M-2018-2640803 (wastewater)
)
)
)

DIRECT TESTIMONY OF
ROGER D. COLTON

ON BEHALF OF THE
OFFICE OF CONSUMER ADVOCATE

April 5, 2019

Table of Contents

Part 1. Response to Staff Initial Report and Directed Questions	5
A. Appropriateness of PWSA Establishing a CAP	6
B. Compliance with Sections 69.265(1) and 69.266.	11
C. Compliance with Section 1304.	14
Part 2. Fundamental Universal Service Policy Questions	22
Appendix A: Prior Colton Testimony (abbreviated)	

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Roger Colton. My business address is 34 Warwick Road, Belmont, MA
3 02478.

4
5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?**

6 A. I am a principal in the firm of Fisher Sheehan & Colton, Public Finance and General
7 Economics of Belmont, Massachusetts. In that capacity, I provide technical assistance to
8 a variety of federal and state agencies, consumer organizations and public utilities on rate
9 and customer service issues involving telephone, water/sewer, natural gas and electric
10 utilities.

11
12 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

13 A. I am testifying on behalf of the Office of Consumer Advocate.
14

15 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.**

16 A. I work primarily on low-income utility issues. This involves regulatory work on rate and
17 customer service issues, as well as research into low-income usage, payment patterns,
18 and affordability programs. At present, I am working on various projects in the states of
19 Maryland, Pennsylvania, Michigan and Illinois, as well as in the provinces of Ontario and
20 British Columbia. My clients include state agencies (e.g., Pennsylvania Office of
21 Consumer Advocate, Maryland Office of People's Counsel, Iowa Department of Human
22 Rights), federal agencies (e.g., the U.S. Department of Health and Human Services),
23 community-based organizations (e.g., Energy Outreach Colorado, Natural Resources

1 Defense Council, Advocacy Centre Tenants Ontario), and private utilities (e.g., Unitil
2 Corporation d/b/a Fitchburg Gas and Electric Company, Entergy Services, Xcel Energy
3 d/b/a Public Service of Colorado). In addition to state-specific and utility-specific work,
4 I engage in national work throughout the United States. For example, in 2011, I worked
5 with the U.S. Department of Health and Human Services (the federal LIHEAP office) to
6 create the Home Energy Insecurity Scale and advance its utilization as an outcomes
7 measurement tool for the federal Low-Income Home Energy Assistance Program
8 (“LIHEAP”).
9

10 **Q. HAVE YOU PREVIOUSLY ENGAGED IN WORK REGARDING UNIVERSAL**
11 **SERVICE FOR WATER AND/OR WASTEWATER UTILITIES?**

12 A. Yes. Most recently, I provided testimony on behalf of the City of Philadelphia’s Public
13 Advocate in the 2018 Philadelphia Water Department (“PWD”) rate proceeding; I have
14 testified in each PWD rate case for the past 20+ years. I worked with the City of
15 Philadelphia to help design the City’s Tiered Rate Program (“TAP”), also known as its
16 Income-based Water Rate Affordability Program (“IWRAP”). In January of this year, an
17 affordability program that I helped design was introduced in Baltimore with every single
18 member of the City Council listed as a co-sponsor. In 2018, I was an invited speaker at
19 the Mayors’ Innovation Project conference on water affordability. In 2018, I was hired
20 by the Center for Neighborhood Technology to help the City of Flint (MI) examine
21 strategies through which it could address water affordability issues. In December of
22 2018, I completed a report for the Stewart Mott Foundation regarding the economics of a
23 water affordability program in Southeast Michigan (including, but not limited to, both

1 Detroit and Flint). In June of 2018, I was invited to provide a briefing to the Staff of the
2 Chicago City Council about how to design and implement a water affordability program
3 for that city. In 2017, I prepared a report for the nonprofit Food and Water Watch
4 regarding the need for water affordability in the City of Baltimore. In 2016/2017, I
5 represented the Detroit City Council on that City's Blue Ribbon Panel on Water
6 Affordability. In 2010, I worked as part of a team, with Stratus Consulting, examining
7 best practices in customer service for water and wastewater utilities for the Water
8 Research Foundation ("WRF"), the research arm of the American Water Works
9 Association. In 2017, I again joined with Stratus to prepare WRF research on how to
10 reach hard-to-reach customers for purposes of providing bill affordability assistance.

11
12 At present, I have been retained by the National Coalition on Legislation for Affordable
13 Water (NCLAWater) to write a comprehensive "water bill of rights" to be introduced in
14 Congress. I am now working with a nonprofit law firm in Buffalo (NY) to develop a
15 water affordability program for that city. Finally, I am currently working under contract
16 to the Natural Resources Defense Council ("NRDC") to develop a tool through which the
17 feasibility of water affordability programs can be assessed.

18
19 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

20 A. After receiving my undergraduate degree in 1975 (Iowa State University), I obtained
21 further training in both law and economics. I received my law degree in 1981 (University
22 of Florida). I received my Master's Degree (regulatory economics) from the MacGregor
23 School in 1993.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

Q. HAVE YOU EVER PUBLISHED ON PUBLIC UTILITY REGULATORY ISSUES?

A. Yes. I have published three books and more than 80 articles in scholarly and trade journals, primarily on low-income utility and housing issues. I have published more than 100 technical reports for various clients on energy, water, telecommunications and other associated low-income utility issues.

Q. HAVE YOU EVER TESTIFIED BEFORE THIS OR OTHER UTILITY COMMISSIONS?

A. Yes. I have testified before the Pennsylvania Public Utility Commission (“PUC” or “Commission”) on numerous occasions over the past 30 years regarding utility issues affecting low-income customers and customer service. I have also testified in regulatory proceedings in more than 35 states and various Canadian provinces on a wide range of utility issues. An abbreviated list of the proceedings in which I have testified is listed in Appendix A.

Q. PLEASE EXPLAIN THE PURPOSE OF YOUR DIRECT TESTIMONY.

A. My Direct Testimony is contained in two parts. The purpose of Part 1 is to respond to the Directed Questions set forth in the Staff’s (Corrected) Initial Technical Report (November 28, 2018) regarding universal service for the Pittsburgh Water and Sewer Authority (“PWSA”) (hereafter “Directed Questions” or “Staff Report”).¹ In responding

¹ Throughout my testimony, unless I specifically indicate, or unless the context makes clear to the contrary, my references to “water” include both water and wastewater.

1 to those Directed Questions, I will note areas of agreement and disagreement with the
 2 Direct Testimony of Julie Quigley presented on behalf of PWSA. In Part 2, I will address
 3 certain fundamental universal service policy principles that should be resolved prior to
 4 PWSA presenting a detailed universal service plan in its next base rate case.

5
 6 **Q. DO YOU RECOMMEND A SPECIFIC UNIVERSAL SERVICE PROGRAM IN**
 7 **YOUR DIRECT TESTIMONY IN THIS PROCEEDING?**

8 A. No. While, as I describe above, I will address certain fundamental policy questions that
 9 the Commission should decide in this proceeding prior to having PWSA and other
 10 stakeholders initiate conversations about the detailed structure of an actual on-the-ground
 11 universal service program for PWSA, I agree that the Settlement of the 2018 PWSA Rate
 12 Case (contemplated that the detailed design of a Universal Service Program be
 13 collaboratively developed, and subsequently presented, in the next PWSA base rate case.²

14
 15 **Part 1. The Directed Universal Service Questions in the Staff’s Technical Report.**

16 **Q. PLEASE DESCRIBE THE PURPOSE OF THIS SECTION OF YOUR**
 17 **TESTIMONY.**

² Docket No.R-2018-3002645 and R-2018-3002647 [cons.]). In the settlement of that rate case, PWSA agreed to increase the assistance provided through the Bill Discount Program (“BDP”) to provide a 75% discount on the minimum charge for both water and wastewater customers with incomes at or below 150% of the Federal Poverty Level. Settlement ¶ III.F.4. In its next base rate case, PWSA has agreed to submit a detailed plan addressing the parameters of its low-income assistance programs, including design of the BDP and possible additional assistance for customers at or below 50% of the Federal Poverty Level. Settlement ¶ III.F.4.a.i through vi. PWSA will also form a Low Income Assistance Advisory Committee, which will be discussed in greater detail below. Among the terms this committee will explore will be funding the bill assistance program with separate budgets for water and wastewater populations. Settlement ¶ III.F.3.h.

1 A. In this section of my testimony, I responded to the Directed Questions contained in the
2 Staff Report regarding universal service (Staff Report, pages 11-12). The two directed
3 Questions to which I respond include:

- 4 ➤ Whether and how the PWSA CAP complies with 52 Pa. Code § 69.265(1),
5 § 69.266, and § 1304; and
- 6 ➤ The appropriateness of PWSA establishing a CAP.

7 I will address the propriety of a CAP first, before turning to compliance with the specific
8 statutory sections.

9
10 **A. Appropriateness of PWSA Establishing a CAP.**

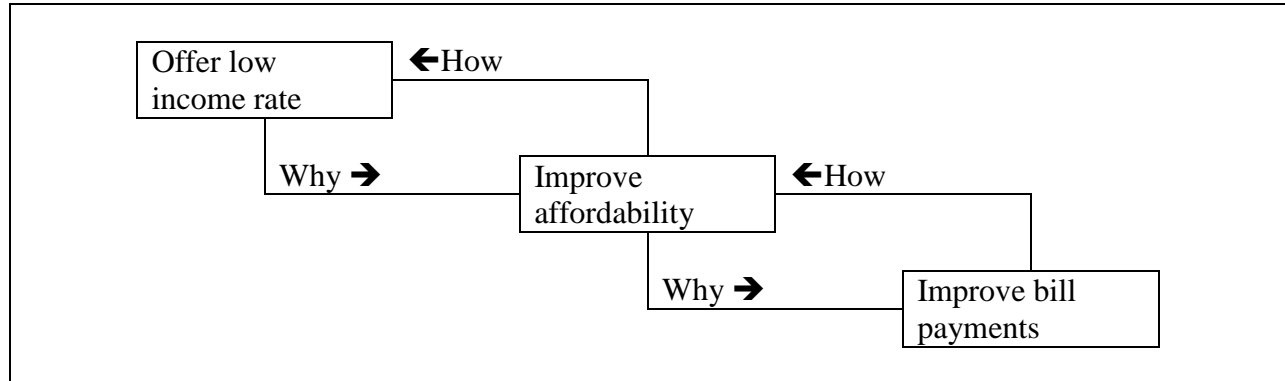
11 **Q. PLEASE EXPLAIN THE APPROPRIATENESS OF PWSA ESTABLISHING A**
12 **CAP.**

13 A. It is entirely appropriate for PWSA to establish a universal service program to address the
14 needs of the Authority's low-income customers. The purpose of a universal service
15 program is to improve the affordability of utility service to income-eligible customers
16 who would face unaffordable bills in the absence of the discount. In noting that
17 "affordability" is the objective, it is important to remember that pursuing affordability,
18 and thus offering a low-income discount, is a means to an end, not an end unto itself.
19 The outcome which stakeholders should seek to achieve through a universal service
20 program is the ability of income-challenged customers to take water service under
21 sustainable conditions. The rationale for a low-income rate is set forth in the decision-
22 model set forth in the figure below. As you move "down" the model, you answer the

question “why.” As you move “up” the model, you answer the question “how.”

Accordingly, the questions and answers are:

- Why do you offer a low-income rate? To improve affordability.
- Why do you seek to improve affordability? To improve bill payments.



A discount being offered to low-income customers, in other words, is not simply a distribution of financial benefits to the poor because they are poor. Instead, a properly designed discounted rate for PWSA should be a mechanism through which PWSA, in effect, seeks to purchase an increase in the ability of low-income customers to consume their water service while making consistent, timely payments for that service with a minimum of collection intervention.

Q. WHAT GIVES YOU REASON TO BELIEVE THAT THERE IS A NEED FOR LOW-INCOME CUSTOMERS TO RECEIVE ASSISTANCE TO IMPROVE THEIR BILL PAYMENT SUSTAINABILITY?

A. While neither PWSA nor other Pennsylvania water utilities collect information based on whether a customer is or is not “low-income,” the state’s natural gas and electric utilities

have reported such information for many years. The data collection leaves no room for disagreement about the need for low-income assistance. The Chart below reflects some of the important points of comparison. For space purposes, I use the state averages in the metrics I include below. However, utility-specific data reported in the annual report of the Bureau of Consumer Services on Universal Service Programs and Collections Performance confirms that no individual utility is exempt from these conclusions.

Collections Performance: Residential vs. Confirmed Low-Income Pennsylvania Natural Gas and Electric Utilities (2017) /a/				
	Electric		Natural Gas	
	Residential	Confirmed Low-Income	Residential	Confirmed Low-Income
Termination rate	4.3%	14.7%	3.6%	11.2%
Reconnection rate	78.9%	73.8%	68.3%	63.6%
Pct customers in debt	10.1%	24.9%	9.8%	17.9%
Pct billings in arrears	3.1%	10.3%	4.1%	9.1%
Average arrears	\$396.31	\$596.58	\$355.84	\$456.07
Gross write-off pct	2.1%	9.0%	3.7%	11.6%
Data from BCS 2017 Report on Universal Service Programs and Collections Performance.				

As can be seen in this Table, confirmed low-income customers are disconnected at a higher rate than residential customers generally, and are reconnected at a lower rate (subsequent to their service terminations). Not only is a higher percentage of the confirmed low-income population in debt, but a higher percentage of billings to confirmed low-income customers is in arrears. Moreover, not only is a higher percentage of confirmed low-income customers in debt, but those that are in debt, are further in debt. And finally, a higher percentage of low-income billings is written off as bad debt than of residential billings in general.

1 While I recognize that this data reflects data from the electricity and natural gas industries
2 in Pennsylvania, rather than from the water industry, there is no reason to believe that the
3 water industry would have a better performance.
4

5 **Q. HAVE YOU HAD OCCASION TO CONSIDER PAYMENT PROBLEMS IN THE**
6 **PWSA SERVICE TERRITORY?**

7 A. Yes. I found that there is widespread prevalence of payment problems for PWSA, which
8 problems are associated with low-income areas. In 2018, PWSA provided OCA with its
9 aging of arrears. I distributed those arrearages over PWSA's zip codes for water
10 accounts. I then compared the zip codes with the highest percentage of accounts in
11 arrears, and with the highest percentage of dollars in arrears, to various measures of
12 income status for PWSA's zip codes. I find that the zip codes with the lowest median
13 income, with the most households on public assistance and/or food stamps (i.e.,
14 Supplemental Nutrition Assistance Program, SNAP), and with the lowest level of income
15 for its first quintile population tend to make a disproportionate contribution to the
16 percentage of accounts in arrears, to the percentage of accounts at least 90-days in
17 arrears, and to the percentage of accounts 360 or more days in arrears. There is a
18 discernible association, in other words, between low-income status in the PWSA service
19 territory and low-income status.
20

21 **Q. WHAT DO YOU CONCLUDE REGARDING THE APPROPRIATENESS OF**
22 **PWSA OFFERING A UNIVERSAL SERVICE PROGRAM TO LOW-INCOME**
23 **CUSTOMERS?**

1 A. I conclude that it is appropriate for PWSA to offer a universal service program to its low-
 2 income customers for the same reasons that it is appropriate for Pennsylvania’s natural
 3 gas and electric utilities to offer their customers a universal service program. However,
 4 this appropriateness comes with a caveat. A universal service program should be
 5 recognized as a means to an end, not an end unto itself. The question of
 6 “appropriateness” should be applied not simply to the question of whether a program
 7 exists, but also to how a program should be designed. For example, to the extent that a
 8 program diverges further and further from a design that addresses payment difficulties,³ it
 9 also diverges further and further from being “appropriate.”⁴ For example, to the extent
 10 that a program offers a flat across-the-board discount, irrespective of a determination of
 11 “need,” the program diverges further and further from being appropriate.

12
 13 **Q. CAN YOU SUMMARIZE YOUR CONCLUSIONS?**

14 A. In sum, it is “appropriate” for PWSA to offer a universal service program to its low-
 15 income customers. That finding of “appropriateness” comes with the caveat that the
 16 program be viewed as a means to an end, not an end unto itself. A program can be used
 17 as a tool to achieve increased bill sustainability to the extent that it is adequately targeted
 18 to need. A program that offers “too little” assistance, as well as a program that offers
 19 “too much” assistance, is not an effective or efficient mechanism to address the need for
 20 increased bill payment sustainability. A finding of “appropriateness,” in other words,
 21 necessarily implies a program design involving proper targeting.

³ I will discuss below how and why percentage of income should be used as the surrogate for measuring payment difficulties.

⁴ I will discuss below how and why PWSA should target its program outreach to its payment-troubled customers irrespective of whether it makes payment-troubled status an eligibility requirement.

B. Compliance with Sections 69.265(1) and 69.266.

Q. DOES PWSA’S CURRENT CAP COMPLY WITH SECTION 69.265(1)?

A. I construe this Directed Question to ask whether the existing PWSA CAP would comply with the provisions of Section 69.265 if the Commission chose to extend Section 69.265 to PWSA as a water utility. Clearly, since Section 69.265 now applies only to natural gas and electric utilities, PWSA’s program is not governed by the policy statement and, therefore, “compliance” with that policy statement is a non-issue. The only way to reasonably read the Directed Question is to assume that the Staff meant to inquire as to whether the PWSA program would comply with the principles in Section 69.265 if that section (or a corresponding section) were made applicable to PWSA. My discussion below should be read within this context.

The existing PWSA program, as it is now designed, would not comply with those requirements. The existing PWSA program falls short of compliance with Section 69.265.

The existing PWSA CAP is not targeted to need in any meaningful sense. A PWSA customer with an income of \$5,000 would receive the identical bill assistance that a customer with an income of \$25,000 would receive. An eight-person household would receive the same assistance as a 1-person household. A household with a water burden of 20% of income would receive the same assistance as a household with a water burden of 2% of income. While the PWSA discount is a good start, it is an insufficient mechanism

1 through which to achieve the objectives of a low-income rate. The low-income discount
 2 should evolve as PWSA proceeds through this proceeding and its next base rate case.

3
 4 **Q. PLEASE RESPOND TO PWSA WITNESS JULIE QUIGLEY’S TESTIMONY**
 5 **REGARDING THE STRUCTURE OF THE PWSA CAP.**

6 A. PWSA Witness Julie Quigley testifies that “PWSA’s customer assistance programs offer
 7 a reasonable amount of financial assistance to low-income customers to improve their
 8 ability to pay more of their bill than they otherwise might not be able to pay resulting in a
 9 positive overall impact on the amount of revenue PWSA is able to receive from its
 10 customers.” (PWSA St. No. C-4, at 24). While Ms. Quigley may state that PWSA’s CAP
 11 “provides a reasonable amount of financial assistance,” and would “improve their ability
 12 to pay more of their bill,” my conclusion is that the existing PWSA CAP needs to be
 13 adjusted to address the need for financial assistance and to accomplish the objective of
 14 improving low-income ability to pay.

15
 16 When asked in its rate case for the support for assertions such as those which Ms.
 17 Quigley makes in her direct testimony in this proceeding,⁵ PWSA stated: “PWSA has not
 18 developed a definition of an “affordable” water burden. Although PWSA recognizes that
 19 affordability is an important pricing objective, the time frame allowed for this rate filing
 20 did not allow for the type of analysis that is required to determine appropriate
 21 affordability goals.” (OCA-VII-2-RC). Moreover, PWSA stated that it “does not have

⁵ These discovery responses are from the recently completed rate case. However, in this proceeding, parties agreed that discovery from the rate case would be allowed to be used in this proceeding to prevent the need to reissue identical discovery in a duplicative fashion. The demarcation of an OCA discovery response by “RC” indicates that it was a PWSA response to discovery in the 2018 rate case.

