



Erie City Water Authority
 Cost of Service and Rate Design for Years 2015-2019

Erie Water Works (EWW) has contracted with AUS, Inc. to develop water rates for the period 2015–2019. The existing 5-year rate schedule will expire on December 31, 2014, AUS, Inc. was instructed to utilize the American Water Works Association (AWWA) recommended, M-1 Manual as a basis for performing a Cost of Service study to develop a new 5-year rate schedule for the years 2015 – 2019. The new rate schedule is necessary as EWW is required to provide safe and reliable drinking water to its customers and as a result, must recover the costs associated with providing that service. Representative costs that drive water rates include, but are not limited to:

- Compliance with the Safe Drinking Water Act and the Clean Water Act
- Replacement/repair of Plant, Property and Equipment
- Increased operating costs associated with providing service

In order to supply reliable service, the EWW must have the necessary cash flows to meet the demands that the system requires. EWW has determined what monies are needed after developing their 2015 - 2019 Operating Budgets. The operating budgets shown below list the total expenses (excluding non-water operations) that have been projected in order to run the system efficiently and pay any debt that is outstanding. These costs need to be covered by revenue generated by customer charges.

Chart 1: EWW Water Operating Budget 2015-2019

	2015	2016	2017	2018	2019
Operating Expenses	\$16,994,752	\$17,648,540	\$18,423,758	\$19,216,215	\$20,042,621
Debt Service Payments	14,268,094	14,524,810	16,451,880	16,464,029	16,465,479
Lease Payment	3,595,017	3,600,000	3,600,000	3,600,000	3,600,000
COLA Pension Liability	<u>50,672</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Expenses	\$34,908,535	\$35,773,350	\$38,475,638	\$39,280,243	\$40,108,100
Miscellaneous Income	<u>(\$816,100)</u>	<u>(\$816,100)</u>	<u>(\$816,100)</u>	<u>(\$816,100)</u>	<u>(\$816,100)</u>
Revenue Requirement	<u>\$34,092,435</u>	<u>\$34,957,250</u>	<u>\$37,659,538</u>	<u>\$38,464,143</u>	<u>\$39,292,000</u>

These costs are then functionalized and allocated to the various classes of customers through the cost of service study as outlined in the AWWA M-1 Manual. Water rates developed using the principles described in the AWWA M-1 Manual are fair and equitable because the rate setting method balances the anticipated revenues to be generated by each customer class with the anticipated costs that will be incurred to provide service to that class. The study uses those principles and determines how much of the costs included in the annual operating budgets will be paid by each customer class through the rates they pay for service. EWW is responsible for following these guidelines to develop their water rates by its lease with the City of Erie as well as its Water Service Agreements with the Millcreek and Summit Township Water Authorities (MTWA and STWA respectively). In addition, as a result of the conditional settlement of the 2014 arbitration case between EWW, MTWA and STWA, agreed to principals for the calculation of rates were established and adhered to in the drafting of this study.

Generating the customer class allocations is a two-step process. First, budgeted costs for items like operations and maintenance or debt service are allocated to functional categories. The functional categories segregate costs into those costs incurred to provide year-round base level service, the additional costs incurred to provide seasonally higher levels of service on the peak day and the incrementally higher costs incurred to provide extra capacity to meet peak hourly customer class demands. In addition, costs incurred to provide services that do not vary with the quantities of water produced, like the customer service and accounting functions or the provision of private fire service capacity are segregated into distinct functional groups. The next step involves allocating the functional costs to each customer class based on the way the class imposes base, peak day and peak hour demands on the system. This is done by reviewing the volume of water that each class has actually taken from the system on an average day, peak day and peak hourly basis.

The resulting cost of service for each customer class from 2015-2019 is listed in the table below:

Chart 2: Indicated Cost of Service per Customer Class 2015-2019

Class of Customer	2015	2016	2017	2018	2019
Domestic	\$17,871,438	\$18,278,180	\$19,679,622	\$20,044,765	\$20,414,132
Commercial	4,626,674	4,730,487	5,093,331	5,182,287	5,272,190
Industrial	4,494,714	4,593,692	4,937,416	5,022,589	5,108,593
Public	2,449,673	2,504,309	2,696,077	2,742,349	2,789,105
Bulk	3,594,652	3,683,833	3,963,115	4,045,916	4,131,101
Private Fire	<u>1,055,284</u>	<u>1,166,746</u>	<u>1,289,981</u>	<u>1,426,233</u>	<u>1,576,876</u>
Total	<u>\$34,092,435</u>	<u>\$34,957,247</u>	<u>\$37,659,542</u>	<u>\$38,464,139</u>	<u>\$39,291,997</u>

Once the costs associated with each customer class are determined, a customer Tariff Rate Design must be performed in order to develop the price EWW will charge their customers. Essentially, the rates for each class are developed by dividing the indicated cost of service by the number of billing units anticipated for the class. Billing units are the number of gallons of water that will be sold to each class along with the number of monthly or quarterly fixed service charges that will be billed over the course of a year. The rate design is not a “one size fits all” approach and many variables must be considered when developing the rates. EWW uses a declining block rate tariff as well as a customer service charge in order to recover the indicated cost of service from each customer class in the system. With the exception of bulk water and private fire class customers, the fixed charges and declining block rate design are the same for all classes. The rates for private fire are fixed service charges derived by dividing the indicated cost of service by the equivalent number fire lines that will be billed each year. Large fire lines are charged more than smaller lines because of the significantly greater loads that large diameter fire lines can exert on the system. Bulk customers pay the same fixed service charges that general metered service customers pay and these charges vary by meter capacity. The balance of the indicated cost of service for the bulk class is recovered through a single volumetric rate per hundred cubic feet of water purchased. Below are the proposed fixed charges per quarter based on meter size for all customers, with the exception of private fire line customers, and the proposed volumetric charges for the years 2015-2019. The year 2014 is included as a point of reference:

Chart 3: Quarterly Fixed Charges for all Customer Classes (excluding Private Fire Lines)

Meter Size	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
5/8"	\$17.45	\$21.04	\$21.62	\$23.28	\$23.94	\$24.63
3/4"	17.45	28.64	29.43	31.74	32.60	33.48
1"	35.62	43.92	45.12	48.73	49.99	51.29
1.5"	65.89	81.28	83.49	90.27	92.50	94.81
2"	102.23	126.47	129.91	140.54	143.95	147.46
3"	199.12	229.49	235.73	255.13	261.22	267.49
4"	308.12	377.71	387.98	419.99	429.93	440.18
6"	610.89	747.82	768.14	831.64	851.21	871.39
8"	974.23	1,191.51	1,223.88	1,325.14	1,356.24	1,388.33
10"	1,398.12	1,708.70	1,755.13	1,900.41	1,944.96	1,990.91
12"	2,003.68	3,182.62	3,269.10	3,539.81	3,622.67	3,708.18

Chart 4: Volumetric Charges for all Customer Classes (excluding Private Fire Lines)

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Block 1: 0-70 CCF	\$3.29	\$3.55	\$3.62	\$3.88	\$3.93	\$3.99
Block 2: Next 4,930 CCF	2.80	3.09	3.18	3.43	3.50	3.55
Block 3: Over 5,000 CCF	2.43	2.67	2.75	2.99	3.05	3.11
Bulk Rate	2.80	2.99	3.05	3.28	3.35	3.43

The following chart shows the proposed private fire line fixed charges for the years 2015-2019. The year 2014 is included as a point of reference.

Chart 5: Quarterly Fixed Charges for Private Fire Lines (2014-2019)

Meter Size	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
1"	\$10.23	\$12.74	\$14.08	\$15.57	\$17.21	\$19.03
2"	46.07	50.94	56.32	62.27	68.84	76.12
4"	184.29	203.76	225.28	249.08	275.36	304.48
6"	414.65	458.46	506.88	560.43	619.56	685.08
8"	737.15	815.04	901.12	996.32	1,101.44	1,217.92
10"	1,151.76	1,273.50	1,408.00	1,556.75	1,721.00	1,903.00
12"	1,658.58	1,833.84	2,027.52	2,241.72	2,478.24	2,740.32

In order to properly display the actual cost per quarter to a customer, a customer impact schedule was developed for the typical residential customer that uses water from the EWW system. The hypothetical price per quarter based on a customer using 20 CCF (approx. 15,000 gallons) of water per quarter is as follows:

Chart 6: Customer Impact Schedule

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Quarterly Bill	\$83.25	\$92.10	\$94.09	\$100.82	\$102.61	\$104.50
% Increase		10.63%	2.16%	7.15%	1.78%	1.84%
Compound Annual Growth						5.11%

The chart displays the growth in the typical residential customer bill over time. Although the percentage increase does vary from year to year, overall, from 2015-2019, the average customer will see a 5.06% increase over the five years covered by this study. This increase will provide EWW with the appropriate funds to maintain safe and reliable water service while minimizing customer rate impact.

