

COMMONWEALTH OF PENNSYLVANIA



OFFICE OF CONSUMER ADVOCATE

555 Walnut Street, 5th Floor, Forum Place
Harrisburg, Pennsylvania 17101-1923
(717) 783-5048
800-684-6560

 @pa_oa

 /pennoca

FAX (717) 783-7152
consumer@paoca.org

December 30, 2020

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Pennsylvania Public Utility Commission
v.
The City of Bethlehem – Water Department
Docket No. R-2020-3020256

Dear Secretary Chiavetta:

Attached for electronic filing please find the Office of Consumer Advocate's Main Brief in the above-referenced proceeding.

Copies have been served per the attached Certificate of Service.

Very truly yours,

/s/ Christine Maloni Hoover
Christine Maloni Hoover
Senior Assistant Consumer Advocate
PA Attorney I.D. # 50026
E-Mail: CHoover@paoca.org

Enclosures:

cc: The Honorable Steven K. Haas (**email only**)
Office of Special Assistants (**email only**: ra-OSA@pa.gov)
Certificate of Service

*300995

CERTIFICATE OF SERVICE

Re: Pennsylvania Public Utility Commission :
v. : Docket No. R-2020-3020256
The City of Bethlehem – Water Department :

I hereby certify that I have this day served a true copy of the following document, the Office of Consumer Advocate’s Main Brief, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant), in the manner and upon the persons listed below:

Dated this 30th day of December 2020.

SERVICE BY E-MAIL ONLY

John M. Coogan, Esquire
Bureau of Investigation & Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

Steven C. Gray, Esquire
Office of Small Business Advocate
555 Walnut Street
1st Floor, Forum Place
Harrisburg, PA 17101-1923

Thomas T. Niesen, Esquire
Thomas, Niesen & Thomas, LLC
212 Locust Street
Suite 302
Harrisburg, PA 17101

/s/ Christine Maloni Hoover
Christine Maloni Hoover
Senior Assistant Consumer Advocate
PA Attorney I.D. # 50026
E-Mail: CHoover@paoca.org

Counsel for:
Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152
Dated: December 30, 2020
*300994

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Re: Pennsylvania Public Utility Commission :
 :
 v. : Docket No. R-2020-3020256
 :
 The City of Bethlehem – Water Department :

MAIN BRIEF
OF THE
OFFICE OF CONSUMER ADVOCATE

Christine Maloni Hoover
Senior Assistant Consumer Advocate
PA Attorney I.D. # 50026
E-Mail: CHoover@paoca.org

Luis Melendez
Law Clerk

Counsel for:
Tanya J. McCloskey Acting
Consumer Advocate

Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152
Dated: December 30, 2020

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I. INTRODUCTION

A. History of the Proceeding

On July 31, 2020, the City of Bethlehem – Water Department (Bethlehem or City) filed Supplement No. 15 to Tariff Water-Pa. P.U.C. No. 6 which proposed an annual revenue increase of \$908,421 (10.9%), to become effective September 29, 2020. The City provides drinking water to 23,341 customers in the City of Bethlehem and 13,800 customers in portions of 11 surrounding municipalities in Northampton and Lehigh Counties (jurisdictional customers). Thus, by filing this tariff supplement, the City seeks Commission approval to make rate changes that would increase the level of rates that it charges for providing service to its customers outside the City boundaries.

On August 14, 2020, the Commission’s Bureau of Investigation and Enforcement (I&E) entered its appearance. The Office of Consumer Advocate (OCA) filed a Notice of Appearance and Formal Complaint and Public Statement on August 27, 2020. The Office of Small Business Advocate (OSBA) filed a Notice of Appearance and Formal Complaint and Public Statement on August 27, 2020.

On September 17, 2020, pursuant to 66 Pa. C.S. § 1308(d), the Commission suspended the proposed tariff changes for investigation until April 29, 2021, unless permitted by Commission Order to become effective at an earlier date. Through its order, the Commission assigned this case to the Office of Administrative Law Judge for Alternative Dispute Resolution, if possible, and for scheduling of hearings as necessary for issuance of a recommended decision. On September 23, 2020, the City declined mediation and filed a suspension tariff, suspending its proposed tariff to April 29, 2021.

A Prehearing Conference was held on October 8, 2020, before Administrative Law Judge (ALJ) Haas during which the parties, upon approval of ALJ Haas, established modified rules for discovery as well as a procedural schedule, among other things. On October 5, 2020, the City filed City of Bethlehem

Statement 1, the Direct Testimony of Constance E. Heppenstall; City of Bethlehem Statement 2, the Direct Testimony of Harold Walker, III; City of Bethlehem Statement 3, the Direct Testimony of John J. Spanos; and City of Bethlehem Statement 4, the Direct Testimony of Edward J. Boscola. On November 6, 2020, OCA filed OCA Statement 1, the Direct Testimony of Scott J. Rubin¹; OCA Statement 2, the Direct Testimony of Stacy L. Sherwood²; OCA Statement 3, the Direct Testimony of David J. Garrett³; OCA Statement 4, the Direct Testimony of Jerome D. Mierzwa⁴; and OCA Statement 5, the Direct Testimony of Terry L. Fought⁵. On that same day, OSBA filed the direct testimony of Brian Kalcic. Also on that same day, I&E filed the direct testimony of Brenton Grab, Anthony Spadaccio, and Esyan Sakaya. On November 24, 2020, rebuttal testimony was filed by OCA witness Mierzwa, OCA St. 4R.

¹ Mr. Rubin is an independent attorney and public utility industry consultant who has testified as an expert witness before utility commissions and courts in seventeen states and the District of Columbia and the province of Nova Scotia. OCA St. 1 at 1-3. Since 1984, Mr. Rubin has provided legal and consulting services to a variety of parties interested in public utility regulatory proceedings. Mr. Rubin's background and qualifications are attached as Appendix A to OCA Statement 1.

² Ms. Sherwood is an Economist with Exeter Associates, Inc. At Exeter, Ms. Sherwood provides analysis of rate filings, develops utility service assessments, provides bill and rate analysis, and assesses and evaluates the effectiveness of energy conservation and efficiency programs. Prior to joining Exeter, Ms. Sherwood served as a Regulatory Economist with the Maryland Public Service Commission (PSC). At the PSC, she performed analysis on the EmPOWER Maryland energy efficiency and demand response programs, the Exelon Customer Investment Fund, and served as lead analyst for the EmPOWER Maryland limited income programs. Ms. Sherwood's background and qualifications are attached as Appendix A to OCA Statement 2.

³ Mr. Garrett is the managing member of Resolve Utility Consulting, LLC. He is an independent consultant specializing in public utility regulation. Mr. Garrett has represented numerous consumer groups and state agencies in utility regulatory proceedings, primarily in the areas of cost of capital and depreciation. He is a Certified Depreciation Professional with the Society of Depreciation Professionals. He is also a Certified Rate of Return Analyst with the Society of Utility and Regulatory Financial Analysts. Mr. Garrett's background and qualifications are attached as Exhibit DJG-1 to OCA Statement 3.

⁴ Mr. Mierzwa is a principal at and the President of the utility consulting firm, Exeter Associates Inc., and has been affiliated with the firm since April 1990. During his tenure with Exeter, Mr. Mierzwa's assignments have included water and wastewater utility class cost of service and rate design analysis, evaluating the gas purchasing practices and policies of natural gas utilities, sales and rate forecasting, performance-based incentive regulation, revenue requirement analysis, the unbundling of utility services and the evaluation of customer choice natural gas transportation programs. Mr. Mierzwa's background and qualifications are attached as Appendix A to OCA Statement 4.

⁵ Mr. Fought has been a licensed engineer in Pennsylvania since 1975, is licensed in New Jersey and Virginia and has been a consulting engineer since 1983. He received his Bachelor of Civil Engineering from Cleveland State University. He has been involved in the design, construction and operation of water and wastewater facilities for over 40 years. He has also served as a consultant to the OCA for water and wastewater rate cases, complaint proceedings, investigations, and applications since 1984. Mr. Fought's background and qualifications are attached as Appendix A to OCA Statement 5.

On that same day, rebuttal testimony was filed for OSBA witness Kalcic. On November 24, 2020, rebuttal testimony was filed by City witnesses Heppenstall, Walker, Spanos, and Boscola. On December 9, 2020, surrebuttal testimony was filed by OCA witnesses Rubin, OCA St. 1S; Sherwood, OCA St. 2S; Garrett, OCA St. 3S; Mierzwa, OCA St. 4S; and Fought, OCA St. 5S. On the same day, surrebuttal testimony was filed by OSBA witness Kalcic. Also on the same day, surrebuttal testimony was filed by I&E witnesses Grab, Spadaccio, and Sakaya. On December 16, 2020, rejoinder testimony was filed by City witnesses Heppenstall, Walker, and Spanos. In the Telephonic Evidentiary Hearing on December 17, 2020, the City, I&E, OSBA, and OCA stipulated to the admission of testimony and exhibits and moved the testimony and exhibits into the record. On December 28, 2020, the City and I&E filed a Joint Petition for Partial Settlement. OCA will provide its comments in opposition in its Reply Brief as directed by ALJ Haas.

The OCA's primary position is that it would not be just or reasonable to impose a rate increase on customers at this time due to the COVID-19 pandemic devastating the health and economy of the Commonwealth. However, if the Commission finds that some increase is necessary for the City, the OCA also argues its "business as usual" position. Consistent with the Bethlehem filing, Ms. Sherwood used an HTY "that corresponds to the year ended December 31, 2019 with pro forma adjustments and a . . . FTY . . . that corresponds to the year ended December 31, 2020 as the basis for determining Bethlehem's revenue requirement for its PUC-jurisdictional customers and the revenue increase necessary to recover that requirement." OCA St. 2 at 2. Ms. Sherwood's original recommendation regarding the appropriate increase in revenues in this proceeding was that "the revenue requirement increase allocated to Outside-City customers . . . be \$367,400[, which is] \$541,021 less than the increase of \$908,421 that Bethlehem has requested in this case." OCA St. 2 at 3. In reaching her recommendation, Ms. Sherwood considered her adjustment, the adjustments to Inside- and Outside-City allocation factors

made by OCA cost of service witness Jerome Mierzwa, and applied an overall cost of capital of 6.57% (calculated by OCA rate of return witness David Garrett). OCA St. 1 at 3.

Ms. Sherwood detailed her updated position in her surrebuttal testimony as follows:

As a result of the recommendations outlined in [my surrebuttal] testimony, accompanied by the recommendations of the other OCA witnesses, my revised position is to recommend that the revenue requirement increase to Outside-City customers be \$443,666, which is reflected on Schedule SLS-1S. This recommendation for Outside-City customers is \$464,755 less than the increase of \$908,421 that Bethlehem requested in its rebuttal. However, this recommendation is based upon a business-as-usual approach and does not take into account the issues highlighted in OCA witness Rubin's direct testimony. As explained in Mr. Rubin's testimony, granting no increase would result in a return on equity of 6.45%.

OCA St. 2S at 1–2. This Main Brief is filed in support of our recommendations⁶ as set forth below.

B. The City's Water System

OCA witness Fought provided the following overview of the City's water system:

The City provides water service to approximately 36,375 customers located in thirteen municipalities in Lehigh and Northampton Counties. See Exhibit TLF-1. Approximately 37 percent of the customers are PUC-jurisdictional customers.

The City's primary water supply sources are Wild Creek and Tunkhannock Creek. Reservoirs on Wild Creek impound approximately 10 billion gallons of water. During the calendar years 2017 through 2019, approximately 92.8% of the City's water came from Wild Creek while 6.4% came from Tunkhannock Creek. This water is treated by the City's 28.6 million gallons per day (mgd) direct filtration water treatment plant that was built in 1994. The City's distribution system includes about 550 miles of various sized pipes and eight storage tanks (including the water treatment plant clearwell) having a total capacity of over 38 million gallons (mg). Approximately 0.6% of the City's water supply is treated water purchased from the Bath Borough Municipal Authority's Route 512 Interconnections and the remaining water is treated well water from four small water systems.

OCA St. 5 at 3.

⁶During the course of preparing this Brief, the OCA determined that Ms. Sherwood's adjustment to salaries and wages, as discussed at VII.E. *infra*, was inadvertently understated in Schedule SLS-1S, p. 1, line 6 because the full adjustment was not carried forward from Schedule SLS-5S, line 13. The correct number for the salaries and wages adjustment is found in Schedule SLS-5S, and should have been \$30,913, rather than \$17,676 (line 8). Due to the late discovery of this issue, the OCA has not reflected the full adjustment in our overall position as set forth in Appendices A.1 and A.2, Tables I and II attached to this Brief.

C. Burden of Proof

The City of Bethlehem – Water Department bears the burden of proof to establish the justness and reasonableness of every element of its requested rate increase. As set forth in Section 315(a) of the Public Utility Code:

Reasonableness of rates – In any proceeding upon the motion of the Commission, involving any proposed or existing rate of any public utility, or in any proceedings upon the complaint involving any proposed increase in rates, the burden of proof to show that the rate involved is just and reasonable shall be upon the public utility.

66 Pa. C.S. § 315(a). The Commonwealth Court interprets this principle as follows:

Section 315(a) of the Public Utility Code, 66 Pa. C.S. § 315(a), places the burden of proving the justness and reasonableness of a proposed rate hike squarely on the utility. It is well-established that the evidence adduced by a utility to meet this burden must be substantial.

Lower Frederick Twp. v. Pa. P.U.C., 48 Pa. Cmwlt. 222, 226-27, 409 A.2d 505, 507 (1980) (emphasis added) (citations omitted); see also Brockway Glass v. Pa. P.U.C., 63 Pa. Cmwlt. 238, 437 A.2d 1067 (1981).

The Pennsylvania Supreme Court has stated that the party with the burden of proof has a formidable task to show that the Commission may lawfully adopt its position. Even where a party has established a prima facie case, the party with the burden must establish that “the elements of that cause of action are proven with substantial evidence which enables the party asserting the cause of action to prevail, precluding all reasonable inferences to the contrary.” Burleson v. Pa. P.U.C., 461 A.2d 1234, 1236 (Pa. 1983). Furthermore, it is well-established that the “degree of proof before administrative tribunals as well as before most civil proceedings is satisfied by establishing a preponderance of the evidence.” Lansberry v. Pa. P.U.C., 578 A.2d 600, 602 (Pa. Cmwlt. 1990). Additionally, the evidence must be substantial and legally credible, and cannot be mere “suspicion” or a “scintilla” of evidence.

Lansberry, 578 A.2d at 602. Thus, a utility has an affirmative burden to establish the justness and reasonableness of every component of its rate request.

The OCA notes that Pennsylvania law is clear that there is no similar burden for a party proposing an adjustment to a utility base rate filing. See, e.g., Berner v. Pa. P.U.C., 382 Pa. 622, 116 A.2d 738 (1955). In Berner, the Pennsylvania Supreme Court stated:

[T]he appellants did not have the burden of proving that the plant additions were improper, unnecessary or too costly; on the contrary, that burden is, by statute, on the utility to demonstrate the reasonable necessity and cost of the installations and that is the burden which the utility patently failed to carry.

Berner, 382 Pa. at 631, 116 A.2d at 744. The Commission recognizes this standard in its rate determinations. Pa. P.U.C. v. Equitable Gas Co., 57 Pa. PUC 423, 471 (1983); see also University of Pennsylvania v. Pa. P.U.C., 86 Pa. Cmwlth. 410, 485 A.2d 1217 (1984); Pa. P.U.C. v. PPL Elec. Util. Corp., 237 PUR4th 419 (PaPUC 2004). Thus, it is unnecessary for the OCA (or any challenger) to prove that the City's proposed rates are unjust, unreasonable, or not in the public interest. To prevail in its challenge, Pennsylvania law requires only that the OCA show how the City failed to meet its burden of proof. While subtle, this critical distinction shows that parties opposing a utility in a rate proceeding need only to shift the burden of going forward to prevail. The burden of proof will not shift to an intervener that is challenging the requested rate increase. Pa. P.U.C. v City of Bethlehem, 2011 Pa. PUC LEXIS 190, *11 (2011). However, this does not mean that a utility must affirmatively defend claims that no other party has brought or question. The Pennsylvania Commonwealth Court has held:

While it is axiomatic that a utility has the burden of proving the justness and reasonableness of its proposed rates, it cannot be called upon to account for every action absent prior notice that such action is to be challenged.

Allegheny Center Assocs. v. Pa. PUC, 570 A.2d 149, 153 (Pa, Cmwlt. 1990); see also Pa. PUC v. Equitable Gas Co., 73 Pa. PUC 310, 359-60 (1990).

In conclusion, the City of Bethlehem must affirmatively demonstrate the reasonableness of every element of its claims and demonstrate that its proposed rates are just, reasonable, and in the public interest. The OCA will show that the City of Bethlehem has failed to satisfy its statutory burden in the manner set forth below.

II. SUMMARY OF ARGUMENT

This Commission should not approve any rate increase for Bethlehem at this time. Bethlehem's customers, and indeed the entire Commonwealth, remain firmly in the grip of the COVID-19 pandemic. Due to the extreme economic and personal hardships being endured by Bethlehem's customers, and the public in general, any rate increase at this time would not result in just and reasonable rates. The evidence establishes that a no rate increase approach will not have a material impact on Bethlehem at this time. See App. A.1, Table I. If the Commission should decide, however, that it wants to proceed with a "business as usual" approach, the OCA has presented testimony on revenue requirement, including cost of capital, that establishes the revenue increase should be no more than \$443,666.⁷ See App. A.2, Tables I-VI.

The financial impacts of the pandemic will affect every aspect of the ratemaking equation, including revenues, operating expenses, capital expenditures, and the cost of debt yet Bethlehem has not modified its proposals. Based on the evidence presented here, Bethlehem cannot meet its burden of proof to show that its request will result in just and reasonable rates.

The legal and policy basis for OCA's primary position that no increase should be granted at this time is set forth below. Also set forth below is the basis for the OCA's "business as usual" approach. The OCA will address the partial settlement entered into between Bethlehem and I&E in its Reply Brief.

⁷The revenue requirement shown in Appendix A.2, Table 1 is \$446,173, or \$2,507 more than is shown in Ms. Sherwood's Surrebuttal Schedules. The difference appears to be that the Surrebuttal schedules round to two places after the decimal and the Tables go to eight places after the decimal.

III. OVERALL POSITION ON RATE INCREASE

A. Introduction

The OCA strongly urges that the Commission deny Bethlehem’s rate increase request to protect the ratepayers in Bethlehem’s service territory who are, and will be, experiencing unemployment and income loss due to the unprecedented and continuing COVID-19 pandemic. The OCA is not recommending that Bethlehem should have rates that are inadequate to ensure the provision of safe and reliable service to its customers. OCA St. 1 at 26. As described in this Main Brief, Bethlehem could continue operations, recover all of its expenses, and have additional money left over. Id. In these extraordinary times, denying Bethlehem’s rate increase is a reasonable—and temporary—outcome until fewer customers are suffering financially and the future is more ascertainable for ratemaking.

OCA’s primary position, no increase in in rates, would result in a reasonable return in these circumstances. Specifically, the costs rates and overall return, under the no increase scenario would be:

Weight Average Rate of Return				
Capital Component	Proposed Ratio	Cost Rate	14% Tax Adjusted	Weighted Cost
Long Term Debt	48.00%	5.77%		2.77%
Fund Equity	<u>52.00%</u>	6.45%	5.55%	<u>2.88%</u>
Total	100.00%			5.65%

OCA Hearing Exh. # 1. While perhaps not as much profit as Bethlehem would like⁸, an overall return of 5.65% is more than adequate. See OCA App. A.1, Table IA; OCA Hearing Exh. #1. As OCA Witness Rubin stated: “Most Pennsylvania businesses would be absolutely thrilled if they could pay all their bills, make all of their debt payments, and still have enough money left over. When compared to the economic

⁸ The OCA’s revenue requirement recommendation, absent any consideration of the pandemic, results in an overall deficiency of \$443,666 at an overall rate of return of 6.57%. See App. A.2, OCA Table I; OCA St. 2S at 1; Sch. SLS-1; OCA St. 3 at 6; Exh. DJG-17. Bethlehem proposed an overall rate of return of 8.21%. City St. 2, Sch. 1

devastation gripping its service territory, I cannot find anything just or reasonable about increasing Bethlehem's water rates at this time." OCA St. 1 at 26.

Further, the OCA submits that the Commission should not rely on Bethlehem's projections and related assumptions which were developed before the pandemic emerged and "assume that the resulting rates will be 'just and reasonable'." OCA St. 1 at 19. If Bethlehem is concerned about operating revenues during this uncertain time and moving forward, Bethlehem could defer new construction projects that are not necessary to ensure the current provision of safe and reliable service to existing customers. Id. at 26-27. Mr. Rubin explained that the City recently issued \$6.5 million in AA-rate bonds. OCA St. 1 at 27. The terms ranged from 1-14 years at interest rates ranging from 0.5% to 1.6%. Id. He noted that as Authority debt matures, or becomes callable, the current interest rates present "an opportunity to reduce the City's lease payments in the future." Id. Additionally, Bethlehem could file rate cases after the pandemic once the "dust settles" and reliable and complete evidence of the full effect of the pandemic will be available to determine just and reasonable rates.

There is precedent supporting the Commission's authority to determine that raising rates would not be just and reasonable during this time of extreme economic hardship for ratepayers. OCA St. 1 SR at 21-22. In addition, the reasonable rate of return that a Company is awarded considering the constitutional parameters is within the Commission's discretion and must reflect current economic circumstances. The OCA therefore submits that increasing Bethlehem's water rates during the COVID-19 pandemic is not only unnecessary at this time, but would not lead to just and reasonable rates given Bethlehem ratepayers' reduced incomes and ability to pay and the economic uncertainties of Bethlehem's FTY projections in its rate increase filings.

B. The Economic Hardships of Bethlehem’s Ratepayers During and After This Pandemic Should Play a Prevalent Role in the Commission’s Decision on Increasing Rates.

The economic repercussions of the COVID-19 pandemic—to the extent yet known—are real and significant in Bethlehem’s service territory and the OCA submits that the Commission must give great weight to the circumstances of consumers during these extraordinary times. As of September 2020, the unemployment rates in Lehigh and Northampton Counties, portions of which are served by the Bethlehem, were 8.3% and 7.6%, respectively. OCA St. 1 at 11. In October, the unemployment rates had fallen to 7.4% and 6.8% respectively. OCA St. 1S at 2. For comparison, the unemployment rate in both counties one year earlier was 4.6%. OCA St. 1 at 11. The unemployment rate in both counties peaked in April 2020 (16.9% and 16.3 respectively). Id.

As a consequence of the massive job losses across Pennsylvania, there were 30 times as many initial unemployment claims during the week ending March 21, 2020 and 33 times as many during the next week ending March 28, 2020 than the amount during the week ending March 7, 2020 as shown in shown in OCA St. 1 S, Sch. SJR-1 (Updated). As shown on the updated Figure 3, at the end of November, unemployment claims, although less than in March had started to climb again and were at about 23,000 initial claims per week.⁹ OCA St. 1S at 2, Sch. SJR-1 Updated. Mr. Rubin explained that in the space of about eight months (mid-March through mid-November), “approximately 42 percent of Pennsylvania’s workforce filed an unemployment claim.” OCA St. 1S at 2.

According to a survey conducted by the U.S. Census Bureau, approximately 46.9% of Pennsylvania households experienced wage loss since March 13, 2020 and during the period ending October 12, 2020, the percentage remained “fairly constant at about 47% of households, as shown on

⁹ When Mr. Rubin filed his direct testimony, initial unemployment claims had dipped below 20,000 for the first time since mid-March. OCA St. 1S at 2.

Figure 3.” OCA St. 1 at 13; Figure 3. In his Surrebuttal Testimony, Mr. Rubin provided an update, through the two-week period ending November 23, that shows that 46% of Pennsylvania households have lost some of their employment income. OCA St. 1S at 2; Sch. SJR-6S.

Given the substantial reductions in employment and wages, there is an unusually large pool of ratepayers unable to afford utility bills. To address the prospect of Pennsylvanians experiencing job and wage loss to afford bill payments, Mr. Rubin cites the U.S. Census Bureau’s Household Pulse Survey, testifying:

Only 53% of Pennsylvanians who lost income said they used their normal source of income to pay bills in the previous week. About 23% cited unemployment benefits and 26% referred to the CARES Act stimulus payments. More people, however, relied on credit card debt or loans (including loans from family or friends) (44%) or money from savings or asset sales (35%) than relied on short-term government benefits.

OCA St. 1 at 15. Mr. Rubin noted that 24% of Pennsylvania’s workforce expected to suffer additional income loss during October and November. OCA St. 1 at 14. Mr. Rubin noted that the lower a household’s income, the greater the impact of the pandemic on income loss. Id. at 15. Similarly households headed by a person who the Census Bureau classifies as Black or Hispanic are ”much more likely to have experienced an income loss – and to expect additional income loss into mid-November than are households headed by a person classified as White, Non-Hispanic.” Id.

For utility bills specifically, Mr. Rubin testified:

A recent survey conducted by the Electric Power Research Institute (“EPRI”) found that about two-thirds of people who lost their jobs during the pandemic are concerned about being able to pay their energy bills. Moreover, more than 20% of survey respondents reported that their energy bills were higher because of the pandemic. Interestingly, the survey also found that more than 25% of people who lost their jobs are planning to skip at least one utility bill payment, but a much lower percentage were planning to contact their utilities for assistance.