1 any such studies,” when asked for studies that examine the affordability of its bills with
2 and without its bill assistance program. (OCA-VII-6-RC). PWSA could not say how
3 many customers do, or do not, have an affordable water burden (however that burden is
4 defined) with and without the bill assistance program. (OCA-VII-9-RC). PWSA stated
5 that “it does not calculate an affordable water burden.” (OCA-VII-9(b) – 9(d)-RC).
6 Therefore, PWSA does not have adequate data to conclude that its current program
7 design will “ideally place them [customers] in a better position to pay more of their bills.”
8 (PWSA St. No. C-4, at 23). On a going-forward basis, the OCA is a part of the PWSA
9 universal service advisory group and will participate in conversations about what the
10 PWSA low-income rate should look like in the future. To inform those conversations,
11 the data collection I recommended in the 2018 base rate case was largely adopted as part
12 of the settlement of that case.

13
14 **Q. PLEASE RESPOND TO PWSA WITNESS QUIGLEY’S TESTIMONY**
15 **REGARDING THE STATUTORY BASIS FOR THE GAS AND ELECTRIC**
16 **CAPS.**

17 A. In responding to this question, I understand that PWSA witness Quigley stated that her
18 testimony was based on the fact that she was “advised by counsel.” (PWSA St. No. C-4,
19 at 24). Given that I have personally been involved with the creation and expansion of
20 CAPs in Pennsylvania, since their inception nearly 30 years ago, I can testify from
21 personal experience and knowledge. I will address the statutory basis for a CAP in more
22 detail in my discussion below of whether a PWSA CAP complies with Section 1304 of
23 the Public Utility Code.

1
2 **Q. DO YOU HAVE ANY FINAL COMMENTS ABOUT OTHER “COMPLIANCE”**
3 **ISSUES WITH RESPECT TO SECTION 69.265?**

4 A. Much of Section 69.265 deals with the detailed design of a CAP. While, as I will address
5 in Part 2 of my testimony, there are fundamental policy issues that should be decided
6 sooner rather than later, and certainly before a detailed universal service plan is presented
7 in PWSA’s next base rate case, I do agree efforts to begin conversations regarding the
8 detailed design of a universal service program are premature in this proceeding. The
9 resolution of the rate case involved the Commission directing the parties agreeing to
10 postpone development of a detailed plan until the next base rate case.

11
12 **Q. PLEASE RESPOND TO THE STAFF’S QUESTION ABOUT WHETHER**
13 **PWSA’S CAP COMPLIES WITH SECTION 69.266.**

14 A. I agree with the testimony of PWSA Witness Julie Quigley, when she stated that “as
15 contemplated by the rate case settlement, these issues will be addressed in the context of
16 PWSA’s next base rate case. As such, PWSA views further inquiry into the cost
17 recovery issues set forth in Section 69.266 of the CAP Policy Statement as premature in
18 this proceeding.” (PWSA St. No. C-4, at 27).

19
20 **C. Compliance with Section 1304.**

21 **Q. PLEASE RESPOND TO THE STAFF’S QUESTION ABOUT WHETHER**
22 **PWSA’S CAP COMPLIES WITH SECTION 1304 OF THE PUBLIC UTILITY**
23 **CODE.**

1 A. Section 1304 of Pennsylvania’s Public Utility Code generally prohibits utilities from
2 granting any “unreasonable preference or advantage. . .[or] difference” as to rates. I
3 agree with PWSA Witness Julie Quigley that, at a minimum, Section 1304 only prohibits
4 unreasonable differences in rates. Noting again my testimony above regarding the
5 “appropriateness” of PWSA’s CAP, I observe that CAPs in the energy industry have
6 repeatedly been found to comply with this statutory provision.

7
8 **Q. DO YOU AGREE WITH MS. QUIGLEY’S TESTIMONY THAT THE**
9 **PENNSYLVANIA CAPS ARE PROGRAMS OF STATUTORY CREATION?**

10 A. No. The Pennsylvania statutory provisions cited by Ms. Quigley (PWSA St. C-4, at 24,
11 lines 10 – 12) were not the basis for the creation of CAPs. Those statutory provisions
12 were the basis for the preservation of CAPs as Pennsylvania moved into the retail choice
13 era for electric and natural gas utilities. CAPs were created in 1980-1990 in the energy
14 industry. All of the statutory bases for the creation of CAPs for electric and natural gas
15 utilities also apply to PWSA as a water utility.

16
17 The rate affordability programs operated by Pennsylvania natural gas and electric utilities
18 for their low-income customers began nearly 20 years ago with a small pilot project by
19 Columbia Gas Company.⁶ Since that time, the universal service concept has expanded
20 for Pennsylvania’s energy utilities. While the genesis of the Pennsylvania universal
21 service programs can be found in the Pennsylvania PUC’s generic authority over the

⁶ Pennsylvania Public Utility Commission v. Columbia Gas of Pennsylvania, R-891468, Final Order, at 150 – 160 (September 19, 1990). (hereafter Columbia Gas EAP Order).

1 operations of energy utilities, it was ensuring the continuation of those programs in retail
2 choice that became part of the restructuring statutes.

3
4 Two utilities in Pennsylvania pioneered the use of affordable rates as a means to address
5 the payment troubles experienced by low-income customers. Columbia Gas Company
6 responded with a willingness to pursue a program first proposed by the Office of
7 Consumer Advocate. Equitable Gas Company also proposed an income-based rate for its
8 low-income customer population.

9
10 The Pennsylvania Office of Consumer Advocate (OCA) proposed that Columbia Gas
11 Company adopt an “Energy Assurance Program” (EAP) as part of Columbia’s 1990 rate
12 case. According to the OCA, the issue was one of collection efficiency. “The issue in
13 this proceeding,” OCA said, “is not to devise a social response to the broad inability to
14 pay problems of low-income households. The issue is one of what is the most cost-
15 effective means of collection. It is the same issue as whether a utility should pursue new
16 central station capacity, cogeneration or conservation. . .The requirement that utilities
17 provide least-cost service should govern utility collection activities too.”⁷ The OCA
18 continued: “the issue is this: how can Columbia Gas most effectively and least
19 expensively collect as much as possible from households [who] cannot afford to pay?”⁸

20
21 The Pennsylvania Commission agreed. The Commission found that “it is incumbent upon
22 us to initiate a pilot project to test empirically some of the claims made by [OCA] for an

⁷Columbia Gas EAP Order, at 152.

⁸ Id., at 153.

1 EAP. Hopefully, the results of the pilot will prove [OCA's] thesis that EAP will enable
 2 more customers to avoid termination and collection actions, while also reducing the
 3 uncollectible expense that can be anticipated if existing approaches remain unchanged.”⁹

4 The PUC then articulated its philosophy that would govern Pennsylvania's regulatory
 5 policy for the next two decades:

6 We, in conjunction with utilities, and social service agencies, have all worked
 7 hard to devise ways to [e]nsure that low-income Pennsylvanians have utility
 8 services which really are necessities of life as the tragic fire deaths associated
 9 with the loss of utility service underlined. . .

10
 11 However, for the poorest households with income considerably below the
 12 poverty line, existing initiatives do not enable these customers to pay their
 13 bills in full and to keep their service. . .Consequently, to address realistically
 14 these customers' problems and to stop repeating a wasteful cycle of
 15 consecutive, unrealistic payment agreements that cannot be kept, despite the
 16 best of intentions, followed by service termination, then restoration, and then
 17 more unrealistic agreements, we believe that new approaches like PECO's
 18 CAP program and the OCA's proposed EAP program should be tried.¹⁰

19
 20 Based on this analysis, the Commission directed Columbia Gas to begin a 1,000 customer
 21 pilot EAP.

22
 23 Shortly after directing Columbia Gas to implement a pilot low-income rate affordability
 24 program, the Pennsylvania commission further approved a proposal by Equitable Gas
 25 Company to pursue a similar program.¹¹ Unlike the Columbia Gas program, which had
 26 been proposed by the state Office of Consumer Advocate (and not opposed by the

⁹ Id., at 158.

¹⁰ Id., at 159.

¹¹ Pennsylvania Public Utility Commission v. Equitable Gas Company, Docket No. R-901595, Final Order, at 63 – 74 (November 21, 1990). (hereafter Equitable Order).

1 Company), the Equitable Gas program originated with the gas utility, itself.¹² According
 2 to the Company, the proposed program was:

3 Needed to (1) remove these customers from the discouraging and expensive
 4 collection cycle, (2) motivate them to increase conservation, (3) increase their
 5 annual participation in available funding assistance programs, and (4)
 6 encourage consistent bill-payment efforts.¹³

7
 8 The Equitable Gas program was, at first, disapproved by the hearing examiner who
 9 decided the Equitable rate case. While the program is “an apparently well-intentioned
 10 attempt to assist those of Equitable’s ratepayers who most need assistance in paying their
 11 bills,” the hearing examiner “concluded that this Commission is without authority to
 12 approve a program such as the EAP.” The hearing examiner reasoned that if the
 13 commission “were to approve the subject [energy affordability] program, our action
 14 would be tantamount to authorizing a utility to collect money from one group of
 15 ratepayers and to use that money for another group of ratepayers for a reason completely
 16 unrelated to the ratemaking process (the subsidization of low-income individuals who are
 17 unable to pay their utility bills).”¹⁴ The hearing examiner finally concluded that “neither
 18 judicial precedent nor the Public Utility Code discuss our statutory authority for the
 19 implementation of utility rates based solely on ‘ability to pay.’”¹⁵

20
 21 The Pennsylvania commission, however, reversed the hearing examiner’s disapproval of
 22 the proposed Equitable Gas low-income program. Noting that “we are aware that this
 23 Commission’s main function in ratemaking is to assure that every rate made, demanded,

¹² Equitable Gas had been working with the state Bureau of Consumer Services (BCS), a bureau of the state utility commission, to develop an appropriate program design. Equitable Order, at 63.

¹³ Id., at 63.

¹⁴ Id., at 66.

¹⁵ Id.

1 or received by any public utility shall be just and reasonable,” the commission found that
2 the Pennsylvania statute prohibits only unreasonable preferences or advantages to any
3 person. The statute, the commission said, prohibits any unreasonable difference as to
4 rates between classes of service.¹⁶ “The relevant question, therefore, is whether or not
5 the funding of Equitable’s proposed [energy affordability] program results in the
6 ‘unreasonable’ rate discrimination prohibited by the Public Utility Code.”¹⁷

7
8 According to the Pennsylvania commission, “a mere difference in rates does not violate”
9 the Pennsylvania statute.¹⁸ The commission then found, on a number of bases, that “the
10 record in this proceeding clearly demonstrates that any ‘preference’ that EAP would yield
11 to program participants is reasonable, and further, the creation of EAP is in the best
12 interest of all Equitable ratepayers, not just program participants.”¹⁹

13
14 In sum, the commission said that “we commend Equitable for taking the initiative to
15 propose the [energy affordability] pilot. This program could make it one of the leaders
16 among utilities in the uncollectible arena.”²⁰

17
18 Only two years after initiating the Columbia Gas pilot, the Pennsylvania PUC decided to
19 expand the use of universal service programs to the state’s other natural gas and energy

¹⁶ Id., at 69 (emphasis in original).

¹⁷ Id., at 69.

¹⁸ Id., at 70.

¹⁹ Id., at 70.

²⁰ Id., at 73.

1 utilities.²¹ Consistent with its view of the function of such programs as expressed in the
 2 early Columbia Gas decision, the policy decision of the Commission was that low-
 3 income rate affordability programs were a necessary tool for utilities to use in combating
 4 the problem of nonpayment. Indeed, the decision to implement what would become
 5 known as Pennsylvania's Customer Assistance Programs (CAPs) arose out of the PUC's
 6 investigation into the control of uncollectible accounts.²² Through that investigation, the
 7 Pennsylvania PUC's Bureau of Consumer Services (BCS) had developed
 8 recommendations for implementation of CAPs.

9 CAPs provide alternatives to traditional collection methods for low-income,
 10 payment troubled customers. Generally, customers enrolled in a CAP agree
 11 to make monthly payments based on household family size and gross income.
 12 These regular monthly payments, which may be for an amount that is less
 13 than the current bill, are made in exchange for continued provision of utility
 14 service.²³

15
 16 The Commission continued:

17
 18 As a result of our investigation, the Commission believes that an
 19 appropriately designed and well implemented CAP, as an integrated part of a
 20 company's rate structure, is in the public interest. To date, few utilities have
 21 implemented CAPs. The purpose of this Policy Statement is to encourage
 22 expanded use of CAPs and to provide guidelines to be followed by utilities
 23 who voluntarily implement CAPs. These guidelines prescribe a model CAP

²¹ The Commission directed that utilities adopt pilot projects. The PUC decision was based on the BCS recommendation that CAP pilots "should be large enough to provide some relief to the low-income, payment-troubled customer problem and at the same time small enough that changes can be made to the programs without incurring major costs." Bureau of Consumer Service, Final Report on the Investigation of Uncollectible Balances, Docket No. I-900002, at 115 (February 1992). (hereafter BCS Uncollectibles Report). The Commission directed that pilot programs were to involve either 1,000 customers or 2% of a company's residential customer base, whichever was greater.

²² In the Matter of the Investigation into the Control of Uncollectible Accounts, Docket No. I-900002 (initiated October 11, 1990).

²³ Policy Statement on Customer Assistance Programs (CAP), Docket No. M-00920345, at 2 (July 2, 1992).

1 which is designed to be a more cost-effective approach for dealing with
2 issues of customer inability to pay than are traditional collection methods.²⁴
3

4 In sum, while preservation and expansion of the CAP programs was eventually written
5 into statute as part of the restructuring of the electricity and natural gas industries, the
6 Pennsylvania CAP programs were initiated by the state PUC without explicit statutory
7 authorization. Instead, the PUC found that CAPs should be an “integrated part of a
8 company’s rate structure.” The purpose of these programs, the Commission found, was
9 not a social purpose. Rather, the CAPs represent “a more cost effective approach for
10 dealing with issues of customer inability to pay than are traditional collection methods.”
11

12 The focus of the Pennsylvania CAPs as a tool to respond to low-income payment troubles
13 has continued throughout the years. CAPs were considered to be an *alternative* to a way
14 of doing business that simply wasn’t working. The objective of CAP was “to stop
15 repeating a wasteful cycle of consecutive, unrealistic payment agreements that cannot be
16 kept, despite the best of intentions, followed by service termination, then restoration, and
17 then more unrealistic agreements. . .”
18

19 **Q. WHAT DO YOU CONCLUDE?**

20 A. I conclude not only that the energy CAPs were created pursuant to the Commission’s
21 general statutory oversight authority over Pennsylvania’s utilities, but that that same

²⁴ Id., at 2. This Commission decision was supported by the BCS Final Report, which indicated: “The Bureau’s position is that ratepayers are already bearing significant costs attributable to the problems of payment troubled customers and uncollectible balances. Further, BCS believes that incorporating the following recommendations into utility operations will lead to a more rational and cost effective use of existing resources. Over time, proper implementation of the recommendations may result in a reduction of total utility costs.” BCS Uncollectibles Report, at 120.

oversight authority exists with respect to water utilities such as PWSA. I conclude further that CAPs are well within the zone of reasonableness for testing the lawfulness of rates pursuant to Section 1304.

Part 2. Fundamental Universal Service Principles.

Q. PLEASE EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY.

A. In this section of my testimony, I will address certain fundamental universal service principles that would appear to flow out of the Directed Questions contained in the Staff Report. These fundamental principles should be articulated by the Commission in this proceeding. Between now and the commencement of PWSA's next base rate case, PWSA will engage in conversations with various stakeholders about a detailed plan to present in the next rate case regarding the offer of universal service. Even as the collaborative process agreed to in the settlement of the rate case proceeds forward in the future, without knowing the fundamental principles, it is not possible to develop a detailed plan. If PWSA prepares a detailed plan based on a misunderstanding of what will fundamentally be required, or based on a lack of understanding of what will be required, waiting until the next rate case to discover that failure of understanding will simply harm both PWSA and PWSA's low-income customers.

Q. IS THE ARTICULATION OF CERTAIN FUNDAMENTAL PRINCIPLES AT ODDS WITH THE SETTLEMENT OF THE 2018 RATE CASE?

1 A. No. The settlement of the 2018 rate case provided that PWSA will present a “detailed
2 plan” for universal service. I am not proposing that the Commission undertake to begin
3 to articulate what the details of a universal service plan would contain. However, and it
4 is a big however, as I indicate above, it is not possible to begin the preparation of a
5 detailed plan without knowing the fundamental rules of the game. The Commission
6 should articulate those “rules of the game” in this proceeding (or certainly no later than
7 Phase II of the consideration of PWSA’s Compliance Plan).

8
9 **Q. WHY DO YOU OFFER SUCH FUNDAMENTAL PRINCIPLES OUTSIDE THE**
10 **CONTEXT OF A SPECIFIC UNIVERSAL SERVICE PLAN PROPOSED BY**
11 **PWSA?**

12 A. Presenting a detailed plan that does not incorporate the fundamental policy principles that
13 will be a necessary component of any such plan would be an inefficient use of time and
14 resources by both the parties and the Commission. Moreover, a collaborative involving
15 various stakeholders, including the OCA, that occurs before the next base rate case would
16 benefit from having the Commission set forth the grounding principles for a PWSA
17 universal service program. If PWSA advances a detailed plan that does not incorporate
18 the appropriate fundamental principles, the effect would be for PWSA to be required to
19 start anew subsequent to that rate case, to the detriment of both PWSA and PWSA’s low-
20 income customers.

Q. PLEASE IDENTIFY THE FUNDAMENTAL PRINCIPLES THAT THE COMMISSION SHOULD ARTICULATE AS BEING NECESSARY TO INCORPORATE IN A PWSA UNIVERSAL SERVICE PLAN.

A. The following principles should serve as the basis for a future “detailed plan” through which PWSA will provide universal service:

1. A PWSA universal service program should include at least the following components: (a) a bill discount program; (b) a crisis intervention program; and (c) a usage reduction program.
2. The bill discount program should be based on an affordable burden (i.e., bill as a percentage of income). The issue of what burden is “affordable,” if not resolved in stakeholder collaborative discussions preceding the next base rate case, can be litigated in that proceeding.
3. A bill discount program should be open to all customers who qualify. No ceiling on participation rates is appropriate.
4. A bill discount program should contain specific elements designed to contain the cost of such a program. Illustrative elements are contained in the CAP Policy Statement, including minimum payments and maximum ceilings on CAP credits.
5. A bill discount program should seek all reasonable administrative efficiencies. Efficiencies might include, for example, “express lane eligibility” where qualification for a CAP offered by a gas or electric utility serving the PWSA service territory would automatically income-qualify a customer for the PWSA CAP.
6. Income qualification for a PWSA CAP should be established to reach customers with income at or below 150% of Federal Poverty Level.
7. While income eligibility for a PWSA CAP should be open for all customers who are income-qualified, the PWSA CAP should be specifically marketed to PWSA customers who are payment-troubled. PWSA should specifically identify in its detailed plan its distinction between income-eligibility on the one hand and targeting on the other.

1 8. Appropriate funding for a usage reduction program should reflect a “needs
2 assessment.” Funding levels should explicitly articulate how they are serving
3 the needs identified in the needs assessment.

4
5 9. PWSA’s universal service program offerings should seek to use Community-
6 Based Organizations (“CBOs”) in its outreach and intake processes to the
7 maximum extent practicable.