As provided in the water service agreements, MTWA and STWA were invited to participate in the cost of service study. EWW, MTWA and STWA met in person on one occasion and over teleconference on one additional occasion. In those meetings, MTWA and STWA's rate expert submitted suggestions for EWW to consider in deriving the study. All suggestions were considered and incorporated into the study where appropriate.

Respectfully Submitted By:

AUS Consultants



Dylan W. D'Ascendis, CRRA



Gary D. Shambaugh

Erie Water Works
Summary of Charges
2015 - 2019

Customer Service Charge (Quarterly)

Meter Size	2014	2015	2016	2017	2018	2019
5/8"	\$ 17.45	\$ 21.04	\$ 21.62	\$ 23.28	\$ 23.94	\$ 24.63
3/4"	17.45	28.64	29.43	31.74	32.60	33.48
1"	35.62	43.92	45.12	48.73	49.99	51.29
1 1/2"	65.89	81.28	83.49	90.27	92.50	94.81
2"	102.23	126.47	129.91	140.54	143.95	147.46
3"	199.12	229.49	235.73	255.13	261.22	267.49
4"	308.12	377.71	387.98	419.99	429.93	440.18
6"	610.89	747.82	768.14	831.64	851.21	871.39
8"	974.23	1,191.51	1,223.88	1,325.14	1,356.24	1,388.33
10"	1,398.12	1,708.70	1,755.13	1,900.41	1,944.96	1,990.91
12"	2,003.68	3,182.62	3,269.10	3,539.81	3,622.67	3,708.18

Customer Service Charge (Monthly)

Meter Size	2014	2015	2016	2017	2018	2019
5/8"	\$ 5.82	\$ 7.01	\$ 7.21	\$ 7.76	\$ 7.98	\$ 8.21
3/4"	5.82	9.55	9.81	10.58	10.87	11.16
1"	11.87	14.64	15.04	16.24	16.66	17.10
1 1/2"	21.96	27.09	27.83	30.09	30.83	31.60
2"	34.08	42.16	43.30	46.85	47.98	49.15
3"	66.37	76.50	78.58	85.04	87.07	89.16
4"	102.71	125.90	129.33	140.00	143.31	146.73
6"	203.63	249.27	256.05	277.21	283.74	290.46
8"	324.74	397.17	407.96	441.71	452.08	462.78
10"	466.04	569.57	585.04	633.47	648.32	663.64
12"	667.89	1,060.87	1,089.70	1,179.94	1,207.56	1,236.06

Volumetric Charge (Price per CCF)

	2014	2015	2016	2017	2018	2019
Block 1: 0-70 CCF	\$ 3.29	\$ 3.55	\$ 3.62	\$ 3.88	\$ 3.93	\$ 3.99
Block 2: Next 4,930 CCF	2.80	3.09	3.18	3.43	3.50	3.55
Block 3: Over 5,000 CF	2.43	2.67	2.75	2.99	3.05	3.11
Bulk Rate	\$ 2.80	\$ 2.99	\$ 3.05	\$ 3.28	\$ 3.35	\$ 3.43

Private Fire Line Charges (Quarterly)

Meter Size	2014	2015	2016	2017	2018	2019
1"	\$ 10.23	\$ 12.74	\$ 14.08	\$ 15.57	\$ 17.21	\$ 19.03
2"	46.07	50.94	56.32	62.27	68.84	76.12
4"	184.29	203.76	225.28	249.08	275.36	304.48
6"	414.65	458.46	506.88	560.43	619.56	685.08
8"	737.15	815.04	901.12	996.32	1,101.44	1,217.92
10"	1,151.79	1,273.50	1,408.00	1,556.75	1,721.00	1,903.00
12"	1,658.58	1,833.84	2,027.52	2,241.72	2,478.24	2,740.32

Private Fire Line Charges (Monthly)

Meter Size	2014	2015	2016	2017	2018	2019
1"	\$ 3.41	\$ 4.25	\$ 4.69	\$ 5.19	\$ 5.74	\$ 6.34
2"	15.36	16.98	18.77	20.76	22.95	25.37
4"	61.43	67.92	75.09	83.03	91.79	101.49
6"	138.22	152.82	168.96	186.81	206.52	228.36
8"	245.72	271.68	300.37	332.11	367.15	405.97
10"	383.93	424.50	469.33	518.92	573.67	634.33
12"	552.86	611.28	675.84	747.24	826.08	913.44

Erie City Water Authority

Summary of Functional Cost Allocation Factors

Allocation Code	Description	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Check Total
1	Base Cost	99.25 %	- %	- %	- %	- %	- %	0.51 %	0.24 %	100.00 %
2	Base/Ex C - Max Day	66.17 %	33.33 %	- %	- %	- %	- %	0.34 %	0.16 %	100.00 %
3	Base/Ex C - Max Day w/ Fire (Trans OC)	52.88 %	26.64 %	- %	- %	- %	- %	14.00 %	6.48 %	100.00 %
4	Base/Exc - Max Hour w/ Fire (Includes Bulk)	31.47 %	- %	39.63 %	- %	- %	- %	19.76 %	9.14 %	100.00 %
5	Base/Exc - Max Hour w/ Fire (Excludes Bulk)	30.05 %	- %	37.89 %	- %	- %	- %	21.93 %	10.13 %	100.00 %
6	Hybrid Factor (Average of Factors 4&5 for Dist Assets)	30.76 %	- %	38.76 %	- %	- %	- %	20.85 %	9.64 %	100.00 %
7	Hybrid Factor (Weighted Avg of Factors 3,4,&5 for T&D exp)	42.93 %	14.65 %	17.44 %	- %	- %	- %	17.08 %	7.90 %	100.00 %
8	Customer Billing	- %	- %	- %	100.00 %	- %	- %	- %	- %	100.00 %
9	Customer Meters	- %	- %	- %	6.00 %	90.00 %	4.00 %	- %	- %	100.00 %
10	Customer Services	- %	- %	- %	- %	- %	100.00 %	- %	- %	100.00 %
11	Net Utility Plant (excluding General Plant)	48.32 %	18.29 %	13.82 %	0.14 %	2.11 %	0.09 %	11.78 %	5.45 %	100.00 %
12	Operating Expense minus power/chemicals/waste	46.81 %	20.98 %	6.48 %	7.36 %	8.47 %	0.38 %	6.51 %	3.01 %	100.00 %
13	Total Labor	48.08 %	22.28 %	4.84 %	7.79 %	9.38 %	0.42 %	4.93 %	2.28 %	100.00 %

System Factors:

	Base	Max Day	Max Hour
Max Day - Average Day	66.67 %	33.33 %	
Max Hour - Average Hour	44.44 %		55.56 %
T&D Mains	44.44 %	22.22 %	33.34 %