Id. at 15-16 (footnote omitted); Sch. SJR-5, pp. 3, 7, 12. The OCA submits that Bethlehem’s customers, a significant portion of whom it is reasonable to assume are experiencing a situation that aligns with the

pandemic-related job and wage loss mentioned in Mr. Rubin's testimony, cannot reasonably withstand a water rate increase at this time.

The OCA submits that a water rate increase in the Bethlehem service territory will not only increase the financial burden faced by customers experiencing job and wage loss due to the pandemic, but will likely increase that burden particularly on those individuals belonging to low-income and Black or Hispanic households.

In addition to residential customers, businesses in Bethlehem's service territory have also been impacted substantially from the pandemic. Mr. Rubin testified:

A recently initiated small-business survey by the U.S. Census Bureau provides insights into the condition of small businesses in Pennsylvania. The Census Bureau estimates that, as of the week ending May 2, 2020, 31.6% of small businesses in Pennsylvania said they would not return to normal operations for more than six months and 6.6% of the Commonwealth's small businesses expected to never return to their pre-pandemic level of operations.¹⁰ By the week ending October 12, 2020, the small-business outlook was considerably worse with more than 51% of businesses selecting these two categories.

OCA St. 1 at 16 (footnotes omitted); Figure 4. In his Surrebuttal Testimony, Mr. Rubin explained that the outlook for small business is worse than when he prepared his direct testimony:

The most recent results are for the week ending November 29. The survey now shows that 48% of Pennsylvania's small businesses said they would take at least 6 months to recover, with another 10.4% saying they would never fully recover from the pandemic. The last two weeks of November show the worst small business outlook (more than 58% of small businesses in dire circumstances) during the entire survey period.

OCA St. 1S at 2.

From the above information, drawn from surveys and reports on the economic well-being of households and businesses both in Bethlehem's service territory and in Pennsylvania from the start of the pandemic, Mr. Rubin recommends that rates in Bethlehem's service territory not be raised at this time

¹⁰ U.S. Census Bureau, Small Business Pulse Survey, <https://www.census.gov/data/experimental-data-products/small-business-pulse-survey.html>.

unless the Commission finds that some increase is necessary for the City to meet its obligations under its lease with the Bethlehem Authority. OCA St. 1 at 4. This data, collectively, demonstrates why the economic hardships faced by customers in Bethlehem's service territory should not be added to by any increase in Bethlehem's rates at this time.

In rebuttal, Bethlehem witness Heppenstall did not rebut the data or the factual conclusions reached by Mr. Rubin. OCA St. 1S at 4. Rather, Ms. Heppenstall focused on the unemployment rate. City St. 1R at 2-5. Ms. Heppenstall characterized the unemployment rates as not "unique" to this period. Id. at 2. She pointed to the unemployment rate in 2010 which was 10% in Lehigh County and 9.7% in Northampton County. Id. According to Ms. Heppenstall that information "shows that this period of challenges is not unique." Id. Ms. Heppenstall also states that the unemployment rate has improved since March 2020 when it was at 16.1%. City St. 1R at 3. County level unemployment data for November will not be available until January. However, as Mr. Rubin pointed out, although dipping in early fall, initial unemployment claims had started to increase again in the first three weeks of November. OCA St. 1S at 2.

Ms. Heppenstall did not discuss the other economic indicators addressed by Mr. Rubin including "the partial loss of income by nearly half of Pennsylvania wage-earners, the devastating effect of the pandemic on small businesses, and the extent of the decline in economic activity in Pennsylvania." OCA St. 1S at 4. Based on the unemployment rate, Ms. Heppenstall concludes that "This recovery appears to be swift." City St. 1R at 3. Ms. Heppenstall's conclusion is not consistent with the data presented by Mr. Rubin in direct and updated in surrebuttal testimony. Ms. Heppenstall's narrow focus on one of the many factors presented by Mr. Rubin does not refute that the proposed increase has not been shown to be necessary during the ongoing pandemic.

In rebuttal, Ms. Heppenstall states that the City's debt service coverage ratio, at 1.3x, is low compared to its peers. City St. 1R at 5. The OCA notes that the City's coverage ratio is more than the minimum coverage ratio it is required to have. Finally, as Mr. Rubin noted (OCA St. 1 at 27), the City was able to issue \$6.5 million in AA-rated bonds during 2020 at interest rates ranging for 0.5% to 1.6%, so it appears to be in reasonable financial standing.

Raising rates on Bethlehem's customers while many are experiencing job and wage loss would only serve to further diminish customers' currently-reduced incomes and financial resources. The OCA submits that the unprecedented situation at hand provides ample basis for the Commission to deny such an increase during this time.

C. Rejecting Bethlehem's Rate Increase Request During an Unprecedented and Economically Devastating Pandemic Would Result in Just and Reasonable Rates.

Mr. Rubin recommends that the Commission not focus, in this proceeding, on Bethlehem's historic costs, or on cost projections prepared before the pandemic, under a business as usual approach. OCA St. 1 at 19. Rather, the Commission "must focus on what rates are reasonable for consumers to pay under these extraordinary conditions." Id. While this is not the Commission's standard approach to ratemaking, these ratemaking conditions are not standard by any means. Based on the reasons discussed below, it is both legal and practical for the Commission to consider the unprecedented public health and economic crisis and the grave economic environment and financial hardships faced by Bethlehem's customers in denying Bethlehem any rate increases at this time. Such consideration will still result in just and reasonable rates and indeed, is necessary to determining just and reasonable rates at this time.¹¹ Mr. Rubin explained as follows:

¹¹In further support of his recommendation against the rate increase requested by Bethlehem, Mr. Rubin cites many examples where utilities have either withdrawn or deferred filing rate increase requests to provide relief to their customers who are likely spending more time at home and/or experiencing some level of income loss during this pandemic including Hydro One, a large electric utility in Ontario, Canada, and the Halifax, Nova Scotia Regional Water Commission. OCA St. 1 at 22-23. Other public utilities, including some in Pennsylvania, have recognized the increased hardships that would be placed on their customers if they were to charge higher rates at the time. Mr. Rubin provides the following examples in his testimony:

Now is not the time to impose additional, unavoidable costs on consumers. Residential customers are experiencing unprecedented levels of unemployment and other economic dislocation (such as reduced hours of work), while many are battling the COVID-19 infection. Businesses of all sizes, as well as local governments, schools, universities, and nonprofit organizations are struggling to remain viable. I expect many will not be able to survive or, if they do, it might take them months or years to return to pre-pandemic levels of operations. To put all of this in terms of utility ratemaking: it would be neither just nor reasonable for the City to increase its rates at this time.

OCA St. 1 at 24 (footnotes omitted).

1. Bethlehem Does Not Need to Increase Rates Right Now.

OCA witness Rubin found that, not only is Bethlehem's continued pursuit of its proposed rate increase suspect due to the drastic change in the economic environment, but Bethlehem would have enough revenue to continue safe and reliable operations if its rates were to remain unchanged. On the topic of Bethlehem's alleged need to increase rates, Mr. Rubin testified:

As I understand it, the water system is owned by the Bethlehem Authority ("the Authority") that leases the system, and the right to operate it, to the City. Under the lease agreement, the City is required to pay the Authority 105% of the Authority's debt service payments. According to the Authority's annual filing with the Pa. Department of Community and Economic Development for 2019, its annual debt service is \$8,451,550. Thus, the City's required lease payment is 1.05 times that amount or \$8,874,128.

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- Dominion Energy in South Carolina is pushing back the effective date for its rate increase to March 1, 2021, instead of January 1, 2021.
 - Minnesota Power significantly reduced its requested rate increase and is refunding more than \$12 million to customers to help alleviate pandemic-related financial concerns.
 - California Water Service Co. is eliminating all scheduled rate increases during 2020.
 - Chelan County (Washington) Public Utility District is postponing previously approved increases in electric, water, and wastewater rates by six months to provide customers some relief during the pandemic.
 - The City of Austin (Texas) reduced its electricity rates by about 4%, eliminated the residential price increment for usage in excess of 1,000 kilowatt-hours per month, and reduced rates for residential water and wastewater consumption by 10%.
 - PEPCO, the electric utility serving the District of Columbia and surrounding areas, announced on June 1st that it would forego a \$25 million rate increase scheduled for this year in D.C., make a shareholder donation to its low-income assistance fund, and take other actions to assist customers during the pandemic.
 - A report by Moody's Investors Service expects similar delays in numerous electric, gas, and water utility rate proceedings throughout the U.S. as a way of providing some relief to consumers during the pandemic.
 - Philadelphia Water Department withdrew its pending request for increases in water, wastewater, and stormwater rates that would have become effective in September 2020 and September 2021. In a June 2020 filing, the utility cited "the on-going pandemic and the uncertainty over the anticipated duration of continuing emergency measures.

OCA St. 1 at 23-24 (footnotes omitted).

According to the City's rate study, under pro forma present rates for the future test year (FTY) ending December 31, 2020, the City would have \$10,450,387 in funds available to pay the lease payment, which is \$1.5 million more than required. Thus, without any rate increase, the City would be able to meet all of its expenses, pay the required amount to the Authority under the lease, and have additional cash flow of at least \$1.5 million.

OCA St. 1 at 24-25 (footnotes omitted). Even assuming some of Bethlehem's projections are accurate, OCA Witness Stacy Sherwood concluded that Bethlehem had a revenue deficiency of \$443,666 under traditional ratemaking, but that number remains speculative given the uncertainty of the projections and future operations. OCA St. 2S at 1-2; OCA Sch. SLS-1S at 2. Simply put, in the near term, Bethlehem's rates are adequate at this time. After the COVID-19 pandemic has passed, Bethlehem can file again for rate increases when the Company's financial projections will be founded on more stable, and thus predictable, economic conditions. Under normal circumstances, it would be reasonable for the Commission to approve an increase in Bethlehem's jurisdictional rates. OCA St. 1 at 25-26. Mr. Rubin explained that these are not normal conditions:

Businesses, small and large, throughout Pennsylvania are facing the very real prospect of not being able to pay their out-of-pocket expenses and laying off most or all of their workforce. They are facing negative returns on their investments. That is the real-world competitive market that regulation is trying to mirror.

OCA St. 1 at 26.

The current and projected ratepayer affordability of rates gives strong weight to the conclusion that granting Bethlehem's rate requests in this proceeding would unnecessarily harm ratepayers and not result in just and reasonable rates. If, however, the economic situation worsens significantly and cash flow becomes a concern for Bethlehem, the City could preserve cash by deferring for several months certain construction projects, such as growth-related projects or longer-term system rehabilitation activities, which are not needed to ensure the current provision of safe and reliable service to existing customers. OCA St. 1 at 30. In addition, Mr. Rubin explained that other large utilities have been taking advantage of the very low cost of debt and issuing 10-year notes or bonds at what are historically low

interest rates. Id. He explained that low-cost, long-term financing can help provide cash flow needed to keep existing rates in effect throughout the pandemic without suffering significant economic harm.¹² Id. Given the vast uncertainty and lack of support for Bethlehem’s claimed costs, the OCA submits that rate increases at this time are not necessary or reasonable.

2. Case Law From Similar Economic Circumstances Provides Precedent For the Commission to Deny A Rate Increase Due to Extreme Customer Hardships.

A rejection of Bethlehem’s rate increases due to the economic hardships and uncertainties accompanying the COVID-19 pandemic as well as the uncertainties surrounding the FTY projections, while not common by any means, would be a legally viable and not an unprecedented ratemaking solution during this abnormal time. OCA St. 1 at 22-24. When it comes to ratemaking, “[a]ll that is protected against, in a constitutional sense, is that the rates fixed by the Commission be higher than a confiscatory level.” Federal Power Comm’n v. Texaco, Inc., 417 U.S. 380, 392-92 (1974) (citing FPC v. Natural Gas Pipeline Co., 315 U.S. 575, 585 (1942)). On the topic of rate of return, the U.S. Supreme Court has held:

[t]he return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.

Bluefield Water Works & Improvement Co. v. Public Serv. Comm’n, 262 U.S. 679, 693 (1923). The Court has also held that, “whether a particular rate is ‘unjust’ or ‘unreasonable’ will depend to some extent on what is a fair rate of return given the risks under a particular rate setting, and on the amount of capital upon which the investors are entitled to earn on that return.” Duquesne Light Co. v. Barasch, 488 U.S. 299, 310 (1989) (Duquesne).

¹² Mr. Rubin noted that he had seen recent headlines for a gas utility issuing debt at a 2.2% interest rate and a utility in the southern U.S. issuing debt at 1.75%. OCA St. 1 at 30, n. 38 and 39. Bethlehem’s weighted cost of debt is in the range of 4.5%. Id. at n. 40; Bethlehem Exh. 3-A, p. 70.

It is clear that the Commission is required to balance the consumer and utility's interests. "The rate-making process..., *i.e.*, the fixing of 'just and reasonable' rates, involves a balancing of the investor and consumer interests . . . and does not insure that the business shall produce revenues." Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944) (Hope). "The owners of a property dedicated to the public service cannot be said to suffer injury if a rate is fixed for an experimental period, which probably will produce a fair return on the present fair value of their property." Market St. R. Co. v. Railroad Comm'n of Ca., 324 U.S. 548 (1945).

During the last large-scale nationwide pandemic, the Influenza of 1918, the Supreme Judicial Court of Massachusetts upheld a public service commission ratemaking order that was not expected to permit the utility to earn a profit due to the abnormal times. Donham v. Public Serv. Comm'n, 232 Mass. 309, 317, 122 N.E. 397, 401 (1919) (Donham). The court's stated:

To be just and reasonable, within the meaning of the constitutional guaranty, the rates must be prescribed with reasonable regard for the cost to the carrier of the service rendered and for the value of the property employed therein; but this does not mean that regard is to be had only for the interests of the carrier, or that the rates must necessarily be such as to render its business profitable, for reasonable regard must also be had for the value of the service to the public. And where the cost to the carrier is not kept within reasonable limits, or where for any reasons its business cannot reasonably be so conducted as to render it profitable the misfortune must fall upon the carrier, as would be the case if it were engaged in any other line of business.

Id., 232 Mass at 317, 122 N.E. at 401 (emphases added; quoting from Missouri, Kansas & Topeka Railway Co. v. Interstate Commerce Comm'n, 164 Fed. 645 (1908)). Although the utility was facing hardships of its own, the court noted that it did not deprive the commission of its regulatory responsibility to "exercise its judgment for the protection of the public interests when it does not reduce substantially the revenue proposed to be exacted from the public by the owners of the public utility." Donham, 232 Mass. at 326, 122 N.E. at 405. In addition, the court emphasized that the rates were "likely to be impermanent and experimental." Id. In reference to this case, Mr. Rubin testified that:

[t]he idea that ratemaking must adapt to extraordinary conditions is neither new nor novel. A century ago during another serious pandemic, regulators adapted, took actions that provided relief to the public, and did not inflict long-term harm on the utility.

OCA St. 1 at 24.

Here in Pennsylvania during the Great Depression, the Public Service Commission (PSC) called on utilities to reduce rates so that they would earn no more than 6% on their rate base. Re Utility Rates During Economic Emergency, 3 P.U.R. NS 123 (Pa. PSC 1934) (attached as Appendix E); In recognition that societal economic conditions should affect utility ratemaking, the PSC stated, “this Commission should take cognizance of the present economic conditions prevailing in the United States and as such economic conditions particularly affect the welfare of the people of this commonwealth.” Id. at 124. Similar to the result of the case in Massachusetts during the Influenza and the PSC’s action in response to the Great Depression, the OCA’s proposal to deny Bethlehem’s proposed increases in rates reflects both a viable and reasonable solution to the abnormal and unexpected set of circumstances under which the Commission is currently tasked with developing just and reasonable rates for a population of ratepayers financially distressed by a nationwide pandemic.

Denying Bethlehem’s requested rate increase due to the current societal economic conditions would be an appropriate and valid exercise of the Commission’s authority in this proceeding. Section 315(a) of the Public Utility Code places the burden of proving the reasonableness of a proposed rate on the utility. 66 Pa. C.S. § 315(a). The evidence necessary to meet that burden must be substantial. Lower Frederick Twp. Water Co. v. Pa. P.U.C., 48 Pa. Commw. 222, 409 A.2d 505, 507 (Pa. Cmwlth. 1980). In this case, Bethlehem has not proven that rate increases would be just and reasonable at this time.

The Commission would be fully within its authority to reject Bethlehem’s rate increase requests due to the current economic conditions because (1) rates would not be confiscatory as it is projected that the Company would continue to earn a profit in the near future and (2) simply put, it is only the opportunity to earn a fair return that a utility is entitled to. As the U.S. Supreme Court held in Hope, the “lowest

reasonable rate” is one that is not confiscatory in the constitutional sense. Hope, 320 U.S. at 586. The OCA’s calculations demonstrate that, at Bethlehem’s current rates, it will still earn a 7.70% and 2.84% overall rate of return for water and wastewater, respectively. See OCA App. A.1, Table I Total Water and Table I Total Wastewater. While this may not be a desirable rate of return for the Company, it is sufficient compensation in the constitutional sense and fully within the Commission’s authority.

3. The Principles of Public Utility Regulation Lend Support to the OCA’s Claim That Increasing Rates During This Financially Challenging Time For Ratepayers Would Not Lead to Just and Reasonable Rates.

To understand how just and reasonable rates are affected by a major economic event such as the COVID-19 pandemic, Mr. Rubin presented a valuable review of the regulated-monopoly framework of public utilities in this country and the determination of just and reasonable rates. OCA St. 1 at 4-9. Mr. Rubin testified that, “At its core, regulation is designed to protect utility consumers from what otherwise would be the unfettered power of a monopoly to set prices and the conditions of service.” OCA St. 1 at 5. Mr. Rubin explained that utility regulators should attempt to set rates within the “zone of reasonableness” which captures the interests of the ratepayers, the utility’s investors, officers and employees, and local governments whose residents are served by the utility. Id. at 6. Mr. Rubin explained that, under normal conditions, there is often an area of overlap of interests between utility customers and the utility, including its investors. Id.; Fig. 1. Within that area, regulators are provided a range of rates that utility customers would be willing and able to pay for service and investors would consider a reasonable return on their investment. Id. at 7.

However, Mr. Rubin testified, under certain conditions the two ranges may not overlap—creating no “zone of reasonableness” at all. Id. at 7. When this occurs, regulators are tasked with setting rates outside of one of the ranges, or both. Id. Under the above-described economic conditions faced by Bethlehem’s customers brought on by the pandemic, the range of rates the customers would be willing

and able to pay for service has shifted away from the range of rates which would, in the eyes of the utility, provide a reasonable return on investment.

Given the description of significant income loss experienced in Bethlehem's service territory discussed in Section III.B above, the OCA submits that keeping rates constant is a reasonable balance and completely lawful exercise of Commission authority. While this is not the profit Bethlehem would prefer, there is no reasonable basis for the City to have a higher return at this time. The OCA emphasizes that this is a temporary measure until future conditions are known.

As Mr. Rubin explained, regulation must always consider current economic conditions.

Mr. Rubin testified:

If regulation is supposed to be a substitute for market forces, then we must recognize that, except for those commodities experiencing significant imbalances of supply and demand due to the pandemic, competitive businesses cannot sustainably raise prices when their customers' incomes have decreased significantly. Simply stated, what may have been a "just and reasonable" rate earlier this year may be unreasonable today.

OCA St. 1 at 10 (emphasis added). Mr. Rubin also stated:

Importantly, though, regulation is not designed to insulate the utility or its investors from normal market forces, technological improvements, or general economic conditions. If market forces (such as technological change) result in significant reductions in the demand for service, then the utility may not be able to recover its costs. That is not a failure of regulation, but a natural evolution of the market -- businesses fail if they cannot keep up with changes in consumers' preferences or respond to technological innovations.

Similarly, if economic conditions change such that rates become unaffordable to many customers, rates may need to be reduced in order to remain "just and reasonable from the perspective of customers.

Id. at 5 (emphasis added).

Thus, rejecting Bethlehem's requested rate increase at this time is an appropriate result during the COVID-19 pandemic and an appropriate response to the market imbalance caused by Bethlehem's customers' reduced ability to pay utility bills. As explained above, this can be done and Bethlehem would still have sufficient income.

4. The Projections in Bethlehem's Early Pandemic Filing Cannot Be Given Any Credence in Determining Future Rates in a Vastly Different Economic Environment.

The OCA submits that the lack of reliability of Bethlehem's FTY projections in its filing submitted a few months after the pandemic reached its service territory is another basis for Bethlehem's rate increases to be rejected. Mr. Rubin testified:

The City filed this case on July 31, 2020, when its service area -- indeed the entire world - - was being devastated with the worst pandemic in a century. While I understand that it takes months to prepare a rate filing, and that Bethlehem may have prepared this case assuming "business as usual," there was nothing that compelled it to actually file the case. To state the obvious, life and business in the City's service territory are now anything but normal.

In particular, I am very concerned about the impact that significant rate increases would have on Bethlehem's customers at this time. To be blunt, this is not the time to impose higher costs on either people or businesses.

OCA St. 1 at 12. The OCA submits that the changes and uncertainties in FTY assumptions, including interest rates, construction expenditures, and other elements that enter into the ratemaking process, could not be accurately projected in the months leading up to Bethlehem's July filing or relied upon to make reasonable findings or conclusions in this proceeding.

Given the devastating financial impacts on customers and the uncertain economic future of the next few years and the unreliability of the projections, Mr. Rubin concluded:

Faced with this unprecedented public health and economic crisis, I respectfully submit that the Commission cannot treat this case as "business as usual." Almost no other business in Lehigh and Northampton Counties is conducting business as usual; residential consumers are using the City's services differently than they do during normal circumstances (few if any people are usually at home 24 hours per day, 7 days a week, preparing every meal at home, and so on).

Respectfully, the Commission cannot focus on Bethlehem's historic costs, or on cost projections prepared before the pandemic, and assume that the resulting rates will be "just and reasonable." The Commission must focus on what rates are reasonable for consumers to pay under these extraordinary conditions.

Id. at 19. This rate increase was requested at a time of extreme uncertainty not only in terms of the economy at large, but also in terms of projected customer usage, projected expenses, projected capital expenditures, and revenue required to provide service.

After reflecting OCA's accounting adjustments, the effect of Mr. Rubin's recommendation that no increase be granted unless an increase were necessary for the City to meet its financial obligations under the lease with the Bethlehem Authority, the effect would be a return on equity of 6.45% and an overall return of 5.65%. OCA Hearing Exh. # 1; OCA St. 1S at 5; OCA St. 2S at 2. Mr. Rubin concluded, "In light of the devastating effects of the pandemic on the City's customers, I consider this to be a just and reasonable result." OCA St. 1S at 5. The OCA therefore submits that the Commission should not accept Bethlehem's projections and should deny Bethlehem's requested rate increase.

D. Conclusion

With an unprecedented number of ratepayers unemployed and/or experiencing income loss – during this pandemic and in the foreseeable future – it is not reasonable to expect ratepayers currently struggling to pay utility bills to have the income to cover increased water bills if higher rates go into effect. Ratepayers are suffering during this pandemic and granting a request for an increase in water and wastewater rates, as if Bethlehem should be shielded from the economic impacts caused by this pandemic, would not be just and reasonable. As stated before, the OCA calculations establish that Bethlehem could continue water operations, recover all of its expenses at present rates in the near term. The OCA respectfully requests the Commission find that rates at present rates will provide the City sufficient compensation for the near future and deny this rate increase as it not an appropriate time to raise the rates paid by Bethlehem's customers who are currently struggling to navigate these turbulent economic times.

IV. ISSUES RESOLVED AMONG THE PARTIES

The OCA has entered into a Stipulation with the City regarding the issues raised in Mr. Fought's testimony, OCA Statements 5 and 5S. No other parties took any position regarding Mr. Fought's testimony in this proceeding.

The OCA will not oppose the OSBA's proposed scaleback if a revenue increase is approved.

V. RATE BASE

In testimony, the OCA disagreed with the City's level of plant in service in the FTY ending December 31, 2020. The OCA identified five projects that the City included that will not be in service until after December 31, 2020, and therefore should not be included under plant in service in the FTY. These adjustments, including the adjustments agreed to by the City, are discussed in Sections V.A–C, *infra*. Ms. Sherwood also adjusted cash working capital and that adjustment is addressed in Section V.B, *infra*. For the reasons discussed below, the OCA submits that its adjustments should be adopted.

A. Plant in Service

The City initially projected utility plant in service to be \$197,701,395 for the HTY ending December 31, 2019, and \$201,950,540 for the FTY. OCA St. 2 at 6. Thus, the City projected an increase of approximately \$4.3 million in utility plant in service. OCA St. 2 at 6. OCA witness Stacy L. Sherwood disagreed with the City's level of plant in service for the FTY, identifying five projects that the City included that “will not be in service until after December 31, 2020, [and] therefore, . . . should not be included under plant in service in the FTY.” OCA St. 2 at 6. Ms. Sherwood further explained as follows:

The Water Department included a well generator under Account 312.13 for \$75,000, \$956,000 for a WTP Emergency Generator and \$40,000 for the Water Treatment Plant Lower Roof Replacement project under Account 312.3 Purification Buildings, fire pump station engineering and construction under Account 316 for \$758,000 and \$72,378 for the Hecktown Road Bridge Main Replacement project under Account 322 Mains and Accessories in rate base for the FTY, for a total of \$1,901,378. As these projects will be placed into service outside of the test period, I recommend removing that amount from Utility Plant in Service.