8
9 10. The cost of PWSA’s universal service programs should be borne by all
10 customers and not placed exclusively on the residential customer class.
11

12 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

13 A. Yes it does.

Appendix A: Abbreviated Prior Colton Testimony

COLTON EXPERIENCE AS EXPERT WITNESS

2005 – PRESENT

CASE NAME	CLIENT NAME	Docket No. (if available)	TOPIC	JURIS.	YEAR
I/M/O UGI-Electric	Office of Consumer Advocate	R-2017-2640058	Customer service / low-income cost recovery	Pennsylvania	18
I/M/O Ameren Illinois	Office of Attorney General	Docket 18-1008 (18-1009) (cons.)	Prepayment meters	Illinois	18
I/M/O Columbia Gas	Office of Consumer Advocate	R-2018-2647577	Customer service / low-income program design	Pennsylvania	18
I/M/O PECO (electric)	Office of Consumer Advocate	R-2018-3000164	Customer service / low-income program design	Pennsylvania	18
I/M/O Philadelphia Water Department requested rates for 2019 - 2021	Philadelphia Public Advocate	None	Water rate:: low-income program cost recovery / public fire protection / storm water charge exemptions	Philadelphia	18
I/M/O Commonwealth Edison Prepayment Meters	Illinois Office of Attorney General	17-0837	Electric customer service	Illinois	18
I/M/O 2018/2020 Statewide Energy Efficiency Plan	The Way Home / New Hampshire Legal Assistance	DE 17-136	Non-energy impacts / Low-income energy efficiency	New Hampshire	17
I/M/O DTE (electric) / gas EWR (energy waste reduction) plan	Sierra Club / Natural Resources Defense Council	Case No. U-18262	Low-income energy efficiency	Michigan	17
I/M/O DTE (electric)	Sierra Club / Natural Resources Defense Council	Case No. U-18255	Low-income energy efficiency	Michigan	17
I/M/O Merger of AltaGas and WGL Holdings	Office of People's Counsel	Case No. 9449	Low-income / charitable contributions / community impacts	Maryland	17
I/M/O Philadelphia Gas Works	Office of Consumer Advocate	R-2017-2587783	Low-income / rate design	Pennsylvania	17
I/M/O UGI-Peoples Natural Gas	Office of Consumer Advocate	R-2016-2580030	Low-income	Pennsylvania	17
I/M/O Peoples Natural Gas	Office of Attorney General	16-0376	Low-income	Illinois	17
I/M/O UGI-PNG	Office of Consumer Advocate	R-2016-2580030	Rate design/EE&CP/Low-Income	Pennsylvania	17
I/M/O Pacific Gas and Electric Company	TURN	15-09-001	Electric bill affordability	California	16
I/M/O FirstEnergy Companies (Met Ed, Penelec, PennPower, West Penn Power)	Office of Consumer Advocate	R-2016-2537349, R-2016-2537352, R-2016-2537355, R-2016-2537359 (consolidated)	Rate design / low-income program cost recovery	Pennsylvania	16
I/M/O PGW Demand Side Management	Office of Consumer Advocate	P-2014-2459362	Demand Side Management	Pennsylvania	16
I/M/O Columbia Gas of Pennsylvania	Office of Consumer Advocate	R-2016-2529660	Rate design / customer service / Low-income program cost recovery	Pennsylvania	16
I/M/O Philadelphia Water Department	Public Advocate, City of Philadelphia	N/A	Low-income program design	Philadelphia	16
I/M/O UGI Gas	Office of Consumer Advocate	M-2015-2518438	Rate design, energy efficiency, customer service	Pennsylvania	16
Keener v. Consumers Energy	Keener (plaintiff)	15-146908-NO	Collections	State District Ct--MI	16
I/M/O Energy Efficiency and Conservation Plan, Phase III, PECO Energy	Office of Consumer Advocate	M-2015-2515691	Multi-Family Energy Efficiency	Pennsylvania	16
I/M/O Energy Efficiency and Conservation Plan, Phase III, Duquesne Light Company	Office of Consumer Advocate	M-2015-2515375	Multi-Family Energy Efficiency	Pennsylvania	16
I/M/O Energy Efficiency and Conservation Plan, Phase III, FirstEnergy Companies (Metropolitan Edison, Penelec, Penn	Office of Consumer Advocate	M-2015-2514767; M-2015-2514768; M-2015-2514769; M-2015-2514772	Multi-Family Energy Efficiency	Pennsylvania	16

CASE NAME	CLIENT NAME	Docket No. (if available)	TOPIC	JURIS.	YEAR
Power, West Penn Power)					
I/M/O Energy Efficiency and Conservation Plan, Phase III, PPL Electric Corporation	Office of Consumer Advocate	M-2015-251-2515642	Multi-Family Energy Efficiency	Pennsylvania	16
I/M/O BC Hydro	Public Interest Action Centre	N/A	Rate design / terms and conditions / energy efficiency	British Columbia	15 - 16
Augustin v. Philadelphia Gas Works	Augustin (Plaintiffs)	2:14—cv-04238	Constitutional notice issues	U.S. District Court (E.D. PA)	15
I/M/O PPL Utilities	Office of Consumer Advocate	R-2015-2469275	Rate design / customer service	Pennsylvania	15
I/M/O Columbia Gas Company	Office of Consumer Advocate	R-2015-2468056	Rate design / customer service	Pennsylvania	15
I/M/O PECO Energy Company	Office of Consumer Advocate	R-2015-2468981	Rate design / customer service	Pennsylvania	15
I/M/O Philadelphia Gas Works	Office of Consumer Advocate	P-2014-2459362	Demand Side Management	Pennsylvania	15
I/M/O SBG Management v. Philadelphia Gas Works	SBG Management	C-2012-2308454	Customer service	Pennsylvania	15
I/M/O Manitoba Hydro	Resource Action Centre		Low-income affordability	Manitoba	15
I/M/O FirstEnergy Companies (Met Ed, WPP, Penelec, Penn Power)	Office of Consumer Advocate	R-2014-2428742 (8743, 8744, 8745)	Rate design / customer service / storm communications	Pennsylvania	14
I/M/O Xcel Energy Company	Energy CENTS Coalition	E002/GR-13-868	Rate design / energy conservation	Minnesota	14
I/M/O Peoples Gas Light and Coke Company / North Shore Gas	Office of Attorney General	14-0224 / 14--0225	Rate design / customer service	Illinois	14
I/M/O Columbia Gas of Pennsylvania	Office of Consumer Advocate	R-2014-2406274	Rate design / customer service	Pennsylvania	14
I/M/O Duquesne Light Company Rates	Office of Consumer Advocate	R-2013-2372129	Rate design / customer service / storm communications	Pennsylvania	13
I/M/O Duquesne Light Company Universal Service	Office of Consumer Advocate	M-2013-2350946	Low-income program design	Pennsylvania	13
I/M/O Peoples-TWP	Office of Consumer Advocate	P-2013-2355886	Low-income program design / rate design	Pennsylvania	13
I/M/O PECO CAP Shopping Plan	Office of Consumer Advocate	P-2013-2283641	Retail shopping	Pennsylvania	13
I/M/O PECO Universal Service Programs	Office of Consumer Advocate	M-201202290911	Low-income program design	Pennsylvania	13
I/M/O Privacy of Consumer Information	Legal Services Advocacy Project	CI-12-1344	Privacy of SSNs & consumer information	Minnesota	13
I/M/O Atlantic City Electric Company	Division of Rate Counsel	BPU-12121071	Customer service / Storm communications	New Jersey	13
I/M/O Jersey Central Power and Light Company	Division of Rate counsel	BPU-12111052	Customer service / Storm communications	New Jersey	13
I/M/O Columbia Gas Company	Office of Consumer Advocate	R-2012-2321748	Universal service	Pennsylvania	13
I/M/O Public Service Company of Colorado Low-Income Program Design	Xcel Energy d/b/a PSCo	12A--EG	Low-income program design / cost recovery	Colorado	12
I/M/O Philadelphia Water Department.	Philadelphia Public Advocate	No. Docket No.	Customer service	Philadelphia	12
I/M/O PPL Electric Power Corporation	Office of Consumer Advocate	R-2012-2290597	Rate design / low-income programs	Pennsylvania	12
I/M/O Peoples Natural Gas Company	Office of Consumer Advocate	R-2012-2285985	Rate design / low-income programs	Pennsylvania	12
I/M/O Merger of Constellation/Exelon	Office of Peoples Counsel	CASE 9271	Customer Service	Maryland	11
I/M/O Duke Energy Carolinas	North Carolina Justice Center	E-7, SUB-989	Customer service/low-income rates	North Carolina	11
Re. Duke Energy/Progress Energy merger	NC Equal Justice Foundation	E-2, SUB 998	Low-income merger impacts	North Carolina	11
Re. Atlantic City Electric Company	Division of Rate Counsel	ER186469	Customer Service	New Jersey	11
Re. Camelot Utilities	Office of Attorney General	11-0549	Rate shock	Illinois	11
Re. UGI—Central Penn Gas	Office of Consumer Advocate	R-2010-2214415	Low-income program design/cost recovery	Pennsylvania	11
Re. National Fuel Gas	Office of Consumer Advocate	M-2010-2192210	Low-income program cost recovery	Pennsylvania	11

CASE NAME	CLIENT NAME	Docket No. (if available)	TOPIC	JURIS.	YEAR
Re. Philadelphia Gas Works	Office of Consumer Advocate	P-2010-2178610	Program design	Pennsylvania	11
Re. PPL	Office of Consumer Advocate	M-2010-2179796	Low-income program cost recovery	Pennsylvania	11
Re. Columbia Gas Company	Office of Consumer Advocate	R-2010-2215623	Rate design/Low-income program cost recovery	Pennsylvania	11
Crowder et al. v. Village of Kauffman	Crowder (plaintiffs)	3:09-CV-02181-M	Section 8 utility allowances	Texas Fed Court	11
I/M/O Peoples Natural Gas Company.	Office of Consumer Advocate	T-2010-220172	Low-income program design/cost recovery	Pennsylvania	11
I/M/O Commonwealth Edison	Office of Attorney General	10-0467	Rate design/revenue requirement	Illinois	10
I/M/O National Grid d/b/a Energy North	NH Legal Assistance	DG-10-017	Rate design/revenue requirement	New Hampshire	10
I/M/O Duquesne Light Company	Office of Consumer Advocate	R-2010-2179522	Low-income program cost recovery	Pennsylvania	10
I/M/O Avista Natural Gas Corporation	The Opportunity Council	UE-100467	Low-income assistance/rate design	Washington	10
I/M/O Manitoba Hydro	Resource Conservation Manitoba (RCM)	CASE NO. 17/10	Low-income program design	Manitoba	10
I/M/O TW Phillips	Office of Consumer Advocate	R-2010-2167797	Low-income program cost recovery	Pennsylvania	10
I/M/O PECO Energy—Gas Division	Office of Consumer Advocate	R-2010-2161592	Low-income program cost recovery	Pennsylvania	10
I/M/O PECO Energy—Electric Division	Office of Consumer Advocate	R-2010-2161575	Low-income program cost recovery	Pennsylvania	10
I/M/O PPL Energy	Office of Consumer Advocate	R-2010-2161694	Low-income program cost recovery	Pennsylvania	10
I/M/O Columbia Gas Company	Office of Consumer Advocate	R-2009-2149262	Low-income program design/cost recovery	Pennsylvania	10
I/M/O Atlantic City Electric Company	Office of Rate Council	R09080664	Customer service	New Jersey	10
I/M/O Philadelphia Gas Works	Office of Consumer Advocate	R-2009-2139884	Low-income program cost recovery	Pennsylvania	10
I/M/O Philadelphia Gas Works	Office of Consumer Advocates	R-2009-2097639	Low-income program design	Pennsylvania	10
I/M/O Xcel Energy Company	Xcel Energy Company (PSCo)	085-146G	Low-income program design	Colorado	09
I/M/O Atmos Energy Company	Atmos Energy Company	09AL-507G	Low-income program funding	Colorado	09
I/M/O New Hampshire CORE Energy Efficiency Programs	New Hampshire Legal Assistance	D-09-170	Low-income efficiency funding	New Hampshire	09
I/M/O Public Service Company of New Mexico (electric)	Community Action of New Mexico	08-00273-UT	Rate Design	New Mexico	09
I/M/O UGI Pennsylvania Natural Gas Company (PNG)	Office of Consumer Advocate	R-2008-2079675	Low-income program	Pennsylvania	09
I/M/O UGI Central Penn Gas Company (CPG)	Office of Consumer Advocate	R-2008-2079660	Low-income program	Pennsylvania	09
I/M/O PECO Electric (provider of last resort)	Office of Consumer Advocate	R-2008-2028394	Low-income program	Pennsylvania	08
I/M/O Equitable Gas Company	Office of Consumer Advocate	R-2008-2029325	Low-income program	Pennsylvania	08
I/M/O Columbia Gas Company	Office of Ohio Consumers' Counsel	08-072-GA-AIR	Rate design	Ohio	08
I/M/O Dominion East Ohio Gas Company	Office of Ohio Consumers' Counsel	07-829-GA-AIR	Rate design	Ohio	08
I/M/O Vectren Energy Delivery Company	Office of Ohio Consumers' Counsel	07-1080-GA-AIR	Rate design	Ohio	08
I/M/O Public Service Company of North Carolina	NC Department of Justice	G-5, SUB 495	Rate design	North Carolina	08
I/M/O Piedmont Natural Gas Company	NC Department of Justice	G-9, SUB 550	Rate design	North Carolina	08
I/M/O National Grid	New Hampshire Legal Assistance	DG-08-009	Low-income rate assistance	New Hampshire	08
I/M/O Empower Maryland	Office of Peoples Counsel	PC-12	Low-income energy efficiency	Maryland	08
I/M/O Duke Energy Carolinas Save-a-Watt Program	NC Equal Justice Foundation	E-7, SUB 831	Low-income energy efficiency	North Carolina	08
I/M/O Zia Natural Gas Company	Community Action New Mexico	08-00036-UT	Low-income/low-use rate design	New Mexico	08
I/M/O Universal Service Fund Support for the Affordability of Local Rural Telecomm Service	Office of Consumer Advocate	I-0004010	Telecomm service affordability	Pennsylvania	08
I/M/O Philadelphia Water Department	Public Advocate	No Docket No.	Credit and Collections	Philadelphia	08
I/M/O Portland General Electric Company	Community Action--Oregon	UE-197	General rate case	Oregon	08

CASE NAME	CLIENT NAME	Docket No. (if available)	TOPIC	JURIS.	YEAR
I/M/O Philadelphia Electric Company (electric)	Office of Consumer Advocate	M-00061945	Low-income program	Pennsylvania	08
I/M/O Philadelphia Electric Company (gas)	Office of Consumer Advocate	R-2008-2028394	Low-income program	Pennsylvania	08
I/M/O Columbia Gas Company	Office of Consumer Advocate	R-2008-2011621	Low-income program	Pennsylvania	08
I/M/O Public Service Company of New Mexico	Community Action New Mexico	08-00092-UT	Fuel adjustment clause	New Mexico	08
I/M/O Petition of Direct Energy for Low-Income Aggregation	Office of Peoples Counsel	CASE 9117	Low-income electricity aggregation	Maryland	07
I/M/O Office of Consumer Advocate et al. v. Verizon and Verizon North	Office of Consumer Advocate	C-20077197	Lifeline telecommunications rates	Pennsylvania	07
I/M/O Pennsylvania Power Company	Office of Consumer Advocate	P-00072437	Low-income program	Pennsylvania	07
I/M/O National Fuel Gas Distribution Corporation	Office of Consumer Advocate	M-00072019	Low-income program	Pennsylvania	07
I/M/O Public Service of New Mexico--Electric	Community Action New Mexico	07-00077-UT	Low-income programs	New Mexico	07
I/M/O Citizens Gas/NIPSCO/Vectren for Universal Service Program	Citizens Gas & Coke Utility/Northern Indiana Public Service/Vectren Energy	CASE 43077	Low-income program design	Indiana	07
I/M/O PPL Electric	Office of Consumer Advocate	R-00072155	Low-income program	Pennsylvania	07
I/M/O Section 15 Challenge to NSPI Rates	Energy Affordability Coalition	P-886	Discrimination in utility regulation	Nova Scotia	07
I/M/O Philadelphia Gas Works	Office of Consumer Advocate	R-00061931	Low-income programs / credit and collections	Pennsylvania	07
I/M/O Equitable Gas Company	Office of Consumer Advocate	M-00061959	Low-income program	Pennsylvania	07
I/M/O Public Service Company of New Mexico	Community Action of New Mexico	Case No. 06-000210-UT	Late charges / winter moratorium / decoupling	New Mexico	06
I/M?O Verizon Massachusetts	ABCD	Case NO. DTE 06-26	Late charges	Massachusetts	06
I/M/O Section 11 Proceeding, Energy Restructuring	Office of Peoples Counsel	PC9074	Low-income needs and responses	Maryland	06
I/M/O Citizens Gas/NIPSCO/Vectren for Univ. Svc. Program	Citizens Gas & Coke Utility/Northern Indiana Public Service/Vectren Energy	Case No. 43077	Low-income program design	Indiana	06
I/M/O Public Service Co. of North Carolina	North Carolina Attorney General/Dept. of Justice	G-5, Sub 481	Low-income energy usage	North Carolina	06
I/M/O Electric Assistance Program	New Hampshire Legal Assistance	DE 06-079	Electric low-income program design	New Hampshire	06
I/M/O Verizon Petition for Alternative Regulation	New Hampshire Legal Assistance	DM-06-072	Basic local telephone service	New Hampshire	06
I/M/O Pennsylvania Electric Co./Metropolitan Edison Co.	Office of Consumer Advocate	N/A	Universal service cost recovery	Pennsylvania	06
I/M/O Duquesne Light Company	Office of Consumer Advocates	R-00061346	Universal service cost recovery	Pennsylvania	06
I/M/O Natural Gas DSM Planning	Low-Income Energy Network	EB-2006-0021	Low-income gas DSM program.	Ontario	06
I/M/O Union Gas Co.	Action Centre for Tenants Ontario (ACTO)	EB-2005-0520	Low-income program design	Ontario	06
I/M/O Public Service of New Mexico merchant plant	Community Action New Mexico	05-00275-UT	Low-income energy usage	New Mexico	06
I/M/O Customer Assistance Program design and cost recovery	Office of Consumer Advocate	M-00051923	Low-income program design	Pennsylvania	06
I/M/O NIPSCO Proposal to Extend Winter Warmth Program	Northern Indiana Public Service Company	Case 42927	Low-income energy program evaluation	Indiana	05
I/M/O Piedmont Natural Gas	North Carolina Attorney General/Dept. of Justice	G-9, Sub 499	Low-income energy usage	North Carolina	05
I/M/O PSEG merger with Exelon Corp.	Division of Ratepayer Advocate	EM05020106	Low-income issues	New Jersey	05
Re. Philadelphia Water Department	Public Advocate	No docket number	Water collection factors	Philadelphia	05
I/M/O statewide natural gas universal service program	New Hampshire Legal Assistance	N/A	Universal service	New Hampshire	05

CASE NAME	CLIENT NAME	Docket No. (if available)	TOPIC	JURIS.	YEAR
I/M/O Sub-metering requirements for residential rental properties	Tenants Advocacy Centre of Ontario	EB-2005-0252	Sub-metering consumer protections	Ontario	05
I/M/O National Fuel Gas Distribution Corp.	Office of Consumer Advocate	R-00049656	Universal service	Pennsylvania	05

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, ROGER D. COLTON, hereby state that the facts set forth in my Direct Testimony, OCA Statement 4, 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).

DATE: April 5, 2019

Signed: _____


ROGER D. COLTON

*269478

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

IMPLEMENTATION OF CHAPTER 32	:	Docket No. M-2018-2640802
OF THE PUBLIC UTILITY CODE	:	(Water)
REGARDING PITTSBURGH WATER	:	
AND SEWER AUTHORITY – STAGE 1	:	Docket No. M-2018-2640803
	:	(Wastewater)

DIRECT TESTIMONY
OF
TERRY L. FOUGHT

ON BEHALF OF
PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

APRIL 5, 2019

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.**

2 A. Terry L. Fought, 780 Cardinal Drive, Harrisburg, Pennsylvania, 17111.

3

4 **Q BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am a self-employed consulting engineer retained by the Office of Consumer
6 Advocate (OCA) for the purposes of providing testimony in this proceeding.

7

8 **Q. PLEASE DESCRIBE YOUR BACKGROUND AND QUALIFICATIONS.**

9 A. Appendix A, which is attached to this testimony, describes my educational
10 background and applicable experience.

11

12 **Q. DID YOU PROVIDE TESTIMONY IN THE 2018 BASE RATE CASE DOCKETS**
13 **NO. R-2018-3002645 (WATER) AND R-2018-3002647 (WASTEWATER)?**

14 A. Yes, I provided Direct Testimony.

15

16 **Q. WHAT ISSUES HAVE YOU BEEN ASKED TO INVESTIGATE REGARDING**
17 **THESE PITTSBURGH WATER AND SEWER AUTHORITY'S (PWSA OR**
18 **AUTHORITY) CASES?**

19 A. The OCA requested that I investigate the reasonableness of PWSA's plan to come
20 into compliance with some quality of service issues.