Erie City Water Authority

Test Period Ending December 31, 2015
Allocation of Pro Forma Rate Base

Acct. No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
	Utility Plant in Service, Original Cost										
	Source of Supply	\$ 5,164,552	\$ 5,125,818	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,339	\$ 12,395	1
	Filtration	41,293,618	27,322,987	13,763,163	-	-	-	-	140,398	66,070	2
	Pumping	12,889,143	3,995,460	5,034,592	-	-	-	-	2,707,587	1,251,504	6
	Storage	6,813,606	2,095,865	2,640,954	-	-	-	-	1,420,296	656,491	6
	Distribution	24,307,520	7,476,993	9,421,595	-	-	-	-	5,066,902	2,342,030	6
	Transmission	29,709,191	15,710,220	7,914,528	-	-	-	-	4,159,287	1,925,156	3
	Meters, Services, Hydrants	18,741,815	-	-	-	1,124,509	16,867,633	749,673	-	-	9
	Total Plant in Service (excluding General)	\$ 139,019,445	\$ 61,728,343	\$ 21,677,691	\$ 17,097,141	\$ 1,124,509	\$ 16,867,633	\$ 749,673	\$ 13,520,809	\$ 6,253,646	
	Pro Forma Depreciation Reserve										
	Source of Supply	\$ (4,571,323)	\$ (4,537,038)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (23,314)	\$ (10,971)	1
	Filtration	(23,897,535)	(15,813,012)	(7,965,053)	-	-	-	-	(81,252)	(38,236)	2
	Pumping	(9,842,983)	(3,027,702)	(3,815,141)	-	-	-	-	(2,051,769)	(948,371)	6
	Storage	(3,791,074)	(1,166,134)	(1,469,420)	-	-	-	-	(790,249)	(365,271)	6
	Distribution	(8,432,932)	(2,593,970)	(3,268,604)	-	-	-	-	(1,757,845)	(812,513)	6
	Transmission	(10,306,917)	(5,450,298)	(2,745,763)	-	-	-	-	(1,442,968)	(667,888)	3
	Meters	(17,416,620)	-	-	-	(1,044,997)	(15,674,958)	(696,665)	-	-	9
	Total Pro Forma Depr. Reserve	\$ (78,259,402)	\$ (32,588,154)	\$ (10,710,816)	\$ (8,553,165)	\$ (1,044,997)	\$ (15,674,958)	\$ (696,665)	\$ (6,147,397)	\$ (2,843,250)	
	Depreciated Plant (Excluding General)	\$ 60,760,043	\$ 29,140,189	\$ 10,966,875	\$ 8,543,976	\$ 79,512	\$ 1,192,675	\$ 53,008	\$ 7,373,412	\$ 3,410,396	
	Deductions										
	CAC & CIAC Plant:										
	Distribution	\$ (4,921,187)	\$ (1,513,758)	\$ -	\$ (1,907,452)	\$ -	\$ -	\$ -	\$ (1,025,821)	\$ (474,156)	6
	Transmission	(6,014,785)	(3,180,618)	(1,602,339)	-	-	-	-	(842,070)	(389,758)	3
	Total CIAC	\$ (10,935,972)	\$ (4,694,376)	\$ (1,602,339)	\$ (1,907,452)	\$ -	\$ -	\$ -	\$ (1,867,891)	\$ (863,914)	
	CAC and CIAC Accum. Depreciation										
	Distribution	\$ 3,086,519	\$ 950,028	\$ -	\$ 1,197,110	\$ -	\$ -	\$ -	\$ 643,802	\$ 297,579	6
	Transmission	3,774,857	1,996,144	1,005,622	-	-	-	-	528,480	244,611	3
	Total Accum. Depreciation	\$ 6,863,376	\$ 2,946,172	\$ 1,005,622	\$ 1,197,110	\$ -	\$ -	\$ -	\$ 1,172,282	\$ 542,190	
	Total CAC & CIAC	\$ (4,072,596)	\$ (1,748,204)	\$ (596,717)	\$ (710,342)	\$ -	\$ -	\$ -	\$ (695,609)	\$ (321,724)	
	Total Plant in Service (Excluding General)	\$ 56,687,447	\$ 27,391,985	\$ 10,370,158	\$ 7,833,634	\$ 79,512	\$ 1,192,675	\$ 53,008	\$ 6,677,803	\$ 3,088,672	
	Total Net Plant in Service (Excluding General) % (Percent Code 11)	100.00 %	48.32 %	18.29 %	13.82 %	0.14	2.11 %	0.09 %	11.78 %	5.45 %	
	Original Cost: General Plant	\$ 80,805,586	\$ 39,045,259	\$ 14,779,342	\$ 11,167,332	\$ 113,128	\$ 1,704,998	\$ 72,725	\$ 9,518,898	\$ 4,403,904	11
	Accumulated Depreciation: General Plant	(42,720,622)	(20,642,605)	(7,813,602)	(5,903,990)	(59,809)	(901,404)	(38,449)	(5,032,489)	(2,328,274)	11
	Total Net Plant in Service	\$ 94,772,411	\$ 45,794,639	\$ 17,335,898	\$ 13,096,976	\$ 132,831	\$ 1,996,269	\$ 87,284	\$ 11,164,212	\$ 5,164,302	

Erie City Water Authority

Test Period Ending December 31, 2015
Allocation of Pro Forma Operation and Maintenance Expense

Acct. No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense											
Distribution Expenses											
501.1	Personnel (Salaries)	\$ 162,613	\$ 69,810	\$ 23,823	\$ 28,360	\$ -	\$ -	\$ -	\$ 27,774	\$ 12,846	7
501.2	Personnel (Wages)	314,401	134,972	46,060	54,831	-	-	-	53,700	24,838	7
501.3	Personnel (Emergency and Scheduled OT)	79,488	34,124	11,645	13,863	-	-	-	13,577	6,279	7
502.1	Benefits (FICA)	54,274	23,300	7,951	9,465	-	-	-	9,270	4,288	7
502.4	Benefits (Workers Comp)	23,920	10,269	3,504	4,172	-	-	-	4,085	1,890	7
502.5	Benefits (Pension)	86,468	37,121	12,667	15,080	-	-	-	14,769	6,831	7
503.1	Supplies & Materials (Office)	1,173	503	172	205	-	-	-	200	93	7
503.2	Supplies & Materials (Operating)	72,222	31,005	10,580	12,595	-	-	-	12,336	5,706	7
503.3	Supplies & Materials (Fuel)	39,973	17,161	5,856	6,971	-	-	-	6,827	3,158	7
503.4	Supplies & Materials (Backfill)	127,215	54,614	18,637	22,186	-	-	-	21,728	10,050	7
503.6	Supplies & Materials (Small Tools)	20,329	8,727	2,978	3,546	-	-	-	3,472	1,606	7
503.7	Supplies & Materials (Uniforms)	6,017	2,583	882	1,049	-	-	-	1,028	475	7
503.8	Supplies & Materials (Printing)	232	100	34	40	-	-	-	40	18	7
503.9	Supplies & Materials (Software, Refer, Subs)	580	249	85	101	-	-	-	99	46	7
504.3	Other Svcs & Chgs (Training & Seminars)	1,622	696	238	283	-	-	-	277	128	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	56,083	24,076	8,217	9,781	-	-	-	9,579	4,430	7
504.9	Other Svcs & Chgs (Rentals)	7,718	3,313	1,131	1,346	-	-	-	1,318	610	7
504.10.0	Other Svcs & Chgs (Contracted Svcs)	21,978	9,435	3,220	3,833	-	-	-	3,754	1,736	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	59,850	25,694	8,768	10,438	-	-	-	10,222	4,728	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	321,070	137,835	47,037	55,994	-	-	-	54,839	25,365	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Barricades)	3,708	1,592	543	647	-	-	-	633	293	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	13,905	5,969	2,037	2,425	-	-	-	2,375	1,099	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,430	1,473	502	598	-	-	-	586	271	7
504.11	Misc Svcs & Chgs	1,226	526	180	214	-	-	-	209	97	7
	Total Distribution Expenses	\$ 1,479,495	\$ 635,147	\$ 216,747	\$ 258,023	\$ -	\$ -	\$ -	\$ 252,697	\$ 116,881	
Transmission Expenses											
501.1	Personnel (Salaries)	\$ 198,749	\$ 85,323	\$ 29,117	\$ 34,662	\$ -	\$ -	\$ -	\$ 33,946	\$ 15,701	7
501.2	Personnel (Wages)	384,268	164,966	56,295	67,016	-	-	-	65,633	30,358	7
501.3	Personnel (Emergency and Scheduled OT)	97,152	41,707	14,233	16,943	-	-	-	16,594	7,675	7
502.1	Benefits (FICA)	66,334	28,477	9,718	11,569	-	-	-	11,330	5,240	7
502.4	Benefits (Workers Comp)	29,235	12,551	4,283	5,099	-	-	-	4,993	2,309	7
502.5	Benefits (Pension)	105,684	45,370	15,483	18,431	-	-	-	18,051	8,349	7
503.1	Supplies & Materials (Office)	1,433	615	210	250	-	-	-	245	113	7
503.2	Supplies & Materials (Operating)	88,271	37,895	12,932	15,394	-	-	-	15,077	6,973	7
503.3	Supplies & Materials (Fuel)	48,857	20,974	7,157	8,521	-	-	-	8,345	3,860	7
503.4	Supplies & Materials (Backfill)	155,485	66,750	22,778	27,117	-	-	-	26,557	12,283	7
503.6	Supplies & Materials (Small Tools)	24,847	10,667	3,640	4,333	-	-	-	4,244	1,963	7
503.7	Supplies & Materials (Uniforms)	7,353	3,157	1,077	1,282	-	-	-	1,256	581	7
503.8	Supplies & Materials (Printing)	283	122	42	49	-	-	-	48	22	7
503.9	Supplies & Materials (Software, Refer, Subs)	708	304	104	123	-	-	-	121	56	7
504.3	Other Svcs & Chgs (Training & Seminars)	1,983	851	290	346	-	-	-	339	157	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	68,547	29,427	10,042	11,955	-	-	-	11,708	5,415	7
504.9	Other Svcs & Chgs (Rentals)	9,432	4,049	1,382	1,645	-	-	-	1,611	745	7
504.10.0	Other Svcs & Chgs (Contracted Svcs)	26,862	11,532	3,935	4,685	-	-	-	4,588	2,122	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	73,150	31,403	10,717	12,757	-	-	-	12,494	5,779	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	392,420	168,466	57,490	68,438	-	-	-	67,025	31,001	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Barricades)	4,532	1,946	664	790	-	-	-	774	358	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	16,995	7,296	2,490	2,964	-	-	-	2,902	1,343	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	4,192	1,800	614	731	-	-	-	716	331	7
504.11	Misc Svcs & Chgs	1,499	644	220	261	-	-	-	256	118	7
	Total Transmission Expenses	\$ 1,808,271	\$ 776,292	\$ 264,913	\$ 315,361	\$ -	\$ -	\$ -	\$ 308,853	\$ 142,852	