Due to the adjustment in plant, I am recommending that the depreciation expense and accumulated depreciation also be adjusted to reflect the removal of that plant from FTY. The FTY depreciation expense and accumulated depreciation should both be reduced by \$26,662, which was calculated based upon the Water Department's depreciation rate for each account as detailed in Exhibit JJS-2.

OCA St. 2 at 6–7 (citation omitted); Sch. SLS-2 and SLS-9.

Ms. Sherwood explained her adjustment related to the decrease in utility plant in service in FTY for the PUC-jurisdictional customers as follows:

For the FTY, I am adjusting utility plant in service by \$770,694 and both the accumulated depreciation and depreciation expense each by \$10,781 for Outside-City Customers. The utility plant in service and accumulated depreciation adjustments are reflected in Schedule SLS-2. The depreciation expense adjustment of is reflected in Schedule SLS-9.

OCA St. 2 at 7.

In rebuttal, the City revised its numbers.¹³ The City also partially accepted Ms. Sherwood's adjustments to reduce the utility plant and associated changes to accumulated depreciation and depreciation expense adjustment. OCA St. 2S at 8. Ms. Sherwood explained as follows:

Mr. Spanos accepted my exclusions of Utility Plant for the well generator and the Water Treatment Plant Lower Roof Replacement project under Account 312.13 Wells and Springs, and the Hecktown Road Bridge Main Replacement Project under Account 322 Mains and Accessories. The Water Department excluded these projects as they have been delayed enough that they will not be completed before the end of Q1 2021. Collectively, Mr. Spanos reduced Utility Plant by \$181,278, including netting \$28,100 in related retirements which had previously been excluded from my direct testimony position. Additionally, Mr. Spanos recalculated the accumulated depreciation to be \$69,049,697, which is an increase of \$4,703, and reduced depreciation expense by \$3,387.

OCA St. 2S at 8–9. Ms. Sherwood agreed with Mr. Spanos' position that her direct testimony should have taken the netting of the associated retirements against the utility plant in service into account. OCA St. 2S at 9. However, the City did not accept the following OCA adjustments to plant in service:

Mr. Spanos did not accept my adjustments to exclude \$956,000 for a WTP Emergency Generator under Account 312.3 and \$758,000 for a fire pump station engineering and construction under Account 316. The Water

¹³ Ms. Sherwood accepted Bethlehem's revised numbers reflected in its rebuttal testimony and made adjustments from those revised numbers in her surrebuttal testimony. OCA St. 2S at 10.

Department's rationale for including these projects, despite their completion dates outside of the FTY, is that the projects would have been completed had the unforeseen circumstances in 2020 not occurred. Furthermore, Mr. Spanos argues that the projects will be completed within Q1 2021 and that not including these projects would result in improper recovery until the next rate case.

OCA St. 2S at 8–9.

Ms. Sherwood does not agree with Mr. Spanos' position that "the other two projects, equating to \$1.7 million in additional plant, should be included in the FTY." OCA St. 2S at 9. Ms. Sherwood explained as follows:

First, these two projects will be completed outside of the test period. Second, it is not clear that these projects will be completed by February 2021, as projected in Mr. Spanos' rebuttal testimony. As indicated in Bethlehem's response to I&E-RB-9, as of September 15, 2020, the WTP Emergency Generator had only incurred less than 1 percent of its budgeted cost and the Fire Pump Station incurred approximately 8 percent of its budgeted cost. Third, the unforeseen circumstances that delayed the projects in 2020 are still an issue heading into 2021 and could continue to delay the completion of these capital projects. Ratepayers could be at a disadvantage if these projects are included in rate base yet are subsequently delayed due to continued unforeseen circumstances. As a result, these projects should also be excluded.

OCA St. 2S at 9–10.

Ms. Sherwood detailed her surrebuttal position adjustments to rate base as follows:

First, I adjusted utility plant in service to reflect the removal of the WTP Emergency Generator and Fire Pump Station projects, netted against the WTP Emergency Generator retirement. I then adjusted the accumulated depreciation to reflect the removal of these capital projects, which is reflected on Schedule SLS-2S. Additionally, I made the associated adjustment to depreciation expense, which is reflected on Schedule SLS-8S. Finally, I adjusted the CWC to reflect the changes mentioned above to operations and maintenance expenses, excluding Uncollectible Expense. The adjustment to CWC is \$14,260 and is reflected on Schedule SLS-7S.

OCA St. 2S at 10 (citation omitted). The adjustments based on the Outside-city allocation factors are shown in Schedule SLS-2S and Appendix A.2, Table II.

B. Cash Working Capital

The City's rate base claim includes a Cash Working Capital claim of \$576,313. Sch. SLS-7S. The City's original Cash Working Capital claim was \$570,830. Schedule SLS-8. The City calculated this Cash Working Capital claim "based upon 12.5%, or one-eighth, of the operations and maintenance ("O&M") expense, excluding bad debt expense." OCA St. 2 at 12. OCA witness Sherwood also used this methodology, except that she adjusted the cash working capital to \$557,404, a \$13,426 adjustment, accounting for her recommended adjusted O&M expenses for Outside-City customers, as shown on Schedule SLS-8. OCA St. 2 at 12. However, Ms. Sherwood adjusted the CWC in surrebuttal to reflect changes to operations and maintenance expenses, excluding Uncollectible Expense. The updated adjustment to CWC is \$14,260, as shown on Schedule SLS-7S. OCA St. 2S at 10; App. A.2, Table II.

C. Conclusion

The OCA made specific adjustments to the City's claims to rate base related to projected plant that are not going to be in service by December 31, 2020. The OCA identified five projects that the City included that will not be in service until after December 31, 2020, and therefore should not be included under plant in service in the FTY. As explained above, the City has accepted the OCA's adjustments for three of the projects. For the reasons set forth above, the remaining two projects should not be included in rate base. The OCA also made an adjustment that addresses cash working capital. The OCA submits that its adjustments should be adopted.

VI. REVENUES

The OCA did not make any adjustments to the present level revenues reflected by the City.

VII. EXPENSES

A. Introduction

Ms. Sherwood made adjustments to a number of the City's claimed expenses. The expenses on which the City and OCA are in agreement include 1) chemicals, 2) uncollectible account, and 3) social security. OCA St. 2S at 8; OCA St. 2S at 2; OCA St. 2 at 4. The expenses at issue include expenses associated with 1) salaries and wages, 2) East Allen Township, 3) water filtration, 4) rate case, and 5) depreciation. OCA St. 2S at 4; OCA St. 2S at 5–6; OCA St. 2S at 7; OCA St. 2 at 11. App. A.2, Table II.

B. Chemical Expense

The City's original adjusted increase to the chemical expense was \$6,292. OCA St. 2S at 8. However, as part of its testimony and responses to data requests, the City noted that "[t]o properly reflect the prices for the FTY, Adjustment E-1 to the Chemical expense should have been \$24,927." OCA St. 2 at 4. The OCA agrees with the City's most recent adjustment increase. OCA St. 2S at 8.

C. Uncollectible Account Expense

The City and OCA agree on \$100,620 to reflect the uncollectible accounts and for \$39,584 of that amount to be allocated to Outside-City customers. OCA St 2S at 2; City St. No. 1R at 5. Initially, the City excluded the uncollectible expense from its filing. OCA St. 2 at 4. However, in rebuttal, City witness Heppenstall testified that the total amount of uncollectibles "should be added to the City's expense claim." City St. No. 1 at 7. The uncollectible expense would have been \$100,620 if the expense had been included, which would have been equal to the 2019 expense level. OCA St. 2 at 4. Of the \$100,620, "\$39,584 would have been allocated to Outside-City customers." OCA St. 2 at 4. Ms. Sherwood included these uncollectible expenses as part of the revenue requirement calculation, and explained as follows:

As OCA's recommended level of total change required in Bethlehem's revenue is below the amount requested, I have included the full \$100,620

to reflect the Uncollectible Accounts that was not originally included. Of that amount, \$39,584 is to be allocated to Outside-City customers. By reflecting the Uncollectible Account allocated to Outside-City customers, OCA's recommended change in revenue increased from \$627,073 to \$666,657. This adjustment is reflected on SLS-1, page 1.

OCA St. 2 at 5–6. The City accepted the adjustments in its rebuttal testimony. OCA St. 2S at 2.

D. Social Security

The City's original social security adjustment was for \$10,064. OCA St. 2 at 3. However, as part of the City's testimony and responses to data requests, it noted that the original social security expense was not properly adjusted. OCA St. 2 at 3. The City stated that it "should have used 7.65% multiplied by the FTY pro forma adjustment in salaries to calculate the pro forma adjustment for the FTY social security. The adjustment to the HTY for the Social Security expense should have been \$39,021, which would result in a total Social Security expense of \$281,972 for the FTY." OCA St. 2 at 3.

Ms. Sherwood "accept[ed] that the Social Security expense was incorrectly calculated, and therefore the revised adjustment proposed by Bethlehem, would correct that." OCA St. 2 at 4. Still, as noted in the Salaries and Wages section, *infra* Section VII.E., the social security expense is adjusted as a result of Ms. Sherwood's recommended adjustment to salaries. OCA St. 2 at 4; App. A.2, Table II.

E. Salaries and Wages

In Adjustment E10, the City "adjusted the salaries and wages for Water Supply and Treatment and Water Maintenance by a collective \$378,527 [and] made a corresponding adjustment for Social Security," as discussed in Section V.D, *supra*. OCA St. 2 at 7–8 (citing City St. 1 at 32). The City proposed pro forma adjustments to the HTY for 2019 and to the FTY for 2020. OCA St. 2 at 8. The City's reasoning for the 2021 pro forma adjustment was that "the rates will be effective one day following the end of the FTY and it will need to recover the expense in 2021." OCA St. 2 at 7.

Ms. Sherwood does not agree with the water department's use of the pro forma salaries and wages rates for the FTY. OCA St. 2 at 8. Ms. Sherwood explains that "[t]he expense falls outside the test period as the raises will not go into effect until January 1, 2021. This is improper as it violates the matching principal which requires revenues and expenses to be from the same period." OCA St. 2 at 8. Here, at no time in the FTY, "will Bethlehem incur the level of salaries and wages that it is claiming in this case." OCA St. 2 at 8. Thus, Ms. Sherwood explains her adjustment as follows:

I am adjusting the Salaries and Wages for the various departments to the pro forma expense levels for 2020, which results in an overall reduction in Salaries and Wages of \$79,697. In addition to the salary adjustment, the Social Security expense for the FTY should be \$304,839.57. This adjustment was allocated between Inside- and Outside-City allocation factors depending upon the department and is reflected in Schedule SLS-4.

OCA St. 2 at 8 ("Social Security is calculated as 7.65% of the total Salaries and Wages expense for the FTY"); Sch. SLS-5S.

The City did not accept Ms. Sherwood's proposed adjustment to salaries and wages and the associated adjustment to social security expense. OCA St. 2S at 4. Ms. Sherwood explained that "Ms. Heppenstall stated in her rebuttal testimony that the increase in Salaries and Wages expense occurs one day past the conclusion of the FTY and that the Water Department's union contract makes it known and measurable." OCA St. 2S at 4. Ms. Sherwood pointed out, however, that the City "chose to use a FTY that corresponds to the calendar year and reflects the accounting results during that 12-month period and not beyond that period. As a result, the consideration of expenses to be included in the FTY is limited to those incurred as of December 31, 2020." OCA St. 2S at 4. Ms. Sherwood added that the City "could have chosen a fiscal year for the FTY period or utilized a fully projected FTY to include the Salaries and Wages Expense and the associated Social Security Expense increases that are anticipated to occur on January 1, 2021." OCA St. 2S at 4. Therefore, the OCA submits that the Commission must deny the water department's reaching beyond the FTY to adjust salaries and wages. The OCA also submits that

the adjustment to salaries and wages, on a total basis, be \$79,698 and the adjustment to Social Security and Medicare, on a total basis, be \$6,096. Sch. SLS-5S. The adjustments based on the amounts allocated to Outside-City customers are \$30,913 and \$2,365. App. A.2, Table II.

F. East Allen Township Expenses

To account for the fluctuation of the Equipment Maintenance Expense and Other Expenses categorized under East Allen Township, Ms. Sherwood recommended “that the FTY be adjusted to reflect the normalized expense over a three-year period, 2017 through 2019, to account for the fluctuations and one-time expenses.” OCA St. 2 at 9. Thus, because “[t]he normalized expense for the Equipment Maintenance Expense is \$16,767 and for the Other Expenses is \$137,773,” Ms. Sherwood recommended that “the FTY . . . be adjusted by \$17,838, and \$27,374, respectively. Collectively, the total adjustment is \$45,212.” OCA St. 2 at 9. “Using the allocation factors identified in Exhibit CEH-1 Schedule D, [Sherwood] allocated \$16,692 of the total adjustments to the East Allen Township to Outside-City customers. This adjustment is reflected in Schedule SLS-5.” OCA St. 2 at 9;

The City did not accept Ms. Sherwood’s recommendations to adjust the East Allen Township expenses for equipment maintenance and other expenses. OCA St. 2S at 4–5. Ms. Sherwood explained as follows:

In regard to the equipment maintenance related expenses, Ms. Heppenstall stated that these are related to annual emergency equipment expenses to operate and maintain the aging plant and infrastructure. Ms. Heppenstall indicated that the other expenses are related to increased expenses related to PA Department of Environmental Protection (“DEP”) regulations which are expected to continue at that level of expense going forward. Finally, Ms. Heppenstall indicated that if the Water Department did accept my proposed adjustment for the East Allen Township, then my adjustment should be reduced by \$17,838, or a reduction of \$6,586 to Outside City customers, as the equipment maintenance is included in the other expenses category and resulted in a double adjustment.

OCA St. 2S at 5. Ms. Heppenstall also argued “that the most recent year’s expenses for the maintenance expense are representative of the expenses going forward.” OCA St. 2S at 5.

Ms. Sherwood partially agreed with the City’s position. OCA St. 2S at 5. She testified that “Ms. Heppenstall’s position regarding the DEP regulation expenses that have increased from the prior years and will serve as the known and measurable costs going forward.” OCA St. 2S at 5. Thus, Ms. Sherwood “accept[ed] the other expense cost level related to the DEP regulation expense.” OCA St. 2S at 5. For her surrebuttal position, Ms. Sherwood eliminated her “adjustment related to the other expense DEP related costs and limit[ed her] adjustment for the East Allen Township to the normalization of the equipment maintenance expense.” OCA St. 2S at 6. Specifically, Ms. Sherwood used the actual expense levels from 2017, 2018, and 2019 expenses (\$4,048, \$11,648, and \$34,605, respectively) and normalized them to account for fluctuations and one-time expenses in equipment maintenance expense. Her remaining adjustment, which is reflected in Schedule SLS-3S, “reflects a single adjustment to the equipment maintenance expense in the amount of \$17,838 for Bethlehem, of which \$6,586 is allocated to Outside City customers.” OCA St. 2S at 6. This adjustment revised her direct testimony adjustment of \$45,212 to the East Allen Township expenses. OCA St. 2S at 6.

As noted, Ms. Sherwood did “not agree with Ms. Heppenstall’s argument that the most recent year’s expenses for the maintenance expense are representative of the expenses going forward.” OCA St. 2S at 5. The ratemaking technique of normalization is “used to smooth out the effects of an expense item that occurs at regular intervals, but in irregular amounts, and is a proper adjustment to make the test year expense representative of normal operations.” Pa. P.U.C. v. Total Environmental Solutions, Inc., 2008 Pa. PUC. LEXIS 42, *98 (2008). *A Guide to Utility Ratemaking* states that regularly occurring

expenses should be normalized so that expenses are fairly recovered on an annual basis.¹⁴ In this case,

Ms. Sherwood explained that:

Although equipment repairs will occur annually, the types of repairs vary from year to year, as well as the expenses incurred. An annual cost variance is reflected in the equipment maintenance expense, which was \$4,048 in 2017; \$11,648 in 2018; and \$34,605 in 2019. It is not reasonable to expect that the annual equipment maintenance expense will remain at the 2019 levels given the historical expenses in prior years.

OCA St. 2S at 5–6 (citations omitted).

The City’s position is not based on the actual levels of the expense. Additionally, the City has not provided any evidence that the 2019 level is representative of expenses going forward. Thus, the OCA recommends that the FTY expenses be adjusted by \$6,586, to reflect a normalized level of expense to account for fluctuations and one-time expenses in equipment maintenance expense. Sch. SLS-3S; App. A.2, Table II.

G. Water Filtration Expenses

Several of the expenses included in the expenses for the water filtration vary annually. OCA St. 2 at 9. In the City’s response to several of I&E’s interrogatories, “it was identified that the costs can vary from year-to-year depending on the needs of the system.” OCA St. 2 at 9-10. Specifically, the City “identified that the Department Contracts Expense, Heating Oil Expense, and Equipment Maintenance Expense include either one time expense or fluctuating expenses.” OCA St. 2 at 10.

To account for the fluctuation of those three expenses, Ms. Sherwood recommended the following:

I recommend that the FTY be adjusted to reflect the normalized expense over a three-year period, 2017 through 2019, to account for the fluctuations and one-time expenses. The normalized expense for the Department Contracts Expense is

¹⁴ James H. Cawley & Norman J. Kennard, *A Guide to Utility Ratemaking*, Pa. Pub. Util. Commission 86 (2018), https://www.puc.pa.gov/General/publications_reports/pdf/Ratemaking_Guide2018.pdf.

\$169,957, the Heating Oil Expense is \$42,986, and the Equipment Maintenance Expense is \$51,213 and as a result, the FTY should be adjusted by \$3,677, \$13,442, and \$23,458, respectively. Collectively, the total adjustment is \$40,577.

OCA St. 2 at 10. Ms. Sherwood's adjustment to those three expenses, which she reached "[u]sing the allocation factors identified in Exhibit CEH-1 Schedule D, [is] \$14,981 of the total adjustments to the Water Filtration Expenses to Outside-City customers. This adjustment is reflected in Schedule SLS-6." OCA St. 2 at 10;

The City did not accept Ms. Sherwood's normalization adjustment to the water filtration related expenses for department contracts, heating oil, and equipment maintenance. OCA St. 2S at 6. She explained as follows:

First, Ms. Heppenstall rejected my adjustment to department contracts expense because the incorrect values were used for the adjustment, but does not provide any justification as to why this expense should not be normalized. Ms. Heppenstall rejected my adjustment to heating oil because the expense did not fluctuate over the years 2017 through 2019. Finally, Ms. Heppenstall rejected the equipment maintenance expense for the same reason as this expense item under the East Allen Township, which is that this account is related to repairs required to maintain the aging plant and infrastructure.

OCA St. 2S at 6-7.

Ms. Sherwood partially agreed with the City's position. OCA St. 2S at 7. She explained that she recognized that she "utilized the wrong values for the Department Contracts in [her] direct testimony." OCA St. 2S at 7. Therefore, in her surrebuttal, she "corrected these values to reflect the accurate Department Contracts expense," updating her figure to \$172,364. OCA St. 2S at 7; Sch. SLS-4S. Ms. Sherwood further accepted "Ms. Heppenstall's reasoning to accept the heating oil expenses." OCA St. 2S at 7. However, Ms. Sherwood disagreed with Ms. Heppenstall's rebuttal position regarding the equipment maintenance expense for Water Filtration expenses. OCA St. 2S at 7. Thus, for her surrebuttal position, Ms. Sherwood "adjusted the Water Department contracts to reflect the actual expenses from

2017 through 2019 to determine the normalized expense level for the FTY.” OCA St. 2S at 7. She also “maintained [her] adjustment to normalize the equipment maintenance expense [and a]s a result, [her] surrebuttal adjustment to Water Filtration is \$24,728 for Bethlehem, of which \$9,130 is allocated to Outside City customers and is reflected on Schedule SLS-4S. OCA St. 2S at 7. Therefore, the OCA recommends an adjustment to Water Filtration of \$24,728 for Bethlehem, of which \$9,130 should be allocated to Outside City customers. OCA St. 2S at 7; Sch. SLS-4S; App. A.2, Table II.

H. Rate Case Expense

The City proposes to normalize its projected \$414,560 rate case expense over three years. OCA St. 2 at 10. Its justification for the three year normalization period is that the period between the current and the last rate case, filed in 2013, was an abnormality and that prior cases filed between 2007 and 2011 followed a pattern more reflective of how the City expects to file rate cases in the future. OCA St. 2S at 3. Ms. Sherwood does not agree with this claim. OCA St. 2 at 10. Instead, Ms. Sherwood bases her adjustment to the normalization period on the average historical time between the City’s last three rate filings, which results in a 52-month normalization period. OCA St. 2 at 10.

The Commission has consistently held that that rate case expenses are normal operating expenses, and normalization should, therefore, be based on the historical frequency of the utility’s rate filings. Popowsky v. Pa. P.U.C., 674 A.2d 1149, 1154 (Pa. Cmwlth. 1996); Pa. P.U.C. v. Columbia Water Co., 2009 Pa. PUC LEXIS 1423 (2009); City of Lancaster (Sewer Fund) v. Pa. P.U.C., 793 A.2d 979 (2002) (Lancaster 2002); Pa. P.U.C. v. Roaring Creek Water Co., 73 Pa. PUC 373, 400 (1990); Pa. P.U.C. v. West Penn Power Co., 119 PUR4th 110, 149 (PaPUC 1990). In recent cases the Commission reiterated that the normalization period is determined, “by examining the utility’s actual historical rate filings, not upon the utility’s intentions.” Pa. P.U.C. v. City of Lancaster, 2011 Pa. PUC LEXIS 1685 (2011) (Lancaster 2011); Pa. P.U.C. v. Metropolitan Edison Co., 2007 Pa. PUC LEXIS 5 (2007); Pa. PUC v.

City of Dubois – Bureau of Water, Docket No. R-2016-2554150 (Order entered May 18, 2017, at 65) (City of Dubois). Basing the normalization period on historical filing frequency is reasonable because it represents known and measurable data. Speculation about the timing of future filings cannot be relied on to determine the proper normalization period. See e.g., Lancaster 2011.

Ms. Sherwood testified that the City “is justifying its normalization period by stating that it is ‘a normal and reasonable period of time between rate cases going forward.’” OCA St. 2 at 10. However, Ms. Sherwood emphasized that “[t]he Water Department’s most recent rate case was filed on November 26, 2013, which is over six and a half years ago.” OCA St. 2 at 10–11. Further, “based upon the last three rate cases, the average historical time between filings does not provide support for the Water Department’s argument.” OCA St. 2 at 11. Thus, Ms. Sherwood made the following recommendation:

I am recommending that the normalization period be based on the average time between Bethlehem’s three most recent rate filings, which is 52 months, or four and one-quarter years. If Bethlehem recognizes the entirety of its projected rate case expenses, \$414,560, the three-year normalization period would result in an annual expense of \$138,187, compared to \$95,668 over a 52-month period. By changing the normalization period, I am recommending an adjustment of \$42,519. This adjustment is reflected in Schedule SLS-7. As shown in that adjustment, the full projected expenses have been included; however, the final rate case expense normalized over 4.25 years should be equivalent to the actual expenses incurred, with support.

OCA St. 2 at 11 (citation omitted). Ms. Sherwood also recommended the following adjustments to professional services:

Per Bethlehem’s response to I&E-RE-30-D Attachment A, the invoices related to the customer demand study equaled \$58,990, which is \$570 less than Adjustment E4. When normalized over 10 years, as proposed by the Water Department, my proposed adjustment is \$57. This adjustment is reflected in Schedule SLS-7. Combined with the adjustment to the normalization period for rate case expense, the total adjustment I recommend for Professional Services is \$42,576.

OCA St. 2 at 11.

The City accepted Ms. Sherwood's \$57 reduction for the demand study. OCA St. 2S at 2. However, the City did not accept Ms. Sherwood's proposed adjustment to normalize the rate case expense over 52 months, "nor did it accept the Bureau of Investigation and Enforcement's ("I&E's") recommendation of the same normalization period." OCA St. 2S at 3. In her surrebuttal testimony, "Ms. Heppenstall stated . . . that the longer period between rate cases since 2013 was an abnormality and indicated that the prior cases filed between 2007 and 2011 followed the two-year pattern." OCA St. 2S at 3.

Ms. Sherwood does not agree with the City's position, testifying as follows:

There could be many reasons why a utility does not file a rate case. There is Commission precedent to utilize the average period between rate cases to determine the normalization of the rate case expense, as I have done to calculate the normalization period in this case. This method is not to penalize Bethlehem; rather, it is a way to match the expense recovery over the average period of time of when cases are filed. It is based on historical filing frequency, rather than speculation by the utility of when it might file cases in the future. Therefore, I maintain my recommendation to utilize a 52-month normalization period. It is my understanding that the amount spent to date on rate case expense is \$259,402. Using the 52-month normalization period, I have adjusted the rate case expense to \$59,862, which is \$78,325 less than the Water Department's request. This adjustment is reflected on Schedule SLS-6S. The City should update its actual rate case expense to date as part of its rejoinder testimony so that an accurate rate case expense amount can be reflected in rates.

OCA St. 2S at 3–4. However, in the rejoinder testimony of Ms. Heppenstall, she stated that the City had "no revision to its projection." City St. No. 1RJ at 3. The City's actual rate case expense to date is substantially less than its projection. The OCA submits that the City's projection is not supported and it should have provided a more reasonable estimate of its total rate case expense.