21

22 **Q. WHAT QUALITY OF SERVICES ISSUES ARE YOU GOING TO ADDRESS?**

23 A. I am going to address the following: (1) Unaccounted for Water; (2) Customer
24 Meter Age; and (3) the Wastewater Tariff, Original Page 35.

1
2 **Q. WHAT DID YOUR INVESTIGATION CONSIST OF?**

3 A. My investigation in these cases includes reviewing applicable portions of: (1)
4 PWSA's Compliance Plan, (2) Long-Term Infrastructure Improvement Plan, (3)
5 Direct Testimony of Robert A. Weimar, PWSA St. No. C-1, (4) PWSA's responses
6 to discovery, and (5) PWSA's Tariff.

7
8 **WATER SYSTEM**

9 **Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF THE AUTHORITY'S WATER**
10 **SYSTEM.**

11 A. The Water System contains a 117 million gallons per day (mgd) conventional
12 Water Treatment Plant, approximately 930 miles of water mains, over 81,000
13 service lines, more than 25,900 main valves, over 7,300 fire hydrants, twelve
14 pumping stations, one membrane filtration retreatment plant, five reservoirs, and
15 eleven storage tanks. The Authority's Water System produces an average of 70
16 mgd. The total storage capacity of the reservoirs and tanks is approximately 455
17 million gallons (mg) providing pressure to 15 pressure zones.¹

18 PWSA's Water System provides water service to approximately 80,000 residential,
19 commercial, and industrial customers located in the City of Pittsburgh, the Borough
20 of Millvale, and portions of Reserve, O'Hara, and Blawnox Townships in Allegheny
21 County. Some of the City's residents are served by three other water utilities:
22 West View Water Authority, Wilkinsburg-Penn Joint Water Authority, and
23 Pennsylvania-American Water Company.

¹Docket No. R-2018-3002645, PWSA St. No. 1, pp. 3 and 7.

UNACCOUNTED FOR WATER

Q. WHAT IS MEANT BY THE TERM “UNACCOUNTED FOR WATER” (UFW)?

A. There are several different procedures for calculating Unaccounted for Water. The PUC Method is shown on Section 500 of the PUC Annual forms for Public Water Utilities. According to the PUC procedure, UFW is equal to “Total Water Delivered for Distribution & Sale” minus “Total Sales” minus “Non-Revenue Usage and Allowance.” “Non-Revenue Usage and Allowance” includes “Main Flushing,” “Blow-off Use,” “Unavoidable Leakage,” “Located & Repaired Breaks in Mains & Services” and “Other”.

Q. WHY IS UFW IMPORTANT?

A. Calculating the amount of UFW is a method of estimating the amount of non-revenue water in a water distribution system due to leaks and inaccurate meter readings. Reducing the non-revenue water saves money in chemical and power costs and provides for important water conservation in areas that have limited water supply sources. The accuracy of the UFW estimate depends on reliable estimates of unavoidable non-metered water uses such as flushing the distribution system, firefighting, normal pipe leakage, repaired main breaks, etc. Keeping track of UFW gives a water utility an indication of the extent of unknown leaks in the distribution system so that informed decisions can be made on the necessity of finding and repairing leaks. The Water Audit methodology established by the International Water Association (IWA) and the American Water Works Association (AWWA) is generally becoming a more accepted method of identifying the

1 amounts of wasted water – Non-Revenue Water (NRW). Both the PUC and
2 AWWA Methods, if properly utilized, provide water utilities with information needed
3 to improve operational efficiency. According to 52 Pa. Code § 65.20(4), “Levels of
4 unaccounted-for water should be kept within reasonable amounts. Levels above
5 20% have been considered by the Commission to be excessive.”
6

7 **Q. WHAT IS THE AUTHORITY’S POSITION ON BECOMING IN COMPLIANCE**
8 **REGARDING UFW?**

9 A. On pages 36 through 39 of Mr. Weimar’s Direct Testimony, he states that PWSA
10 will use the AWWA Water Audit method of determining Non-Revenue Water
11 (NRW) and will file its first AWWA Water Audit with the Commission by April 30,
12 2020.
13

14 **Q. IS USING THE AWWA WATER AUDIT METHOD OF DETERMINING NRW**
15 **ACCEPTABLE?**

16 A. Yes. However, the Authority should be prepared to provide and document the
17 information on Section 500 of the PUC Annual forms, which PWSA agreed to file
18 as part of the 2018 rate case settlement.
19

20 **Q. DO YOU HAVE ANY CONCERNS ABOUT THE AUTHORITY’S ABILITY TO**
21 **SUBMIT NRW/UFW INFORMATION BY APRIL 30, 2020?**

22 A. Yes. I have concerns that (1) the volume of water delivered to the distribution
23 system is not metered, (2) the volume of unmetered water used for non-revenue

1 uses is not being estimated and recorded, and (3) that the volume of water sold to
2 unmetered customers is not being estimated.

3 First, according to the Authority's response to OCA Set V-1, the Authority has not
4 been metering the water delivered to the distribution system. Instead it is
5 estimating the water delivered to the distribution system by pump run-time and
6 capacity until meters are put in service sometime this spring. See Exhibit TLF-1.
7 Estimates using pump run-time and capacity should be considered rough
8 estimates because pump capacity varies depending upon pumping head, number
9 of pumps operating simultaneously, and the age/condition of pump impellers.

10 Second, according to the Authority's response to OCA Set V-3, the Authority is not
11 recording the estimated volumes of non-metered water used for blow-offs, street
12 sweeping, flushing, firefighting, main breaks, tank overflows, etc. See Exhibit TLF-
13 2.

14 Finally, I am concerned that the Authority has not started estimating the volume of
15 water sold to the approximately 500 (non-City) customers and the 200-400 City
16 owned and/or operated unmetered locations. See Exhibit TLF-3.

17
18 **Q. DO YOU HAVE ANY COMMENTS AND RECOMMENDATIONS REGARDING**
19 **THE AUTHORITY'S ABILITY TO SUBMIT NWR/UFW INFORMATION BY APRIL**
20 **30, 2020?**

21 A. Yes. The Authority should immediately start recording estimated non-revenue
22 water used for blow-offs, street sweeping, flushing, firefighting, main breaks, tank
23 overflows, etc. Such estimates are needed for both the PUC and AWWA methods

1 of determining UFW/NRW and should be made and recorded shortly after their
2 occurrences. Also, in order to estimate "Unavoidable Losses" the Authority should
3 determine the lengths of water mains and service connections and average
4 pressure in each pressure zone.

5
6 **CUSTOMER METER AGE AND METER TESTING/REPLACEMENTS**

7 **Q. WHAT IS THE AUTHORITY'S POSITION ON BEING IN COMPLIANCE**
8 **REGARDING THE AGE OF CUSTOMER METERS?**

9 A. On page 31 of Mr. Weimar's Direct Testimony, he states 50,000 meters are out of
10 compliance with the Commission's meter testing requirements and indicates its
11 goal is to be in compliance by June 30, 2024.

12 In response to OCA Set V-3, the Authority indicates that additional research is
13 necessary to determine how many additional meters will be out of compliance
14 during the five years until June 30, 2024. See Exhibit TLF-4.

15
16 **Q. DO YOU HAVE ANY COMMENTS/RECOMMENDATIONS REGARDING THE**
17 **AUTHORITY'S PLAN TO BECOME IN COMPLIANCE WITH METER AGE?**

18 A. Yes. The Authority should do whatever research necessary to locate the meters
19 that need to be tested and/or replaced so that it can be done in an efficient manner.

20
21 **WASTEWATER SYSTEM**

22 **Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF THE AUTHORITY'S**
23 **WASTEWATER SYSTEM.**

1 A. The Authority's Wastewater System contains approximately 1,200 miles of sewer
2 lines, 25,000 catch basins and four pumping stations. The sewer collection system
3 is primarily a combined sewer system that collects both sewage and stormwater in
4 a single piping network. The combined sewer system serves the entire City of
5 Pittsburgh and portions of 24 neighboring municipal communities. The wastewater
6 collected by PWSA's system is conveyed to the Allegheny County Sanitary
7 Authority (ALCOSAN) for treatment.²
8

9 **WASTEWATER TARIFF ORIGINAL PAGE 35**

10 **Q. WHAT IS YOUR CONCERN WITH THE AUTHORITY'S WASTEWATER TARIFF**
11 **ORIGINAL PAGE 35?**

12 A. Paragraph 7 of Wastewater Tariff Original Page 35 requires the property owner to
13 own and maintain the customer's sewer lateral up to and including the connection
14 to the Sewer Main. See Exhibit TLF-5.
15

16 **Q. WHAT IS THE AUTHORITY'S POSITION REGARDING THE PROPERTY**
17 **OWNER OWNING AND MAINTAINING THE SERVICE LATERAL UP TO AND**
18 **INCLUDING THE CONNECTION TO THE SEWER MAIN?**

19 A. In response to OCA Set V-5, the Authority's position is that it was a City
20 requirement that was continued by the Authority's prior rules and regulations, the
21 Authority's Official Prior Tariff as of March 30, 2018 and its recently approved Initial
22 Tariff.

² Docket No. R-2018-2002645, PWSA St. No. 1, pp. 3.

1
2 **Q. WHAT ARE YOUR CONCERNS ABOUT THE OWNERSHIP AND MAINTENANCE**
3 **OF THE CUSTOMER’S SEWER LATERAL?**

4 A. It is my opinion that customers should not be responsible for owning the sewer
5 lateral within public rights-of-ways and easements. The customer does not control
6 the use of the land within public rights-of-ways and easements. Also, customers
7 did not install the sewer main and should not be responsible for damages to the
8 service laterals if the sewer main settles. Customers did not install roadways and
9 should not be responsible for damages to the sewer laterals caused by poor
10 roadway installation and maintenance (roadway settlement, poor pavement
11 conditions causing damage from heavy truck vibrations, snow plows striking
12 manholes and inlets near service laterals, etc.). Other utilities are granted
13 permission to install facilities near the sewer laterals without the consent of
14 customers.

15
16 **Q. ARE CUSTOMERS OF OTHER UTILITIES RESPONSIBLE FOR THEIR SEWER**
17 **LATERAL WITHIN A PUBLIC RIGHT-OF-WAY OR EASEMENT?**

18 A. No. For example, Pennsylvania-American Water Company owns the service line
19 from the Company’s sewer main to the edge of the right-of-way or customer’s
20 property line, where the Company service line connects with the customer-owned
21 portion of the service line.³ Similarly, Aqua Pennsylvania Wastewater, Inc. owns

³ Pennsylvania-American Water Company, Supplement No. 2 to Tariff Wastewater PA P.U.C. No. 16, First Revised Page 20 (effective Jan. 1, 2018) (see definitions of “Company Service Line” and “Customer Service Line”).

1 the service line from the collection main to the curb line, edge of the right-of-way,
2 or the actual customer property line.⁴

3
4 **Q. WHAT DO YOU RECOMMEND CONCERNING OWNERSHIP OF SEWER**
5 **LATERALS?**

6 It is my opinion that the Authority should study the feasibility of owning and
7 maintaining sewer laterals within public rights-of-ways and easements, as is the
8 norm for other wastewater utilities. Ownership and maintenance of sewer laterals
9 would then be similar to customer water service lines. I recommend that the study
10 be completed and provided to the Commission and the parties no later than
11 January 15, 2020.

12
13 **Q. DOES THIS COMPLETE YOUR WRITTEN DIRECT TESTIMONY?**

14 A. Yes, at this time. I reserve the right to supplement this testimony either in writing
15 or orally if additional relevant information is received.

16

⁴ Supplement No. 102 to Sewer – Pa. P.U.C. No. 1, Fourth Revised Page No. 11 (effective Jan. 6, 2017) (see definitions of “Customer Service Line” and “Company Service Lateral”).

BACKGROUND AND QUALIFICATIONS

TERRY L. FOUGHT, P.E.

Education

Cleveland State University, Cleveland, Ohio, Bachelor of Civil Engineering, 1967

Professional Registrations

Professional Engineer, Pennsylvania, PE-023343-E, 1975

Professional Engineer, New Jersey, GE 25392, 1978 (Inactive)

Professional Engineer, Virginia, 10850, 1979 (Inactive)

Professional Land Surveyor, Pennsylvania, SU-000194-A, 1980 (Inactive)

Employment

From March 1983 to date, I have been a self-employed consulting engineer engaged in providing consulting engineering services to water and wastewater utilities, both private and municipal.

From May 1969 to March 1983, I was employed by E. H. Bourquard & Associates, Inc. as a project engineer to water and wastewater clients. At the time I left the firm I was a vice-president.

From 1962 to 1969, I was employed by the State of Ohio, Department of Highways and the Geauga County Ohio Sanitary Engineers Office as an engineer's assistant to assistant sanitary engineer with breaks in employment to attend college and 1½ years active duty military service.

Experience

I have prepared studies related to and designed water supply, treatment, transmission, distribution and storage facilities. I have provided services to the following private and municipal water suppliers: Amber Hill Mobile Home Park, Brockway Borough Municipal Authority, Dallas Water Company, Eastern Gas and Water Investment Company, Haddonfield Hills Development, Halifax Borough, Langhorne Spring Water Company, Mifflintown Municipal Authority, Neshaminy Water Resources Authority, Newberry Water Company, Pleasant View Mobil Home Park, H. B. Reese Candy Company, Shavertown Water Company, Smethport Water Company, Tunkhannock Water Company, and Watts Business Center.

I have prepared studies related to and designed wastewater collection and interceptor sewers, pumping stations and force mains, and treatment plants. I have provided services to the following private and municipal sewerage utilities: Brockway Glass Company, Central Dauphin School District, Clean Waste Technologies, Inc., Dauphin Borough, Dauphin Borough Municipal Authority, Halifax Area School District, Halifax Municipal Authority, Mercersburg Borough, Middle Paxton Township, Newberry Sewer Company, Newberry Township Municipal Authority, Park-a-way Park Family Campground, Reading Township Municipal Authority, Reynoldsville Borough, Saint Thomas Township, and Watts Business Center.

I have prepared over 100 stormwater management and drainage plans for land development and subdivision plans in Cumberland, Dauphin, and York Counties. Most of these plans included the design of storm sewer collection systems.

List of Public Utility cases which I have testified or provided substantial assistance:

NEW JERSEY BUREAU OF PUBLIC UTILITIES

<u>Docket Number</u>	<u>Company Name</u>
7712-1140	City of Trenton
787-847	Hackensack Water Company
814-119	City of Trenton
8310-862	City of Trenton

PENNSYLVANIA PUBLIC UTILITY COMMISSION

<u>Docket Number</u>	<u>Company Name</u>
C-2010-2175673	Pennsylvania-American Water Company
C-2011-2259004	Endsley v PAWC
C-2012-2332951	Tschachler v UGI
C-2014-2447138	Hidden Valley Utility Services - Water
C-2014-2447169	Hidden Valley Utility Services - Wastewater
F-2011-2280415	Lynette Lugo Lopez v PGW
F-2012-2311590	Belinda Lyles v Aqua
F-2012-2330753	Scott v PGW
I-840377	Pennsylvania Gas and Water Company
I-00050109	PAWC High Fluoride Incident
I-00072313	WP Water & Sewer Co.
I-2009-2109324	Clean Treatment Sewer Company
I-2016-2526085	Delaware Sewer Company
P-2008-2075142	Pennsylvania-American Water Company
P-2014-2404341	Delaware Sewer Company
P-2017-2584953	Aqua Pennsylvania, Inc.
P-2017-2594725	Newtown Artesian Water Company
P-2017-2585707	Pennsylvania-American Water Company
P-2017-2589724	Suez Water Pennsylvania, Inc.
R-00850174	Philadelphia Suburban Water Company
R-00932785	Meadows Water Company
R-00963708 (Sewer)	Wynnewood Water & Sewer Corporation
R-00963709 (Water)	Wynnewood Water & Sewer Corporation
R-00984257	Consumers Pa. Water Company
R-00984334	National Utilities, Inc.
R-00984375	City of Bethlehem
R-00994672	Superior Water Company
R-00005031	Penn Estates Utilities, Inc.
R-00005050	Emporium Water Company
R-00005212 (Sewer)	Pennsylvania-American Water Company
R-00005997	Jackson Sewer Corporation
R-00027982 (Sewer)	Pennsylvania-American Water Company
R-00049862	City of Lancaster – Sewer Fund
R-00050607	Glendale Yearound Sewer Co.
R-00050659	Wonderview Water Co.
R-00050673	Pocono Water Co.
R-00050678	Mesco, Inc.
R-00050814	Marietta Gravity Water Co.
R-00051030	Aqua Pennsylvania, Inc.
R-00051167	City of Lancaster – Water Fund

PENNSYLVANIA PUBLIC UTILITY COMMISSION (Continued)

<u>Docket Number</u>	<u>Company Name</u>
R-00061297	Emporium Water Co.
R-00061492	Reynolds Disposal Co.
R-00061496	Columbia Water Co.
R-00061617	Allied Utilities Services
R-00061618	Imperial Point Water Co.
R-00061625	Phoenixville Sewer Fund
R-00061645	Eaton Water Co.
R-00062017	Borough of Ambler Water Department
R-00072074 (Sewer)	Aqua PA, Little Washington Division
R-00072075 (Sewer)	Aqua PA, Chesterdale/Williamstown Division
R-00072351	Village Water Company
R-00072491	Clarendon Water Company
R-00072492	City of Bethlehem, Bureau of Water
R-00072493 (Water)	Total Environmental Solutions, Inc., Treasure Lake
R-00072711	Aqua PA
R-2008-2020729	Blue Knob Water Company
R-2008-2020873	Warwick Drainage Company
R-2008-2020885	Warwick Water Works, Inc.
R-2008-2032689	PAWC Coatesville Wastewater Operations
R-2008-2039261	Superior Water Company
R-2008-2045157	Columbia Water Company
R-2008-2047291	Rock Spring Water Company
R-2008-2079310	AQUA, PA
R-2008-2081738	Little Washington Wastewater Company
R-09-2097323	Pennsylvania-American Water Company
R-2009-2102464	Reynoldsville Water Company
R-2009-2103937	PA Utility Company, Inc (Water)
R-2009-2103980	PA Utility Company, Inc (Sewer)
R-2009-2105601	Fryburg Water Company
R-2009-2110093	Birch Acres Water Company
R-2009-2115743	Lake Spangerberg Water Company
R-2009-2116908	Hanover Borough Water
R-2009-2117289	Utilities Inc, Westgate (Water)
R-2009-2117532	Penn Estates Utilities Inc (Water)
R-2009-2117750	Newtown Artesian Water Company
R-2009-2121928	Clean Treatment Sewage Company
R-2009-2122887	United Water Pennsylvania, Inc
R-2009-2132019	AQUA, PA
R-2010-2157062	Tri-Valley Water Supply Company, Inc
R-2010-2166208	Pennsylvania American Water Company (Wastewater)
R-2010-2171339	Reynolds Disposal Company
R-2010-2171918	TESI, Treasure Lake, Water Division
R-2010-2171924	TESI, Treasure Lake, Sewer Division
R-2010-2174643	City of Lock Haven
R-2010-2179103	City of Lancaster Water Department
R-2010-2191376	Superior Water Company
R-2010-2194499	Dear Haven Water Company
R-2010-2194577	Dear Haven Sewer Company
R-2010-2207833	Little Washington Waste Water, Masthope Division
R-2010-2207853	Little Washington Waste Water, SE Consolidated Division

PENNSYLVANIA PUBLIC UTILITY COMMISSION (Continued)

<u>Docket Number</u>	<u>Company Name</u>
R-2011-2218562	CMV Sewage Company, Inc.
R-2011-2232243	Pennsylvania-American Water Company
R-2011-2232985	United Water Company
R-2011-2244756	City of Bethlehem- Bureau of Water
R-2011-2246415	Twin Lakes Utilities, Inc.
R-2011-2248531	Wonderview Sanitary Facilities
R-2011-2248937	Fairview Sanitation Company
R-2011-2251181	Borough of Quakertown, Water
R-2011-2255159	Penn Estates Utility Inc - Water
R-2012-2286118	Audubon Water Company
R-2012-2330887	North Heidelberg Sewer Company
R-2012-2310366	City of Lancaster Sewer Fund
R-2012-2311725	Borough of Hanover - Sewer
R-2012-2315536	Imperial Point Water Company
R-2012-2336662	Rock Springs Water Company
R-2013-2350509	City of DuBois, Bureau of Water
R-2013-2355276	Pennsylvania-American Water Company
R-2013-2360798	Columbia Water Company
R-2013-2370455	Penn Estates Utilities, Inc. - Sewer Division
R-2013-2367108	Fryburg Water Company
R-2013-2367125	Cooperstown Water Company
R-2013-2390244	City of Bethlehem – Bureau of Water
R-2014-2400003	Borough of Ambler – Water Department
R-2014-2420204	Pocono Waterworks Company, Inc. (Water)
R-2014-2420211	Pocono Waterworks Company, Inc. (Sewer)
R-2014-2402324	Emporium Water Company
R-2014-2430945	Plumer Water Company
R-2014-2428304	Borough of Hanover Water Department
R-2014-2410003	City of Lancaster-Bureau of Water
R-2014-2427035	Venango Water Company
R-2014-2427189	B E Rhodes Sewer Company
R-2014-2447138	Hidden Valley Utilities Services - Water
R-2014-2447169	Hidden Valley Utilities Services – Sewer
R-2014-2452705	Delaware Sewer Company
R-2015-2462723	United Water Pennsylvania
R-2015-2470184	Borough of Schuylkill Haven Water Department
R-2015-2479962	Corner Water Supply
R-2015-2506337	Twin Lakes Utilities, Inc.
R-2016-2538600	Community Utilities of Pennsylvania, Inc.
R-2016-2554150	City of DuBois – Bureau of Water
R-2017-2595853	Pennsylvania-American Water Company
R-2017-2598203	Columbia Water Company
R-2017-2631441	Reynolds Water Company
R-2018-3000022	York Water Company
R-2018-3000834	Suez Water Company
R-2018-3001306 (Water)	Hidden Valley Utility Services
R-2018-3001307 (Sewer)	Hidden Valley Utility Services

Exhibit TLF-1

**Response of Pittsburgh Water and Sewer Authority ("PWSA")
to the Interrogatories of the Office of Consumer Advocate, Set V in
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

Request: OCA-V-1

Reference Compliance Plan, 65.14.