Erie City Water Authority
Test Period Ending December 31, 2015
Allocation of Pro Forma Operation and Maintenance Expense

Acct. No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Meter Expenses											
501.1	Personnel (Salaries)	\$ 167,140	-	\$ -	-	\$ 10,028	150,426	\$ 6,686	-	\$ -	9
501.2	Personnel (Wages)	351,520	-	-	-	21,091	316,368	14,061	-	-	9
501.3	Personnel (Emergency and Scheduled OT)	8,452	-	-	-	507	7,607	338	-	-	9
502.1	Benefits (FICA)	51,986	-	-	-	3,119	46,787	2,080	-	-	9
502.4	Benefits (Workers Comp)	46,818	-	-	-	2,809	42,136	1,873	-	-	9
502.5	Benefits (Pension)	89,365	-	-	-	5,362	80,428	3,575	-	-	9
503.1	Supplies & Materials (Office)	1,236	-	-	-	74	1,112	50	-	-	9
503.2	Supplies & Materials (Operating)	26,250	-	-	-	1,575	23,625	1,050	-	-	9
503.3	Supplies & Materials (Fuel)	31,500	-	-	-	1,890	28,350	1,260	-	-	9
503.6	Supplies & Materials (Small Tools)	6,118	-	-	-	367	5,506	245	-	-	9
503.7	Supplies & Materials (Uniforms)	3,610	-	-	-	217	3,249	144	-	-	9
503.8	Supplies & Materials (Printing)	528	-	-	-	32	475	21	-	-	9
504.3	Other Svcs & Chgs (Training & Seminars)	4,988	-	-	-	270	4,048	180	-	-	9
504.6	Other Svcs & Chgs (Permits, Fees Damages)	237	-	-	-	14	213	10	-	-	9
504.9	Other Svcs & Chgs (Rentals)	464	-	-	-	28	418	18	-	-	9
504.10.0	Other Svcs & Chgs (Contracted Svcs)	9,990	-	-	-	599	8,991	400	-	-	9
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	12,360	-	-	-	742	11,124	494	-	-	9
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	20,600	-	-	-	1,236	18,540	824	-	-	9
	Total Meter Expenses	\$ 832,672	\$ -	\$ -	\$ -	\$ 49,960	\$ 749,403	\$ 33,309	\$ -	\$ -	
Operation Expenses											
501.1	Personnel (Salaries)	\$ 286,232	\$ 189,400	\$ 95,401	-	-	-	-	\$ 973	\$ 458	2
501.2	Personnel (Wages)	883,084	584,337	294,332	-	-	-	-	3,002	1,413	2
501.3	Personnel (Emergency and Scheduled OT)	53,946	35,696	17,980	-	-	-	-	184	86	2
502.1	Benefits (FICA)	93,580	61,922	31,190	-	-	-	-	318	150	2
502.4	Benefits (Workers Comp)	7,949	5,260	2,649	-	-	-	-	27	13	2
502.5	Benefits (Pension)	146,555	96,975	48,847	-	-	-	-	498	235	2
503.1	Supplies & Materials (Office)	618	409	206	-	-	-	-	2	1	2
503.2	Supplies & Materials (Operating)	8,190	5,419	2,730	-	-	-	-	28	13	2
503.3	Supplies & Materials (Fuel)	19,950	13,201	6,649	-	-	-	-	68	32	2
503.5	Supplies & Materials (Chemicals)	438,600	435,310	-	-	-	-	-	2,237	1,053	1
503.6	Supplies & Materials (Small Tools)	20,600	13,631	6,866	-	-	-	-	70	33	2
503.7	Supplies & Materials (Uniforms)	5,775	3,821	1,925	-	-	-	-	20	9	2
503.8	Supplies & Materials (Printing)	52	34	18	-	-	-	-	-	-	2
503.9	Supplies & Materials (Software, Refer, Subs)	15,445	1,023	515	-	-	-	-	5	2	2
504.3	Other Svcs & Chgs (Training & Seminars)	1,957	1,295	652	-	-	-	-	7	3	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	3,111	2,058	1,037	-	-	-	-	11	5	2
504.7.0	Other Svcs & Chgs (Utilities)	1,648	1,636	-	-	-	-	-	8	4	1
504.7.1	Other Svcs & Chgs (Utilities - Electric)	1,925,000	1,910,563	-	-	-	-	-	9,817	4,620	1
504.7.2	Other Svcs & Chgs (Utilities - Natural Gas)	150,000	148,875	-	-	-	-	-	765	360	1
504.8	Other Svcs & Chgs (Refuse & Disposal)	758,314	752,627	-	-	-	-	-	3,867	1,820	1
504.9	Other Svcs & Chgs (Rentals)	773	511	258	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	35,742	23,650	11,913	-	-	-	-	122	57	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	5,253	3,476	1,751	-	-	-	-	18	8	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,090	2,044	1,030	-	-	-	-	11	5	2
	Total Operation Expenses	\$ 4,851,564	\$ 4,293,173	\$ 525,949	\$ -	\$ -	\$ -	\$ -	\$ 22,061	\$ 10,381	

Erie City Water Authority
Test Period Ending December 31, 2015
Allocation of Pro Forma Operation and Maintenance Expense