Regardless of the level of rate case expense, the City's rate case expense normalization period must accurately reflect the City's filing history. The City's position, to normalize the \$414,560 rate case expense over three years, does not accurately reflect the City's filing history. OCA St. 2 at 10. Based

on the average time between the City's three most recent rate filings, it is reasonable and appropriate to use a normalization period of 52 months, or four and one-quarter years, to ensure consistency with past Commission precedent. OCA St. 2 at 11. Thus, the OCA recommends a 52-month normalization period. Using the City's originally proposed rate case expense of \$414,560, the adjustment would be \$42,519. See Sch. SLS-7. With the revision to reflect the actual rate case expense incurred by the City, Ms. Sherwood's adjustment to rate case expense is \$78,325. See Sch. SLS-6S; App. A.2, Table II.

I. Depreciation Expense

Ms. Sherwood made adjustments to the plant in service claims, as discussed in Section V, *supra*. The related depreciation expense adjustments are shown in Schedule SLS-2S.

VIII. RATE OF RETURN

A. Introduction

City witness Walker recommends an overall fair rate of return of 8.21%. City St. No 2 at 63; Sch. 1. If a 14% tax factor is applied, the overall fair rate of return recommendation would be 7.42%. Id. Mr. Walker’s recommendation includes a cost of equity of 10.2%, and a cost of debt of 5.77%. City St. No. 2, Sch. 1. The City uses a capital structure of 45% debt and 55% equity. OCA St. 3 at 78; City St. No. 2 at 14. The City’s 10.2% return on common equity includes multiple, unsupported adders (80 basis points for Bethlehem’s small size, 20 and 10 basis points for Bethlehem’s business risks) that should be rejected. OCA St. 3 at 64-68. The City’s proposed cost of capital is excessive as illustrated by the testimony of OCA witness David Garrett. OCA St. 3 at 47-49, 60-71. Mr. Garrett used a Discounted Cash Flow (DCF) analysis and a Capital Asset Pricing Model (CAPM) to arrive at his recommended cost of capital. OCA St. 3 at 30-46, 49-60. His analysis demonstrates that based on those two models, the average of the two approaches is a market-derived cost of common equity of 6.0%. However, Mr. Garrett recommends a “business as usual” approach cost of common equity of 8.50%, and after adjustment for the 14% tax factor, a common equity cost rate of 7.31%. Under Mr. Garrett’s analysis, the overall rate of return is 6.57%, based upon a capital structure of 48% debt and 52% equity.

<u>Capital Component</u>	<u>Proposed Ratio</u>	<u>Cost Rate</u>	<u>14% Tax Adjusted</u>	<u>Weighted Cost</u>
Long Term Debt	48.0%	5.77%		2.77%
Fund Equity	<u>52.0%</u>	8.50%	7.31%	<u>3.80%</u>
Total	100.0%			6.57%

OCA St. 3 at 6; Figure 1; Exh. DJG-17.

The OCA submits that in the event the Commission determines Bethlehem is entitled to an increase at this time, Mr. Garrett has presented a cost of capital proposal under a “business as usual” approach that accurately portrays the current low cost capital environment and reflects reasonable returns for investors, balanced with the concern for Bethlehem consumers who will be paying the increased rates. Mr. Garrett’s approach also considers the financial hardships facing many PAWC consumers as a result of the COVID-19 pandemic. OCA St. 3 at 6.

If the OCA’s recommendation that no increase be approved as a result of the ongoing COVID-19 pandemic and the related economic impact on Bethlehem’s customers is adopted, the resulting overall rate of return of 5.65% (with a capital structure of 52% equity and 48% debt), represents a fair rate of return that balances the interests of consumers and shareholders and would be in the public interest. *See, supra*, Section III; OCA Hearing Exh. #1; OCA M.B. App. A.1, Table I and I(A).

B. The Legal Framework for Determinant a Fair Rate of Return

The Commission is responsible for protecting the public interest. City of Pittsburgh v. Pa. P.U.C., 126 A.2d 777, 785 (Pa. Super. 1956) (City of Pittsburgh). Generally, a public utility is entitled to no more than a reasonable opportunity to earn a fair rate of return on shareholder investment. The Court in City of Pittsburgh stated that “[i]t is the function of the commission in fixing a fair rate of return to consider not only the interest of the utility but that of the general public as well. The commission stands between the public and the utility.” *Id.*

Typically, cost of capital is the starting point for determining a fair rate of return. Pa. P.U.C. v. Philadelphia Suburban Water Co., 71 Pa. PUC 593, 623 (1989) (PSWC 1989). The Commission has defined an appropriate rate of return as:

[T]he amount of money a utility earns, over and above operating expenses, depreciation expense and taxes, expressed as a percentage of the legally established net valuation of utility property, the rate base. Included in the ‘return’ are interest on long-term debt, dividends on preferred stock, and earnings on common stock equity. In other words, the return is the money earned from operations which is

available for distribution among the capital. In the case of common stockholders, part of their share may be retained as surplus.

Pa. P.U.C. v. Emporium Water Co., 95 Pa. PUC 191, 196, 208 PUR4th 502, 507 (2001) (EWC 2001) (quoting Public Utility Economics, Garfield and Lovejoy, 116 (1964)). Further, “[t]he return authorized must not be confiscatory, and must be based upon the evidence presented.” PSWC 1989, 71 Pa. PUC at 623 (citing Pittsburgh v. Pa. P.U.C., 165 Pa. Super. 519, 69 A.2d 844 (1949)).

A public utility with facilities and assets used and useful in the public service is entitled to no more than a reasonable opportunity to earn a fair rate of return on its investment. Pa. P.U.C. v. Roaring Creek Water Co., 87 Pa. PUC 826, 844 (1997). The United States Supreme Court established the standard with which to evaluate whether a rate of return is fair in Bluefield, stating:

The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management. . .to raise the money necessary for the proper discharge of public duties.

262 U.S. at 693. The Court also said that allowed rates of return should reflect the following:

[A] return on the value of the [utility’s] property which it employs for the convenience of the public equal to that. . .being made at the same time... on investments in other business undertakings which are attended by corresponding risks and uncertainties.

Id. at 692. Twenty-one years later, the Court reviewed the issue of fair rate of return in Hope. Therein, the Court held that a fair rate of return “should be commensurate with returns on investments in other enterprises having corresponding risks” while being sufficient “to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital.” Hope at 603. The Court noted that “[t]he rate-making process under the Act, *i.e.*, the fixing of ‘just and reasonable’ rates, involves a balancing of the investor and consumer interests . . . and does not insure that the business shall produce revenues.” Id. More recently, the Court stated that consumers are obliged to rely upon regulatory

commissions to protect them from excessive rates and charges. See Permian Basin Area Rate Cases, 390 U.S. 747, 794-95 (1968) (citing Atlantic Refining Co. v. Public Serv. Comm'n, 360 U.S. 378, 388 (1959)).

Finally, in Duquesne Light Co. v. Barasch, the Court stated:

whether a particular rate is ‘unjust’ or ‘unreasonable’ will depend to some extent on what is a fair rate of return given the risks under a particular rate setting, and on the amount of capital upon which the investors are entitled to earn on that return.

488 U.S. 299 at 310. In determining a fair rate of return this Commission has described its task as follows:

A fair rate of return for a public utility, however, is not a matter which is to be determined by the application of a mathematical formula. It requires the exercise of informed judgment based upon an evaluation of the particular facts presented in each proceeding. There is no one precise answer to the question as to what constitutes the proper rate of return. The interests of the Company and its investors are to be considered along with those of the customers, all to the end of assuring adequate service to the public at the least cost, while at the same time maintaining the financial integrity of the utility.

Pa. P.U.C. v. Pennsylvania Power Co., 55 Pa. PUC 552, 579 (1982) (emphasis added). See Pa. P.U.C. v. National Fuel Gas Dist. Corp., 73 Pa. PUC 552, 603-605 (1990).

Regarding the determination of the cost of equity, the Commission relies primarily on the use of the DCF analysis, and has done so for many years.¹⁵ In January 2004, the Commission wrote:

Historically, we have primarily relied on the DCF methodology in arriving at our determination of the proper cost of common equity. We have, in many recent decisions, determined the cost of common equity primarily based upon the DCF method and informed judgment. *See Pennsylvania Public Utility Commission v. Philadelphia Suburban Water Company*, 71 Pa. PUC 593, 623-632 (1989); *Pennsylvania Public Utility Commission v. Western Pennsylvania Water Company*, 67 Pa. PUC 529, 559-570 (1988); *Pennsylvania Public Utility Commission v. Roaring Creek Water Company*, 150 PUR4th 449, 483-488 (1994); *Pennsylvania Public Utility Commission v. York Water Company*, 75 Pa. PUC 134, 153-167

¹⁵ See, e.g., Pa. P.U.C. v. City of Dubois, Docket No. R-2016-2554150, Order (Mar. 28, 2017); Pa. P.U.C. v. UGI Utilities, Docket No. R-2017-2640058, Order (Oct. 25, 2018); Pa. P.U.C. v. City of Lancaster – Bureau of Water, 2011 Pa. PUC LEXIS 1685 (2011); Pa. P.U.C. v. Emporium Water Co., 2008 Pa. PUC LEXIS 2076 (2006); EWG 2001, 95 Pa. PUC at 201, 208 PUR4th at 512; Pa. P.U.C. v. York Water Co., 75 Pa. PUC 134, 156-69 (1991); Pa. P.U.C. v. Philadelphia Suburban Water Co., 71 Pa. PUC 593, 631-32 (1989); Pa. P.U.C. v. Pennsylvania-American Water Co., 71 Pa. PUC 210, 279-82 (1989); Pa. P.U.C. v. The Peoples Natural Gas Co., 69 Pa. PUC 1, 167-68 (1989); Pa. P.U.C. v. Pennsylvania Power, 67 Pa. PUC 91, 164, 93 PUR4th 189, 266 (1988); Pa. P.U.C. v. National Fuel Gas Dist. Corp., 67 Pa. PUC 264, 332 (1988).

(1991); *Pennsylvania Public Utility Commission v. Equitable Company*, 73 Pa. PUC 345-346 (1990). We determine that the DCF method is the preferred method of analysis to determine a market based common equity cost rate.¹⁶

In its recent UGI-Electric decision, the Commission affirmed its primary reliance on the DCF method, stating that it has “found no reason to deviate from the use of this method in the instant case.”¹⁷ This Commission has stated that determining a fair rate of return is an exercise of informed judgment, based upon the facts of each case.¹⁸ “The interests of the Company and its investors are to be considered along with those of the customer, all to the end of assuring adequate service to the public at the least cost, while at the same time maintaining the financial integrity of the utility involved.”¹⁹

In coming to this informed judgment, the Commission has stated on numerous occasions its preference to rely upon the DCF methodology over other methods such as the Risk Premium (RP) and Capital Asset Pricing Model (CAPM) in determining the rate of return. In PPL’s 2012 and 2004 base rate case, the Commission reaffirmed its reliance upon the DCF method.²⁰ The Commission additionally noted, however, that while it is not required, other methodologies can be used to check DCF results.²¹

C. Capital Structure

Through its witness Walker, the City proposes a capital structure of 45% debt and 55% equity. City St. 2 at 13-. This is a hypothetical capital structure, proposed by the City pursuant to recently enacted Section 1301(b) of the Public Utility Code. 66 Pa. C.S. § 1301(b). Section 1301(b) requires the Commission to “employ an imputed capital structure of comparable public utilities” in setting rates, *inter alia*, for systems like the City. 66 Pa. C.S. § 1301(b).

¹⁶ *Pa. P.U.C. v. Pennsylvania-American Water Co.*, 99 Pa. PUC 38, 42 (2004), aff’d on other grounds, *Popowsky v. Pa. P.U.C.*, 868 A.2d 606 (Pa. Cmwlth. 2004); accord *Pa. P.U.C. v. Aqua Pa, Inc.*, 99 Pa. PUC 204, 233 (2004).

¹⁷ *Pa. P.U.C. v. UGI Utilities, Inc. – Electric Div.*, Docket No. R-2017-2640058, Order at 106 (Oct 25, 2018).

¹⁸ *Pa. P.U.C. v. Pennsylvania Power Co.*, 55 Pa. PUC 552, 579 (1982).

¹⁹ *Id.* at 579.

²⁰ *PPL 2012; Pa. P.U.C. v. PPL Electric Util. Corp.*, 237 PUR4th 419 (PaPUC 2004).

²¹ *PPL 2012* at 80.

Mr. Garrett concluded that the City's proposed hypothetical capital structure is "equity-rich" because the 55% equity component is far above the comparable public utilities. OCA St. 3 at 10. Using the data from the proxy group, Mr. Garrett addressed the appropriate imputed capital structure and found that a capital structure with 48% debt and 52% equity was reasonable. OCA St. 3 at 73-81. Mr. Garrett explained the general concept of the capital structure:

"Capital structure" refers to the way a company finances its overall operations through external financing. The primary sources of long-term, external financing are debt capital and equity capital. Debt capital usually comes in the form of contractual bond issues that require the firm to make payments, while equity capital represents an ownership interest in the form of stock. Because a firm cannot pay dividends on common stock until it satisfies its debt obligations to bondholders, stockholders are referred to as "residual claimants." The fact that stockholders have a lower priority to claims on company assets increases their risk and the required return relative to bondholders. Thus, equity capital has a higher cost than debt capital. Firms can reduce their WACC [weighted average cost of capital] by recapitalizing and increasing their debt financing. In addition, because interest expense is deductible, increasing debt also adds value to the firm by reducing the firm's tax obligation.

OCA St. 3 at 73-74. Mr. Garrett explained that there is an optimal debt ratio that will minimize the weighted average cost of capital (WACC). Id. at 74-75. However, Mr. Garrett explained that the rate base/rate of return model does not effectively incentivize a utility to operate at the optimal capital structure because a higher WACC results in higher rates, all else equal. OCA St. 3 at 76. He explained why that occurs:

The basic revenue requirement equation is as follows:

Revenue Requirement for Regulated Utilities

$$RR = O + d + T + r(A - D)$$

<i>where:</i>	<i>RR</i>	=	<i>revenue requirement</i>
	<i>O</i>	=	<i>operating expenses</i>
	<i>d</i>	=	<i>depreciation expense</i>
	<i>T</i>	=	<i>corporate tax</i>
	<i>r</i>	=	<i>weighted average cost of capital (WACC)</i>
	<i>A</i>	=	<i>plant investments</i>
	<i>D</i>	=	<i>accumulated depreciation</i>

As shown in this equation, utilities can increase their revenue requirement by increasing their WACC, not by minimizing it. Thus, because there is no incentive for a regulated utility to minimize its WACC, a commission standing in the place of competition must ensure that the regulated utility is operating at the lowest reasonable WACC.

Id. Mr. Garrett notes that utilities generally can have higher debt levels than other industries due to the large amount of fixed assets, stable earnings and low risk relative to other industries. OCA St. 3 at 77. He concludes that “Because utilities have low levels of risk and operate a stable business, they should generally operate with relatively high levels of debt to achieve their optimal capital structure.” Id. He recommends that the Commission can provide the incentive, to find the optimal debt ratio that is missing in the rate base/rate of return model, by setting rates consistent with a capital structure that is similar to what would be appropriate in a competitive environment. Id. at 78.

To determine the capital structure of comparable public utilities, Mr. Garrett reviewed the projected 2020 capital structure of the proxy group (that he and Mr. Walker used in this case) and found that the average debt ratios were 48%. OCA St. 3 at 79; Exh. DJG-16. This compares to Mr. Walker’s proposed 45% debt ratio. Mr. Garrett explained that he and Mr. Walker used the same proxy group and Value Line Invest Survey but Mr. Garrett’s review included more current information (October 9, 2020 versus Mr. Walker’s use of data as of January 10, 2020) given the timing of Mr. Garrett’s direct testimony. Id. Based on the Value Line data, Mr. Garrett recommends a capital structure of 48% debt and 52% equity. Id. Mr. Garrett also reviewed debt ratios for competitive industries to provide context and

information. OCA St. 3 at 79-81; Exh. DJG-15. He noted that the debt ratios in those competitive industries with debt ratios of at least 48%, (3,500 firms) have average debt ratios of more than 60%, including some industries that are relatively comparable to public utilities. See OCA St. 3 at 80-81; Figure 17.

In rebuttal, City witness Walker criticized Mr. Garrett because his sources may include short term debt. OCA St. 3S at 8. Mr. Garrett pointed out that he and Mr. Walker both used Value Line's report for the capital structure analysis and used figures described in the report as "Long-Term Debt Ratio". Id. Mr. Garrett also pointed out that the biggest difference is that Mr. Walker used debt ratios projected out to 2023-2025, while Mr. Garrett used proposed debt ratios to the end of 2020. Id. at 8-9. The 2020 debt ratios are "preferable because they are more current, reliable and accurate, and require less estimation (only a few months as opposed to several years). Id.

D. Cost of Debt

Mr. Garrett did not recommend an adjustment to the City's proposed cost of debt of 5.77%.
OCA St. 3 at 6.

E. Cost of Equity

1. Introduction

As discussed below, Mr. Garrett used the Discounted Cash Flow (DCF) model and the Capital Asset Pricing Model (CAPM) in determining a market based cost of equity of 6.0%. OCA St. 3 at 6. Mr. Garrett recommended a "business as usual" cost of equity of 8.50% noting that his recommendation was based on gradualism and the concern that awarding a return of 6.0% [under the business as usual scenario] would be a substantial movement away from the status quo. OCA St. 3 at 8-10. However, he cautioned that awarding an ROE that is too far above a regulated utility's cost of equity runs the risk of being at odds

with Hope and Bluefield, especially during the unique circumstances created by an unprecedented pandemic. Id. at 9. He explained his recommendation in recognition of the competing concerns:

An awarded ROE of 8.5% represents a good balance between the Supreme Court’s indications that awarded ROEs should be based on cost, while also recognizing that the end result must be just and reasonable under the circumstances. An awarded ROE of 8.5% represents a relatively gradual, yet decisive move toward Bethlehem’s market-based cost of equity, while still providing Bethlehem’s shareholders with the opportunity to earn a return that is about 250 basis points above Bethlehem’s market-based cost of equity (8.5% vs. 6.0%).

OCA St. 3 at 10. In no event should City witness Walker’s proposed 10.2% cost of equity determination be adopted as it is overstated due to violations of fundamental, widely accepted tenets in finance and valuation. The problems associated with Mr. Walker’s analyses, and his unsupported adders, result in a return on equity that is more than 400 basis points above the market-based cost of equity.

2. Business Risk and Financial Risk

Mr. Garrett explained the general concepts of determining a utility’s cost of capital. OCA St. 3 at 21-30. Mr. Garrett provided a description of the relationship between risk and return:

Risk is among the most important factors for the Commission to consider when determining the allowed return. Thus, it is necessary to understand the relationship between risk and return. There is a direct relationship between risk and return: the more (or less) risk an investor assumes, the larger (or smaller) return the investor will demand.

OCA St. 3 at 23. There are two types of risk – firm-specific risk and market risk. Id. Mr. Garrett explained that firm-specific risk affects individual companies and market risk “affects all companies in the market to varying degrees.” Id. Mr. Garrett provided specific examples of each type of risk, summarized below:

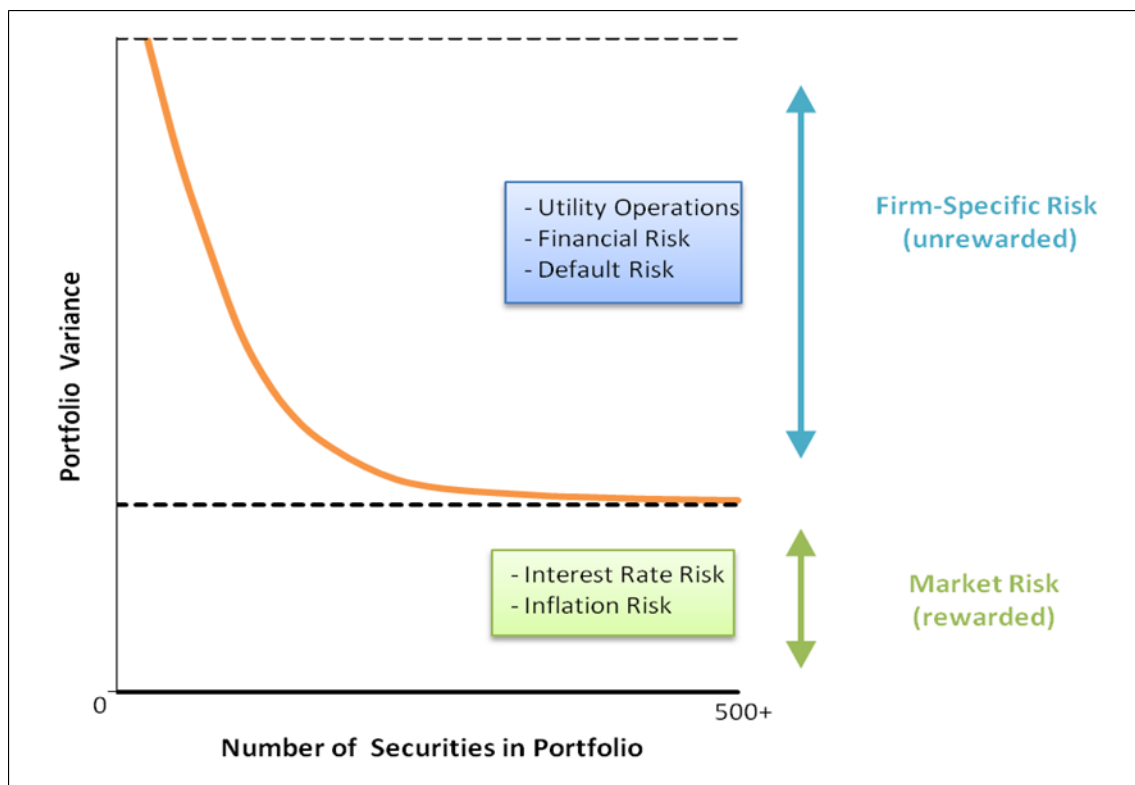
Firm-specific risk examples	
project risk.	a competitive firm might overestimate customer demand for a new product, resulting in reduced sales revenue
financial risk	the risk that equity investors of leveraged firms face as residual claimants on earnings
default risk	the risk that a firm will default on its debt securities
business risk	all other operating and managerial factors that may result in investors realizing less than their expected return in that particular company

OCA St. 3 at 23-24 (footnotes omitted). Examples of business risk include interest rate risk, inflation risk, and the risk of major socio-economic events. Id. at 24.

Mr. Garrett explained that from an investor perspective, firm-specific risk, also called diversifiable risk, can be eliminated through diversification. OCA St. 3 at 25. This fundamental concept in finance establishes that rational investors can add more stocks to their portfolio to seek to eliminate risk. Id. Diversification eliminates firm-specific risk for two reasons. First, each stock in a diversified portfolio represents a much smaller percentage of the overall portfolio than it would if the portfolio had just one or two stocks. Id. Second, the “effects of firm-specific actions on stock prices can be either positive or negative for each stock. Thus, in large diversified portfolios, the net effect of these positive and negative firm-specific risk factors will be essentially zero and will not affect the value of the overall portfolio.” Id. (footnotes omitted). Eliminating firm-specific risk through diversification means that the market does **not** reward firm-specific risk through higher returns. OCA St. 3 at 26. Mr. Garrett explained that firm-specific risk is also called “unrewarded” risk for that reason.

In contrast, market risk, also called systematic risk, cannot be eliminated through diversification, and investors expect a return for assuming that type of risk. Id. Market risk is the “only type of risk for which investors expect a return for bearing.” Id. Mr. Garrett provided an illustration of the type of risk and what is unrewarded and what is addressed through return:

Effects of Portfolio Diversification



OCA St. 3 at 27; Figure 4. Market risk is the only type of risk that is rewarded by the market and is the “primary type of risk the Commission should consider when determining the allowed return.” Id.

The measurement of market risk is done by determining the amount of risk that a single stock adds to the overall market portfolio. Mr. Garrett explained that “investors measure the “covariance between a single stock and the market portfolio. The result of this calculation is called ‘beta.’”. OCA St. 3 at 27-28. Beta represents the “sensitivity of a given security to the market as a whole.” Id. at 28. The entire market of all stocks has a beta of 1. Id. Stocks with a beta greater than 1.0 are more sensitive to market risk than the average stock. Id. Stocks with betas lower than 1.0 are “relatively insulated from market conditions. Id.

Public utilities are characterized as having low betas, low market risk and are relatively insulated from overall conditions. OCA St. 3 at 28. Public utilities, with betas less than one, are categorized as “defensive stocks” according to Mr. Garrett, and are one of the least risky industries in the U.S. market. Id. at 28-29, Figure 5. This is beneficial to society, especially when the business cycle enters a recession. OCA St. 3 at 30. Mr. Garrett explained that the utility companies’ position as a defensive stock and a low risk industry should be reflected in Bethlehem’s awarded return. Id.

3. Proxy Group

If a utility is not publicly traded, use of a proxy group of companies is a necessity because the financial models use information from publicly traded firms. OCA St. 3 at 22. The proxy group can be used to assess the financial soundness of a utility and provides more reliability and confidence in the overall results from the financial models due to the larger sample size. Id. Mr. Garrett chose to use the same proxy group as City witness Walker. Id.