- a. Is the volume of water withdrawn from each supply source measured and recorded, including the Highland Pump Station? If not, please explain.
- b. When did the meters at each source of supply become operational?
- c. How is the metered flow at each source of supply recorded?
- d. Is the volume of treated water delivered to the distribution system from each treatment plant measured and recorded? If not, please explain.
- e. When did the metering of treated water delivered to the distribution system become operational?
- f. How is the volume of treated water delivered to the distribution system recorded?
- g. Is the volume of water discharged from each distribution system pumping station measured and recorded?
- h. When did the meters at each pumping station become operational?
- i. How is the metered flow at each pumping station recorded?

Response:

- A. The Allegheny River is the only supply source. This source is brought into the water treatment plan via the Ross Pump Station. Currently, the volume of water is estimated based on pump run time and pump capacity. The flow meter at this station is planned to be back in service in 2019. Please note that there is no "Highland Pump Station".
- B. See Response to A. Meters are not operational yet.
- C. Based on pump run time and pump capacity.
- D. Flow meters at the Aspinwall Pump Station and Bruecken Pump Station are currently being rehabbed and will be put back in service in Spring 2019. Currently, flow is recorded based on pump run time and pump capacity. This is recorded in an excel sheet on an hourly basis.
- E. See Response to D.
- F. See Response to D.
- G. Flow is estimated based on pump run time and pump capacity.
- H. Flow meters are currently not operational at the booster pump stations. See Response to D for status of flow meters at the head of the distribution system.
- I. Pump flow is estimated based on pump run time and pump capacity. This is recorded in an excel sheet on an hourly basis.

Exhibit TLF-2

**Response of Pittsburgh Water and Sewer Authority ("PWSA")
to the Interrogatories of the Office of Consumer Advocate, Set V in
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

Request: OCA-V-4

Reference PWSA St. No. C-1, Weimar Direct, pages 36-42, Non-Revenue Water Testing. Has the Authority started to keep records of estimated flows used for blow-offs, street sweeping, flushing, firefighting, main breaks, tank overflows, and other non-revenue water?

Response:

No.

**Response
Provided by:**

Robert A. Weimar, Executive Director
The Pittsburgh Water and Sewer Authority

Dated:

March 25, 2019

Exhibit TLF-3

**Response of Pittsburgh Water and Sewer Authority ("PWSA")
to the Interrogatories of the Office of Consumer Advocate, Set V in
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

Response Robert A. Weimar, Executive Director
Provided by: The Pittsburgh Water and Sewer Authority

Dated: March 25, 2019

Request: OCA-V-2 Has the Authority contacted consultants in regard to estimating the City's or other unmetered entities' volume of water usage based on the total number of City employees and, where applicable at some specific sites, the number of visitors together with any special water uses?

Response: No as PWSA has not yet started the estimation process. PWSA plans to make this estimation and will consider using the standard methods based on AWWA guidelines which are generally by use and squarefoot or by fixture count.

Response Robert A. Weimar, Executive Director
Provided by: The Pittsburgh Water and Sewer Authority

Dated: March 25, 2019

Exhibit TLF-4

**Response of Pittsburgh Water and Sewer Authority ("PWSA")
to the Interrogatories of the Office of Consumer Advocate, Set V in
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

Request: OCA-V-3

Reference PWSA St. No. C-1, Weimar Direct, pages 31-34, Meter Testing.

- a. Please discuss the available records of when and where meters were installed.
- b. During the next five years, how many more residential meters (in addition to the existing 50,000) will become out of compliance with the PUC testing requirements?

Response:

- A. The following information is available in Cogsdale Customer Service, PWSA only started tracking the install dates in 2016 to date, PWSA would need to research by meter numbers and brand of water meters to try and get an approx install date.
- B. This number would depend on the research of the existing meter numbers and brand of water meter.

**Response
Provided by:**

Robert A. Weimar, Executive Director
The Pittsburgh Water and Sewer Authority

Dated:

March 25, 2019

Exhibit TLF-5

**Response of Pittsburgh Water and Sewer Authority ("PWSA")
to the Interrogatories of the Office of Consumer Advocate, Set V in
Docket No. M-2018-2640802 and Docket No. M-2018-2640803**

Request: OCA-V-5 Reference Wastewater Tariff, Original Page 35. Please explain why the sewer lateral is the responsibility of the customer up to and including the connection to the main.

Response: The laterals are private property. The City required property owners to construct, own and maintain laterals from the building to the main. See Pittsburgh Code of Ordinances § 431.0. Thus, this private ownership was continued through PWSA's prior rules and regulations, PWSA's Official Prior Tariff as of March 30, 2018 and PWSA's recently approved Initial Tariff.

Response Robert A. Weimar, Executive Director
Provided by: The Pittsburgh Water and Sewer Authority

Dated: March 25, 2019

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

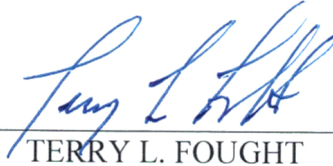
Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, TERRY L. FOUGHT, hereby state that the facts set forth in my Direct Testimony, OCA Statement 5, 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).

DATE: April 5, 2019

Signed: _____


TERRY L. FOUGHT

*269479

**BEFORE THE
COMMONWEALTH OF PENNSYLVANIA
PUBLIC UTILITY COMMISSION**

Implementation of Chapter 32 of the	:	Docket No. M-2018-2640802
Public Utility Code Regarding Pittsburgh	:	Docket No. M-2018-2640803
Water and Sewer Authority – Stage 1	:	

REBUTTAL TESTIMONY

OF

ASHLEY E. EVERETTE

ON BEHALF OF

THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

May 6, 2019

1 **Q. Please state your name, business address and occupation.**

2 A. My name is Ashley E. Everette. My business address is 555 Walnut Street, Forum Place,
3 5th Floor, Harrisburg, Pennsylvania 17101. I am currently employed as a Regulatory
4 Analyst by the Pennsylvania Office of Consumer Advocate (OCA).

5
6 **Q. Did you previously file testimony in this case?**

7 A. Yes. I filed direct testimony in OCA Statement 1 on April 5, 2019.

8
9 **Q. What is the purpose of your rebuttal testimony?**

10 A. The purpose of my rebuttal testimony is to respond to the direct testimony of I&E
11 witness D.C. Patel in I&E Statement No. 2. My rebuttal testimony is limited to
12 responding to Mr. Patel's testimony regarding the charges PWSA incurs from
13 ALCOSAN.

14
15 **Q. Please discuss PWSA's recovery of ALCOSAN charges and the I&E testimony to**
16 **which you are responding.**

17 The wastewater collected by PWSA is conveyed to the Allegheny County Sanitary
18 Authority, or ALCOSAN for treatment. In my direct testimony in this proceeding, I
19 recommended that PWSA's proposed surcharge for recovery of ALCOSAN charges be
20 denied because, among other reasons, PWSA has not shown that recovering ALCOSAN
21 charges through a surcharge is better than its present recovery method.

1 In his direct testimony, I&E witness Patel agreed that the proposed ALCOSAN surcharge
2 should be denied, citing to Section 1408 of the Public Utility Code which prohibits
3 surcharges for uncollectible expenses (I&E St. No. 2, page 45). I&E witness Patel then
4 recommended revisions to PWSA's Compliance Plan regarding how ALCOSAN bills
5 PWSA. Mr. Patel makes the following recommendation:

6 ALCOSAN should establish and charge a market-based rate that is aligned with
7 the volume of wastewater treated for PWSA's wastewater customers and a
8 separate rate that is aligned with the additional volumes related to treatment of
9 stormwater. Separating these rates and volumes will be necessary to align with
10 PWSA's intent to implement a stormwater tariff.
11

12 Mr. Patel explained that the "market-based rate" should be contracted on an annual or
13 multi-year basis (I&E St. No. 2, page 46)
14

15 **Q. Do you agree with Mr. Patel's recommendation that ALCOSAN should establish a**
16 **market-based charge for PWSA's wastewater treatment?**

17 A. No. PWSA should pay ALCOSAN rates that are established on the basis of the cost of
18 providing service. Because ALCOSAN is a municipal authority, it is my understanding
19 the Municipality Authorities Act requires ALCOSAN's rates to be set based on cost.¹
20 Furthermore, I&E has not presented any information to suggest that PWSA ratepayers
21 would benefit from market-based rates.
22

¹ I am advised by counsel that 53 Pa. C.S. § 5607(d)(9) requires a municipal authority to set rates that are "reasonable and uniform" "for the purpose of providing for the payment of the expenses of the authority, [and] the construction, improvement, repair, maintenance and operation of its facilities and properties ..."

1 **Q. Please explain why you recommend that the rates PWSA pays ALCOSAN be cost-**
2 **based rates rather than market-based.**

3 A. A market-based rate is not a practicable basis for determining the price of wastewater
4 treatment. The provision of wastewater treatment is a service that does not exist in an
5 open market; wastewater treatment is a utility service that operates as a natural
6 monopoly. As such, there is no proxy for wastewater service that could be used to
7 determine a market price.

8
9 To my knowledge, PWSA presently has only one option for wastewater treatment:
10 ALCOSAN. Similarly, PWSA's customers have no choices regarding the entity that will
11 treat their wastewater. I am not aware of any benefit to customers of attempting to
12 determine a "market-based rate" in lieu of the cost-based rates determined by
13 ALCOSAN.

14
15 **Q. In the response to OCA's Interrogatory to I&E I-1, Mr. Patel suggests that the rates**
16 **charged by other wastewater facilities could be used to establish the market-based**
17 **rate. Please discuss whether you agree with this assumption.**

18 A. The rates charged by one wastewater provider generally have no bearing on the rates
19 charged by another wastewater provider. In my experience, wastewater providers tend to
20 establish their rates based on the costs incurred to provide the service.² Wastewater
21 treatment customers are not able to "shop around" for competitive pricing as there is
22 generally only one option for wastewater treatment. If the rates of other wastewater

² What constitutes the "cost to provide service" is not necessarily the same for municipal authorities and Commission-regulated utilities. Regardless, rates for either would be tied to the cost of providing service.

1 facilities were imposed on ALCOSAN as “market-based rates,” the result would be to
2 simply substitute the cost-based rates of other wastewater treatment for the cost-based
3 rates of ALCOSAN.

4
5 **Q. Is the procedure Mr. Patel recommends necessary in order for PWSA to eventually**
6 **develop a stormwater rate?**

7 A. No. The use of a market-based rate is not a necessary foundation for PWSA to eventually
8 develop a stormwater rate. In fact, when PWSA does develop its stormwater rates, those
9 rates should also be based on a supported assignment or allocation of the costs of
10 collecting and treating stormwater. I also understand that issues related to developing a
11 stormwater rate have been deferred to Phase 2 of PWSA’s compliance proceeding.

12
13 **Q. Please summarize your recommendation regarding the establishment of market-**
14 **based rates for PWSA’s ALCOSAN charges.**

15 A. I recommend that I&E’s recommendation to establish market-based rates for ALCOSAN
16 charges be denied. The ALCOSAN rates charged to PWSA’s ratepayers should be based
17 on cost in accordance with the Municipality Authorities Act.

18
19 **Q. Does this conclude your rebuttal testimony at this time?**

20 A. Yes, it does.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, ASHLEY E. EVERETTE, hereby state that the facts set forth in my Rebuttal Testimony, OCA Statement 1R, 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).

DATE: May 6, 2019

Signed: 
ASHLEY E. EVERETTE

*271670

**BEFORE THE
COMMONWEALTH OF PENNSYLVANIA
PUBLIC UTILITY COMMISSION**

Implementation of Chapter 32 of the	:	Docket No. M-2018-2640802
Public Utility Code Regarding Pittsburgh	:	Docket No. M-2018-2640803
Water and Sewer Authority – Stage 1	:	

SUPPLEMENTAL REBUTTAL TESTIMONY

OF

ASHLEY E. EVERETTE

ON BEHALF OF

THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

August 14, 2019

1 **Q. Please state your name, business address and occupation.**

2 A. My name is Ashley E. Everette. My business address is 555 Walnut Street, Forum Place,
3 5th Floor, Harrisburg, Pennsylvania 17101. I am currently employed as a Regulatory
4 Analyst by the Pennsylvania Office of Consumer Advocate (OCA).

5
6 **Q. Did you previously provide testimony in this case?**

7 A. Yes. I provided direct testimony on April 5, 2019, rebuttal testimony on May 6, 2019,
8 and surrebuttal testimony on May 17, 2019 in OCA Statements 1, 1R and 1S,
9 respectively.

10
11 **Q. What is the purpose of your supplemental rebuttal testimony?**

12 A. On August 2, 2019, PWSA filed supplemental direct testimony in this proceeding. In my
13 supplemental rebuttal testimony, I will comment on a portion of PWSA witness Debbie
14 Lestitian's supplemental direct testimony in PWSA St. No. C-2SD.

15
16 **Q. Please discuss Ms. Lestitian's supplemental direct testimony regarding the**
17 **Cooperation Agreement.**

18 A. On pages 3-6 of her supplemental direct testimony, Ms. Lestitian discusses the status of
19 the Cooperation Agreement between PWSA and the City of Pittsburgh. As explained in
20 Ms. Lestitian's testimony, the PWSA Board voted to terminate the existing Cooperation
21 Agreement, referred to as the 1995 Cooperation Agreement, effective May 5, 2019. The
22 PWSA Board extended the termination by a total of 150 days to October 3, 2019.¹

¹ The first extension was by 60 days until July 5, 2019 and the second extension was by 90 days until October 3, 2019.

1
2 As noted on page 3 of Ms. Lestitian's testimony, PWSA and the City have reached an
3 agreement regarding a new Cooperation Agreement, referred to as the 2019 Cooperation
4 Agreement. Pittsburgh City Council has approved the 2019 Cooperation Agreement.
5 Once PWSA receives final approval from its Board, PWSA plans to file the Cooperation
6 Agreement under Section 507 of the Public Utility Code. PWSA's testimony explains
7 that the 2019 Cooperation Agreement is not effective until the Commission grants
8 approval under Section 507. As such, PWSA plans to propose that PWSA be permitted to
9 operate under the 2019 Cooperation Agreement beginning October 4, 2019, "subject to
10 subsequent retroactive revisions directed by the Commission under Section 508 of the
11 Public Utility Code" (PWSA St. No. C-2SD, page 5).
12

13 **Q. What is your response to Ms. Lestitian's discussion regarding the implementation of**
14 **the new Cooperation Agreement?**

15 A. Based on my understanding of Section 507 of the Public Utility Code, Commission
16 approval of the agreement is required prior to implementation. The OCA understands
17 PWSA's concerns regarding delaying the implementation of the 2019 Cooperation
18 Agreement. It appears that PWSA plans to seek a waiver of this provision pursuant to
19 Section 3202(b), which permits the Commission to waive the applicability of provisions
20 of the Public Utility Code. The OCA agrees that a waiver is necessary in order for PWSA
21 to implement the 2019 Cooperation Agreement prior to Commission approval under
22 Section 507. The OCA reserves the right to address any concerns about the 2019
23 Cooperation Agreement in future on the record proceedings.

1

2 **Q. Does that conclude your supplemental rebuttal testimony at this time?**

3 **A. Yes, it does.**

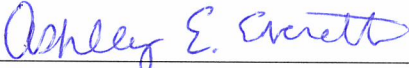
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, ASHLEY E. EVERETTE, hereby state that the facts set forth in my Supplemental Rebuttal Testimony, OCA Statement 1R-Supp, 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).

DATE: August 14, 2019

Signed: 
ASHLEY E. EVERETTE

*277503

BEFORE THE
COMMONWEALTH OF PENNSYLVANIA
PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the	:	Docket No. M-2018-2640802
Public Utility Code Regarding Pittsburgh	:	Docket No. M-2018-2640803
Water and Sewer Authority – Stage 1	:	

Supplemental Rebuttal Testimony of
Scott J. Rubin

on Behalf of
the Pennsylvania Office of Consumer Advocate

August 14, 2019

1 **Q. Please state your name.**

2 A. My name is Scott J. Rubin. I previously submitted direct testimony in this case on
3 April 5, 2019.

4 **Q. What is the purpose of your supplemental rebuttal testimony?**

5 A. I have been asked by the Office of Consumer Advocate (“OCA”) to review certain
6 aspects of the supplemental testimony submitted by the Pittsburgh Water and Sewer
7 Authority (“PWSA” or “Authority”) on August 2, 2019, and to provide a response. In
8 particular, I will respond to portions of the testimonies of Julie Quigley (PWSA St. C-
9 4SD) and Robert Weimar (PWSA St. C-1SD).

10 **Q. Ms. Quigley addresses the issue of residential fire protection charges that you raised**
11 **on pages 8-11 of your direct testimony. Do you agree with the Authority’s proposed**
12 **resolution of this issue?**

13 A. Yes, I do. Ms. Quigley testifies that the Authority has stopped billing residential
14 customers for private fire protection service. She also states that PWSA is processing
15 refunds to the residential customers that have been improperly charged for private fire
16 protection service. Finally, she provides a proposed amendment to the Authority’s tariff
17 to clarify that private fire protection charges will be levied only on non-residential
18 customers. Taken together, it is my opinion that these actions will place the Authority in
19 compliance with Section 1326 of the Public Utility Code, 66 Pa. C.S. § 1326.

20 **Q. Beginning on page 23 of his supplemental testimony, Mr. Weimar discusses the**
21 **Authority’s lead service line replacement (“LSLR”) program. Are you generally**
22 **familiar with LSLR programs?**

1 A. Yes, I try to follow this issue closely. I have testified concerning this issue for the OCA
2 in a case involving Pennsylvania American Water Company (“PAWC”). I also have
3 consulted with the Consumer Advocate in Nova Scotia, Canada, concerning the LSLR
4 program of the Halifax Regional Water Commission.