Acct. No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Maintenance Expenses											
501.1	Personnel (Salaries)	\$ 172,742	\$ 114,304	\$ 57,575	-	-	-	-	587	276	2
501.2	Personnel (Wages)	667,507	441,689	222,480	-	-	-	-	2,270	1,068	2
501.3	Personnel (Emergency and Scheduled OT)	23,859	15,788	7,952	-	-	-	-	81	38	2
502.1	Benefits (FICA)	66,104	43,741	22,032	-	-	-	-	225	106	2
502.4	Benefits (Workers Comp)	10,265	6,793	3,421	-	-	-	-	35	16	2
502.5	Benefits (Pension)	113,238	74,930	37,742	-	-	-	-	385	181	2
503.1	Supplies & Materials (Office)	2,627	1,738	876	-	-	-	-	9	4	2
503.2	Supplies & Materials (Operating)	87,098	57,633	29,030	-	-	-	-	296	139	2
503.3	Supplies & Materials (Fuel)	19,163	12,680	6,387	-	-	-	-	65	31	2
503.6	Supplies & Materials (Small Tools)	36,977	24,468	12,324	-	-	-	-	126	59	2
503.7	Supplies & Materials (Uniforms)	4,930	3,262	1,643	-	-	-	-	17	8	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,163	1,432	721	-	-	-	-	7	3	2
504.2	Other Svcs & Chgs (Prof Svcs Other)	412	273	137	-	-	-	-	1	1	2
504.3	Other Svcs & Chgs (Training & Seminars)	4,635	3,067	1,545	-	-	-	-	16	7	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	4,017	2,658	1,339	-	-	-	-	14	6	2
504.8	Other Svcs & Chgs (Reuse & Disposal)	16,686	10,560	5,126	-	-	-	-	85	41	1
504.9	Other Svcs & Chgs (Rentals)	1,133	749	378	-	-	-	-	4	2	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	128,475	85,011	42,821	-	-	-	-	437	206	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	16,995	11,246	5,664	-	-	-	-	58	27	2
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	42,230	27,943	14,075	-	-	-	-	144	68	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	73,748	48,799	24,580	-	-	-	-	251	118	2
	Total Maintenance Expenses	\$ 1,495,004	\$ 994,764	\$ 492,722	-	-	-	-	\$ 5,113	\$ 2,405	
Laboratory Expenses											
501.1	Personnel (Salaries)	\$ 83,804	\$ 55,453	\$ 27,932	-	-	-	-	285	134	2
501.2	Personnel (Wages)	108,017	71,475	36,002	-	-	-	-	367	173	2
501.3	Personnel (Emergency and Scheduled OT)	1,289	853	430	-	-	-	-	4	2	2
502.1	Benefits (FICA)	15,997	10,585	5,332	-	-	-	-	54	26	2
502.4	Benefits (Workers Comp)	1,882	1,246	627	-	-	-	-	6	3	2
502.5	Benefits (Pension)	27,511	18,203	9,170	-	-	-	-	94	44	2
503.1	Supplies & Materials (Office)	958	634	319	-	-	-	-	3	2	2
503.2	Supplies & Materials (Operating)	21,116	13,972	7,038	-	-	-	-	72	34	2
503.3	Supplies & Materials (Fuel)	1,449	959	483	-	-	-	-	5	2	2
503.6	Supplies & Materials (Small Tools)	10,380	6,868	3,460	-	-	-	-	35	17	2
503.7	Supplies & Materials (Uniforms)	330	218	110	-	-	-	-	1	1	2
503.8	Supplies & Materials (Printing)	309	205	103	-	-	-	-	1	-	2
503.9	Supplies & Materials (Software, Refer, Subs)	4,223	2,794	1,408	-	-	-	-	14	7	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,224	1,471	741	-	-	-	-	8	4	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	41,221	27,276	13,739	-	-	-	-	140	66	2
504.9	Other Svcs & Chgs (Rentals)	803	531	268	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	888	588	296	-	-	-	-	3	1	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	1,303	863	434	-	-	-	-	4	2	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	13,792	9,126	4,597	-	-	-	-	47	22	2
	Total Laboratory Expenses	\$ 337,496	\$ 223,320	\$ 112,489	-	-	-	-	\$ 1,146	\$ 541	

Erie City Water Authority

Test Period Ending December 31, 2015
Allocation of Pro Forma Operation and Maintenance Expense

Acct. No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Customer Services Expenses											
501.1	Personnel (Salaries)	\$ 61,303	\$ -	\$ -	\$ -	\$ 61,303	-	\$ -	-	\$ -	8
501.2	Personnel (Wages)	293,455	-	-	-	293,455	-	-	-	-	8
501.3	Personnel (Emergency and Scheduled OT)	2,815	-	-	-	2,815	-	-	-	-	8
502.1	Benefits (FICA)	27,354	-	-	-	27,354	-	-	-	-	8
502.4	Benefits (Workers Comp)	4,381	-	-	-	4,381	-	-	-	-	8
502.5	Benefits (Pension)	46,733	-	-	-	46,733	-	-	-	-	8
503.1	Supplies & Materials (Office)	8,240	-	-	-	8,240	-	-	-	-	8
503.2	Supplies & Materials (Operating)	1,680	-	-	-	1,680	-	-	-	-	8
503.3	Supplies & Materials (Uniforms)	515	-	-	-	515	-	-	-	-	8
503.8	Supplies & Materials (Printing)	4,635	-	-	-	4,635	-	-	-	-	8
503.9	Supplies & Materials (Software, Refer, Subs)	618	-	-	-	618	-	-	-	-	8
504.3	Other Svcs & Chgs (Training & Seminars)	515	-	-	-	515	-	-	-	-	8
504.5	Other Svcs & Chgs (Postage)	82,400	-	-	-	82,400	-	-	-	-	8
504.6	Other Svcs & Chgs (Permits, Fees Damages)	53,560	-	-	-	53,560	-	-	-	-	8
504.10.0	Other Svcs & Chgs (Contracted Svcs)	4,440	-	-	-	4,440	-	-	-	-	8
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	8,240	-	-	-	8,240	-	-	-	-	8
	Total Customer Services Expenses	\$ 600,884	\$ -	\$ -	\$ -	\$ 600,884	\$ -	\$ -	\$ -	\$ -	
Engineering Expenses											
501.1	Personnel (Salaries)	\$ 305,820	\$ 202,361	\$ 101,930	\$ -	\$ -	-	\$ -	\$ 1,040	\$ 489	2
501.2	Personnel (Wages)	212,894	140,871	70,958	-	-	-	-	724	341	2
501.3	Personnel (Emergency and Scheduled OT)	2,957	1,956	986	-	-	-	-	10	5	2
502.1	Benefits (FICA)	49,088	32,481	16,361	-	-	-	-	167	79	2
502.4	Benefits (Workers Comp)	1,998	1,322	666	-	-	-	-	7	3	2
502.5	Benefits (Pension)	88,983	58,880	29,658	-	-	-	-	303	142	2
503.1	Supplies & Materials (Office)	5,150	3,408	1,716	-	-	-	-	18	8	2
503.2	Supplies & Materials (Operating)	3,150	2,084	1,050	-	-	-	-	11	5	2
503.3	Supplies & Materials (Fuel)	4,515	2,988	1,505	-	-	-	-	15	7	2
503.6	Supplies & Materials (Small Tools)	2,575	1,704	858	-	-	-	-	9	4	2
503.7	Supplies & Materials (Uniforms)	1,030	681	343	-	-	-	-	4	2	2
503.8	Supplies & Materials (Printing)	721	478	240	-	-	-	-	2	1	2
503.9	Supplies & Materials (Software, Refer, Subs)	1,957	1,295	652	-	-	-	-	7	3	2
504.3	Other Svcs & Chgs (Training & Seminars)	8,240	5,453	2,746	-	-	-	-	28	13	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	8,240	5,453	2,746	-	-	-	-	28	13	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	1,776	1,175	592	-	-	-	-	6	3	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	1,854	1,227	618	-	-	-	-	6	3	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	28,325	18,743	9,441	-	-	-	-	96	45	2
	Total Engineering Expenses	\$ 729,273	\$ 482,560	\$ 243,066	\$ -	\$ -	\$ -	\$ -	\$ 2,481	\$ 1,166	
	Total Operating Expenses Before General and Admin	\$ 12,134,659	\$ 7,405,256	\$ 1,855,886	\$ 573,384	\$ 650,844	\$ 749,403	\$ 33,309	\$ 592,351	\$ 274,226	
	Less: Power / Chemical / Waste Expense	\$ 3,290,248	\$ 3,265,571	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,779	\$ 7,898	
	Total Operating Expense Less Power / Chem / Waste Exp.	\$ 8,844,411	\$ 4,139,685	\$ 1,855,886	\$ 573,384	\$ 650,844	\$ 749,403	\$ 33,309	\$ 575,572	\$ 266,328	
	Allocation Factor for General and Administrative Expenses (Factor 12)	100.00 %	46.81 %	20.98 %	6.48 %	7.36 %	8.47 %	0.38 %	6.51 %	3.01 %	

Erie City Water Authority
Test Period Ending December 31, 2015
Allocation of Pro Forma Operation and Maintenance Expense