4. The Commission Should Adopt the Equity Cost Rate And Overall Return Calculated By Mr. Garrett As The Appropriate “Business As Usual” Cost of Capital For Bethlehem

a. Discounted Cash Flow Analysis

Mr. Garrett used a Quarterly Approximation Discounted Cash Flow (DCF) Model²² that accounts for the quarterly growth of dividends. OCA St. 3 at 30. The DCF model is based on the concept that says that “the value of a security is equal to the present value of the future cash flow that it generates.” Id. Cash flow from stocks is in the form of dividends paid to investors. Id. Mr. Garrett explained that there are “three primary inputs in the DCF model²³: (1) stock price; (2) dividend; and (3) long-term growth

²² Mr. Garrett explained that there are several variations of the DCF model. OCA St. 3 at 30; Appendix A. He notes that the quarterly model that he used here produces the highest cost of equity estimates compared to other DCF model variations. Id.

²³The Quarterly Approximation DCF Model is shown in Equation 2. OCA St. 3 at 31.

rate.” OCA St. 3 at 30. The stock price and dividend are recorded data for the proxy group while the growth rate projection needs to be estimated. Id. at 30-31.

i. Stock Price

Mr. Garrett used the 30 day average of stock prices for each company in the proxy group. OCA St. 3 at 31; Exh. DJG-3. He determined that the short-term historical average was better than a one-day spot stock price, even though it is historical data, because it represents a good balance and avoids the problems associated with a one-day stock price. Id. Using a one-day stock prices is problematic in the rate case setting for a number of reasons. First, in a rate case that covers a significant length of time between filing and testimony, a one-day stock price would raise a separate issue of which day to use. In addition, a one-day stock price could be unusually high or low. Id. Mr. Garrett’s stock prices are more recent than City witness Walker’s but there is not a statistically significant difference. OCA St. 3 at 33.

In rebuttal, City witness Walker criticizes Mr. Garrett for not using a longer time period. City St. 2R at 14. Mr. Garrett explained that the 30-day period is advisable but recognizes that others may “choose longer periods of time, which is not necessarily unreasonable”. OCA St. 3S at 3-4. He noted that the primary factor accounting for the discrepancy between his analysis and Mr. Walker’s was not the length of time for the stock price averages, but the long-term growth rate inputs. Id. at 4.

ii. Dividend

The dividend input in the Quarterly Approximation DCF Model is the current quarterly dividend per share. OCA St. 3 at 32 Exh. DJG-4. Mr. Garrett used the most recent quarterly dividend paid for each proxy group company. Mr. Garrett noted that the Quarterly Approximation DCF Model assumes that the company increases its dividend payments each quarter. Id. at 33. This quarterly compounding of dividends explains why the quarterly model, versus the annual or semi-annual DCF models, results in the

highest cost of equity estimates, all else held constant. Id. Mr. Garrett’s dividends are more recent than City witness Walker’s but there is not a statistically significant difference. OCA St. 3 at 33.

iii. Growth Rate

Mr. Garrett described the growth rate as the most critical input used in the DCF model. OCA St. 3 at 34. He addresses the growth rate and his analysis, as well as explains why other determinants of growth rates are not reasonable to use in this case.²⁴ OCA St. 3 at 34-46. The DCF model used in this case is the constant growth valuation model. Id. at 34. That model assumes that the growth rate will stay at a constant rate forever. This is reasonable when used to determine the cost of equity for low-growth firms such as utilities. Id.

To estimate the long-term growth rate used in the stable-growth DCF model, a fundamental concept in finance must be kept in mind, that is, “that no firm can grow forever at a rate higher than the growth rate of the economy in which it operates.” OCA St. 3 at 39. The terminal growth rate used in the DCF model should not exceed the aggregate economic growth rate, especially because public utilities have defined service territories. Id. Mr. Garrett states that it is reasonable to assume that a regulated utility would grow at a rate that is less than the U.S. economic growth rate, often measured by the Gross Domestic Product (GDP). Id. The “long-term forecast for nominal U.S. GDP growth is about 4%, which includes an inflation rate of 2%.” OCA St. 3 at 39. Mr. Garrett explained that the risk-free rate is sometimes used for the terminal growth rate in the DCF model because the risk-free rate “will converge on the growth rate of the economy”. Id. at 40. For companies like utilities, the terminal growth rate, according to Mr. Garrett, “will likely fall between the expected rate of inflation and the expected rate of

²⁴Mr. Garrett reviewed other determinants such as historical growth rates, analyst growth rates, and fundamental determinants of growth and explained why none would provide a better indication for determining low-growth, utility growth rates. OCA St. 3 at 35-36.

nominal GDP growth.” OCA St. 3 at 39-40. For Bethlehem, that means a terminal growth rate between 2% and 4%. Id. at 40. Mr. Garrett also explained that a qualitative analysis needs to be undertaken to determine the growth rate to be used in the model. OCA St. 3 at 41-45.

Mr. Garrett examined various qualitative determinants and maximum growth rates under basic principles of finance and economics to arrive at a terminal growth rates ranging from 1.5% to 3.9%. OCA St. 3 at 46; Exh. DJG-5. He selected the maximum growth rate of 3.9% which means “my model assumes that Bethlehem’s qualitative growth in earnings will qualitatively match the nominal growth rate of the entire U.S. economy over the long run – a charitable assumption.” Id. When that growth rate is used in the DCF model, along with the stock and dividend figures determined above, the resulting cost of equity estimate for Bethlehem is 6.1%. OCA St. 3 at 47; Exh. DJG-6.

In rebuttal, City witness Walker criticized Mr. Garrett for the long-term growth rate that Mr. Garrett used in his DCF analysis. Mr. Garrett noted that qualitatively, using the projected annual U.S. GDP as the long-term growth rate for each utility overstates the growth rate because it is unlikely that utilities’ growth rate would be higher than the GDP.²⁵ OCA St. 3S at 4. In addition, even if a specific utility’s historical earnings growth outpaces GDP growth over some period of time, its earnings would not outpace GDP growth over the long run and it would be unreasonable to assume such growth rates to infinity, as is required in the DCF model. Id. at 4-5. Also, it is inappropriate to assume a utility’s historical earning growth would exceed GDP in the DCF model because they are not “qualitative” growth rates (i.e., based on a new product, or market, for example) and contribute to the circular reference problem. OCA St. 3S at 5; OCA St. 3 at 44-45, 70-71.

²⁵ As Mr. Garrett noted, by using the average U.S. GDP growth rate, there are companies that will have higher than average growth rate and those that will have lower than average growth rate. OCA St. 3S at 4. Typically, the younger, high growth firms reinvest earnings into growth opportunities rather than paying dividends, while low-growth stocks have higher dividend yields.

b. Critique Of City Witness Walker's DCF Model Analysis

City witness Walker's DCF analysis produced a cost of equity of 9.2%. OCA St. 3 at 47; City Exh. HW-1, Sch. 12 at 1. Mr. Garrett found that City witness Walker's DCF Model results are overstated because of a fundamental error in his growth rate inputs. OCA St. 3 at 47-48. First, Mr. Walker's assumed growth rate is 9.2% which is more than two and a half times as high as the projected long-term nominal U.S. GDP growth. OCA St. 3 at 47; City St. 2 at 40-41. As Mr. Garrett explained, this violates the basic finance principal that no company can grow at a rate greater than the economy in which it operates. Id. Another flaw in City witness Walker's growth rate determination is his reliance on analysts' short-term quantitative growth estimates. OCA St. 3 at 47-48. Analysts at Zacks, Value Line, and Bloomberg publish estimated projections of earnings growth for utilities. OCA St. 3 at 45. The estimates are short-term growth rate projections that range from 3-10 years. Id. Mr. Walker admits that his growth rate projections are short term, 5-year estimated projections. OCA St. 3 at 48; City St. 2 at 40. Short term growth rate projections are not appropriate to use in the DCF model which requires long-term growth rates. Not only is that use in the DCF model fundamentally different than the analysts' short-term projections, it is an unrealistic assumption. OCA St. 3 at 44-45. Mr. Garrett provided an example of why an estimated short-term growth projection, used as a long-term growth projection, is not realistic:

Mr. Walker assumes a long-term growth rate estimate of 9% for York Water Co.²⁶ This means that an analyst at Value Line apparently thinks that York Water's earnings will quantitatively increase by 9% each year over the next several years (*i.e.*, the short-term). However, it is Mr. Walker, not the commercial analyst, who is suggesting to the Commission that York Water's earnings will more than double U.S. GDP growth each year, every year, for many decades into the future (*i.e.*, long-term growth). Again, Mr. Walker is extrapolating the analyst's conclusions well beyond what the analyst actually said. Furthermore, this assumption is simply not realistic, and it contradicts fundamental concepts of long-term growth. Many of Mr. Walker's other short-term growth rate estimates also exceed projected U.S. GDP growth.

²⁶ Exhibit HW-1, Sch. 13.

OCA St. 3 at 48.

c. Capital Asset Pricing Model

Mr. Garrett provided a description of the Capital Asset Pricing Model (CAPM):

The CAPM is a market-based model founded on the principle that investors expect higher returns for incurring additional risk. The CAPM estimates this expected return. The various assumptions, theories, and equations involved in the CAPM are discussed further in Appendix B.

OCA St. 3 at 49 (footnote omitted); App. B. The CAPM directly considers the amount of risk in a business and has three inputs: (1) the risk-free rate; (2) the beta coefficient; and (3) the equity risk premium (ERP).

Id. Mr. Garrett performed a CAPM analysis that resulted in a cost of equity of 5.9%. OCA St. 3 at 49-60. Recognizing that the Commission relies on the DCF, the OCA notes that Mr. Garrett's CAPM result supports the DCF result he calculated.

In rebuttal, Mr. Walker criticizes Mr. Garrett's ERP, referring to the expert surveys that calculated ERP as "articles". OCA St. 3S at 5-7. As noted by Mr. Garrett, Mr. Walker mischaracterizes the sources Mr. Garrett relied on for the ERP (in addition to his own calculation of the ERP). The surveys are not the opinion of one person, they are expert surveys that include the opinions of more than 2,000 experts in the U.S regarding the ERP. Id. at 7. Moreover, Mr. Garrett noted that he chose the highest result out of the range (6.0%). Id.

d. Critique of City Witness Walker's CAPM Analysis

City witness Walker's average CAPM analysis produced a cost of equity of 9.2%. OCA St. 3 at 60; City Exh. HW-1, Sch. 17 at 1. Mr. Garrett found that City witness Walker's CAPM Model results are overstated because of his estimates for the risk free rate and the ERP, and the use of a size premium. OCA St. 3 at 60-67. Mr. Walker used 2.4% for the risk free rate. OCA St. 3 at 61. This is flawed for a number of reasons. First, the current yields on 30-year Treasury Bonds, the best estimate for the risk-free rate, is about 1.5% and has not been as high as 2.4% for the entire year. Id. Second, Mr. Walker's use of projected

information results in an upward bias. Id. Mr. Walker did not use a reasonable measure for the ERP, one of the three inputs in the CAPM. OCA St. 3 at 62-63. Mr. Walker's ERP ranged as high as 9.1%. Id. The highest ERP found by Mr. Garrett, using three widely accepted methods for estimating ERP, was 6.0%. Id. Mr. Garrett provided a chart (Figure 12) that shows that Mr. Walker's ERP estimate is "far out of line with other reasonable, objective estimates for the ERP." OCA St. 3 at 63. Both of these inflated estimates cause Mr. Walker's CAPM cost of equity to be overstated. Id.

In addition to these unreasonable assumption, City witness Walker adds 0.80% or 80 basis points to his CAPM results as a size premium adjustment. OCA St. 3 at 64. Mr. Garrett explained that this size premium is without any foundation and should be rejected. OCA St. 3 at 64-67. First, numerous studies have shown that small cap stocks do not outperform large cap stocks. OCA St. 3 at 64-66. Mr. Garrett explained that the "size premium is a dead phenomenon." OCA St. 3 at 65.

In addition, Mr. Garrett explained that Mr. Walker was incorrect that there should be a size premium adjustment to account for the proxy group's relatively low betas. OCA St. 3 at 66. First, the betas already account for the theory that the low-beta stocks might tend to be underestimated. Id. Second, there is empirical evidence that the beta-adjustment method overstates betas for the low-beta industries like utilities. Id.; App. B.

e. Other Flaws In City Witness Walker's Cost Of Equity Recommendation.

City witness Walker also provides another adjustment (Bethlehem specific business risk) and comparable and expected earnings analyses that are without merit and should be rejected. Mr. Garrett reviewed City witness Walker's adjustment for business risk that is specific to the City and Mr. Walker's comparable and expected earnings analyses. OCA St. 3 at 67-71. Mr. Walker added 0.10%, or 10 basis points, to his cost of equity results due to the City-specific risks. OCA St. 3 at 67; City St. 2 at 60-61.

Mr. Garrett explained that this adder is not based on accepted financial principles. Firm specific risk can be eliminated through portfolio diversification and are not rewarded by the market. See VIII.E.2, *supra*; OCA St. 3 at 67-68. The risk factors that Mr. Walker describes are business risks specific to Bethlehem and investors do not require additional basis points for these firm-specific business risks. Id. at 68. He notes that neither the DCF model nor the CAPM have an input for specific business risks because investors do not expect a return for such risks. Id. This 10 basis point adjustment should be rejected.

Mr. Garrett also reviewed City witness Walker's comparable and expected earnings analyses. Specifically, Mr. Walker looked at the projected earned returns of the proxy group utilities and competitive firms as well as the expected earnings of the proxy group. OCA St. 3 at 69-71. Mr. Garrett did not agree that the earned returns should have a meaningful effect on the cost of equity estimate, even as a check. OCA St. 3 at 69. There are two reasons he found the approach problematic:

First, "earned" returns and "expected" returns are really two different concepts. For example, we might conduct a cost of equity analysis on Walmart's stock and determine that, based on the risk inherent in that investment, we should "expect" a 10% return on our investment. Suppose that Walmart, however, has a bad year and only "earns" a 5% ROE. This does not mean that going forward we will now "expect" a return of only 5% on our equity investment in Walmart. Likewise, the same would be true if Walmart has a great year and earns a 20% return. In finance, the "expected" return on equity as investor (which is synonymous with the "cost" of equity from the company's perspective) is simply based on the risk inherent in that investment, and is not directly influenced by the company's actual, earned return for any given period of time.

The second problem with Mr. Walker's reliance on earned returns as a consideration in recommending his awarded ROE is that doing so creates a circular reference or feedback loop.

OCA St. 3 at 69-70. The circular reference problem perpetuates artificially inflated returns. OCA St. 3 at 70; Fig. 13. OCA witness Garrett recommended that the Commission should not consider the earned returns of other utilities as part of the awarded ROE decision in this case. Id.

f. Summary

Mr. Garrett's DCF and CAPM modes show an average cost of equity of 6.0%. OCA St. 3 at 71; Exh. DJG-12. He calculated the market cost of equity and also looked at expert surveys of the total market cost as a check. Id. The total market checks were higher than his cost of equity for Bethlehem which is consistent with the fact that the cost of equity for Bethlehem or any regulated utility should not be higher than the market cost of equity. OCA St. 3 at 72. Mr. Walker's recommended cost of equity (10.2%) is unrealistic and excessive for the reasons set forth above.

5. Conclusion

The market-based cost of equity for Bethlehem is 6.0%. Mr. Garrett recommended, under a "business as usual" scenario, that the awarded return on equity be 8.5%. There is no support for the City's proposed 10.2% return on equity and it is not market-based or consistent with fundamental financial principles.

IX. TAXES

The City does not claim any taxes for ratemaking purposes.

X. RATE STRUCTURE

A. Introduction

The OCA presented the testimony of Jerome D. Mierzwa on issues related to Bethlehem's cost of service, rate design, and scaleback of the proposed increase. OCA Sts. 4, 4R, and 4S. Mr. Mierzwa explained that if the Commission accepts the OCA's primary position that no increase is appropriate in this proceeding, the City's existing base rates and charges should remain unchanged. OCA St. 4 at 3.

In his Direct testimony, Mr. Mierzwa found the City's class cost of service study (CCOSS) to be reasonable but identified issues with the assignment of costs associated with unaccounted for water (UFW) to Other Water Utilities (wholesale) customers. He also provided recommendations regarding modifications to the revenue distribution that were necessary and proposed a proportional scaleback if an increase in revenue was authorized. OCA St. 4 at 5-13. In rebuttal, Mr. Mierzwa provided a response to the scaleback proposal of OSBA witness Kalcic. OCA St. 4S at 2-6. In surrebuttal, Mr. Mierzwa responded to the rebuttal testimony of City witness Heppenstall and OSBA witness Kalcic. OCA St. 4S at 1-7.

The OCA has determined that it will not oppose the OSBA scaleback proposal if the City receives any additional revenue so long as the lower revenue is less revenue than it proposed. As discussed below, the OCA submits that its other recommendations should be adopted.

B. Class Cost of Service Study

Mr. Mierzwa explained the objective of a class cost of service study:

A class cost of service study is conducted to assist a utility or commission in determining the level of costs properly recoverable from each of the various classes of customers to which the utility provides service. Allocation of recoverable costs to each class of service is generally based on cost causation principles.

OCA St. 4 at 5. There are two commonly used methods of allocating costs to customer classes for water utilities: the base-extra capacity method and the commodity-demand method. Id. The City used the base-extra capacity method to prepare its CCOSS. OCA St. 4 at 6. Mr. Mierzwa explained how the base-extra capacity method works:

[I]nvestment and costs are first classified into four primary functional cost categories: base or average capacity, extra capacity, customer and fire protection. Once investment and costs are classified to these functional categories, they are allocated to the various customer classes.

OCA St. 4 at 6. Mr. Mierzwa provided an explanation of the four primary functional cost categories and how they are allocated to the various customer classes. Id. at 6-7. The City identified six customer classes, all of which include Inside-City and Outside-City, except the Other Water Utilities (Wholesale) class. Id. at 7. The City used its recently completed Demand Study (that was prepared pursuant to the Joint Petition for Settlement in Docket No R-2013-2390244) to allocate maximum day and maximum hour extra capacity costs to each customer class. Id. at 7-8.

Mr. Mierzwa generally agreed with the City's CCOSS and the use of the base-extra capacity methodology, but had a concern about the assignment of costs associated with UFW to Wholesale customers. Id. at 8. Mr. Mierzwa explained this issue as follows:

UFW includes water that is lost due to leaks in the City's transmission and distribution mains, and customer service lines. In the City's cost of service study, the costs associated with producing water are generally allocated to customer class based on the consumption of each class. As such, each customer class is allocated a proportionate share of the UFW that is lost on service lines. Wholesale customers should not be responsible for a share of UFW costs that occur on service lines since Wholesale customers are not served through service lines but are served directly from transmission or distribution mains.

OCA St. 4 at 8. Mr. Mierzwa explained that he was not proposing to modify the CCOSS because a detailed analysis of UFW would be required and the impact would likely not be material on the City's

proposed revenue distribution for the Wholesale class. Id. Specifically, the present rate revenues of the Wholesale class are nearly identical to the cost of service so that an increase of 1.3% was necessary at the City's proposed revenue increase. Id. Mr. Mierzwa concluded that the modification would probably result in a rate reduction which he did not recommend be done at this time. In rebuttal, Mr. Mierzwa indicated his agreement with Mr. Kalcic's adjustment to reflect the appropriate maximum day and maximum hour factors for Wholesale customers. OCA St. 4R at 3.

C. Revenue Distribution

Mr. Mierzwa explained the principles of a sound revenue allocation and rate design:

A sound revenue allocation should:

- Utilize class cost of service study results as a guide;
- Provide stability and predictability of the rates themselves, with a minimum of unexpected changes seriously adverse to ratepayers or the utility (gradualism);
- Yield the total revenue requirement;
- Provide for simplicity, certainty, convenience of payment, understandability, public acceptability, and feasibility of application; and
- Reflect fairness in the apportionment of the total cost of service among the various customer classes.

OCA St. 4 at 9 (footnote omitted). Mr. Mierzwa examined the City's proposed revenue distribution (OCA St. 4 at 10, Table 1) and had one area of concern related to moving classes towards cost of service. Specifically, when looked at on a combined basis (Inside and Outside customers²⁷), the revenues collected from Residential customers would exceed cost of service while the revenues collected from Commercial/Public and Industrial customers would be less than the cost of service. Id. at 11. Recognizing

²⁷Although the PUC has jurisdiction over Outside City customers, the City has kept the Inside City customers rates the same as the Outside City customers. OCA St. 4S at 5.

the principle of gradualism, Mr. Mierzwa explained that, in his opinion, the increases should be limited to 1.5 to 2.0 times the system average increase, he proposed to address this by proposing increases to Commercial/Public and Industrial class be increased to the lower of the indicated cost of service or 1.75 times the system average increase (21.8% at the full revenue proposed by the City). OCA St. 4 at 11-12, Table 2.

In rebuttal, City witness Heppenstall claimed that considering the cost of service for inside-City customers was irrelevant. See OCA St. 4S at 5. There is no disagreement regarding the PUC's jurisdiction. Id. However, the City has a policy to maintain the same water rates for inside-City and outside-City customers, so Mr. Mierzwa found that to maintain that policy, the rates assessed to inside-City customers needed to be evaluated. Id. In doing that evaluation, he explained that the inside-City residential customers' rates exceed the cost of service and Industrial customers' rates (Inside and Outside-City) are below cost of service. Id.; Table 3 Revised. To address that, he recommended a revenue distribution that would reduce the difference between the Residential class and Industrial class rates and cost of service. Id. Although the OCA submits that Mr. Mierzwa's recommendation is reasonable and appropriate, the OCA has determined that it will not oppose the OSBA's scaleback proposal as discussed below.

D. Rate Design

The City proposed to maintain all existing monthly customer charges and increase volumetric rates to recover the increase authorized in this proceeding. OCA St. 4 at 13. Mr. Mierzwa agreed with this approach in his direct testimony. Id. In City witness Heppenstall's rebuttal testimony, she stated that the Company would adopt OSBA's proposed scaleback. The OCA did not agree with that scaleback proposal because it would have collected more than the City's proposed revenue increase. OCA St. 4R at 6; OCA St. 4S at 5-7.

The OCA has determined that it will not oppose the scaleback proposal supported by the City and OSBA, if an increase is approved by the Commission, is less than the City's initially proposed increase.

XI. MISCELLANEOUS ISSUES

The OCA presented the testimony of Terry L. Fought in OCA Statements 5 and 5S. Mr. Fought addressed unaccounted for water, fire hydrants, isolation valves, meter age, pressures and pressure surveys, and customer complaint logs.

The OCA and the City have reached a stipulation regarding the issues raised in Mr. Fought's testimony. The Stipulation is attached to the City's Main Brief.

XII. CONCLUSION

For the reasons set forth above, the OCA respectfully requests the Commission deny any rate increase to the City of Bethlehem at this time. The City's customers are experiencing substantial economic and personal hardships as a result of the continuing COVID-19 pandemic, and any rate increase at this time would not result in just and reasonable rates. Should the Commission determine that some increase is needed, then the OCA's alternative positions and adjustments should be adopted and the City should receive an increase of no more than \$443,666.