5 **Q. On page 26 of his supplemental testimony, Mr. Weimar states that York Water**
6 **Company is replacing residential customer-owned lead service lines at no cost to the**
7 **customer. Is he correct and are you aware of any other utilities in Pennsylvania**
8 **taking a similar action?**

9 A. Yes, Mr. Weimar is correct about York Water’s actions. In addition, PAWC has a LSLR
10 program that replaces customer-owned lead service lines at no cost to the customer when
11 the company is replacing the utility-owned portion of the line. Both the York Water and
12 PAWC programs also include some reimbursement for customers who previously
13 replaced lead service lines.¹ I am also aware that the Philadelphia Water Department
14 (“PWD”) has a LSLR program that includes the free replacement of the customer-owned
15 portion of the line when the utility-owned portion is being replaced. In other
16 circumstances, PWD offers a zero-interest loan to customers who want to replace the
17 customer-owned portion of a lead service line.²

18 **Q. How does the Authority’s LSLR program compare to the programs being**
19 **undertaken by York Water, PAWC, and PWD?**

¹ The terms and conditions of PAWC’s LSLR program are set forth in a unanimous settlement that was filed with the Commission on July 17, 2019, at Docket No. P-2017-2606100.

² Philadelphia Water Department, Programs for Lead Line Replacement,
<https://www.phila.gov/water/wu/drinkingwater/lead/Pages/programs.aspx>.

1 A. All four programs try to avoid partial replacements of lead service lines. This is vitally
2 important because research studies indicate that lead exposure actually can increase for a
3 period of time if only a portion of a lead service line is replaced.³ Thus, I agree with the
4 Authority that whenever PWSA is replacing its portion of a lead service line, the
5 customer's portion of the line should be replaced at no cost to the customer. It is my
6 understanding that York Water, PAWC, and PWD do this also.

7 Where the programs differ is in the treatment of lead service line removal when
8 the utility is not replacing its portion of the service line. PWD will provide the customer
9 with a zero-interest loan, but does not assume any responsibility for the work. York
10 Water will replace the line using the average cost as the amount paid by the utility.⁴
11 PAWC will perform the work at the utility's cost and replace the utility's portion of the
12 service line at the same time. In order to control costs, however, PAWC will not perform
13 this work on an ad hoc basis; rather it tries to wait until there is a sufficient number of
14 replacements in a neighborhood or region to make it cost-effective to mobilize
15 construction crews, repair streets and sidewalks, and so on. In the interim, PAWC will
16 provide low-income customers with water filters to reduce customers' exposure to lead
17 until the line is replaced.

18 **Q. How does the Authority treat ad hoc requests for line replacements?**

³ See, e.g., Eliman Camara, et al., Role of the water main in lead service line replacement: A utility case study, *JAWWA*, 105:8:E423-431 (Aug. 2013), <http://dx.doi.org/10.5942/jawwa.2013.105.0102.E423>; US EPA Science Advisory Board, SAB Evaluation of the Effectiveness of Partial Lead Service Line Replacements, EPA-SAB-11-015 (Sept. 28, 2011), https://www.epa.gov/sites/production/files/2015-09/documents/sab_evaluation_partial_lead_service_lines_epa-sab-11-015.pdf

⁴ If the cost to replace a private side-only (Phase 2) lead service line is greater than the average cost, the Settlement in Docket No. P-2016-2577404 addresses how that difference is treated.

1 A. According to the Authority's new policy effective July 26, 2019 (attached to Mr.
2 Weimar's testimony as Exhibit RAW/C-46), it does not appear that PWSA will attempt
3 to aggregate customer-requested LSLRs or otherwise ensure that the work is performed
4 in as efficient a manner as possible. The policy also states that when a customer replaces
5 the customer-owned portion of the line, PWSA will replace its portion (which
6 appropriately eliminates a partial line replacement); and that PWSA will reimburse the
7 customer for all or a portion of the cost of the customer-owned portion of the line. The
8 amount of reimbursement depends on the customer's income which, presumably, PWSA
9 will need to verify in some fashion. The reimbursement ranges from full cost
10 reimbursement for households with incomes below 300% of the federal poverty level
11 ("FPL") to \$1,000 for households with incomes in excess of 500% of the FPL.

12 **Q. What is the FPL?**

13 A. The FPL is a sliding scale that is updated each year by the U.S. Department of Health and
14 Human Services. The scale is based on the number of people living in the household.
15 For 2019, a single-person household has an FPL of \$12,490. Each additional person in
16 the household increases the FPL by \$4,420.⁵

17 **Q. What does this mean for implementing PWSA's LSLR policy for ad hoc**
18 **replacements?**

19 A. In order for PWSA to determine the level of reimbursement for an ad hoc LSLR, the
20 Authority would need to verify both the household's income and the number of people

⁵ U.S. Department of Health and Human Services, 2019 Poverty Guidelines, <https://aspe.hhs.gov/2019-poverty-guidelines>.

1 living in the household. The policy statement provided as Exhibit RAW/C-46 does not
2 provide any procedures for performing that verification.

3 **Q. Do you have any concerns about PWSA's LSLR policy?**

4 A. Yes, I have three concerns with the ad hoc LSLR replacements described in paragraph 10
5 of the policy. First, PWSA has estimated that it would incur administrative costs of
6 \$1,000 for each ad hoc replacement.⁶ At this time, I do not have sufficient information to
7 evaluate the reasonableness of this cost, but it appears to be very high.

8 Second, I would encourage the Authority to implement a procedure that groups
9 ad hoc replacement requests geographically to enhance the efficiency of performing the
10 work. It would be terribly inefficient, for example, to replace my service line today
11 (mobilize a crew, repair the street and sidewalk, and so on) and then replace my next-
12 door neighbor's line three months from now.

13 Third, I would suggest that PWSA rethink the FPL-based reimbursement method
14 for ad hoc replacements. As an example, a single elderly person with social security and
15 some retirement income might have an income that exceeds 300% of the FPL (\$37,470
16 per year). But the person's costs for necessities (food, housing, medical care, insurance,
17 taxes, transportation, and so on) could easily consume most if not all of that income. I
18 question whether such a customer could afford to spend \$1,000 or more to replace a lead
19 service line.

20 I use a single elderly person as just one example of how PWSA's reimbursement
21 policy might be insufficient to enable customers to pay for the remaining cost of a service

⁶ PWSA response to UNITED-XII-15 Attach. A, note 3.

1 line replacement. Young families, single mothers, and other households may have
2 incomes that exceed 300% of the FPL but lack access to \$1,000 or more to fund their
3 portion of a service line replacement.

4 **Q. Is your concern merely hypothetical?**

5 A. No, it is not. According to U.S. Census data, there are more than 18,000 households in
6 single-family (attached or detached) housing units in Pittsburgh that are headed by a
7 person age 65 or older.⁷ It appears that as many as 8,000 of those households may be a
8 single, elderly person living alone.⁸ In addition, of course, there could be one- or two-
9 person households headed by younger people who also would not have an extra \$1,000 or
10 more of available capital to replace a service line, even though their income might exceed
11 300% of the FPL.

12 Indeed, that is one of the criticisms of the FPL -- that it does not adequately
13 represent the cost of living for people living alone, especially the elderly whose costs for
14 medical care and other necessities can be quite high. For example, the Institute for
15 Women's Policy Research at the University of Massachusetts prepares an Elder Index
16 that estimates the actual, basic cost of necessities for an elderly person living alone.⁹ For
17 Allegheny County, PA, that cost is more than \$28,000 per year for a single elderly person
18 living in a home with a mortgage. (Attached as Schedule SJR-RSupp1 is the printout of
19 the Elder Index for Allegheny County.) This amount is more than twice the FPL (which
20 supposedly measures the cost of meeting basic necessities).

⁷https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_B25125&prodType=table.

⁸https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_QTH3&prodType=table

⁹ <http://www.basiceconomicsecurity.org>

1 **Q. What do you recommend?**

2 A. I recommend that PWSA consider revising paragraph 10 of its LSLR policy to (1) clarify
3 that it will aggregate ad hoc replacement requests to minimize costs and enhance
4 efficiency; and (2) reconsider both the practicality and usefulness of basing the
5 reimbursement amount on a household's income in comparison to the federal poverty
6 level.

7 **Q. Does this conclude your supplemental rebuttal testimony?**

8 A. Yes, it does.

SCHEDULE SRJ-R SUPP 1

Elder Index Result

Pennsylvania, Allegheny County						
Expenses/Monthly and Yearly Totals	Single Elder			Elder Couple		
	Owner w/o Mortgage	Renter, one bedroom	Owner w/ Mortgage	Owner w/o Mortgage	Renter, one bedroom	Owner w/ Mortgage
Housing (inc. utilities, taxes & insurance)	\$501	\$656	\$1,145	\$501	\$656	\$1,145
Food	\$256	\$256	\$256	\$470	\$470	\$470
Transportation	\$203	\$203	\$203	\$314	\$314	\$314
Health Care (Good)	\$448	\$448	\$448	\$896	\$896	\$896
Miscellaneous	\$282	\$282	\$282	\$436	\$436	\$436
Index Per Month	\$1,690	\$1,845	\$2,334	\$2,617	\$2,772	\$3,261
Index Per Year	\$20,280	\$22,140	\$28,008	\$31,404	\$33,264	\$39,132

The Elder Index measures how much income a retired older adult requires to meet his or her basic needs—without public or private assistance. The Elder Index measures basic expenses for elders age 65+ living in the community, not in institutions.

Each Elder Index component is a conservative estimate of need, and the Elder Index does not include any “extras” such as vacations, entertainment, electronics, gifts or meals out. As a result, those living below an economic security income may be forced to go without, or make difficult choices among basic needs such as nutritious foods, prescription medications or adequate heating or cooling.

All budget components are calculated using publicly available data obtained from government and industry sources and market rate studies. For detailed information on expense components, including data sources and assumptions used in specific calculations, see the [Elder Index expenses and savings definitions](#). Additional information can be found in [The National Elder Economic Security Standard Index](#).

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, SCOTT J. RUBIN, hereby state that the facts set forth in my Supplemental Rebuttal Testimony, OCA Statement 2R-Supp, 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).

DATE: August 14, 2019

Signed: 
SCOTT J. RUBIN

*277505

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

**IMPLEMENTATION OF CHAPTER 32 OF THE
PUBLIC UTILITY CODE REGARDING
PITTSBURGH WATER AND SEWER AUTHORITY – STAGE 1**

DOCKET NOS. M-2018-2640802 and M-2018-2640803

SUPPLEMENTAL REBUTTAL TESTIMONY

OF

BARBARA R. ALEXANDER

Barbara Alexander Consulting LLC

ON BEHALF OF THE

OFFICE OF CONSUMER ADVOCATE

August 14, 2019

1 Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

2 A. My name is Barbara R. Alexander. I am the sole member of Barbara Alexander Consulting
3 LLC. My address is 83 Wedgewood Dr., Winthrop, ME 04364. I appear in this case as a
4 witness on behalf of the Office of Consumer Advocate (OCA).

5 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING
6 REGARDING THE PITTSBURGH WATER AND SEWER AUTHORITY?

7 A. Yes. I filed Direct Testimony on behalf of the OCA in response to the Compliance Plan
8 filed by Pittsburgh Water and Sewer Authority (PWSA or Authority) on April 5, 2019. I
9 also filed Surrebuttal Testimony on May 17, 2019.

10 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

11 A. My Supplemental Rebuttal Testimony provides a description of the issues raised in my
12 Direct and Surrebuttal testimonies in this proceeding that have now been deferred to Stage
13 2 of PWSA's Compliance Plan proceeding.

14 Q. WHAT CATEGORIES OF ISSUES DID YOU ADDRESS IN YOUR PRIOR DIRECT
15 AND SURREBUTTAL TESTIMONIES IN THIS PROCEEDING?

16 A. My Direct and Surrebuttal testimonies addressed issues related to termination of service,
17 including notices and other service termination policies and practices.

18 Q. PLEASE PROVIDE AN UPDATE ON THE STATUS OF THESE ISSUES IN THE
19 CURRENT PROCEEDING.

20 A. Pursuant to the Expedited Joint Motion for Extension of Commission-Created Deadlines
21 submitted by the parties on May 13, 2019 and the Secretarial Letter issued on May 15,
22 2019 granting the Expedited Motion, certain customer service issues have now been moved
23 from Stage 1 to Stage 2 of PWSA's Compliance Plan proceeding. The residential service

1 termination and collections issues addressed in my Direct and Surrebuttal testimonies have
2 been deferred to PWSA's Stage 2 and will be fully addressed in that later proceeding. In
3 the interim, the parties agreed that PWSA would implement a procedure including a
4 telephone call to a residential customer the day prior to service termination as described on
5 pages 8-9 of the Expedited Motion.

6 Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL REBUTTAL TESTIMONY?

7 A. Yes, it does.

8
9 277497

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, BARBARA R. ALEXANDER, hereby state that the facts set forth in my Supplemental Rebuttal Testimony, OCA Statement 3R-Supp, 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).

DATE: August 14, 2019

Signed: Barbara R. Alexander
BARBARA R. ALEXANDER

*277538

**BEFORE THE
COMMONWEALTH OF PENNSYLVANIA
PUBLIC UTILITY COMMISSION**

Implementation of Chapter 32 of the	:	Docket No. M-2018-2640802
Public Utility Code Regarding Pittsburgh	:	Docket No. M-2018-2640803
Water and Sewer Authority – Stage 1	:	

SURREBUTTAL TESTIMONY

OF

ASHLEY E. EVERETTE

ON BEHALF OF

THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

May 17, 2019

Table of Contents

Introduction.....	1
Distribution System Improvement Charge	3
Status of the Cooperation Agreement	4
Billing Arrangement with ALCOSAN	5
Conclusion	7

1 **Introduction**

2 **Q. Please state your name, business address and occupation.**

3 A. My name is Ashley E. Everette. My business address is 555 Walnut Street, Forum Place,
4 5th Floor, Harrisburg, Pennsylvania 17101. I am currently employed as a Regulatory
5 Analyst by the Pennsylvania Office of Consumer Advocate (OCA).
6

7 **Q. Did you previously provide testimony in this case?**

8 A. Yes. I provided direct testimony on April 5, 2019 and rebuttal testimony on May 6, 2019
9 in OCA Statements 1 and 1R, respectively.
10

11 **Q. What is the purpose of your surrebuttal testimony?**

12 A. In my surrebuttal testimony, I will comment on PWSA's responses to my direct
13 testimony in the rebuttal testimony of PWSA witnesses Robert Weimar (PWSA St. No.
14 C-1R), Debbie Lestitian (PWSA St. No. C-2R), and Jennifer Presuitti (PWSA St. No. C-
15 3R).
16

17 **Q. Did PWSA accept any of the recommendations made in your direct testimony?**

18 A. Yes, it appears that PWSA agrees with several of the recommendations made in my
19 testimony. Ms. Presuitti stated that "PWSA will continue to explore additional
20 PENNVEST funding, Water Infrastructure and Finance and Innovation Act ('WIFIA')
21 funding, cost sharing on projects when possible, the implementation of a DSIC, and
22 expanding the PAYGO program as the Construction Improvement Plan ("CIP") expands"
23 (PWSA St. No. C-3R, pages 1-2). This is consistent with the recommendation made on

1 page 3 of my direct testimony that PWSA continue to seek sources of funding for capital
2 projects, including Pennvest funding, that will mitigate rate impacts for PWSA's
3 ratepayers.

4
5 Regarding PWSA's conversion to the NARUC Uniform System of Accounts (USOA),
6 Ms. Presutti responded to my recommended progress reporting (OCA St. 1, page 6) by
7 agreeing to "report on its progress in fully converting to USOA NARUC at the same time
8 that is required to update the Commission on its progress implementing the rest of its
9 approved plan" (PWSA St. No. C-3R, page 4). Similarly, PWSA agreed to begin filing
10 partial depreciation reports beginning in 2020 (PWSA St. No. C-3R, page 5 responding to
11 OCA St. 1, pages 6-7) and to comply with Section 73.8 of the Public Utility Code
12 regarding PWSA's Capital Investment Plan Report (PWSA St. No. C-3R, page 6
13 responding to OCA St. 1, pages 7-8).¹

14
15 In his rebuttal testimony, pages 72-73, Mr. Weimar summarized my recommendations
16 that additional information be provided regarding projects in PWSA's Long Term
17 Infrastructure Improvement Plan (LTIP). Specifically, in direct testimony, I requested
18 that additional information be provided regarding PWSA's prioritization of main
19 replacements, valve replacements, and the computerized maintenance management
20 system (CMMS). Mr. Weimar discussed PWSA's progress on providing operations staff
21 with equipment to continuously update system data and the process PWSA is following

¹ In her response to the recommendation regarding the Capital Investment Plan Reports, Ms. Presutti stated that "the Authority is seriously considering requesting that the PUC expand the areas that would be covered by PWSA's LTIP." If PWSA makes such a request, the OCA will review and respond to this request at that time.

1 regarding updating its enterprise resource planning in order to optimize a CMMS system.

2 It appears that Mr. Weimar does not object to providing the reports that the OCA

3 requested.

4
5 **Distribution System Improvement Charge**

6 **Q. PWSA witness Presutti testified regarding PWSA's distribution system**
7 **improvement charge (DSIC) in PWSA St. No. C-3. Do you have any comments**
8 **regarding PWSA's DSIC proposals?**

9 A. In my direct testimony, I noted that PWSA appeared to propose a cash flow DSIC similar
10 to the cash flow DSIC currently used by PGW, but that while PGW's cash flow DSIC is
11 specifically permitted by Section 1357(c) of the Public Utility Code, Section 1357(c)
12 does not apply to PWSA and PWSA would be required to calculate its DSIC based on
13 depreciation and pretax return under the language of the statute. In rebuttal, Ms. Presutti
14 stated that PWSA expects to obtain a waiver of Section 1357(c) of the Public Utility
15 Code in order to use a cash flow DSIC.

16
17 Ms. Presutti further elaborated on the DSIC PWSA expects to propose (PWSA St. No. C-
18 3R, page 3):

19 To be clear, PWSA expects that if it does establish a DSIC it will request to
20 recover capital improvements financed through a mix of funding, both "pay go"
21 expenditures as well as the costs associated with financing other capital
22 improvements through the issuance of long term debt.

23
24 This proposal appears to be different from a cash flow DSIC in which PWSA would
25 recover actual expenditures in the amounts spent in order to avoid adding to long-term
26 debt. Ms. Presutti appears to suggest that the DSIC would be calculated with both a cash

1 flow and a long-term debt component. Because PWSA is not requesting approval of the
2 DSIC at this time, when PWSA does propose a DSIC, it should provide a full explanation
3 and support for the proposed calculation.
4

5 **Status of the Cooperation Agreement**

6 **Q. Please summarize your direct testimony regarding the Cooperation Agreement**
7 **between the City of Pittsburgh and PWSA.**

8 A. In my direct testimony, I noted that Ms. Lestitian stated in her direct testimony that
9 PWSA had given the City notice that it was terminating the Cooperation Agreement
10 effective May 5, 2019. I testified that any new agreement should reflect that services
11 provided to the City should be provided at full cost and services provided by the City to
12 PWSA should be paid for at the lower of the actual cost or the market rate for such a
13 service.² Furthermore, the costs charged to PWSA must be supported by documentation
14 so that the costs can be reviewed in each rate case.
15

16 Additionally, regarding the City of Pittsburgh discount given to certain Pennsylvania-
17 American Water Company (PAWC) customers, which represents a cost to PWSA, I
18 recommended that the elimination of this discount be addressed in PWSA's next base
19 rate case.
20

² My direct testimony, pages 9-10, explained the lower of cost or market pricing as follows: "In the event that PWSA could obtain the same service from another provider for a lesser cost, prudence would require that PWSA evaluate and consider obtaining the service from a non-City vendor or negotiating a lower cost with the City."