Acct. No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Finance Expenses											
501.1	Personnel (Salaries)	\$ 162,516	76,074	34,096	10,531	11,961	13,765	617	10,580	4,892	12
501.2	Personnel (Wages)	157,154	73,563	32,971	10,184	11,567	13,311	597	10,231	4,730	12
501.3	Personnel (Emergency and Scheduled OT)	11,222	525	235	73	83	95	4	73	34	12
502.1	Benefits (FICA)	24,541	11,488	5,149	1,590	1,806	2,079	93	1,597	739	12
502.4	Benefits (Workers Comp)	2,302	1,078	483	149	169	195	9	150	69	12
502.5	Benefits (Pension)	51,249	23,990	10,752	3,321	3,772	4,341	195	3,336	1,542	12
503.1	Supplies & Materials (Office)	3,605	1,687	756	234	265	305	14	235	109	12
503.2	Supplies & Materials (Operating)	1,024	479	215	66	87	75	67	67	31	12
503.7	Supplies & Materials (Uniforms)	515	241	107	33	38	44	2	34	16	12
503.8	Supplies & Materials (Printing)	515	241	107	33	38	44	2	34	16	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	49,440	23,143	10,372	3,204	3,639	4,188	188	3,218	1,488	12
504.4	Other Svcs & Chgs (Permits, Fees Damages)	128,235	60,027	26,904	8,310	9,438	10,861	487	8,348	3,860	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	15,450	7,232	3,241	1,001	1,137	1,309	59	1,006	465	12
504.7.3	Other Svcs & Chgs (Utilities - Telecommunications)	72,100	33,750	15,127	4,672	5,306	6,107	274	4,694	2,170	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	7,770	3,637	1,630	503	572	658	30	506	234	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	10,506	4,918	2,204	681	773	890	40	684	316	12
504.12.1	Insurance - General Liability	254,410	119,089	53,375	16,486	18,725	21,548	967	16,562	7,658	12
	Total Finance Expenses	\$ 942,454	\$ 441,162	\$ 197,724	\$ 61,071	\$ 69,364	\$ 79,827	\$ 3,582	\$ 61,355	\$ 28,369	
Board Expenses											
503.2	Supplies & Materials (Operating)	5,150	2,411	1,080	334	379	436	20	335	155	12
504.3	Other Svcs & Chgs (Training & Seminars)	773	363	162	50	57	65	3	50	23	12
	Total Board Expenses	\$ 5,923	\$ 2,774	\$ 1,242	\$ 384	\$ 436	\$ 501	\$ 23	\$ 385	\$ 178	
Administrative Expenses											
501.1	Personnel (Salaries)	\$ 725,764	339,730	152,266	47,030	53,416	61,472	2,758	47,247	21,845	12
501.2	Personnel (Wages)	297,244	139,140	62,362	19,261	21,877	25,177	1,129	19,351	8,947	12
501.3	Personnel (Emergency and Scheduled OT)	44,597	20,876	9,357	2,890	3,282	3,777	2,903	3,292	1,342	12
502.1	Benefits (FICA)	86,068	40,288	18,057	5,577	6,335	7,290	327	5,603	2,591	12
502.2	Benefits (Op Ins)	1,660,998	777,513	348,477	107,633	122,249	140,687	6,312	108,131	49,996	12
502.5	Benefits (Pension)	147,921	69,242	31,034	9,585	10,887	12,529	562	9,630	4,452	12
503.1	Supplies & Materials (Office)	4,120	1,929	864	267	303	349	16	268	124	12
503.2	Supplies & Materials (Operating)	89,225	41,778	1,872	578	657	756	34	581	269	12
503.3	Supplies & Materials (Fuel)	5,250	2,458	1,101	340	386	445	20	342	158	12
503.7	Supplies & Materials (Uniforms)	3,680	1,723	772	238	271	312	14	239	111	12
503.8	Supplies & Materials (Printing)	21,630	10,125	4,538	1,402	1,592	1,832	82	1,408	651	12
503.9	Supplies & Materials (Software, Refel, Subs)	1,236	579	259	80	91	105	5	80	37	12
504.1	Other Svcs & Chgs (Prof. Svcs Other)	18,360	8,594	3,852	1,190	1,351	1,555	70	1,195	553	12
504.2	Other Svcs & Chgs (Prof. Svcs Engin)	600,148	280,929	125,911	38,890	44,171	50,832	2,281	39,070	18,064	12
504.3	Other Svcs & Chgs (Training & Seminars)	15,450	7,232	3,241	1,001	1,137	1,309	59	1,006	465	12
504.4	Other Svcs & Chgs (Communications)	6,180	2,893	1,297	400	455	523	24	402	186	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	26,368	12,343	5,532	1,709	1,941	2,233	100	1,716	794	12
504.9	Other Svcs & Chgs (Rentals)	18,025	8,437	3,782	1,168	1,327	1,527	68	1,173	543	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	32,079	15,016	6,730	2,079	2,361	2,717	122	2,088	966	12
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	618	289	130	40	46	52	2	40	19	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	129,780	60,750	27,228	8,410	9,552	10,992	493	8,449	3,906	12
504.11	Misc Svcs & Chgs	57,275	26,810	12,016	3,711	4,216	4,851	218	3,729	1,724	12
504.13	MTWA Related Expenses	-	-	-	-	-	-	-	-	-	12
	Total Administrative Expenses	\$ 3,911,716	\$ 1,831,074	\$ 820,678	\$ 253,479	\$ 287,903	\$ 331,322	\$ 14,866	\$ 254,651	\$ 117,743	
	Total Pro Forma Operating Expenses	\$ 16,994,752	\$ 9,680,266	\$ 2,875,530	\$ 888,318	\$ 1,008,547	\$ 1,161,053	\$ 51,780	\$ 908,742	\$ 420,516	
	Total Labor Expense	\$ 6,311,904	\$ 3,034,993	\$ 1,406,418	\$ 305,644	\$ 491,385	\$ 591,998	\$ 26,360	\$ 311,136	\$ 143,970	
	Total Labor Expense (Factor 1.3) %	100.00 %	48.08 %	22.28 %	4.84 %	7.79 %	9.38 %	0.42 %	4.93 %	2.28 %	

Erie City Water Authority
Test Period Ending December 31, 2015
Allocation of Pro Forma Revenue Requirement

Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma Revenue Requirement										
Operating Expenses	\$ 16,994,752	\$ 9,680,266	\$ 2,875,530	\$ 888,318	\$ 1,008,547	\$ 1,161,053	\$ 51,780	\$ 908,742	\$ 420,516	
Debt Service	14,268,094	6,894,343	2,609,634	1,971,851	19,975	301,057	12,841	1,680,782	777,611	11
City Lease Payment	3,595,017	1,737,112	657,529	496,831	5,033	75,855	3,236	423,493	195,928	11
COLA Pension Liability	50,672	24,363	11,290	2,453	3,947	4,753	213	2,498	1,155	13
Total Revenue Requirement	\$ 34,908,535	\$ 18,336,084	\$ 6,153,983	\$ 3,359,453	\$ 1,037,502	\$ 1,542,718	\$ 68,070	\$ 3,015,515	\$ 1,395,210	
Total Revenue Requirement %	100.00 %	52.53 %	17.63 %	9.62 %	2.97 %	4.42 %	0.19 %	8.64 %	4.00 %	
Other Revenues	(816,100)	(382,017)	(171,218)	(52,883)	(60,065)	(69,124)	(3,101)	(53,127)	(24,565)	12
Net Revenue Requirement	\$ 34,092,435	\$ 17,954,067	\$ 5,982,765	\$ 3,306,570	\$ 977,437	\$ 1,473,594	\$ 64,969	\$ 2,962,388	\$ 1,370,645	
Net Revenue Requirement less Public Fire	\$ 31,130,047	\$ 17,954,067	\$ 5,982,765	\$ 3,306,570	\$ 977,437	\$ 1,473,594	\$ 64,969	\$ -	\$ 1,370,645	
Reallocation of Public Fire Costs	\$ 2,962,388	-	-	-	177,743	2,666,149	118,496	-	-	9
Net Revenue Requirement	\$ 34,092,435	\$ 17,954,067	\$ 5,982,765	\$ 3,306,570	\$ 1,155,180	\$ 4,139,743	\$ 183,465	\$ -	\$ 1,370,645	

Erie City Water Authority

Summary of Water Customer Class Allocation Factors
For the Year Ending December 31, 2015

Allocation Code	Description	Domestic	Commercial	Industrial	Public	Bulk	Check Total
14	Base Cost	45.94 %	14.28 %	17.97 %	8.00 %	13.81 %	100.00 %
15	Maximum Day	55.71 %	12.12 %	11.99 %	6.79 %	13.39 %	100.00 %
16	Maximum Hour	57.85 %	15.28 %	9.62 %	8.56 %	8.69 %	100.00 %
17	Customer Costs	91.53 %	6.19 %	0.62	1.62 %	0.04 %	100.00 %
18	Meters	71.81 %	16.72 %	4.23 %	6.61 %	0.63 %	100.00 %
19	Services	85.02 %	10.50 %	1.37 %	2.99 %	0.12 %	100.00 %