Respectfully Submitted,

/s/Christine Maloni Hoover
Christine Maloni Hoover
Senior Assistant Consumer Advocate
PA Attorney I.D. # 50026
E-Mail: CHoover@paoca.org

Luis Melendez
Law Clerk

Counsel for:
Tanya J. McCloskey
Acting Consumer Advocate

Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152
December 30, 2020
*301102

TABLE I
 City of Bethlehem - Water Department
 INCOME SUMMARY
 R-2020-3020256

	Pro Forma Present Rates (1)	Company Adjustments (1)	Pro Forma Present Rates (Revised) (1)	ALJ Adjustments	ALJ Pro Forma Present Rates	ALJ Revenue Increase	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	8,307,603	26,930	8,334,533		8,334,533	(448)	8,334,085
Expenses:							
O & M Expense	4,623,039	27,045	4,650,084	(114,082)	4,536,002	(2)	4,536,000
Depreciation	1,020,508	22,967	1,043,475	(9,892)	1,033,583	0	1,033,583
Taxes, Other	17,658	0	17,658	0	17,658	0	17,658
Income Taxes:							
State	0	0	0	0	0	0	0
Federal	0	0	0	0	0	0	0
Total Expenses	5,661,205	50,012	5,711,217	(123,974)	5,587,243	(2)	5,587,241
Net Inc. Available for Return	2,646,398	(23,082)	2,623,316	123,974	2,747,290	(446)	2,746,844
Rate Base	48,694,512	591,564	49,286,076	(717,503)	48,568,573		48,568,573
Rate of Return	5.43%		5.32%				5.65560000%

(1) Company Main Brief

TABLE I(A)
 City of Bethlehem - Water Department
 RATE OF RETURN
 R-2020-3020256

	<u>Structure</u>	<u>Cost</u>	<u>After-Tax Weighted Cost</u>	<u>Effective Tax Rate Complement</u>	<u>Pre-Tax Weighted Cost Rate</u>
Total Cost of Debt			2.76960000%		
Long-term Debt	48.00%	5.77%	2.76960000%		2.77%
Short-term Debt	0.00%	0.00%	0.00000000%		
Preferred Stock	0.00%	0.00%	0.00000000%	1.000000	0.00%
Common Equity (1)	<u>52.00%</u>	5.55%	<u>2.88600000%</u>	1.000000	<u>2.89%</u>
	<u>100.00%</u>		<u>5.65560000%</u>		<u>5.66%</u>
Pre-Tax Interest Coverage	2.04				
After-Tax Interest Coverage	2.04				

(1) Cost Rate includes adjustment for 14% tax rate

TABLE I(B)
 City of Bethlehem - Water Department
 REVENUE FACTOR
 R-2020-3020256

100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor (*)	0.00474937
PUC, OCA, OSBA Assessment Factors (*)	0.00000000
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.99525063
State Income Tax Rate (*)	<u>0.00000000</u>
Effective State Income Tax Rate	<u>0.00000000</u>
Factor After Local and State Taxes	0.99525063
Federal Income Tax Rate (*)	<u>0.00000000</u>
Effective Federal Income Tax Rate	<u>0.00000000</u>
Revenue Factor (100% - Effective Tax Rates)	<u><u>0.99525063</u></u>

(*) Company Main Brief

TABLE II
 City of Bethlehem - Water Department
 SUMMARY OF ADJUSTMENTS
 R-2020-3020256

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
Purification Buildings	(401,986)						
Electric Pumping Equipment	(320,028)						
Purification Buildings Retirement	8,879						
Purification Accumulated Depreciation	5,668						
Pumping Equipment Accumulated Depreciation	4,224						
CWC:							
Int. & Div. (Table IV)	0						
Taxes (Table V)	0						
O & M (Table VI)	(14,261)						
REVENUES:							
		0				0	0
EXPENSES:							
Salaries			(17,676)			0	0
Social Security			(2,365)			0	0
East Allen Township Expenses			(6,586)			0	0
Water Filtration Expenses			(9,130)			0	0
Rate Case Expenses			(78,325)			0	0
Purification Buildings Depreciation Expense				(5,668)		0	0
Electric Pumping Equipment Depreciation Expense				(4,224)		0	0
						0	0
						0	0
						0	0
						0	0
						0	0
TAXES:							
Interest Synchronization (Table III)						0	0
TOTALS	<u>(717,503)</u>	<u>0</u>	<u>(114,082)</u>	<u>(9,892)</u>	<u>0</u>	<u>0</u>	<u>0</u>

TABLE III
 City of Bethlehem - Water Department
 INTEREST SYNCHRONIZATION
 R-2020-3020256

	Amount \$
Company Rate Base Claim	49,286,076
ALJ Rate Base Adjustments	<u>(717,503)</u>
ALJ Rate Base	48,568,573
Weighted Cost of Debt	<u>2.76960000%</u>
ALJ Interest Expense	1,345,155
Company Claim (1)	<u>1,281,438</u>
Total ALJ Adjustment	(63,717)
Company Adjustment	<u>0</u>
Net ALJ Interest Adjustment	(63,717)
State Income Tax Rate	<u>0.00%</u>
State Income Tax Adjustment	<u>0</u>
Net ALJ Interest Adjustment	(63,717)
State Income Tax Adjustment	<u>0</u>
Net ALJ Adjustment for F.I.T.	(63,717)
Federal Income Tax Rate	<u>0.00%</u>
Federal Income Tax Adjustment	<u><u>0</u></u>

(1) Company Main Brief

TABLE IV
 City of Bethlehem - Water Department
 CASH WORKING CAPITAL - Interest and Dividends
 R-2020-3020256

Accrued Interest			Preferred Stock Dividends		
	Long-Term Debt	Short-Term Debt			
Company Rate Base Claim	\$49,286,076	\$49,286,076	Company Rate Base Claim	\$49,286,076	
ALJ Rate Base Adjustments	<u>(\$717,503)</u>	<u>(\$717,503)</u>	ALJ Rate Base Adjustments	<u>(\$717,503)</u>	
ALJ Rate Base	\$48,568,573	\$48,568,573	ALJ Rate Base	\$48,568,573	
Weighted Cost of Debt	<u>2.76960000%</u>	<u>0.00%</u>	Weighted Cost Pref. Stock	<u>0.00000000%</u>	
ALJ Annual Interest Exp.	<u>\$1,345,155</u>	<u>\$0</u>	ALJ Preferred Dividends	<u>\$0</u>	
Average Revenue Lag Days	0.0	0.0	Average Revenue Lag Days	0.0	
Average Expense Lag Days	<u>0.0</u>	<u>0.0</u>	Average Expense Lag Days	<u>0.0</u>	
Net Lag Days	<u>0.0</u>	<u>0.0</u>	Net Lag Days	<u>0.0</u>	
Working Capital Adjustment					
ALJ Daily Interest Exp.	\$3,685	\$0	ALJ Daily Dividends	\$0	
Net Lag Days	<u>0.0</u>	<u>0.0</u>	Net Lag Days	<u>0.0</u>	
ALJ Working Capital	\$0	\$0		\$0	
Company Claim (1)	<u>\$0</u>	<u>\$0</u>	Company Claim (1)	<u>\$0</u>	
ALJ Adjustment	<u>\$0</u>	<u>\$0</u>		<u>\$0</u>	
Total Interest & Dividend Adj.	<u>\$0</u>				

(1) Company Main Brief.

TABLE V
 City of Bethlehem - Water Department
 CASH WORKING CAPITAL - TAXES
 R-2020-3020256

Description	Company Proforma Tax Expense Present Rates	ALJ Adjustments	ALJ Pro forma Tax Expense Present Rates	ALJ Allowance	ALJ Adjusted Taxes at Present Rates	Daily Expense	Net Lead/Lag Days	Accrued Tax Adjustment
PUC Assessment	\$0	\$0	\$0	\$0	\$0	\$0.00	0.00	\$0
Public Utility Realty	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
Capital Stock Tax	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
State Income Tax	\$0	\$0	\$0	\$0	\$0	\$0.00	0.00	\$0
Federal Income Tax	\$0	\$0	\$0	\$0	\$0	\$0.00	0.00	\$0
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>			

ALJ Allowance	0
Company Claim (1)	<u>0</u>
ALJ Adjustment	<u><u>0</u></u>

(1) Company Main Brief

TABLE VI
 City of Bethlehem - Water Department
 CASH WORKING CAPITAL -- O & M EXPENSE
 R-2020-3020256

Description	Company Pro forma F.T.Y. Expense	ALJ	ALJ Pro forma Expenses	Lag Days	Lag Dollars
Service Company	\$0	\$0	\$0	0.00	\$0
Chemicals	\$80,099	\$0	\$80,099	0.00	\$0
Group Insurance	\$770,386	\$0	\$770,386	0.00	\$0
Insurance, Other	\$0	\$0	\$0	0.00	\$0
Labor	\$984,107	(\$20,041)	\$964,066	0.00	\$0
Leased Equip./Rent	\$0	\$0	\$0	0.00	\$0
Leased Vehicles	\$0	\$0	\$0	0.00	\$0
Miscellaneous (2)	\$2,224,026	(\$94,041)	\$2,129,985	0.00	\$0
Natural Gas	\$0	\$0	\$0	0.00	\$0
Power	\$28,670	\$0	\$28,670	0.00	\$0
Purchased Water	\$0	\$0	\$0	0.00	\$0
Telephone	\$0	\$0	\$0	0.00	\$0
Waste Disposal	\$0	\$0	\$0	0.00	\$0
Post Retirement Benefits	\$0	\$0	\$0	0.00	\$0
Pensions	\$523,212	\$0	\$523,212	0.00	\$0
	<u>\$4,610,500</u>	<u>(\$114,082)</u>	<u>\$4,496,418</u>	<u>0.00</u>	<u>\$0</u>
ALJ Average Revenue Lag	0.0				
Less: ALJ Avg. Expense Lag	<u>45.0</u>				
Net Difference	45.0	Days			
ALJ Pro forma O & M Expense per Day (3)	<u>\$12,490</u>				
ALJ CWC for O & M	\$562,052				
Less: Company Claim (1)	<u>\$576,313</u>				
ALJ Adjustment	<u>(\$14,261)</u>				

(1) Company Main Brief

(2) Excludes Uncollectible Accounts

(3) Modified by OCA to reflect a banking year, which is 360 days.

TABLE I
 City of Bethlehem - Water Department
 INCOME SUMMARY
 R-2020-3020256

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	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	8,307,603	26,930	8,334,533		8,334,533	446,173	8,780,706
Expenses:							
O & M Expense	4,623,039	27,045	4,650,084	(114,082)	4,536,002	2,119	4,538,121
Depreciation	1,020,508	22,967	1,043,475	(9,892)	1,033,583	0	1,033,583
Taxes, Other	17,658	0	17,658	0	17,658	0	17,658
Income Taxes:							
State	0	0	0	0	0	0	0
Federal	0	0	0	0	0	0	0
Total Expenses	5,661,205	50,012	5,711,217	(123,974)	5,587,243	2,119	5,589,362
Net Inc. Available for Return	2,646,398	(23,082)	2,623,316	123,974	2,747,290	444,054	3,191,344
Rate Base	48,694,512	591,564	49,286,076	(717,503)	48,568,573		48,568,573
Rate of Return	5.43%		5.32%				6.57080000%

(1) Company Main Brief

TABLE I(A)
 City of Bethlehem - Water Department
 RATE OF RETURN
 R-2020-3020256

	<u>Structure</u>	<u>Cost</u>	<u>After-Tax Weighted Cost</u>	<u>Effective Tax Rate Complement</u>	<u>Pre-Tax Weighted Cost Rate</u>
Total Cost of Debt			2.76960000%		
Long-term Debt	48.00%	5.77%	2.76960000%		2.77%
Short-term Debt	0.00%	0.00%	0.00000000%		
Preferred Stock	0.00%	0.00%	0.00000000%	1.000000	0.00%
Common Equity*	<u>52.00%</u>	7.31%	<u>3.80120000%</u>	1.000000	<u>3.80%</u>
	<u>100.00%</u>		<u>6.57080000%</u>		<u>6.57%</u>
Pre-Tax Interest Coverage	2.37				
After-Tax Interest Coverage	2.37				

* Cost Rate includes adjustment for 14% tax rate

TABLE I(B)
 City of Bethlehem - Water Department
 REVENUE FACTOR
 R-2020-3020256

100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor (*)	0.00474937
PUC, OCA, OSBA Assessment Factors (*)	0.00000000
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.99525063
State Income Tax Rate (*)	<u>0.00000000</u>
Effective State Income Tax Rate	<u>0.00000000</u>
Factor After Local and State Taxes	0.99525063
Federal Income Tax Rate (*)	<u>0.00000000</u>
Effective Federal Income Tax Rate	<u>0.00000000</u>
Revenue Factor (100% - Effective Tax Rates)	<u><u>0.99525063</u></u>

(*) Company Main Brief

TABLE II
 City of Bethlehem - Water Department
 SUMMARY OF ADJUSTMENTS
 R-2020-3020256

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
Purification Buildings	(401,986)						
Electric Pumping Equipment	(320,028)						
Purification Buildings Retirement	8,879						
Purification Accumulated Depreciation	5,668						
Pumping Equipment Accumulated Depreciation	4,224						
CWC:							
Int. & Div. (Table IV)	0						
Taxes (Table V)	0						
O & M (Table VI)	(14,261)						
REVENUES:		0				0	0
EXPENSES:							
Salaries			(17,676)			0	0
Social Security			(2,365)			0	0
East Allen Township Expenses			(6,586)			0	0
Water Filtration Expenses			(9,130)			0	0
Rate Case Expenses			(78,325)			0	0
Purification Buildings Depreciation Expense				(5,668)		0	0
Electric Pumping Equipment Depreciation Expense				(4,224)		0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
TAXES:							
Interest Synchronization (Table III)						0	0
TOTALS	<u>(717,503)</u>	<u>0</u>	<u>(114,082)</u>	<u>(9,892)</u>	<u>0</u>	<u>0</u>	<u>0</u>

TABLE III
 City of Bethlehem - Water Department
 INTEREST SYNCHRONIZATION
 R-2020-3020256

	Amount \$
Company Rate Base Claim	49,286,076
ALJ Rate Base Adjustments	<u>(717,503)</u>
ALJ Rate Base	48,568,573
Weighted Cost of Debt	<u>2.76960000%</u>
ALJ Interest Expense	1,345,155
Company Claim (1)	<u>1,281,438</u>
Total ALJ Adjustment	(63,717)
Company Adjustment	<u>0</u>
Net ALJ Interest Adjustment	(63,717)
State Income Tax Rate	<u>0.00%</u>
State Income Tax Adjustment	<u>0</u>
Net ALJ Interest Adjustment	(63,717)
State Income Tax Adjustment	<u>0</u>
Net ALJ Adjustment for F.I.T.	(63,717)
Federal Income Tax Rate	<u>0.00%</u>
Federal Income Tax Adjustment	<u><u>0</u></u>

(1) Company Main Brief

TABLE IV
 City of Bethlehem - Water Department
 CASH WORKING CAPITAL - Interest and Dividends
 R-2020-3020256

Accrued Interest			Preferred Stock Dividends	
	Long-Term Debt	Short-Term Debt		
Company Rate Base Claim	\$49,286,076	\$49,286,076	Company Rate Base Claim	\$49,286,076
ALJ Rate Base Adjustments	<u>(\$717,503)</u>	<u>(\$717,503)</u>	ALJ Rate Base Adjustments	<u>(\$717,503)</u>
ALJ Rate Base	\$48,568,573	\$48,568,573	ALJ Rate Base	\$48,568,573
Weighted Cost of Debt	<u>2.76960000%</u>	<u>0.00%</u>	Weighted Cost Pref. Stock	<u>0.00000000%</u>
ALJ Annual Interest Exp.	<u>\$1,345,155</u>	<u>\$0</u>	ALJ Preferred Dividends	<u>\$0</u>
Average Revenue Lag Days	0.0	0.0	Average Revenue Lag Days	0.0
Average Expense Lag Days	<u>0.0</u>	<u>0.0</u>	Average Expense Lag Days	<u>0.0</u>
Net Lag Days	<u>0.0</u>	<u>0.0</u>	Net Lag Days	<u>0.0</u>
Working Capital Adjustment				
ALJ Daily Interest Exp.	\$3,685	\$0	ALJ Daily Dividends	\$0
Net Lag Days	<u>0.0</u>	<u>0.0</u>	Net Lag Days	<u>0.0</u>
ALJ Working Capital	\$0	\$0		\$0
Company Claim (1)	<u>\$0</u>	<u>\$0</u>	Company Claim (1)	<u>\$0</u>
ALJ Adjustment	<u>\$0</u>	<u>\$0</u>		<u>\$0</u>
Total Interest & Dividend Adj.	<u>\$0</u>			

(1) Company Main Brief.

TABLE V
 City of Bethlehem - Water Department
 CASH WORKING CAPITAL - TAXES
 R-2020-3020256

Description	Company Proforma Tax Expense Present Rates	ALJ Adjustments	ALJ Pro forma Tax Expense Present Rates	ALJ Allowance	ALJ Adjusted Taxes at Present Rates	Daily Expense	Net Lead/Lag Days	Accrued Tax Adjustment
PUC Assessment	\$0	\$0	\$0	\$0	\$0	\$0.00	0.00	\$0
Public Utility Realty	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
Capital Stock Tax	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
State Income Tax	\$0	\$0	\$0	\$0	\$0	\$0.00	0.00	\$0
Federal Income Tax	\$0	\$0	\$0	\$0	\$0	\$0.00	0.00	\$0
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>			
						ALJ Allowance		0
						Company Claim (1)		<u>0</u>
						ALJ Adjustment		<u>0</u>

(1) Company Main Brief

TABLE VI
 City of Bethlehem - Water Department
 CASH WORKING CAPITAL -- O & M EXPENSE
 R-2020-3020256

Description	Company Pro forma F.T.Y. Expense	ALJ	ALJ Pro forma Expenses	Lag Days	Lag Dollars
Service Company	\$0	\$0	\$0	0.00	\$0
Chemicals	\$80,099	\$0	\$80,099	0.00	\$0
Group Insurance	\$770,386	\$0	\$770,386	0.00	\$0
Insurance, Other	\$0	\$0	\$0	0.00	\$0
Labor	\$984,107	(\$20,041)	\$964,066	0.00	\$0
Leased Equip./Rent	\$0	\$0	\$0	0.00	\$0
Leased Vehicles	\$0	\$0	\$0	0.00	\$0
Miscellaneous (2)	\$2,224,026	(\$94,041)	\$2,129,985	0.00	\$0
Natural Gas	\$0	\$0	\$0	0.00	\$0
Power	\$28,670	\$0	\$28,670	0.00	\$0
Purchased Water	\$0	\$0	\$0	0.00	\$0
Telephone	\$0	\$0	\$0	0.00	\$0
Waste Disposal	\$0	\$0	\$0	0.00	\$0
Post Retirement Benefits	\$0	\$0	\$0	0.00	\$0
Pensions	\$523,212	\$0	\$523,212	0.00	\$0
	<u>\$4,610,500</u>	<u>(\$114,082)</u>	<u>\$4,496,418</u>	<u>0.00</u>	<u>\$0</u>
ALJ Average Revenue Lag	0.0				
Less: ALJ Avg. Expense Lag	<u>45.0</u>				
Net Difference	45.0	Days			
ALJ Pro forma O & M Expense per Day (3)	<u>\$12,490</u>				
ALJ CWC for O & M	\$562,052				
Less: Company Claim (1)	<u>\$576,313</u>				
ALJ Adjustment	<u>(\$14,261)</u>				

(1) Company Main Brief

(2) Excludes Uncollectible Accounts

(3) Modified by OCA to reflect a banking year, which is 360 days.

APPENDIX B – PROPOSED FINDINGS OF FACT

III. OVERALL POSITION ON RATE INCREASE

1. OCA’s primary position, no increase in in rates, would result in a 5.65% overall return. OCA Hearing Exh. # 1.
2. The OCA’s revenue requirement recommendation, under a “business as usual” approach results in an overall deficiency of \$443,666 at an overall rate of return of 6.57%. See App. A.2, OCA Table I; OCA St. 2S at 1; Sch. SLS-1; OCA St. 3 at 6; Exh. DJG-17.
3. Bethlehem’s projections and related assumptions, which were developed before the pandemic emerged, cannot be used by the Commission because it those assumptions will not result in rates that will be ‘just and reasonable. OCA St. 1 at 19.
4. If Bethlehem is concerned about operating revenues during this uncertain time and moving forward, Bethlehem could defer new construction projects that are not necessary to ensure the current provision of safe and reliable service to existing customers. OCA St. 1 at 26-27.
5. The City recently issued \$6.5 million in AA-rated bonds. OCA St. 1 at 27.
6. The terms of the recently issued AA-rated bonds ranged from 1-14 years at interest rates ranging from 0.5% to 1.6%. OCA St. 1 at 27.
7. As Authority debt matures, or becomes callable, the current interest rates present an opportunity to reduce the City’s lease payments in the future. OCA St. 1 at 27.
8. There is precedent supporting the Commission’s authority to determine that raising rates would not be just and reasonable during this time of extreme economic hardship for ratepayers. OCA St. 1 SR at 21-22.
9. As of September 2020, the unemployment rates in Lehigh and Northampton Counties, portions of which are served by the Bethlehem, were 8.3% and 7.6%, respectively. OCA St. 1 at 11.
10. In October, the unemployment rates had fallen to 7.4% and 6.8% respectively. OCA St. 1S at 2.
11. The unemployment rate in both counties one year earlier was 4.6%. OCA St. 1 at 11.
12. The unemployment rate in both counties peaked in April 2020 (16.9% and 16.3 respectively). OCA St. 1 at 11.
13. As a consequence of the massive job losses across Pennsylvania, there were 30 times as many initial unemployment claims during the week ending March 21, 2020 and 33 times as many during the next week ending March 28, 2020 than the amount during the week ending March 7, 2020 as shown in shown in OCA St. 1 S, Sch. SJR-1 (Updated).

APPENDIX B – PROPOSED FINDINGS OF FACT

14. At the end of November, unemployment claims, although less than in March had started to climb again and were at about 23,000 initial claims per week. OCA St. 1S at 2, Fig. 3, Sch. SJR-1 Updated.
15. In the space of about eight months (mid-March through mid-November), approximately 42 percent of Pennsylvania’s workforce filed an unemployment claim. OCA St. 1S at 2.
16. According to a survey conducted by the U.S. Census Bureau, approximately 46.9% of Pennsylvania households experienced wage loss since March 13, 2020 and during the period ending October 12, 2020, the percentage remained “fairly constant at about 47% of households, as shown on Figure 3.” OCA St. 1 at 13; Figure 3.
17. Through the two-week period ending November 23, 46% of Pennsylvania households have lost some of their employment income. OCA St. 1S at 2; Sch. SJR-6S.
18. Given the substantial reductions in employment and wages, there is an unusually large pool of ratepayers unable to afford utility bills. Only 53% of Pennsylvanians who lost income said they used their normal source of income to pay bills in the previous week. OCA St. 1 at 15.
19. About 23% cited unemployment benefits and 26% referred to the CARES Act stimulus payments. OCA St. 1 at 15.
20. More people relied on credit card debt or loans (including loans from family or friends) (44%) or money from savings or asset sales (35%) than relied on short-term government benefits. OCA St. 1 at 15.
21. Almost a quarter of Pennsylvania’s workforce expected to suffer additional income loss during October and November. OCA St. 1 at 14.
22. The lower a household’s income, the greater the impact of the pandemic on income loss. OCA St. 1 at 15.
23. Households headed by a person who the Census Bureau classifies as Black or Hispanic are much more likely to have experienced an income loss – and to expect additional income loss into mid-November than are households headed by a person classified as White, Non-Hispanic. OCA St. 1 at 15.
24. A recent survey conducted by the Electric Power Research Institute (“EPRI”) found that about two-thirds of people who lost their jobs during the pandemic are concerned about being able to pay their energy bills. OCA St. 1 at 15-16.
25. More than 20% of EPRI survey respondents reported that their energy bills were higher because of the pandemic. Interestingly, the survey also found that more than 25% of people who lost their jobs are planning to skip at least one utility bill payment, but a much lower

APPENDIX B – PROPOSED FINDINGS OF FACT

percentage were planning to contact their utilities for assistance. OCA St. 1 at 15-16 (footnote omitted); Sch. SJR-5, pp. 3, 7, 12.

26. The Census Bureau estimates that, as of the week ending May 2, 2020, 31.6% of small businesses in Pennsylvania said they would not return to normal operations for more than six months and 6.6% of the Commonwealth's small businesses expected to never return to their pre-pandemic level of operations. OCA St. 1 at 16; U.S. Census Bureau, Small Business Pulse Survey, <https://www.census.gov/data/experimental-data-products/small-business-pulse-survey.html>.
27. By the week ending October 12, 2020, the small-business outlook was considerably worse with more than 51% of businesses selecting these two categories. OCA St. 1 at 16 (footnotes omitted); Figure 4.
28. In early December, the outlook for small business was worse than when in early November. The most recent results are for the week ending November 29. The survey now shows that 48% of Pennsylvania's small businesses said they would take at least 6 months to recover, with another 10.4% saying they would never fully recover from the pandemic. The last two weeks of November show the worst small business outlook (more than 58% of small businesses in dire circumstances) during the entire survey period. OCA St. 1S at 2.
29. In rebuttal, Bethlehem witness Heppenstall did not rebut the data or the factual conclusions reached by Mr. Rubin. OCA St. 1S at 4.
30. Although dipping in early fall, initial unemployment claims had started to increase again in the first three weeks of November. OCA St. 1S at 2.
31. The Commission should not focus, in this proceeding, on Bethlehem's historic costs, or on cost projections prepared before the pandemic, under a business as usual approach. OCA St. 1 at 19.
32. The Commission "must focus on what rates are reasonable for consumers to pay under these extraordinary conditions." OCA St. 1 at 19.
33. Other utilities have withdrawn or deferred filing rate increase requests to provide relief to their customers. OCA St. 1 at 22-24.
34. Now is not the time to impose additional, unavoidable costs on consumers. Residential customers are experiencing unprecedented levels of unemployment and other economic dislocation (such as reduced hours of work), while many are battling the COVID-19 infection. Businesses of all sizes, as well as local governments, schools, universities, and nonprofit organizations are struggling to remain viable. I expect many will not be able to survive or, if they do, it might take them months or years to return to pre-pandemic levels of operations. To put all of this in terms of utility ratemaking: it would be neither just nor reasonable for the City to increase its rates at this time. OCA St. 1 at 24 (footnotes omitted).

APPENDIX B – PROPOSED FINDINGS OF FACT

35. The water system is owned by the Bethlehem Authority (“the Authority”) that leases the system, and the right to operate it, to the City. OCA St. 1 at 24-25 (footnotes omitted).
36. Under the lease agreement, the City is required to pay the Authority 105% of the Authority’s debt service payments. According to the Authority’s annual filing with the Pa. Department of Community and Economic Development for 2019, its annual debt service is \$8,451,550. Thus, the City’s required lease payment is 1.05 times that amount or \$8,874,128. OCA St. 1 at 24-25 (footnotes omitted)
37. According to the City’s rate study, under pro forma present rates for the future test year (FTY) ending December 31, 2020, the City would have \$10,450,387 in funds available to pay the lease payment, which is \$1.5 million more than required. Thus, without any rate increase, the City would be able to meet all of its expenses, pay the required amount to the Authority under the lease, and have additional cash flow of at least \$1.5 million. OCA St. 1 at 24-25 (footnotes omitted).
38. Businesses, small and large, throughout Pennsylvania are facing the very real prospect of not being able to pay their out-of-pocket expenses and laying off most or all of their workforce. They are facing negative returns on their investments. That is the real-world competitive market that regulation is trying to mirror. OCA St. 1 at 26.
39. If, however, the economic situation worsens significantly and cash flow becomes a concern for Bethlehem, the City could preserve cash by deferring for several months certain construction projects, such as growth-related projects or longer-term system rehabilitation activities, which are not needed to ensure the current provision of safe and reliable service to existing customers. OCA St. 1 at 30.
40. Other large utilities have been taking advantage of the very low cost of debt and issuing 10-year notes or bonds at what are historically low interest rates. OCA St. 1 at 30.
41. Low-cost, long-term financing can help provide cash flow needed to keep existing rates in effect throughout the pandemic without suffering significant economic harm. OCA St. 1 at 30.
42. Recent headlines show a gas utility issuing debt at a 2.2% interest rate and a utility in the southern U.S. issuing debt at 1.75%. OCA St. 1 at 30, n. 38 and 39.
43. Bethlehem’s weighted cost of debt is in the range of 4.5%. OCA St. 1 at 30, at n. 40; Bethlehem Exh. 3-A, p. 70.
44. A rejection of Bethlehem’s rate increases due to the economic hardships and uncertainties accompanying the COVID-19 pandemic as well as the uncertainties surrounding the FTY projections, while not common by any means, would be a legally viable and not an unprecedented ratemaking solution during this abnormal time. OCA St. 1 at 22-24.