1 In rebuttal testimony, page 7, Ms. Lestitian stated that PWSA has delayed termination of
2 the Cooperation Agreement from May 5, 2019 to July 5, 2019. Ms. Lestitian stated that
3 PWSA generally agrees that costs charged by the City to PWSA should be at actual cost
4 and that PWSA should evaluate whether the same services can be obtained elsewhere for
5 a lesser cost. Regarding the City of Pittsburgh discount, Ms. Lestitian says on pages 26-
6 27 of her rebuttal testimony that while PWSA “believes the discount should be
7 eliminated...PWSA cannot commit to the elimination of the subsidy in the next base rate
8 case.”

9
10 Because PWSA has not reached a new agreement with the City as of the filing of this
11 testimony, it is not clear whether the recommendations made in my direct testimony will
12 be incorporated into the new agreement. As such, the OCA reserves the right to file
13 supplemental testimony on the Cooperation Agreement once a final agreement is reached.
14

15 **Billing Arrangement with ALCOSAN**

16 **Q. Please discuss your direct testimony regarding the proposed ALCOSAN surcharge,**
17 **and PWSA’s response.**

18 A. In my direct testimony, I responded to the ALCOSAN surcharge proposed on pages 112-
19 113 of the Compliance Plan and pages 17-18 of Ms. Lestitian’s direct testimony. The
20 proposed surcharge “would reflect billing costs not already collected and uncollected
21 revenue costs.” The Compliance Plan notes that “the addition of the surcharge should be
22 revenue neutral as the same amount of costs will be removed from the wastewater

1 conveyance cost of service.”³ Ms. Lestitian’s direct testimony, page 17, stated that
2 “PWSA is concerned that because ALCOSAN's customers are not paying the cost of
3 uncollected revenue or all billing costs, they are not paying the full cost of wastewater
4 treatment.”

5
6 In my direct testimony, pages 10-12, I explained that PWSA’s position that PWSA
7 wastewater customers do not pay the full cost of their wastewater treatment is incorrect
8 because all PWSA wastewater customers are also ALCOSAN customers, all costs
9 incurred by PWSA to pay ALCOSAN are paid by wastewater customers, and the amount
10 not recovered through the existing ALCOSAN line item on PWSA’s bills is recovered
11 through PWSA’s base rates. PWSA’s proposal of a surcharge would move the
12 uncollectible expense from base rates into a surcharge. PWSA did not demonstrate that it
13 is better to recover this cost in a surcharge rather than through base rates. Additionally,
14 based on my understanding of Section 1408 of the Public Utility Code, utilities are
15 prohibited from charging surcharges for the recovery of uncollectible expense. I
16 recommend that the proposed ALCOSAN surcharge be denied.

17
18 In her rebuttal testimony (pages 21-22), Ms. Lestitian provided the following information
19 regarding this proposal:

20 PWSA is not proposing to implement an automatic surcharge mechanism for
21 uncollectible expenses, which would be imposed outside of the base rate case
22 process, of the type prohibited by Section 1408 of the Public Utility Code. Rather,
23 PWSA is proposing to show on the bill the amount that is attributable to
24 uncollectible revenues. This proposal is intended to improve transparency and is
25 consistent with the approach followed by other municipalities. Without this
26 transparency, it appears that PWSA's rates are higher than they are. All PWSA is

³ PWSA Compliance Plan, page 112.

1 proposing is to show the uncollectible charges as a separate line item and to adjust
2 that amount only during a base rate proceeding. Perhaps a better term to use
3 would be "service charge," which is used by at least one other municipality that
4 bills for ALCOSAN.
5

6 **Q. Does Ms. Lestitian's clarification address your concern?**

7 A. No. While the surcharge or "service charge" discussed in Ms. Lestitian's rebuttal
8 testimony appears to be different from the previously-proposed surcharge, this "service
9 charge" is still problematic. First, since PWSA already separately shows ALCOSAN
10 charges on the bill, it seems that it may be confusing to customers to have two lines on
11 the bill related to ALCOSAN charges. Second, it is not clear how the dollar amount of
12 the surcharge would be calculated, and whether it would be based on a fixed, tariffed rate
13 or if it would change between rate cases.
14

15 Given the lack of information regarding what PWSA is proposing to add to the bill at a
16 future date, this surcharge or service charge should not approved in this case. I
17 recommend that if PWSA wishes to pursue the inclusion of an additional ALCOSAN line
18 item on the bill, that it propose specific language and calculations of the service charge
19 within the context of its next base rate case.
20

21 **Conclusion**

22 **Q. Does this conclude your testimony at this time?**

23 A. Yes, it does. As noted above, I reserve the right to file supplemental testimony when the
24 Cooperation Agreement is finalized, in order to comment on the ratemaking implications
25 caused by the agreement.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

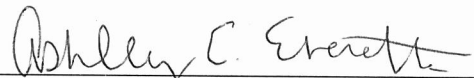
Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, ASHLEY E. EVERETTE, hereby state that the facts set forth in my Surrebuttal Testimony, OCA Statement 1S, 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).

DATE: May 17, 2019

Signed: _____



ASHLEY E. EVERETTE

*272438

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

**IMPLEMENTATION OF CHAPTER 32 OF THE
PUBLIC UTILITY CODE REGARDING
PITTSBURGH WATER AND SEWER AUTHORITY – STAGE 1**

DOCKET NOS. M-2018-2640802 and M-2018-2640803

SURREBUTTAL TESTIMONY

OF

BARBARA R. ALEXANDER

Barbara Alexander Consulting LLC

ON BEHALF OF THE
OFFICE OF CONSUMER ADVOCATE

May 17, 2019

1 Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

2 A. My name is Barbara R. Alexander. I am the sole member of Barbara Alexander Consulting
3 LLC. My address is 83 Wedgewood Dr., Winthrop, ME 04364. I appear in this case as a
4 witness on behalf of the Office of Consumer Advocate (OCA).

5 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY REGARDING THE PITTSBURGH
6 WATER AND SEWER AUTHORITY?

7 A. Yes. I filed Testimony on behalf of the OCA in response to the Compliance Plan filed by
8 Pittsburgh Water and Sewer Authority (PWSA or Authority) on April 5, 2019.

9 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

10 A. I am filing Surrebuttal Testimony on behalf of the OCA in response to the Rebuttal
11 Testimony filed on May 6, 2019 by Ms. Julie Quigley, Director of Administration for the
12 PWSA (PWSA St. No. C-4R). I will address her testimony concerning the requirements
13 of 52 Pa. Code §§ 56.94, 56.334, specifically the obligations of a public utility to attempt
14 contact with a residential customer immediately prior to termination of service for
15 involuntary reasons.

16 Q. PLEASE SUMMARIZE MS. QUIGLEY'S REBUTTAL TESTIMONY ON PWSA'S
17 POSITION CONCERNING THE OBLIGATIONS OF A PUBLIC UTILITY TO
18 ATTEMPT CONTACT AT THE PREMISES OF A RESIDENTIAL CUSTOMER
19 IMMEDIATELY PRIOR TO TERMINATION OF SERVICE FOR NONPAYMENT.

20 A. Ms. Quigley's primary recommendation is that this issue should be deferred to the Stage 2
21 proceeding and resolved via workshops and the Stage 2 procedural schedule for litigated
22 issues. However, she also continues to resist the plain language requirement of the
23 Commission's regulations to attempt contact with the customer "immediately prior" to the

1 termination of service by knocking on the door and training PWSA's field representatives
2 to respond to the evidence that may be present as a result of this contact that requires the
3 public utility to halt the termination. I am concerned with the delay in deferring this
4 consumer protection to Stage 2 because it is a vital and essential consumer protection that
5 should be promptly addressed and implemented by PWSA. I will also respond to Ms.
6 Quigley's specific statements that do not properly reflect my testimony or my response to
7 data requests propounded by PWSA.

8 Q. DOES MS. QUIGLEY PROVIDE ANY EVIDENCE TO SUPPORT HER POSITION
9 THAT THE COMMISSION HAS ALLOWED OTHER PENNSYLVANIA PUBLIC
10 UTILITIES TO AVOID THE PLAIN LANGUAGE DIRECTIVE OF THE
11 REGULATION TO ATTEMPT PERSONAL CONTACT AT THE TIME OF THE
12 TERMINATION OF SERVICE?

13 A. No. Ms. Quigley has not provided any Commission order, policy statement, or other
14 directive that might support her position on this matter.

15 Q. PLEASE DISCUSS MS. QUIGLEY'S ARGUMENT THAT YOUR EXPERIENCE
16 DOES NOT ALLOW ME TO OPINE ON THE ISSUE OF EMPLOYEE SAFETY THAT
17 SHE ALLEGES IS THE BASIS FOR HER CONCERN ABOUT ATTEMPTING
18 CONTACT AT THE TIME OF TERMINATION OF SERVICE.

19 A. Ms. Quigley states that her main concern is that attempting contact at the time of
20 termination of service will expose employees to a "hostile working conditions,"¹ and that
21 her concern for employee safety is the main reason for her objection to the implementation
22 of this policy. Her concern is valid in that PWSA employees need to be trained when to

¹ PWSA Statement No. C-4R, page 6, lines 24-26 and page 7, line 1.

1 avoid conflict with customers and how to exercise their right to leave the scene and, where
2 appropriate, contact enforcement authorities. However, this concern is one that every
3 public utility in Pennsylvania must confront and deal with in a reasonable manner. The
4 assumption that most attempts at personal contact will result in a “hostile working
5 condition” is simply not correct and an unfounded assumption.

6 Furthermore, Ms. Quigley’s characterization of my testimony and my response to
7 discovery as indicating my lack of experience and/or understanding of this safety related
8 issue is inaccurate. As I indicated in response to discovery on this matter, I was the Director
9 of the Consumer Assistance Division of the Maine Public Utilities Commission for ten
10 years (1986-1996) during which time this same obligation was imposed on public utilities
11 operating in Maine. I have no recollection of any significant episode in which the utility’s
12 employees were not able to handle these customer contacts with tact or by withdrawing to
13 avoid additional confrontation. The obligation to attempt contact prior to shutting off
14 utility service was simply a routine matter for all Maine utilities. Furthermore, my
15 testimony explicitly acknowledged that this safety issue is a legitimate concern, but one
16 that other public utilities in Pennsylvania have developed policies to implement. I have
17 repeatedly urged PWSA to consult with other Pennsylvania public utilities on this matter
18 and there is no evidence that PWSA has done that to develop their own policies on
19 termination of service and the obligation to attempt contact with the customer at that time.
20 Ms. Quigley’s attempt to shift the burden of documenting the training materials and
21 practices of other Pennsylvania public utilities to me is not reasonable.

22 Q. DOES MS. QUIGLEY’S POSITION TAKE INTO ACCOUNT THE FACT THAT PWSA
23 MUST SEND AN EMPLOYEE OUT TO THE CUSTOMER’S LOCATION TO

1 TERMINATE SERVICE IN ANY CASE?

2 A. It does not appear so. PWSA must send its employees to customer locations to effectuate
3 termination of service. As a result, I presume PWSA has trained its employees on how to
4 handle situations in which the employee is concerned for his or her safety in interactions
5 with the public. Therefore, the obligation to affirmatively attempt contact with customers
6 prior to such termination does not add appreciably to the training on that score. I agree that
7 additional training would be required to assist the employee in handling the “evidence”
8 that the utility is required to recognize and respond to if contact is made, as described
9 below. However, Ms. Quigley does not appear to rely on any concerns about this aspect
10 of the utility’s obligations in her opposition to the implementation of the clear directive of
11 the Commission’s regulations.

12 Q. DOES MS. QUIGLEY ACKNOWLEDGE OR DISCUSS THE OBLIGATION OF
13 PUBLIC UTILITIES TO CONSIDER CERTAIN “EVIDENCE” AT THE TIME OF
14 TERMINATION AND RESPOND APPROPRIATELY TO CUSTOMER CONTACTS?

15 A. No. Ms. Quigley does not recognize that the purpose of the customer contact at the time
16 of termination of service is to respond to certain situations and halt the termination due to
17 the risk of harm to the customer. Specifically, 52 Pa. Code Section 56.94 explains the
18 purpose of the attempted contact with the customer:

19 Immediately preceding the termination of service, a public utility employee, who
20 may be the public utility employee designated to perform the termination, shall
21 attempt to make personal contact with a responsible adult occupant at the
22 residence of the customer.

23
24 (1) Termination prohibited in certain cases. **If evidence is presented** which
25 indicates that payment has been made, a serious illness or medical condition
26 exists, or a dispute or complaint is properly pending or if the employee is
27 authorized to receive payment and payment in full is tendered in any
28 reasonable manner, then termination may not occur. However, if the disputing

1 party does not pay all undisputed portions of the bill, termination may occur.
2 [Emphasis added.]
3

4 Q. SUBSEQUENT TO THE FILING OF YOUR TESTIMONY AND RESPONSE TO
5 PWSA'S DISCOVERY, HAVE YOU LOCATED ADDITIONAL INFORMATION ON
6 PENNSYLVANIA UTILITY OBLIGATIONS TO ATTEMPT CONTACT AT THE
7 TIME OF TERMINATION OF SERVICE?

8 A. Yes. Counsel has provided me with a Recommended Decision issued in December 2016
9 concerning a petition filed by PPL Electric to seek permission to implement remote
10 disconnection of service without conducting a premise visit by using the two-way
11 communication functionality of its smart meter system.² This petition was resolved with
12 a settlement that explicitly required PPL Electric to send a trained field representative to
13 the customer's location and attempt contact for the purposes set forth in 52 Pa. Code
14 Section 56.94 (above) prior to using the remote switching feature to implement the
15 termination. The Settlement specifically requires PPL Electric to:

- 16 1) Send an appropriately trained field representative to the customer's premises on the day
17 that termination is scheduled to occur who will use reasonable efforts to make personal
18 contact with a responsible adult occupant of the premises prior to the termination.
19 Settlement at Paragraph 13.
- 20 2) Train field representatives on medical certificate procedures, relevant complaint
21 procedures, general familiarity with Protection from Abuse (PFA) Orders, and how to
22 refer customers to PPL Electric's universal service programs. In addition, the field
23 representatives will be trained to call PPL Electric staff for further guidance if presented
24 with a PFA Order. Settlement at Paragraph 14.
- 25 3) Utilize a process where, if the field representative is not able to make personal contact
26 prior to termination, the field representative will leave a notice at the residence informing
27 the customer that utility service is being disconnected and how the customer can
28 reconnect. The notice will include a contact number to PPL staff where low-income and
29 vulnerable customers can receive information on PPL Electric's Universal Service and
30 Energy Conservation programs and related payment information. Settlement at Paragraph
31 15.

² *Petition of PPL Electric Utilities Corp. for Permission to Use the Remote Service Switch in its Meters for Involuntary Service Terminations*, Docket No. P-2016-2524581, Recommended Decision, December 7, 2016. Available at: <http://www.puc.state.pa.us/pcdocs/1493551.pdf>.

- 1 4) Not terminate service if the field representative becomes aware of a personal safety
2 condition that warrants delay in service termination, including if the field representative is
3 informed that the occupant is seriously ill or has a medical condition which will be
4 aggravated by cessation of service and that a medical certificate will be procured pursuant
5 to 52 Pa. Code § 56.112. Settlement at Paragraph 16.
6 5) Train field representatives to direct low-income and vulnerable customers to the line to
7 reach PPL Electric staff where the customer can receive information on all PPL Electric's
8 Universal Service and Energy Conservation programs and related payment information.
9 Settlement at Paragraph 16.
10

11 The Administrative Law Judge recommended the approval of the settlement:

12 While all of the safeguards discussed in the proposed Settlement are important, it is
13 my thought that the core of the proposal is PPL's commitment to comply with all
14 provisions of Chapter 14 of the Public Utility Code and Chapter 56 of the
15 Commission's regulations pertaining to the application of remote connect and
16 disconnect for involuntary service terminations. Specifically, PPL will send an
17 appropriately trained field representative to the customer's premises on the day that
18 termination is scheduled to occur to use reasonable efforts to make personal contact
19 with a responsible adult occupant of the premises prior to the termination, as well as
20 the follow-on requirements if personal contact is not made. The only factor
21 completely changed by this Settlement is how disconnection and reconnection are
22 accomplished physically. What is proposed through the Settlement is a termination
23 procedure that is appropriate in its compliance with the law while bringing about
24 desirable efficiencies.
25

26 The Commission adopted the Recommended Decision without modification in an Order
27 issued on January 19, 2017.³

28 While counsel informs me that settlements are not precedential, PWSA can obtain
29 guidance from the PPL Electric approach that I have discussed and the ALJ's
30 Recommended Decision in that matter.

31
32 Q. WHAT DO YOU RECOMMEND?

33 A. I recommend that PWSA be immediately required to develop internal procedures and
34 training materials to implement 52 Pa. Code Section 56.94 as I have recommended.

³ Available at: <http://www.puc.state.pa.us/pcdocs/1503834.docx>.

1 A. DOES THIS COMPLETE YOUR TESTIMONY AT THIS TIME?

2 A. Yes.

3

4 272463


BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, BARBARA R. ALEXANDER, hereby state that the facts set forth in my Surrebuttal Testimony, OCA Statement 3S, 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).

DATE: May 17, 2019

Signed: 
BARBARA R. ALEXANDER

*272439

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

**IMPLEMENTATION OF
CHAPTER 32 OF THE PUBLIC
UTILITY CODE REGARDING
PITTSBURGH WATER AND
SEWER AUTHORITY – STAGE 1**

)
)
)
) Docket M-2018-2640802 (water)
) Docket M-2018-2640803 (wastewater)
)
)
)

SURREBUTTAL TESTIMONY OF
ROGER D. COLTON

ON BEHALF OF THE
OFFICE OF CONSUMER ADVOCATE

May 17, 2019

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Roger Colton. My business address is 34 Warwick Road, Belmont, MA 02478.

**Q. ARE YOU THE SAME ROGER COLTON WHO PREVIOUSLY PREPARED
DIRECT TESTIMONY ON BEHALF OF THE OFFICE OF CONSUMER
ADVOCATE IN THIS PROCEEDING?**

A. Yes.

Q. PLEASE EXPLAIN THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY.

A. My Surrebuttal Testimony responds to the Rebuttal Testimony of Julie Quigley prepared for the Pittsburgh Water and Sewer Authority (“PWSA”). (PWSA St. C-4R). I will further respond to the Rebuttal Testimony of Brian Kalcic prepared for the Office of Small Business Advocate (“OSBA”). (OSBA St. 1-R).

Response to PWSA Witness Quigley.

Q. PLEASE EXPLAIN THE TESTIMONY OF MS. QUIGLEY THAT YOU ARE RESPONDING TO IN THIS SECTION OF YOUR TESTIMONY.

A. In her Rebuttal Testimony, PWSA witness Quigley states that the Authority has a low-income program that has been “approved” by the Pennsylvania Public Utility Commission. She argues that no further direction should be provided by the Commission prior to the time that PWSA submits a “detailed CAP proposal” in its next rate case. (PWSA St. C-4R, at 28 - 30). Accordingly, she opposed the recommendations that I

advanced regarding the fundamental policy direction that PWSA should take in preparing its “detailed proposal.”

Q. DOES PWSA HAVE ANY BASIS TO ASSERT THAT ITS CURRENT PROGRAM PROMOTES THE OBJECTIVES THAT THE PUC HAS ARTICUALTED FOR ITS RATEPAYER-FUNDED BILL ASSISTANCE PROGRAMS (CALLED “CAPS”)?

A. No. While PWSA marginally changed its program based upon the Settlement of its 2018 rate case, Ms. Quigley appears to believe that her arguments from that rate case remain applicable. (See, PWSA St. C-4R, Footnote 22, in which Witness Quigley incorporates by reference her Rebuttal Testimony from the rate case). In response to that incorporation of her Rate Case rebuttal testimony, I note simply the following that PWSA acknowledged in the rate case:

When asked, PWSA stated: “PWSA has not developed a definition of an “affordable” water burden. Although PWSA recognizes that affordability is an important pricing objective, the time frame allowed for this rate filing did not allow for the type of analysis that is required to determine appropriate affordability goals.” (OCA-VII-2). Moreover, PWSA states that it “does not have any such studies,” when asked for studies that examine the affordability of its bills with and without its bill assistance program. (OCA-VII-6). PWSA cannot say how many customers do, or do not, have an affordable water burden (however that burden is defined) with and without the bill assistance program. (OCA-VII-9). PWSA states that “it does not calculate an affordable water burden.” (OCA-VII-9(b) – 9(d)).