Erie City Water Authority
Customer Class Allocation
Water Pro Forma Net Revenue Requirement
For the Year Ending December 31, 2015

	Total	Domestic	Commercial	Industrial	Public	Bulk	Allocation Code
Base Cost	\$ 17,954,067	\$ 8,248,098	\$ 2,563,841	\$ 3,226,346	\$ 1,436,325	\$ 2,479,457	14
Maximum Day	5,982,765	3,332,998	725,111	717,334	406,230	801,092	15
Maximum Hour	3,306,570	1,912,851	505,244	318,092	283,042	287,341	16
Customer Costs	1,155,180	1,057,336	71,506	7,162	18,714	462	17
Meters	4,139,743	2,972,749	692,165	175,111	273,638	26,080	18
Services	183,465	155,982	19,264	2,513	5,486	220	19
Total	\$ 32,721,790	\$ 17,680,014	\$ 4,577,131	\$ 4,446,558	\$ 2,423,435	\$ 3,594,652	
	100.00 %	54.03 %	13.99 %	13.59 %	7.41 %	10.98 %	
Indicated Private Fire	\$ 1,370,645						
Recommended Private Fire	\$ 1,055,284						
Difference	\$ 315,361						
Allocation of Difference		191,424	49,543	48,156	26,238	-	
Total	\$ 33,037,151	17,871,438	4,626,674	4,494,714	2,449,673	3,594,652	
Revenue Requirement	\$ 34,092,435						

Erie City Water Authority
Water Customer Class Allocation Factors

Customer Class	Annual Consumption		Maximum Day		Maximum Hour		Customer Costs		Meters		Services						
	(1) CCF	(2) CCF/Day	(3) %	(4) % of AvDay	(5) Amount CCF	(6) Excess (5)-(2)	(7) %	(8) % of AvDay	(9) Amount CCF	(10) Excess (9)-(5)	(11) %	(12) Bills	(13) %	(14) Equip Units	(15) %	(16) Equip Units	(17) %
Domestic	3,927,577	10,760,484	45.94	200	21,520,968	10,760,484	55.71	320	34,433,549	12,912,581	57.85	191,678	91.53	50,501.5	71.81	48,649.5	85.02
Commercial	1,220,781	3,344,605	14.28	170	5,685,829	2,341,224	12.12	272	9,097,326	3,411,497	15.28	12,968	6.19	11,755.0	16.72	6,010.8	10.50
Manufacturing	1,536,805	4,210,425	17.97	155	6,526,159	2,315,734	11.99	206	8,673,476	2,147,317	9.62	1,307	0.62	2,974.0	4.23	785.7	1.37
Public	683,589	1,872,847	8.00	170	3,183,840	1,310,993	6.79	272	5,094,144	1,910,304	8.56	3,381	1.62	4,650.5	6.61	1,711.0	2.99
Bulk	1,180,569	3,234,436	13.81	180	5,821,985	2,587,549	13.39	240	7,762,646	1,940,661	8.69	86	0.04	445.0	0.63	66.7	0.12
Grand Total	8,549,320	23,422,797	100.00		42,738,781	19,315,984	100.00		65,061,141	22,322,360	100.00	209,420	100.00	70,326.0	100.00	57,223.7	100.00
Allocation Code				14			15				16	17		18		19	

Annual Consumption from 2013 Bill Analysis
Max Day / Max Hour from Proposed Settlement Agreement, Exhibit A

Erie City Water Authority

Development of Equivalent Water Meters and Equivalent Services

Domestic

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
5/8"	45,756	1.0	45,756.0	1.0	45,756.0	185,144
3/4"	907	1.5	1,360.5	1.3	1,179.1	3,656
1"	392	2.5	980.0	2.0	784.0	1,689
1.5"	172	5.0	860.0	2.7	464.4	709
2"	65	8.0	520.0	4.0	260.0	288
3"	11	15.0	165.0	4.0	44.0	44
4"	22	25.0	550.0	5.3	116.6	116
6"	3	50.0	150.0	8.0	24.0	18
8"	2	80.0	160.0	10.7	21.4	14
Total	47,330		50,501.5		48,649.5	191,678

Commercial

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
5/8"	653	1.0	653.0	1.0	653.0	2,665
3/4"	1,274	1.5	1,911.0	1.3	1,656.2	5,123
1"	434	2.5	1,085.0	2.0	868.0	1,802
1.5"	273	5.0	1,365.0	2.7	737.1	1,138
2"	327	8.0	2,616.0	4.0	1,308.0	1,510
3"	39	15.0	585.0	4.0	156.0	197
4"	70	25.0	1,750.0	5.3	371.0	359
6"	20	50.0	1,000.0	8.0	160.0	120
8"	7	80.0	560.0	10.7	74.9	34
10"	2	115.0	230.0	13.3	26.6	20
Total	3,099		11,755.0		6,010.8	12,968

Erie City Water Authority

Development of Equivalent Water Meters and Equivalent Services

Industrial

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
5/8"	14	1.0	14.0	1.0	14.0	62
3/4"	35	1.5	52.5	1.3	45.5	175
1"	39	2.5	97.5	2.0	78.0	177
1.5"	24	5.0	120.0	2.7	64.8	125
2"	65	8.0	520.0	4.0	260.0	379
3"	7	15.0	105.0	4.0	28.0	46
4"	18	25.0	450.0	5.3	95.4	123
6"	12	50.0	600.0	8.0	96.0	140
8"	3	80.0	240.0	10.7	32.1	30
10"	3	115.0	345.0	13.3	39.9	30
12"	2	215.0	430.0	16.0	32.0	20
Total	222		2,974.0		785.7	1,307

Public

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
5/8"	289	1.0	289.0	1.0	289.0	1,212
3/4"	78	1.5	117.0	1.3	101.4	328
1"	61	2.5	152.5	2.0	122.0	276
1.5"	76	5.0	380.0	2.7	205.2	399
2"	104	8.0	832.0	4.0	416.0	514
3"	44	15.0	660.0	4.0	176.0	242
4"	42	25.0	1,050.0	5.3	222.6	240
6"	17	50.0	850.0	8.0	136.0	126
8"	4	80.0	320.0	10.7	42.8	44
Total	715		4,650.5		1,711.0	3,381

Erie City Water Authority

Development of Equivalent Water Meters and Equivalent Services

Bulk

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
4"	3	25.0	75.0	5.3	15.9	30
6"	1	50.0	50.0	8.0	8.0	10
8"	4	80.0	320.0	10.7	42.8	46
Total	8		445.0		66.7	86
Grand Totals	51,374		70,326		57,224	209,420

Erie Water Works
Development of Fixed Charges and Volumetric Block Rates
For the Year Ended December 31, 2015

First	70	Base Cost of Water	Capacity Factor	Cost per CCF	Capacity Factor	Cost per CCF	Total Cost
Next	4930	\$ 2.10	200	\$ 0.85	320	\$ 0.90	\$ 3.55
Over	5000	\$ 2.10	170	\$ 0.60	272	\$ 0.71	\$ 3.09
		\$ 2.10	155	\$ 0.47	206	\$ 0.43	\$ 2.67
Basis for Cost per CCF							
		\$17,954,067.00		\$ 5,982,765.00		\$ 3,306,570.00	
		23,423.00		19,316.00		22,322.00	
		\$ 766.51		\$ 309.73		\$ 148.13	
		\$ 2.10		\$ 0.85		\$ 0.41	
Bulk Rate		Amount Covered in FC	Indicated COS	Shortfall	CCF Consumption		Total Cost
		\$ 24,539.52	\$ 3,594,652.00	\$ 3,570,112.48	1,180,569		\$ 2.99