APPENDIX B – PROPOSED FINDINGS OF FACT

45. Denying Bethlehem’s requested rate increase due to the current societal economic conditions would be an appropriate and valid exercise of the Commission’s authority in this proceeding. 66 Pa. C.S. § 315(a).
46. Section 315(a) of the Public Utility Code places the burden of proving the reasonableness of a proposed rate on the utility. 66 Pa. C.S. § 315(a).
47. The evidence necessary to meet that burden must be substantial. Lower Frederick Twp. Water Co. v. Pa. P.U.C., 48 Pa. Commw. 222, 409 A.2d 505, 507 (Pa. Cmwlth. 1980).
48. The Commission would be fully within its authority to reject Bethlehem’s rate increase requests due to the current economic conditions because rates would not be confiscatory as it is projected that the Company would continue to earn a profit in the near future. OCA Hearing Exh. #1.
49. The OCA’s calculations demonstrate that, at Bethlehem’s current rates, it will still earn a 5.66% overall rate of return. See OCA App. A.1, Table I.
50. At its core, regulation is designed to protect utility consumers from what otherwise would be the unfettered power of a monopoly to set prices and the conditions of service.” OCA St. 1 at 5.
51. Utility regulators should attempt to set rates within the “zone of reasonableness” which captures the interests of the ratepayers, the utility’s investors, officers and employees, and local governments whose residents are served by the utility. OCA St. 1 at 6.
52. Under normal conditions, there is often an area of overlap of interests between utility customers and the utility, including its investors. OCA St. 1 at 6; Fig. 1.
53. Within that area, regulators are provided a range of rates that utility customers would be willing and able to pay for service and investors would consider a reasonable return on their investment. OCA St. 1 at 7.
54. Under certain conditions the two ranges may not overlap—creating no “zone of reasonableness” at all. OCA St. 1 at 7. When this occurs, regulators are tasked with setting rates outside of one of the ranges, or both. OCA St. 1 at 7.
55. Under the economic conditions faced by Bethlehem’s customers brought on by the pandemic, the range of rates the customers would be willing and able to pay for service has shifted away from the range of rates which would, in the eyes of the utility, provide a reasonable return on investment. OCA St. 1 at 7.
56. Regulation must always consider current economic conditions. If regulation is supposed to be a substitute for market forces, then we must recognize that, except for those commodities experiencing significant imbalances of supply and demand due to the pandemic, competitive businesses cannot sustainably raise prices when their customers’

APPENDIX B – PROPOSED FINDINGS OF FACT

incomes have decreased significantly. Simply stated, what may have been a “just and reasonable” rate earlier this year may be unreasonable today. OCA St. 1 at 10 (emphasis added). OCA St. 1 at 5.

57. Regulation is not designed to insulate the utility or its investors from normal market forces, technological improvements, or general economic conditions. OCA St. 1 at 5.
58. If market forces (such as technological change) result in significant reductions in the demand for service, then the utility may not be able to recover its costs. That is not a failure of regulation, but a natural evolution of the market -- businesses fail if they cannot keep up with changes in consumers’ preferences or respond to technological innovations. OCA St. 1 at 5.
59. Similarly, if economic conditions change such that rates become unaffordable to many customers, rates may need to be reduced in order to remain “just and reasonable from the perspective of customers. OCA St. 1 at 5.
60. The City filed this case on July 31, 2020, when its service area -- indeed the entire world - - was being devastated with the worst pandemic in a century. While I understand that it takes months to prepare a rate filing, and that Bethlehem may have prepared this case assuming “business as usual,” there was nothing that compelled it to actually file the case. To state the obvious, life and business in the City’s service territory are now anything but normal. OCA St. 1 at 12.
61. To be blunt, this is not the time to impose higher costs on either people or businesses. OCA St. 1 at 12.
62. Faced with this unprecedented public health and economic crisis, the Commission cannot treat this case as “business as usual.” OCA St. 1 at 19.
63. Almost no other business in Lehigh and Northampton Counties is conducting business as usual; residential consumers are using the City’s services differently than they do during normal circumstances (few if any people are usually at home 24 hours per day, 7 days a week, preparing every meal at home, and so on). OCA St. 1 at 19.
64. The Commission cannot focus on Bethlehem’s historic costs, or on cost projections prepared before the pandemic, and assume that the resulting rates will be “just and reasonable.” The Commission must focus on what rates are reasonable for consumers to pay under these extraordinary conditions. OCA St. 1 at 19.

V. RATE BASE

Plant in Service

65. The City initially projected utility plant in service to be \$197,701,395 for the HTY ending December 31, 2019, and \$201,950,540 for the FTY, an increase of approximately \$4.3 million in utility plant in service. OCA St. 2 at 6.

APPENDIX B – PROPOSED FINDINGS OF FACT

66. The City included five projects that will not be in service until after December 31, 2020, the FTY. OCA St. 2 at 6.
67. The Water Department included \$75,000 for a well generator under Account 312.13; \$956,000 for a WTP Emergency Generator; \$40,000 for the Water Treatment Plant Lower Roof Replacement project under Account 312.3; Purification Buildings, fire pump station engineering and construction under Account 316 for \$758,000; and \$72,378 for the Hecktown Road Bridge Main Replacement project under Account 322 Mains and Accessories in rate base for the FTY, for a total of \$1,901,378. OCA St. 2 at 6–7.
68. Due to the adjustment in plant, the depreciation expense and accumulated depreciation should also be adjusted to reflect the removal of that plant from FTY. The FTY depreciation expense and accumulated depreciation should both be reduced by \$26,662, which was calculated based upon the Water Department’s depreciation rate for each account as detailed in Exhibit JJS-2. OCA St. 2 at 6–7 (citation omitted); Sch. SLS-2 and SLS-9.
69. Ms. Sherwood adjusted utility plant in service by \$770,694 and the accumulated depreciation and depreciation expense each by \$10,781 for Outside-City Customers. The utility plant in service and accumulated depreciation adjustments are reflected in Schedule SLS-2. The depreciation expense adjustment of is reflected in Schedule SLS-9. OCA St. 2 at 7.
70. The City revised its numbers in rebuttal. OCA St. 2S at 10.
71. Ms. Sherwood accepted the City’s revised numbers reflected in its rebuttal testimony and made adjustments from those revised numbers in her surrebuttal testimony. OCA St. 2S at 10.
72. The City also partially accepted Ms. Sherwood’s adjustments to reduce the utility plant and associated changes to accumulated depreciation and depreciation expense adjustment. OCA St. 2S at 8.
73. The City, through Mr. Spanos, accepted Ms. Sherwood’s exclusions of Utility Plant for the well generator and the Water Treatment Plant Lower Roof Replacement project under Account 312.13 Wells and Springs, and the Hecktown Road Bridge Main Replacement Project under Account 322 Mains and Accessories. OCA St. 2S at 8–9.
74. Mr. Spanos reduced Utility Plant by \$181,278, including netting \$28,100 in related retirements which had previously been excluded from my direct testimony position. Further, Mr. Spanos recalculated the accumulated depreciation to be \$69,049,697, an increase of \$4,703, and reduced depreciation expense by \$3,387. OCA St. 2S at 8–9.

APPENDIX B – PROPOSED FINDINGS OF FACT

75. Ms. Sherwood agreed with Mr. Spanos’ position that her direct testimony should have taken the netting of the associated retirements against the utility plant in service into account. OCA St. 2S at 9.
76. It is not clear that these projects will be completed by February 2021, as projected in Mr. Spanos’ rebuttal testimony. As of September 15, 2020, the WTP Emergency Generator had only incurred less than 1 percent of its budgeted cost and the Fire Pump Station incurred approximately 8 percent of its budgeted cost. OCA St. 2S at 9–10.
77. The unforeseen circumstances that delayed the projects in 2020 are still an issue heading into 2021 and could continue to delay the completion of these capital projects. Ratepayers could be at a disadvantage if these projects are included in rate base yet are subsequently delayed due to continued unforeseen circumstances.” OCA St. 2S at 9–10.

Cash Working Capital

78. The City’s rate base claim includes a Cash Working Capital claim of \$576,313. Sch. SLS-7S.
79. The City’s original Cash Working Capital claim was \$570,830. Schedule SLS-8.
80. The City calculated this Cash Working Capital claim “based upon 12.5%, or one-eighth, of the operations and maintenance (“O&M”) expense, excluding bad debt expense.” OCA St. 2 at 12.
81. Cash working capital needs to be adjusted to account for recommended adjusted O&M expenses for Outside-City customers. Sch. SLS-8; OCA St. 2 at 12.

VII. EXPENSES

Chemical Expense

82. The City’s original adjusted increase to the chemical expense was \$6,292. OCA St. 2S at 8.
83. As part of its testimony and responses to data requests, the City noted that “[t]o properly reflect the prices for the FTY, Adjustment E-1 to the Chemical expense should have been \$24,927.” OCA St. 2 at 4.
84. The OCA agrees with the City’s most recent adjustment increase. OCA St. 2S at 8.

Uncollectible Account Expense

85. The City and OCA agree on \$100,620 to reflect the uncollectible accounts and for \$39,584 of that amount to be allocated to Outside-City customers. OCA St 2S at 2; City St. No. 1R at 5.
86. Initially, the City excluded the uncollectible expense from its filing. OCA St. 2 at 4.
87. The uncollectible expense is equal to the 2019 expense level. OCA St. 2 at 4.

Social Security

88. The City's original social security adjustment was for \$10,064. OCA St. 2 at 3.
89. The City stated that it "should have used 7.65% multiplied by the FTY pro forma adjustment in salaries to calculate the pro forma adjustment for the FTY social security. The adjustment to the HTY for the Social Security expense should have been \$39,021, which would result in a total Social Security expense of \$281,972 for the FTY." OCA St. 2 at 3.
90. Ms. Sherwood accepted that the Social Security expense was incorrectly calculated, and that the revised adjustment proposed by the City would correct that. OCA St. 2 at 4.
91. The social security expense is still adjusted as a result of Ms. Sherwood's recommended adjustment to salaries. OCA St. 2 at 4; App. A.2, Table II.

Salaries and Wages

92. In Adjustment E10, the City "adjusted the salaries and wages for Water Supply and Treatment and Water Maintenance by a collective \$378,527 [and] made a corresponding adjustment for Social Security." OCA St. 2 at 7–8 (citing City St. 1 at 32).
93. Social Security is calculated as 7.65% of the total Salaries and Wages expense for the FTY. OCA St. 2 at 8.
94. The City proposed pro forma adjustments to the HTY for 2019 and to the FTY for 2020. OCA St. 2 at 8.
95. The expense falls outside the test period because the raises at issue will not go into effect until January 1, 2021. OCA St. 2 at 8.
96. At no time in the FTY, "will Bethlehem incur the level of salaries and wages that it is claiming in this case." OCA St. 2 at 8.

APPENDIX B – PROPOSED FINDINGS OF FACT

97. The City “chose to use a FTY that corresponds to the calendar year and reflects the accounting results during that 12-month period and not beyond that period. As a result, the consideration of expenses to be included in the FTY is limited to those incurred as of December 31, 2020.” OCA St. 2S at 4.
98. The City “could have chosen a fiscal year for the FTY period or utilized a fully projected FTY to include the Salaries and Wages Expense and the associated Social Security Expense increases that are anticipated to occur on January 1, 2021.” OCA St. 2S at 4.

East Allen Township Expenses

99. To account for the fluctuation of the Equipment Maintenance Expense and Other Expenses categorized under East Allen Township (\$4,048 in 2017, \$11,648 in 2018, and \$34,605 in 2019), Ms. Sherwood recommended “that the FTY be adjusted to reflect the normalized expense over a three-year period, 2017 through 2019, to account for the fluctuations and one-time expenses.” OCA St. 2 at 9.
100. In this case, Ms. Sherwood explained that “the types of repairs vary from year to year, as well as the expenses incurred” and thus, “[i]t is not reasonable to expect that the annual equipment maintenance expense will remain at the 2019 levels given the historical expenses in prior years.” OCA St. 2S at 5–6.

Water Filtration Expenses

101. Several of the expenses included in the expenses for the water filtration vary annually. OCA St. 2 at 9.
102. In the City’s response to several of I&E’s interrogatories, “it was identified that the costs can vary from year-to-year depending on the needs of the system.” OCA St. 2 at 9-10. Specifically, the City “identified that the Department Contracts Expense, Heating Oil Expense, and Equipment Maintenance Expense include either one time expense or fluctuating expenses.” OCA St. 2 at 10.
103. To account for the fluctuation of those three expenses, Ms. Sherwood recommended that the FTY “be adjusted to reflect the normalized expense over a three-year period, 2017 through 2019, to account for the fluctuations and one-time expenses.” OCA St. 2 at 10.
104. “The normalized expense for the Department Contracts Expense is \$169,957, the Heating Oil Expense is \$42,986, and the Equipment Maintenance Expense is \$51,213 and as a result, the FTY should be adjusted by \$3,677, \$13,442, and \$23,458, respectively. Collectively, the total adjustment is \$40,577. OCA St. 2 at 10.

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105. Ms. Sherwood’s adjustment to those three expenses, which she reached “[u]sing the allocation factors identified in Exhibit CEH-1 Schedule D, [is] \$14,981 of the total adjustments to the Water Filtration Expenses to Outside-City customers.” OCA St. 2 at 10.

Rate Case Expense

106. The City proposes to normalize its projected \$414,560 rate case expense over three years. OCA St. 2 at 10.
107. The average historical time between the City’s last three rate filings, is 52-months. OCA St. 2 at 10.
108. The Water Department’s most recent rate case was filed on November 26, 2013, which is over six and a half years ago. OCA St. 2 at 10–11.
109. Based upon the last three rate cases, the average historical time between filings does not provide support for the Water Department’s three-year normalization. OCA St. 2 at 11.
110. If Bethlehem recognizes the entirety of its projected rate case expenses, \$414,560, the three-year normalization period would result in an annual expense of \$138,187, compared to \$95,668 over a 52-month period. Using a 52 month normalization period results in an adjustment of \$42,519. Sch.SLS-7; OCA St. 2 at 11.
111. The City’s invoices related to the customer demand study equaled \$58,990, which is \$570 less than Adjustment E4. When normalized over 10 years, as proposed by the Water Department, [Ms. Sherwood’s] proposed adjustment is \$57. OCA St. 2 at 11.
112. A 52 month normalization period, based on historical filing frequency, rather than speculation by the utility of when it might file cases in the future, is reasonable. OCA St. 2S at 3–4.
113. Using the City’s originally proposed rate case expense of \$414,560, the adjustment would be \$42,519. See Sch. SLS-7. With the revision to reflect the actual rate case expense incurred by the City, the adjustment to rate case expense is \$78,325. See Sch. SLS-6S; App. A.2, Table II.

VIII. RATE OF RETURN

Introduction

114. The City seeks an 7.42% overall rate of return, including a cost of equity of 10.2%, and a cost of debt of 5.77% along with a tax factor adjustment to the return on equity of 14%. City St. No. 2.

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115. The City uses a capital structure of 45% debt and 55% equity. OCA St. 3 at 78; City St. 2 at 14.
116. The City's 10.2% return on common equity includes multiple adders (80 basis points for Bethlehem's small size, 20 and 10 basis points for Bethlehem's business risks). OCA St. 3 at 64-68.
117. Mr. Garrett used a Discounted Cash Flow (DCF) analysis and a Capital Asset Pricing Model (CAPM) to arrive at his recommended cost of capital. OCA St. 3 at 30-46, 49-60.
118. Based on those two models, the average of the two approaches is a market-derived cost of common equity of 6.0%.
119. Mr. Garrett recommends a "business as usual" approach cost of common equity of 8.50%, and after adjustment for the 14% tax factor, a common equity cost rate of 7.31%. OCA St. 3 at 6; Figure 1; Exh. DJG-17.
120. Mr. Garrett uses a capital structure of 48% debt and 52% equity, based on the proxy group's average capital structure. OCA St. 3 at 6; Figure 1; Exh. DJG-17.
121. Mr. Garrett's overall rate of return, under a business as usual approach is 6.57%. OCA St. 3 at 6; Figure 1; Exh. DJG-17.

Capital Structure

122. The City proposes a capital structure of 45% debt and 55% equity. City St. 2 at 13.
123. This is a hypothetical capital structure, proposed by the City pursuant to recently enacted Section 1301(b) of the Public Utility Code. 66 Pa. C.S. § 1301(b).
124. Section 1301(b) requires the Commission to "employ an imputed capital structure of comparable public utilities" in setting rates, *inter alia*, for systems like the City. 66 Pa. C.S. § 1301(b).
125. The City's proposed hypothetical capital structure is "equity-rich" because the 55% equity component is far above the comparable public utilities. OCA St. 3 at 10.
126. Using the data from the proxy group, Mr. Garrett addressed the appropriate imputed capital structure and found that a capital structure with 48% debt and 52% equity was reasonable. OCA St. 3 at 73-81.
127. Capital structure refers to the way a company finances its overall operations through external financing. OCA St. 3 at 73-74.

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128. The primary sources of long-term, external financing are debt capital and equity capital. OCA St. 3 at 73-74.
129. Debt capital usually comes in the form of contractual bond issues that require the firm to make payments, while equity capital represents an ownership interest in the form of stock. OCA St. 3 at 73-74.
130. Because a firm cannot pay dividends on common stock until it satisfies its debt obligations to bondholders, stockholders are referred to as “residual claimants.” OCA St. 3 at 73-74.
131. The fact that stockholders have a lower priority to claims on company assets increases their risk and the required return relative to bondholders. Thus, equity capital has a higher cost than debt capital. OCA St. 3 at 73-74.
132. Firms can reduce their WACC [weighted average cost of capital] by recapitalizing and increasing their debt financing. OCA St. 3 at 73-74.
133. In addition, because interest expense is deductible, increasing debt also adds value to the firm by reducing the firm’s tax obligation. OCA St. 3 at 73-74.
134. There is an optimal debt ratio that will minimize the weighted average cost of capital (WACC). OCA St. 3 at 74-75.
135. The rate base/rate of return model does not effectively incentivize a utility to operate at the optimal capital structure because a higher WACC results in higher rates, all else equal. OCA St. 3 at 76.
136. Utilities can increase their revenue requirement by increasing their WACC, not by minimizing it. OCA St. 3 at 76.
137. Because there is no incentive for a regulated utility to minimize its WACC, a commission standing in the place of competition must ensure that the regulated utility is operating at the lowest reasonable WACC. OCA St. 3 at 76.
138. Utilities generally can have higher debt levels than other industries due to the large amount of fixed assets, stable earnings and low risk relative to other industries. OCA St. 3 at 77.
139. Because utilities have low levels of risk and operate a stable business, they should generally operate with relatively high levels of debt to achieve their optimal capital structure.” OCA St. 3 at 77.
140. The Commission can provide the incentive, to find the optimal debt ratio that is missing in the rate base/rate of return model, by setting rates consistent with a

APPENDIX B – PROPOSED FINDINGS OF FACT

capital structure that is similar to what would be appropriate in a competitive environment. OCA St. 3 at 78.

141. The capital structure of comparable public utilities is based on the projected 2020 capital structure of the proxy group had average debt ratios of 48%. OCA St. 3 at 79; Exh. DJG-16.
142. Mr. Garrett and Mr. Walker used the same proxy group and Value Line Invest Survey. OCA St. 3 at 79.
143. Mr. Garrett’s review included more current information (October 9, 2020 versus Mr. Walker’s use of data as of January 10, 2020) given the timing of Mr. Garrett’s direct testimony. OCA St. 3 at 79.
144. Competitive industries with debt ratios of at least 48%, (3,500 firms) have average debt ratios of more than 60%, including some industries that are relatively comparable to public utilities. See OCA St. 3 at 80-81; Figure 17.
145. Mr. Garrett and Mr. Walker both used Value Line’s report for the capital structure analysis and used figures described in the report as “Long-Term Debt Ratio”. OCA St. 3S at 8.
146. Mr. Walker used debt ratios projected out to 2023-2025, while Mr. Garrett used proposed debt ratios to the end of 2020. OCA St. 3S at 8-9.
147. The 2020 debt ratios are preferable because they are more current, reliable and accurate, and require less estimation (only a few months as opposed to several years). OCA St. 3S at 8-9.

Cost of Debt

148. The City’s proposed cost of debt is 5.77%. See OCA St. 3 at 6.

Cost of Equity

Introduction

149. Mr. Garrett used the Discounted Cash Flow (DCF) model and the Capital Asset Pricing Model (CAPM) in determining a market based cost of equity of 6.0%. OCA St. 3 at 6.
150. Mr. Garrett recommended a “business as usual” cost of equity of 8.50% noting that his recommendation was based on gradualism and the concern that awarding a return of 6.0% [under the business as usual scenario] would be a substantial movement away from the status quo. OCA St. 3 at 8-10.

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151. Awarding an ROE that is too far above a regulated utility's cost of equity runs the risk of being at odds with Hope and Bluefield, especially during the unique circumstances created by an unprecedented pandemic. OCA St. 3 at 9.
152. Under a "business as usual" approach, an awarded ROE of 8.5% represents a good balance between the Supreme Court's indications that awarded ROEs should be based on cost, while also recognizing that the end result must be just and reasonable under the circumstances. See OCA St. 3 at 10.
153. An awarded ROE of 8.5% represents a relatively gradual, yet decisive move toward Bethlehem's market-based cost of equity, while still providing Bethlehem's shareholders with the opportunity to earn a return that is about 250 basis points above Bethlehem's market-based cost of equity (8.5% vs. 6.0%). OCA St. 3 at 10.
154. City witness Walker's proposed 10.2% cost of equity determination is overstated due to violations of fundamental, widely accepted tenets in finance and valuation. OCA St. 3 at 10.
155. A return on equity that is more than 400 basis points above the market-based cost of equity is not reasonable and should not be adopted. See OCA St. 3 at 10.

Business Risk and Financial Risk

156. Risk is among the most important factors for the Commission to consider when determining the allowed return. OCA St. 3 at 23.
157. There is a direct relationship between risk and return: the more (or less) risk an investor assumes, the larger (or smaller) return the investor will demand. OCA St. 3 at 23.
158. There are two types of risk – firm-specific risk and market risk. OCA St. 3 at 23.
159. Firm-specific risk affects individual companies and market risk "affects all companies in the market to varying degrees." OCA St. 3 at 23.
160. Firm specific risks include project risk, financial risk, default risk and business risk. OCA St. 3 at 23-24 (footnotes omitted).
161. Business risk is all other operating and managerial factors that may result in investors realizing less than their expected return in that particular company. OCA St. 3 at 23-24 (footnotes omitted).
162. Business risk includes interest rate risk, inflation risk, and the risk of major socio-economic events. OCA St. 3 at 24.

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163. From an investor perspective, firm-specific risk, also called diversifiable risk, can be eliminated through diversification. OCA St. 3 at 25.
164. Diversification is a fundamental concept in finance and establishes that rational investors can add more stocks to their portfolio to seek to eliminate risk. OCA St. 3 at 25.
165. Diversification eliminates firm-specific risk for two reasons. First, each stock in a diversified portfolio represents a much smaller percentage of the overall portfolio that in would if the portfolio had just one or two stocks. OCA St. 3 at 25. Second, the “effects of firm-specific actions on stock prices can be either positive or negative for each stock.
166. In large diversified portfolios, the net effect of these positive and negative firm-specific risk factors will be essentially zero and will not affect the value of the overall portfolio.” OCA St. 3 at 25.
167. Eliminating firm-specific risk through diversification means that the market does **not** reward firm-specific risk through higher returns. OCA St. 3 at 26. Mr. Garrett explained that firm-specific risk is also called “unrewarded” risk for that reason.
168. Market risk, also called systematic risk, cannot be eliminated through diversification, and investors expect a return for assuming that type of risk. OCA St. 3 at 26.
169. Market risk is the only type of risk for which investors expect a return for bearing. OCA St. 3 at 26.
170. Market risk is the only type of risk that is rewarded by the market and is the “primary type of risk the Commission should consider when determining the allowed return.” OCA St. 3 at 26.
171. The measurement of market risk is done by determining the amount of risk that a single stock adds to the overall market portfolio. Investors measure the covariance between a single stock and the market portfolio and the result of this calculation is called ‘beta.’. OCA St. 3 at 27-28.
172. Beta represents the “sensitivity of a given security to the market as a whole.” OCA St. 3 at 28.
173. The entire market of all stocks has a beta of 1. OCA St. 3 at 28.
174. Stocks with a beta greater than 1.0 are more sensitive to market risk than the average stock. OCA St. 3 at 28.