(OCA St. 4, at 13 -14, Docket No. R-2018-3002645, R-2018-3002647, cons.).

Q. DID YOU RECOMMEND A SPECIFIC UNIVERSAL SERVICE PROGRAM IN YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

1 A. No. Indeed, I specifically stated that I had no intent to propose a specific program design
 2 for PWSA’s water affordability program. I acknowledged that the Settlement of the 2018
 3 PWSA Rate Case contemplated that the detailed design of a Universal Service Program
 4 be collaboratively developed, and subsequently presented, in the next PWSA base rate
 5 case.¹ (OCA St. 4, at 5).

6
 7 What I did present in my Direct Testimony here, however, were recommendations on
 8 “certain fundamental policy questions that the Commission should decide in this
 9 proceeding prior to having PWSA and other stakeholders initiate conversations about the
 10 detailed structure of an actual on-the-ground universal service program for PWSA.”
 11 (OCA St. 4, at 5).

12
 13 **Q. IS YOUR RECOMMENDATION THAT THE COMMISSION DECIDE**
 14 **“FUNDAMENTAL POLICY QUESTIONS” BEFORE PWSA BEGINS THE**
 15 **DESIGN OF AN AFFORDABILITY PROGRAM CONSISTENT WITH PRIOR**
 16 **COMMISSION PRACTICE?**

17 A. Yes. My Direct Testimony noted that “there are fundamental policy issues that should be
 18 decided sooner rather than later, and certainly before a detailed universal service plan is
 19 presented in PWSA’s next base rate case. . .” (OCA St. 4, at 14). (emphasis added). This

¹ Docket No.R-2018-3002645 and R-2018-3002647 [cons.]). In the settlement of that rate case, PWSA agreed to increase the assistance provided through the Bill Discount Program (“BDP”) to provide a 75% discount on the minimum charge for both water and wastewater customers with incomes at or below 150% of the Federal Poverty Level. Settlement ¶ III.F.4. In its next base rate case, PWSA has agreed to submit a detailed plan addressing the parameters of its low-income assistance programs, including design of the BDP and possible additional assistance for customers at or below 50% of the Federal Poverty Level. Settlement ¶ III.F.4.a.i through vi. PWSA will also form a Low Income Assistance Advisory Committee, which will be discussed in greater detail below. Among the items this committee will explore will be funding the bill assistance program with separate budgets for water and wastewater populations. Settlement ¶ III.F.3.h.

1 is precisely what the Commission did with the natural gas and electric industries when
 2 the Commission first began to develop its affordability policy regarding utility bills in
 3 Pennsylvania. In adopting its first CAP Policy Statement, the PUC explicitly stated that
 4 “These guidelines prescribe a model CAP which is designed to be a more cost-effective
 5 approach for dealing with issues of customer inability to pay than are traditional
 6 collection methods.” (OCA St. 4, at 20 – 21). (emphasis added). PWSA witness Quigley
 7 proposes to ignore all the learning which the PUC and others have gained over the past
 8 30 years regarding how to effectively and efficiently provide bill affordability assistance
 9 to low-income customers. PWSA instead proposes to begin anew. In fact, from the
 10 perspective of affordability assistance, PWSA does not present questions that are unique
 11 to itself. The questions about how to address affordability have not only been studied,
 12 they have been advanced, tried, debated and modified over the past three decades. My
 13 recommendation is that this learning be incorporated into PUC policy decisions before
 14 PWSA begins to design its rate assistance program. Just as the PUC “prescribe[d] a
 15 model CAP” for the energy utilities, the PUC should prescribe the fundamental policy
 16 parameters within which the PWSA CAP should operate.

17
 18 **Q. DOES THE OFFER OF “ANY” AMOUNT OF ASSISTANCE IMPROVE THE**
 19 **BILL PAYMENT PATTERNS WHICH THE COMMISSION HAS SOUGHT**
 20 **THROUGH THE IMPLEMENTATION OF CAPS?**

21 A. No. In discovery propounded to the OCA, PWSA asked “Does Mr. Colton have any data
 22 showing that customers receiving a discount off of a bill are not better able to pay the

1 remaining amount of the bill?” (PWSA Discovery to OCA, Set I, No. 7). Mr. Colton’s
2 response was:

3 Mr. Colton disagrees with the assertion that a low-income customer receiving
4 “a discount off of a bill,” which he construes to mean “any discount on his or
5 her utility bill, irrespective of the size of that discount and irrespective of the
6 impact which that discount has in reducing a total asked to pay amount to an
7 affordable percentage of income burden,” allows the customer to “pay the
8 remaining amount of the bill.” Not just “any discount” will result in a
9 customer being “better able to pay the remaining amount of the bill” (to use
10 the phraseology of the question). To enable a customer to be “better able to
11 pay the remaining amount of the bill” the discount should be targeted toward
12 achieving some level of affordability.
13

14 **Q. DOES MS. QUIGLEY PRESENT A COMPLETE PICTURE OF THE**
15 **INFORMATION YOU PROVIDED ON THE ASSESSMENTS OF**
16 **AFFORDABILITY?**

17 A. No. Ms. Quigley asserts in her Rebuttal Testimony that “Mr. Colton acknowledged that
18 he has not researched what an affordable water burden is for Pennsylvania PUC regulated
19 water utilities and that he is not aware of any Commission-initiated review or study
20 regarding affordability for Commission regulated water utilities.” (PWSA St. C-4R, at
21 30). She attached my responses to PWSA discovery requests PWSA-II-4 and PWSA-II-5
22 as exhibits. However, she failed to attach my response to PWSA-II-7. In that response, I
23 explained: “The literature that supports Mr. Colton’s conclusion[s] is too substantial to
24 provide a comprehensive review of. . .” (OCA Response to PWSA Set II, No. 7).
25 Nevertheless, I provided a “non-comprehensive list” of research in support of that
26 conclusion. Attached to that response were copies of 20 different program evaluations
27 supporting that conclusion. (OCA Response to PWSA Set II, No. 7, Attachments 1 – 20).

Q. DO YOU DISAGREE WITH ANY OTHER SPECIFIC STATEMENT IN MS. QUIGLEY’S REBUTTAL TESTIMONY?

A. Ms. Quigley asserts that “a path is already in place for continued review and evaluation of PWSA’s program. . .” (PWSA St. C-4, at 30). I disagree. It is not possible to undertake a “review and evaluation” of PWSA’s program without some fundamental agreement on what the program is intended to accomplish. It is a fundamental aspect of program evaluation – I have undertaken any number evaluations of low-income rate assistance programs—that it is not possible to assess whether a program is “working” without first articulating “working at doing what.” It is not possible to assess whether a program is achieving its objectives without first articulating what objectives are being sought.

Q. WHAT DO YOU CONCLUDE?

A. Ms. Quigley’s Rebuttal Testimony does not respond to, or detract from, the need for the PUC to make certain fundamental policy decisions about what the basic outlines of a ratepayer-funded bill assistance program should look like *prior* to PWSA undertaking any “review and evaluation” of its existing initiative and prior to conversations with stakeholders about what the design of the program to subsequently be presented as prescribed in the rate case settlement. The policy questions I identify in my Direct Testimony should be established by the Commission in this proceeding.

Response to OSBA Witness Kalcic.

Q. PLEASE EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY.

A. In this section of my Surrebuttal Testimony, I respond to the Rebuttal Testimony of Brian Kalcic regarding cost allocation of low-income assistance program costs. Mr. Kalcic argues that the policy issue of whether any costs of low-income assistance should be allocated to non-residential classes has been reserved for litigation in PWSA's next rate proceeding. (OSBA St. 1-R, at 2).

I acknowledge that the Settlement of PWSA's rate case provided that "parties reserve the right to make proposals regarding cost allocation for. . .low-income programming in PWSA's next rate proceeding." (OSBA St. 1-R, at 2 and footnote 1). The recommendation in my Direct Testimony (OCA St. 4, at 25) that "The cost of PWSA's universal service programs should be borne by all customers and not placed exclusively on the residential customer class," is not at odds with that agreement. My recommendation does not advance, and would not establish, a specific cost allocation for low-income programming. Instead, my recommendation leaves open the question of how costs are to be allocated to proposals to be advanced in the next rate case. All that my recommendation does is to decide the question that costs of PWSA's universal service programs will "not [be] placed exclusively on the residential customer class."

Contrary to the objections in Mr. Kalcic's Rebuttal Testimony, the Commission may, and should (pursuant to the Settlement) defer decisions on the specific allocation of costs to

1 the next rate case, consistent with the fundamental policy decision that those specific cost
2 allocation proposals will not place universal costs “exclusively on the residential
3 customer class.” My recommendation addresses whether costs are to be allocated, not
4 the question of how costs are to be allocated, the latter question which was addressed in
5 the rate case settlement.
6

7 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

8 A. Yes, it does.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, ROGER D. COLTON, hereby state that the facts set forth in my Surrebuttal Testimony, OCA Statement 4S, 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).

DATE: May 17, 2019

Signed: _____


ROGER D. COLTON

*272440

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

IMPLEMENTATION OF CHAPTER 32	:	Docket No. M-2018-2640802
OF THE PUBLIC UTILITY CODE	:	(Water)
REGARDING PITTSBURGH WATER	:	
AND SEWER AUTHORITY – STAGE 1	:	Docket No. M-2018-2640803
	:	(Wastewater)

SURREBUTTAL TESTIMONY

OF

TERRY L. FOUGHT

ON BEHALF OF

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

MAY 17, 2019

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.**

2 A. Terry L. Fought, 780 Cardinal Drive, Harrisburg, PA 17111.

3
4 **Q. MR. FOUGHT, DID YOU ALSO SUBMIT DIRECT TESTIMONY IN THIS**
5 **PROCEEDING ON BEHALF OF THE OFFICE OF CONSUMER ADVOCATE?**

6 A. Yes.

7
8 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

9 A. The purpose of my surrebuttal testimony is to respond to portions of the rebuttal
10 testimony by Robert A. Weimar, PWSA St. No. C-1R, regarding (1) Customer
11 Meter Age and Meter Testing & Replacement; (2) Unaccounted for Water/Non-
12 Revenue Water; and (3) Ownership of Wastewater Laterals within public rights-of
13 ways and easements.

14
15 **Meter Age & Meter Testing & Replacement.**

16 **Q. WHAT IS THE MR. WEIMAR'S POSITION ON CUSTOMER METER AGE AND**
17 **METER TESTING & REPLACEMENT?**

18 A. On pages 26 and 27 of his Rebuttal Testimony, Mr. Weimar states that (1) "To
19 date, PWSA has changed out more than 1,000 residential meters (817 changeouts
20 in April) and is on track to change more than 1,000 meters in 2019."¹ and (2)
21 "according to the best available information, PWSA has as many as 50,000 meters
22 that have exceeded the Commission's recommended testing schedule and will

¹ The reference to changing out 1,000 meters in 2019 may be a typographical error. On page 71 of Weimar's Rebuttal Testimony, he refers to changing 10,000 meters per year.

1 need to be tested and/or replaced. Unfortunately, much of the meter data
2 including installation date was lost in a billing system transition, so this number
3 cannot be validated. With no records for install dates, PWSA has determined that
4 meter replacements (available records suggest that most meters exceed 20 years
5 install age) are the most timely and cost effective way to establish proper meter
6 records and metering accuracy.”
7

8 **Q. DO YOU HAVE ANY COMMENTS OR RECOMMENDATIONS REGARDING**
9 **CUSTOMER METER AGE AND METER TESTING & REPLACEMENT?**

10 A. Yes. Since the Authority has determined that almost all the customer meters
11 (closer to 80,000² meters than 50,000 meters) must be replaced to establish
12 proper meter records and metering accuracy, the Authority should either confirm
13 or revise its compliance date of June 30, 2024.
14

15 **Water Audit – General.**

16 **Q. WHAT IS MR. WEIMAR’S POSITION ON UNACCOUNTED FOR WATER/AND**
17 **NON-REVENUE WATER?**

18 A. In Mr. Weimar’s Direct Testimony, he indicates that the Authority will use the
19 American Water Works Association (AWWA) Audit method of determining Non-
20 Revenue Water and will file its first AWWA Audit to the Commission by April 30,
21 2020. On pages 30 and 31 of his Rebuttal Testimony, Mr. Weimar states that the

² Docket No. R-2018-3002645, PWSA St. No. 1, pp. 3 and 7.

1 Authority has agreed to provide the information required by Section 500 of the PUC
2 Annual Report.

3
4 **Q. WHAT ARE THE UNACCOUNTED WATER/NON-REVENUE WATER ISSUES**
5 **IN MR. WEIMAR'S REBUTTAL TESTIMONY YOU ARE GOING TO ADDRESS?**

6 A. I am going to address my concern that PWSA's submittal of an AWWA Audit will
7 be based on too many assumptions because: (1) the volume of water withdrawn
8 from the Allegheny River is not metered; (2) the volume of water delivered to the
9 distribution system is not metered; (3) the volume of unmetered water used for
10 non-revenue uses has not been estimated and recorded; and (4) the volume of
11 water sold to unmetered customers may not be estimated.

12
13 **Water Audit – Raw Water Withdrawals from River.**

14 **Q. WHAT IS MR. WEIMAR'S POSITION ON METERING THE WATER**
15 **WITHDRAWN FROM THE ALLEGHENY RIVER?**

16 A. On page 31 of his Rebuttal Testimony, Mr. Weimar states a Water Distribution
17 System Master Plan that will be completed in late 2019 includes new metering
18 devices at each of the two Allegheny River Intakes. On page 34 of his Rebuttal
19 Testimony, Mr. Weimar states "PWSA has installed meters at each source of
20 supply and the Fox Chapel Station and is currently testing these meters to ensure
21 accuracy."

1 **Q. WHAT ARE YOUR COMMENTS/RECOMMENDATIONS REGARDING THE**
2 **METERING OF WATER FROM THE ALLEGHENY RIVER?**

3 A. The Department of Environmental Protection (DEP) Annual Chapter 110 Reports
4 and the AWWA Non-Revenue Water methods require knowing the volume of water
5 withdrawn from the water sources (Allegheny River). It is unclear from Mr.
6 Weimar's Rebuttal Testimony on page 34 if the meters installed at each source of
7 supply are new meters or existing meters that have been repaired. In either case,
8 the volume of water withdrawn for the Allegheny River has not been metered for
9 at least four months of 2019.

10
11 **Water Audit – Water Delivered to the Distribution System.**

12 **Q. WHAT IS MR. WEIMAR'S POSITION ON METERING THE WATER DELIVERED**
13 **TO THE DISTRIBUTION SYSTEM?**

14 A. On pages 34 and 35, Mr. Weimar states the Water Distribution System Master
15 Plan (to be completed in late 2019) includes addressing a master meter facility at
16 the Aspinwall Treatment Plant to monitor the amount of water delivered to the
17 distribution system.

18
19 **Q. WHAT ARE YOUR COMMENTS/RECOMMENDATIONS REGARDING**
20 **METERING THE WATER DELIVERED TO THE DISTRIBUTION SYSTEM?**

21 A. Section 500 of the PUC Annual Report requires knowing the volume of water
22 delivered to the distribution system. Also, the volume of water delivered to the
23 distribution system is necessary to allow for reasonable estimates of distribution

1 system water losses due to pipe leakage and main breaks. The Authority will not
2 have metered the water delivered to the distribution system for all or almost all of
3 2019.

4
5 **Water Audit – Estimating and Recording Non-Revenue Water Uses.**

6 **Q. WHAT IS MR. WEIMAR’S POSITION ON THE ESTIMATING AND RECORDING**
7 **THE NON-REVENUE WATER USES?**

8 A. On page 31, Mr. Weimar states that the Water Distribution System Master Plan (to
9 be completed in late 2019) includes addressing master metering and non-revenue
10 water and will include an AWWA water audit using available data. Mr. Weimar
11 states that PWSA is committed to recording water used for flushing and the
12 flushing metering program is on track to be in place by October 2019.

13
14 **Q. WHAT ARE YOUR COMMENTS/RECOMMENDATIONS REGARDING THE**
15 **AUTHORITY ESTIMATING AND RECORDING NON-REVENUE USES?**

16 A. The AWWA Audit method requires estimating non-revenue water such as water
17 used for blow-offs, street sweeping, flushing, firefighting, main breaks, etc.
18 Although Mr. Weimar’s Rebuttal Testimony discusses implementing a program for
19 estimating and recording the volumes for some uses such as flushing and street
20 sweeping, it is not estimating and recording all such uses.

21
22 **Water Audit – Water Used by Unmetered Customers.**

1 Q. WHAT IS MR. WEIMAR'S POSITION ON ESTIMATING THE VOLUME OF
2 WATER USED BY UNMETERED CUSTOMERS?

3 A. I could not find anything in Mr. Weimar's Rebuttal Testimony regarding estimating
4 the volume of water used by unmetered customers.
5

6 Q. DO YOU HAVE ANY COMMENTS OR RECOMMENDATIONS REGARDING
7 THE AWWA WATER AUDITS OF NON-REVENUE WATER THE AUTHORITY
8 INTENDS TO SUBMIT TO THE COMMISSION?

9 A. Yes. The Authority intends to submit its first AWWA Audit to the Commission prior
10 to April 30, 2020 based on available information. As discussed above, much of
11 the information required for a meaningful water Audit is not available. I recommend
12 that the Authority submit an annual Audit based on available information as a
13 training exercise that develops the procedures for estimating and recording more
14 accurate data when it is available.

15 I also recommend that the Authority submit a compliance date for submission of
16 meaningful Audits that are based on metered withdrawals from the river, metered
17 treated water delivered to the distribution system, and reasonable estimates of
18 non-revenue water.
19

20 **Ownership of Wastewater Laterals within Public Rights-of-Ways and Easements.**

21 Q. WHAT IS MR. WEIMAR'S POSITION REGARDING THE OWNERSHIP OF
22 WASTEWATER LATERALS IN PUBLIC RIGHTS-OF-WAYS AND
23 EASEMENTS?

1 A. On pages 36 and 37 of his Rebuttal Testimony, Mr. Weimar states that submitting
2 a study by January 15, 2020 regarding the Authority owning and maintaining sewer
3 laterals within public rights-of-ways and easements (like its water service lines) is
4 “too much too soon”. He also states that “PWSA should not be burdened with
5 either studying or implementing this major responsibility (and added cost) prior to
6 the time that it is able to successfully address other pressing matters”
7

8 **Q. WHAT ARE YOUR COMMENTS/RECOMMENDATIONS REGARDING THE**
9 **OWNERSHIP OF WASTEWATER LATERALS IN PUBLIC RIGHTS-OF-WAYS?**

10 A. On pages 8 and 9 of my Direct Testimony, I explained why the Authority should
11 own and maintain wastewater laterals within public easements and rights-of-ways.
12 It should be noted that Mr. Weimar did not explain why the Authority owning
13 wastewater laterals in public rights-of-ways and easements would be a major
14 responsibility and providing a report thereon by January 15, 2020 is “too much too
15 soon”.

16 Therefore, I continue to recommend that such a study be completed and provided
17 to the Commission and parties no later than January 15, 2020.
18

19 **Q. DOES THIS COMPLETE YOUR WRITTEN DIRECT TESTIMONY?**

20 A. Yes, at this time. I reserve the right to supplement this testimony either in writing
21 or orally if additional relevant information is received.
22
23

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of Chapter 32 of the Public	:	Docket Nos. M-2018-2640802
Utility Code Regarding Pittsburgh Water	:	M-2018-2640803
and Sewer Authority – Stage 1	:	
	:	
Petition of The Pittsburgh Water and Sewer	:	Docket Nos. P-2018-3005037
Authority for Approval of Its Long-Term	:	P-2018-3005039
Infrastructure Improvement Plan	:	

VERIFICATION

I, TERRY L. FOUGHT, hereby state that the facts set forth in my Surrebuttal Testimony, OCA Statement 5S, 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).

DATE: May 17, 2019

Signed: _____


TERRY L. FOUGHT

*272442