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175. Stocks with betas lower than 1.0 are “relatively insulated from market conditions. OCA St. 3 at 28.
176. Public utilities are characterized as having low betas, low market risk and are relatively insulated from overall conditions. OCA St. 3 at 28.
177. Public utilities, with betas less than one, are categorized as “defensive stocks” and are one of the least risky industries in the U.S. market. OCA St. 3 at 28-29, Figure 5. This is beneficial to society, especially when the business cycle enters a recession. OCA St. 3 at 30.
178. The utility companies’ position as a defensive stock and a low risk industry should be reflected in Bethlehem’s awarded return. OCA St. 3 at 30.

Proxy Group

179. If a utility is not publicly traded, use of a proxy group of companies is a necessity because the financial models use information from publicly traded firms. OCA St. 3 at 22.
180. The proxy group can be used to assess the financial soundness of a utility and provides more reliability and confidence in the overall results from the financial models due to the larger sample size. OCA St. 3 at 22.
181. Mr. Garrett used the same proxy group as City witness Walker. OCA St. 3 at 22.

Discounted Cash Flow Analysis

182. Mr. Garrett used a Quarterly Approximation Discounted Cash Flow (DCF) Model that accounts for the quarterly growth of dividends. OCA St. 3 at 30.
183. The quarterly model that he used here produces the highest cost of equity estimates compared to other DCF model variations. OCA St. 3 at 30.
184. The DCF model is based on the concept that says that “the value of a security is equal to the present value of the future cash flow that it generates.” OCA St. 3 at 30. Cash flow from stocks is in the form of dividends paid to investors. OCA St. 3 at 30.
185. There are “three primary inputs in the DCF model: (1) stock price; (2) dividend; and (3) long-term growth rate.” OCA St. 3 at 30.
186. The stock price and dividend are recorded data for the proxy group while the growth rate projection needs to be estimated. OCA St. 3 at 30-31.

Stock Price

187. Mr. Garrett used the 30 day average of stock prices for each company in the proxy group. OCA St. 3 at 31; Exh. DJG-3.

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188. The short-term historical average was better than a one-day spot stock price, because it represents a good balance and avoids the problems associated with a one-day stock price. OCA St. 3 at 31; Exh. DJG-3.
189. Using a one-day stock prices is problematic in a rate case because (1) in a rate case that covers a significant length of time between filing and testimony, a one-day stock price would raise a separate issue of which day to use; and (2) a one-day stock price could be unusually high or low. OCA St. 3 at 33.

Dividend

190. The dividend input in the Quarterly Approximation DCF Model is the current quarterly dividend per share. OCA St. 3 at 32 Exh. DJG-4.
191. Mr. Garrett used the most recent quarterly dividend paid for each proxy group company. OCA St. 3 at 33.
192. This quarterly compounding of dividends explains why the quarterly model, versus the annual or semi-annual DCF models, results in the highest cost of equity estimates, all else held constant. OCA St. 3 at 33.

Growth Rate

193. The growth rate is the most critical input used in the DCF model. OCA St. 3 at 34.
194. The DCF model used in this case is the constant growth valuation model. OCA St. 3 at 34. That model assumes that the growth rate will stay at a constant rate forever. This is reasonable when used to determine the cost of equity for low-growth firms such as utilities. OCA St. 3 at 34.
195. To estimate the long-term growth rate used in the stable-growth DCF model, a fundamental concept in finance must be kept in mind, that is, “that no firm can grow forever at a rate higher than the growth rate of the economy in which it operates.” OCA St. 3 at 39.
196. The terminal growth rate used in the DCF model should not exceed the aggregate economic growth rate, especially because public utilities have defined service territories. OCA St. 3 at 39.
197. It is reasonable to assume that a regulated utility would grow at a rate that is less than the U.S. economic growth rate, often measured by the Gross Domestic Product (GDP). OCA St. 3 at 39. The “long-term forecast for nominal U.S. GDP growth is about 4%, which includes an inflation rate of 2%.” OCA St. 3 at 39.
198. The risk-free rate is sometimes used for the terminal growth rate in the DCF model because the risk-free rate “will converge on the growth rate of the economy”. OCA St. 3 at 40.

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199. For companies like utilities, the terminal growth rate will likely fall between the expected rate of inflation and the expected rate of nominal GDP growth. OCA St. 3 at 39-40.
200. For Bethlehem, a terminal growth rate between 2% and 4% is reasonable. OCA St. 3 at 40.
201. A qualitative analysis needs to be undertaken to determine the growth rate to be used in the model. OCA St. 3 at 41-45.
202. Mr. Garrett examined various qualitative determinants and maximum growth rates under basic principles of finance and economics to arrive at a terminal growth rates ranging from 1.5% to 3.9%. OCA St. 3 at 46; Exh. DJG-5.
203. He selected the maximum growth rate of 3.9% which means “my model assumes that Bethlehem’s qualitative growth in earnings will qualitatively match the nominal growth rate of the entire U.S. economy over the long run – a charitable assumption.” OCA St. 3 at 46; Exh. DJG-5.
204. Using the 3.9% growth rate the DCF model, along with the stock and dividend figures determined above, the resulting cost of equity estimate for Bethlehem is 6.1%. OCA St. 3 at 47; Exh. DJG-6.
205. Qualitatively, using the projected annual U.S. GDP as the long-term growth rate for each utility, overstates the growth rate because it is unlikely that utilities’ growth rate would be higher than the GDP. OCA St. 3S at 4.
206. Even if a specific utility’s historical earnings growth outpaces GDP growth over some period of time, its earnings would not outpace GDP growth over the long run and it would be unreasonable to assume such growth rates to infinity, as is required in the DCF model. OCA St. 3S at 4-5.
207. It is inappropriate to assume a utility’s historical earning growth would exceed GDP in the DCF model because they are not “qualitative” growth rates (i.e., based on a new product, or market, for example) and contribute to the circular reference problem. OCA St. 3S at 5; OCA St. 3 at 44-45, 70-71.
208. City witness Walker’s DCF analysis produced a cost of equity of 9.2%. OCA St. 3 at 47; City Exh. HW-1, Sch. 12 at 1.
209. Mr. Walker’s assumed growth rate is 9.2% which is more than two and a half times as high as the projected long-term nominal U.S. GDP growth. OCA St. 3 at 47; City St. 2 at 40-41.

APPENDIX B – PROPOSED FINDINGS OF FACT

210. This violates the basic finance principal that no company can grow at a rate greater than the economy in which it operates. OCA St. 3 at 47.
211. Another flaw in City witness Walker's growth rate determination is his reliance on analysts' short-term quantitative growth estimates. OCA St. 3 at 47-48.
212. Analysts at Zacks, Value Line, and Bloomberg publish estimated projections of earnings growth for utilities. OCA St. 3 at 45.
213. The analysts' estimates are short-term growth rate projections that range from 3-10 years. OCA St. 3 at 45.
214. Mr. Walker admits that his growth rate projections are short term, 5-year estimated projections. OCA St. 3 at 48; City St. 2 at 40.
215. Short term growth rate projections are not appropriate to use in the DCF model which requires long-term growth rates. Not only is that use in the DCF model fundamentally different than the analysts' short-term projections, it is an unrealistic assumption. OCA St. 3 at 44-45.
216. Mr. Walker is extrapolating the analyst's conclusions well beyond what the analyst actually said. Furthermore, this assumption is simply not realistic, and it contradicts fundamental concepts of long-term growth. Many of Mr. Walker's other short-term growth rate estimates also exceed projected U.S. GDP growth. OCA St. 3 at 48.

Capital Asset Pricing Model

217. The CAPM is a market-based model founded on the principle that investors expect higher returns for incurring additional risk. The CAPM estimates this expected return. OCA St. 3 at 49 (footnote omitted); App. B.
218. The CAPM directly considers the amount of risk in a business and has three inputs: (1) the risk-free rate; (2) the beta coefficient; and (3) the equity risk premium (ERP). OCA St. 3 at 49.
219. Mr. Garrett performed a CAPM analysis that resulted in a cost of equity of 5.9%. OCA St. 3 at 49-60.
220. Recognizing that the Commission relies on the DCF, Mr. Garrett's CAPM result supports the DCF result he calculated.
221. The surveys reviewed by Mr. Garrett are not the opinion of one person, they are expert surveys that include the opinions of more than 2,000 experts in the U.S regarding the ERP. OCA St. 3S at 7.

APPENDIX B – PROPOSED FINDINGS OF FACT

222. City witness Walker's average CAPM analysis produced a cost of equity of 9.2%. OCA St. 3 at 60; City Exh. HW-1, Sch. 17 at 1.
223. Mr. Walker used 2.4% for the risk free rate. OCA St. 3 at 61. This is flawed for a number of reasons. First, the current yields on 30-year Treasury Bonds, the best estimate for the risk-free rate, is about 1.5% and has not been as high as 2.4% for the entire year. Id. Second, Mr. Walker's use of projected information results in an upward bias. Id.
224. Mr. Walker did not use a reasonable measure for the ERP, which ranged as high as 9.1%. The ERP is one of the three inputs in the CAPM. OCA St. 3 at 62-63.
225. The highest ERP found by Mr. Garrett, using three widely accepted methods for estimating ERP, was 6.0%. OCA St. 3 at 62.63.
226. City witness Walker adds 0.80% or 80 basis points to his CAPM results as a size premium adjustment. OCA St. 3 at 64.
227. The size premium is without any foundation and should be rejected. OCA St. 3 at 64-67.
228. First, numerous studies have shown that small cap stocks do not outperform large cap stocks. OCA St. 3 at 64-66. Thus, the "size premium is a dead phenomenon." OCA St. 3 at 65.
229. There is no need to use a size premium adjustment to account for the proxy group's relatively low betas because the betas already account for the theory that the low-beta stocks might tend to be underestimated and there is empirical evidence that the beta-adjustment method overstates betas for the low-beta industries like utilities. OCA St. 3 at 66; App. B.
230. Mr. Walker added 0.10%, or 10 basis points, to his cost of equity results due to the City-specific risks. OCA St. 3 at 67; City St. 2 at 60-61.
231. This adder is not based on accepted financial principles. Firm specific risk can be eliminated through portfolio diversification and are not rewarded by the market. See VIII.E.2, supra; OCA St. 3 at 67-68.
232. The risk factors that Mr. Walker describes are firm specific risks for Bethlehem and investors do not require additional basis points for these firm-specific business risks. OCA St. 3 at 68.
233. He notes that neither the DCF model nor the CAPM have an input for specific business risks because investors do not expect a return for such risks. OCA St. 3 at 68.

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234. In his comparable and expected earnings analyses, Mr. Walker looked at the projected earned returns of the proxy group utilities and competitive firms as well as the expected earnings of the proxy group. OCA St. 3 at 69-71.
235. Earned returns should not have a meaningful effect on the cost of equity estimate, even as a check. OCA St. 3 at 69.
236. Earned returns and expected returns are two different concepts. In finance, the “expected” return on equity as investor (which is synonymous with the “cost” of equity from the company’s perspective) is simply based on the risk inherent in that investment, and is not directly influenced by the company’s actual, earned return for any given period of time. OCA St. 3 at 69-70.
237. Using earned returns as a consideration in recommending his awarded ROE creates a circular reference or feedback loop. OCA St. 3 at 69-70.
238. The circular reference problem perpetuates artificially inflated returns. OCA St. 3 at 70; Fig. 13.

Proposed Conclusions of Law and Ordering Paragraphs

OCA PROPOSED CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the parties and the subject matter of this proceeding. 66 Pa. C.S. § 101, *et seq.*
2. The utility requesting the rate increase has the burden of establishing the justness and reasonableness of every element of its requested rate increase. 66 Pa. C.S. §§ 315(a), 1301; Lower Frederick Twp. v. Pa. PUC, 48 Commw. 222, 226-27 (1980).
3. Bethlehem has the burden of proving that the rate involved is just and reasonable. 66 Pa. C.S. §§ 315(a), 1301, and 1308(e).
4. The Commission has broad authority to consider a utility's customer service and quality of service and is required to evaluate the "efficiency, effectiveness and adequacy of service" in reviewing existing and proposed rates. 66 Pa. C.S. §§ 523(a), 1501.
5. The Commission has authority to prescribe just and reasonable standards and practices to be furnished by a utility and to require changes and improvements, as necessary to make such service and facilities adequate, efficient, safe and reasonable. 66 Pa. C.S. §§ 1501, 1504.
6. As a consequence of the COVID-19 pandemic's impact on the health and economy of the Commonwealth and the world, many of the Future Test Year projections included in Bethlehem's filing cannot be found to be just and reasonable.
7. As a result of the COVID-19 pandemic, it cannot be found to be just or reasonable to impose any rate increase at this time when unemployment numbers are close to record highs and the economic effects of the pandemic will not be fully known for some time.
8. If, in the alternative, the Commission deems it necessary to review Bethlehem's rate increase under traditional ratemaking provisions, the revenue increase shall be limited to no more than \$443,666.
9. PAWC has not met its burden of proving that the rates, rules and regulations in its existing and proposed tariffs are just and reasonable.

OCA PROPOSED ORDERING PARAGRAPHS

It is hereby ORDERED THAT:

10. Bethlehem shall not place into effect the rates, rules and regulations contained in Supplement No. **, which has been found to be unjust, unreasonable and, therefore, unlawful.

Proposed Conclusions of Law and Ordering Paragraphs

11. In light of the impact of the COVID-19 pandemic, Bethlehem shall not be authorized to file tariffs, tariff supplements, or tariff revisions containing rates, provisions, rules and regulations, consistent with the findings herein, to produce any revenue increase.
12. If in the alternative, Bethlehem is permitted to increase its base rate revenues under traditional ratemaking provisions, Bethlehem shall be authorized to file tariffs, tariff supplement, or tariff revisions limited to a revenue increase of no more than \$443,666.
13. Bethlehem shall take the following actions to comply fully with its Stipulation with OCA regarding the following:
 - a. The City will exercise approximately 900 valves per year in the jurisdictional areas so that all valves are exercised at least once in a 5-year period.
 - b. The City will establish and document an ongoing program and schedule for maintenance or replacement of inoperable valves identified as such in the annual valve exercise program, subject to availability of resources to affect such improvements.
 - c. For the sixty-five (65) fire hydrants in its jurisdictional areas that cannot provide minimum flow of 500 gpm at 20 psig, the City will test these hydrants no later than October 31, 2021 to confirm capacity and will appropriately mark those that do not meet the minimum flow and pressure requirements as recommended.
 - d. Regarding the City's four small community well systems, the City will perform pressure surveys in accordance with regulatory requirements starting in calendar year 2021.
 - e. Going forward, and starting with the UFW calculation for calendar year 2020, the City will begin using the Commission Section 500 method for the purpose of assisting the Commission in its review of future rate cases. The City will take steps to maintain UFW below 20% and, in its next base rate case, if UFW is above 20%, provide a narrative explanation of possible reasons for it.
 - f. The City shall establish and maintain a single complaint log in live Excel format that satisfies 52 Pa. Code § 65.3. The following categories shall be part of the log so that the data can be sorted by date and location: dirty water, taste, odor, color, customer property damage, leaking meter, request for meter testing, request for water testing, incomplete surface restoration, and lead service lines.
 - g. The City will submit a schedule to OCA and the Commission indicating the number and size of meters that need to be replaced or tested in order to comply with the requirements of 52 Pa. Code § 65.8. within seven years. The schedule will be submitted within 6 months of the entry of an order in this proceeding.

Proposed Conclusions of Law and Ordering Paragraphs

14. Bethlehem shall file detailed calculations with its tariff filing, which shall demonstrate to this Commission's satisfaction that the filed rates comply with the proof of revenue, in the form and manner customarily filed in support of compliance tariffs.
15. Bethlehem shall comply with all directives, conclusions and recommendations contained in this Commission's Opinion and Order that are not the subject of individual ordering paragraphs as fully as if they were the subject of specific ordering paragraphs.
16. Bethlehem shall allocate the authorized increase in operating revenues to each customer class and rate schedule within each class in the manner set forth in this Order.
17. The Complaints filed by the various parties to this proceeding at Docket Number R-2020-3020256 are granted in part and denied in part, to the extent consistent with this Commission's Opinion and Order.

DATE: _____

Administrative Law Judge Steven Haas

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
v.	:	Docket No. R-2020-3020256
The City of Bethlehem – Water Department	:	
	:	

OFFICE OF CONSUMER ADVOCATE’S TESTIMONY AND
EXHIBITS TO BE ADMITTED TO THE RECORD

Below is the listing of testimony and exhibits of which the Office of Consumer Advocate intends to move into the record at the evidentiary hearing in the above captioned proceeding:

On behalf of Scott J. Rubin:

- OCA Statement 1
- OCA Statement 1, Appendix A
- OCA Schedule SJR-1 (Updated in Surrebuttal)
- OCA Schedule SJR-2
- OCA Schedule SJR-3
- OCA Schedule SJR-4
- OCA Schedule SJR-5
- OCA Statement 1S
- OCA Schedule SJR-6S
- OCA Schedule SJR-7S
- OCA Schedule SJR-8S

On behalf of Stacy L. Sherwood:

- OCA Statement 2
- OCA Statement 2, Appendix A
- OCA Schedule SLS-1
- OCA Schedule SLS-2
- OCA Schedule SLS-3
- OCA Schedule SLS-4
- OCA Schedule SLS-5
- OCA Schedule SLS-6
- OCA Schedule SLS-7
- OCA Schedule SLS-8
- OCA Schedule SLS-9
- OCA Statement 2S
- OCA Schedule SLS-1S
- OCA Schedule SLS-2S

- OCA Schedule SLS-3S
- OCA Schedule SLS-4S
- OCA Schedule SLS-5S
- OCA Schedule SLS-6S
- OCA Schedule SLS-7S
- OCA Schedule SLS-8S

On behalf of David J. Garrett:

- OCA Statement 3
- OCA Statement 3, Appendix A
- OCA Statement 3, Appendix B
- OCA Exhibit DJG-1
- OCA Exhibit DJG-2
- OCA Exhibit DJG-3
- OCA Exhibit DJG-4
- OCA Exhibit DJG-5
- OCA Exhibit DJG-6
- OCA Exhibit DJG-7
- OCA Exhibit DJG-8
- OCA Exhibit DJG-9
- OCA Exhibit DJG-10
- OCA Exhibit DJG-11
- OCA Exhibit DJG-12
- OCA Exhibit DJG-13
- OCA Exhibit DJG-14
- OCA Exhibit DJG-15
- OCA Exhibit DJG-16
- OCA Exhibit DJG-17
- OCA Statement 3S

On behalf of Jerome D. Mierzwa:

- OCA Statement 4
- OCA Statement 4, Appendix A
- OCA Statement 4R
- OCA Statement 4S

On behalf of Terry L. Fought:

- OCA Statement 5
- OCA Statement 5, Appendix A
- OCA Exhibit TLF-1
- OCA Exhibit TLF-2
- OCA Exhibit TLF-3
- OCA Exhibit TLF-4
- OCA Exhibit TLF-5

- OCA Exhibit TLF-6
- OCA Exhibit TLF-7
- OCA Exhibit TLF-8
- OCA Exhibit TLF-9
- OCA Exhibit TLF-10
- OCA Exhibit TLF-11
- OCA Statement 5S

WISCONSIN POWER & LIGHT CO. v. CITY OF БЕЛОIT

pal field before the utilities law was enacted. As to cities which had not obtained such vested right, the state may restrict their rights to operate in that field as it sees fit.

It has seen fit, as declared in the Chilton Case, to restrict their rights of operation in that field where an existing utility is so operating under an indeterminate permit by requiring them to procure a certificate of convenience and necessity before they can

so operate. If the existing utility does not provide adequate service or does not provide service at reasonable rates, the city may apply to the Public Service Commission for relief and procure it.

The order of the circuit court is reversed with direction to enter an order sustaining the demurrer and for further proceedings according to law.

Owen, J., took no part.

PENNSYLVANIA PUBLIC SERVICE COMMISSION

Re Utility Rates During Economic Emergency

Return, § 20 — Emergency return during economic depression.

1. The Commission unanimously adopted a resolution during a period of economic depression that so long as emergency conditions continue to exist an annual rate of return of 6 per cent to utilities operating within the state would be regarded as a fair and reasonable return on the value of property used in rendering service to the public, p. 123.

Rates, § 644 — Informal procedure for statewide reductions — Economic depression.

2. Pursuant to a resolution unanimously adopted by the Commission to restrict all utilities in the state to 6 per cent return during an economic emergency period, the Commission's bureau of accounts, rates, and statistics was instructed to base its rate studies on annual reports filed by utilities with the Commission—and to report the results of such studies to the Commission for use as the basis for informal conferences with the representatives of all utilities showing a return in excess of 6 per cent with a view to obtaining a rate reduction in such cases, p. 123.

[April 2, 1934.]

RESOLUTION adopted by the Commission on motion of one of the Commissioners declaring the policy of the Commission affecting future procedure and principles controlling utility rate fixing throughout the state.

By the COMMISSION: [1, 2] day of April, 1932, adopted the following resolution:
Whereas, this Commission on the 5th

PENNSYLVANIA PUBLIC SERVICE COMMISSION

"Now, therefore, be it *resolved*: That the Chairman of the Public Service Commission be and is hereby requested to appoint a committee of two Commissioners who shall hold conferences with electric utility companies in Harrisburg and at other places in the commonwealth designated by the Chairman, and utilize in the conduct of these conferences information and assistance from the records, bureaus, and personnel of the Commission, and shall promptly report to the Commission the results of their investigation concerning the reasonableness of the rate schedules and structures, with particular emphasis upon domestic rates, and advise the Commission with respect to the means of making such rate schedules and structures just and reasonable. To that end the designated Commissioners shall promptly hold conferences with the electric companies of Pennsylvania, and the Chairman and the secretary of the Commission are authorized and directed to request the attendance of accredited representatives of the electric utilities at these conferences."

and,

Whereas, pursuant to said resolution, the Commission has engaged continuously in conferences not only with the electric utility companies, but with companies rendering other forms of public service; and,

Whereas, under the rules and practice of this Commission, all public service companies under its jurisdiction were required and did file their annual reports for the year 1933 on or before March 31, 1934; and,

Whereas, this Commission should take cognizance of the present eco-

nomie conditions prevailing in the United States and as such economic conditions particularly affect the welfare of the people of this commonwealth; and,

Whereas, this Commission has given deep study to the proposition of what is a fair return to the utilities of Pennsylvania, giving consideration to the rate of return prudent investors may expect upon securities represented by all types of businesses, to the fact that the allowed fair return bears directly upon the rates charged every consumer and is, therefore, of vital importance to practically the entire population of Pennsylvania, and to every other factor necessarily involved; and,

Whereas, the Supreme Court of the United States has laid down the following rule (*Bluefield Water Works & Improv. Co. v. West Virginia Pub. Service Commission*, 262 U. S. 679, 692, 67 L. ed. 1176, P.U.R.1923D, 11, 20, 43 S. Ct. 675, quoted in *United R. & Electric Co. v. West*, 280 U. S. 234, 74 L. ed. 390, P.U.R.1930A, 225, 228, 50 S. Ct. 123, and *Los Angeles Gas & E. Corp. v. California R. Commission*, 289 U. S. 287, 319, 77 L. ed. 1180, P.U.R.1933C, 229, 249, 53 S. Ct. 637):

"A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; . . ."

and has further declared (*Dayton-*

RE UTILITY RATES DURING ECONOMIC EMERGENCY

Goose Creek R. Co. v. United States [1924] 263 U. S. 456, 481, 68 L. ed. 388, 44 S. Ct. 169, 33 A.L.R. 472:

“By investment in a business dedicated to the public service the owner must recognize that, as compared with investment in private business, he cannot expect either high or speculative dividends. . . .”

Now, therefore, April 2, 1934, be and it is hereby *resolved*: That so long as the present economic conditions of the country exist, this Commission believes that an annual rate of return of 6 per centum to public service companies in its jurisdiction is a fair and reasonable return on the value of the property used and useful in the rendition of the service to

the public; and further, that the Commission confer with representatives of the public service companies earning more than a fair return upon this basis for the purpose of having them revise their rate structures to conform to this annual rate of return; and further, that the bureau of accounts, rates, and statistics be directed to use this basis for its study and analysis of the annual reports for the year 1933 filed by the public service companies on or before March 31, 1934, in accordance with the policy of the Commission adopted on the 5th day of April, 1932, and to report to the Commission the result of the study for such further action as the Commission may determine.

INDIANA PUBLIC SERVICE COMMISSION

Re Discounts and Penalties

[No. 11683.]

Payment, § 53 — Gross and net rates — Penalties.

1. The practice should be discontinued of providing in rate schedules for so-called gross and net rates and penalties for default in the payment of service bills, p. 126.

Rates, § 171 — Schedules — Uniformity for utilities.

2. There should be substantial uniformity in rate tariffs of the utilities of the state, p. 126.

Service, § 162 — Rules and regulations — Uniformity for utilities.

3. There should be substantial uniformity in rules, regulations, and practices of the utilities of the state, p. 126.

Payment, § 2 — Uniform regulations.

4. There should be more uniformity in the practices of public utilities of the state with respect to the collection of patrons' service bills, and with respect to penalties, charges, and/or discounts, p. 126.

Payment, § 53 — Discount for promptness — Collection or deferred payment charges.

5. Utilities should be permitted to provide by appropriate tariff provisions