DESCRIPTION	BILLING		METERS		SERVICES		TOTAL	
TOTAL CUSTOMER ANNUAL COSTS		\$1,155,180		\$4,139,743		\$183,465		\$5,478,388
NUMBER OF BILLS		209,420		70,326		57,224		
NO. OF EQUIVALENT METERS								
UNIT COST		\$5.52		\$58.87		\$3.21		\$67.60
METER SIZE	EQ. METER RATIO	EQ. SERVICE RATIO	COST PER BILL	QUARTERLY COST		TOTAL MONTHLY CHARGES		
				METERS	SERVICES	QUARTERLY CHARGES	MONTHLY CHARGES	
5/8"	1.0	1.0	\$ 5.52	\$ 14.72	\$ 0.80	\$ 21.04	\$ 7.01	
3/4"	1.5	1.3	5.52	22.08	1.04	28.64	9.55	
1"	2.5	2.0	5.52	36.79	1.61	43.92	14.64	
1 1/2"	5.0	2.7	5.52	73.59	2.17	81.28	27.09	
2"	8.0	4.0	5.52	117.74	3.21	126.47	42.16	
3"	15.0	4.0	5.52	220.76	3.21	229.49	76.50	
4"	25.0	5.3	5.52	367.94	4.25	377.71	125.90	
6"	50.0	8.0	5.52	735.88	6.42	747.82	249.27	
8"	80.0	10.7	5.52	1,177.40	8.59	1,191.51	397.17	
10"	115.0	13.3	5.52	1,692.51	10.67	1,708.70	569.57	
12"	215.0	16.0	5.52	3,164.26	12.84	3,182.62	1,060.87	

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2015

Domestic Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	3,178	\$ 5.82	\$ 18,495.96	\$ 7.01	\$ 22,277.78	20.447 %
3/4" Monthly	41	5.82	238.62	9.55	391.55	64.089 %
1" Monthly	179	11.87	2,124.73	14.64	2,620.56	23.336 %
1.5" Monthly	30	21.96	658.80	27.09	812.70	23.361 %
2" Monthly	40	34.08	1,363.20	42.16	1,686.40	23.709 %
4" Monthly	40	102.71	4,108.40	125.90	5,036.00	22.578 %
6" Monthly	10	203.63	2,036.30	249.27	2,492.70	22.413 %
8" Monthly	10	324.74	3,247.40	397.17	3,971.70	22.304 %
5/8" Quarterly	181,966	17.45	3,175,306.70	21.04	3,828,564.64	20.573 %
3/4" Quarterly	3,615	17.45	63,081.75	28.64	103,533.60	64.126 %
1" Quarterly	1,510	35.62	53,786.20	43.92	66,319.20	23.302 %
1.5" Quarterly	679	65.89	44,739.31	81.28	55,189.12	23.357 %
2" Quarterly	248	102.23	25,353.04	126.47	31,364.56	23.711 %
3" Quarterly	44	199.12	8,761.28	229.49	10,097.56	15.252 %
4" Quarterly	76	308.12	23,417.12	377.71	28,705.96	22.585 %
6" Quarterly	8	610.89	4,887.12	747.82	5,982.56	22.415 %
8" Quarterly	4	974.23	3,896.92	1,191.51	4,766.04	22.303 %
Total Fixed Charges	191,678		\$ 3,435,502.85		\$ 4,173,812.63	21.491 %
<u>Usage Charge</u>						
Block 1:	3,526,759.50	\$ 3.2900	\$ 11,603,038.76	\$ 3.5500	\$ 12,519,996.23	7.903 %
Block 2:	371,348.00	2.8000	1,039,774.40	3.0900	1,147,465.32	10.357 %
Block 3:	29,070.00	2.4300	70,640.10	2.6700	77,616.90	9.877 %
Total Usage Charges			12,713,453.26		13,745,078.45	
Total Domestic			\$ 16,148,956.11		\$ 17,918,891.08	10.960 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2015

Commercial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	80	\$ 5.82	\$ 465.60	\$ 7.01	\$ 560.80	20.447 %
3/4" Monthly	40	5.82	232.80	9.55	382.00	64.089 %
1" Monthly	102	11.87	1,210.74	14.64	1,493.28	23.336 %
1 1/2" Monthly	70	21.96	1,537.20	27.09	1,896.30	23.361 %
2" Monthly	301	34.08	10,258.08	42.16	12,690.16	23.709 %
3" Monthly	60	66.37	3,982.20	76.50	4,590.00	15.263 %
4" Monthly	121	102.71	12,427.91	125.90	15,233.90	22.578 %
6" Monthly	60	203.63	12,217.80	249.27	14,956.20	22.413 %
8" Monthly	10	324.74	3,247.40	397.17	3,971.70	22.304 %
10" Monthly	20	466.04	9,320.80	569.57	11,391.40	22.215 %
5/8" Quarterly	2,585	17.45	45,108.25	21.04	54,388.40	20.573 %
3/4" Quarterly	5,083	17.45	88,698.35	28.64	145,577.12	64.126 %
1" Quarterly	1,700	35.62	60,554.00	43.92	74,664.00	23.302 %
1 1/2" Quarterly	1,068	65.89	70,370.52	81.28	86,807.04	23.357 %
2" Quarterly	1,209	102.23	123,596.07	126.47	152,902.23	23.711 %
3" Quarterly	137	199.12	27,279.44	229.49	31,440.13	15.252 %
4" Quarterly	238	308.12	73,332.56	377.71	89,894.98	22.585 %
6" Quarterly	60	610.89	36,653.40	747.82	44,869.20	22.415 %
8" Quarterly	24	974.23	23,381.52	1,191.51	28,596.24	22.303 %
Total Fixed Charges	12,968.00		\$ 603,874.64		\$ 776,305.08	28.554 %
<u>Usage Charge</u>						
Block 1:	340,164	\$ 3.2900	\$ 1,119,139.56	\$ 3.5500	\$ 1,207,582.20	7.903 %
Block 2:	818,285	2.8000	\$ 2,291,197.78	3.0900	\$ 2,528,500.40	10.357 %
Block 3:	62,332	2.4300	\$ 151,466.18	2.6700	\$ 166,425.80	9.877 %
Total Usage Charges			\$ 3,561,803.52		\$ 3,902,508.40	
Total Commercial			\$ 4,165,678.16		\$ 4,678,813.48	12.318 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2015

Industrial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	10	\$ 5.82	\$ 58.20	\$ 7.01	\$ 70.10	20.447 %
3/4" Monthly	50	5.82	291.00	9.55	477.50	64.089 %
1" Monthly	30	11.87	356.10	14.64	439.20	23.336 %
1 1/2" Monthly	46	21.96	1,010.16	27.09	1,246.14	23.361 %
2" Monthly	178	34.08	6,066.24	42.16	7,504.48	23.709 %
3" Monthly	30	66.37	1,991.10	76.50	2,295.00	15.263 %
4" Monthly	79	102.71	8,114.09	125.90	9,946.10	22.578 %
6" Monthly	140	203.63	28,508.20	249.27	34,897.80	22.413 %
8" Monthly	30	324.74	9,742.20	397.17	11,915.10	22.304 %
10" Monthly	30	466.04	13,981.20	569.57	17,087.10	22.215 %
12" Monthly	20	667.89	13,357.80	1,060.87	21,217.40	58.839 %
5/8" Quarterly	52	17.45	907.40	21.04	1,094.08	20.573 %
3/4" Quarterly	125	17.45	2,181.25	28.64	3,580.00	64.126 %
1" Quarterly	147	35.62	5,236.14	43.92	6,456.24	23.302 %
1 1/2" Quarterly	79	65.89	5,205.31	81.28	6,421.12	23.357 %
2" Quarterly	201	102.23	20,548.23	126.47	25,420.47	23.711 %
3" Quarterly	16	199.12	3,185.92	229.49	3,671.84	15.252 %
4" Quarterly	44	308.12	13,557.28	377.71	16,619.24	22.585 %
Total Fixed Charges	1,307.00		134,297.82		170,358.91	26.852 %
<u>Usage Charge</u>						
Block 1:	32,757	\$ 3.2900	\$ 107,770.53	\$ 3.5500	\$ 116,287.35	7.903 %
Block 2:	372,547	2.8000	1,043,131.60	3.0900	1,151,170.23	10.357 %
Block 3:	1,131,501	2.4300	2,749,547.43	2.6700	3,021,107.67	9.877 %
Total Usage Charges			\$ 3,900,449.56		\$ 4,288,565.25	
Total Industrial			\$ 4,034,747.38		\$ 4,458,924.16	10.513 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2015

Public Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	85	\$ 5.82	\$ 494.70	\$ 7.01	\$ 595.85	20.447 %
3/4" Monthly	26	5.82	151.32	9.55	248.30	64.089 %
1" Monthly	50	11.87	593.50	14.64	732.00	23.336 %
1 1/2" Monthly	140	21.96	3,074.40	27.09	3,792.60	23.361 %
2" Monthly	150	34.08	5,112.00	42.16	6,324.00	23.709 %
3" Monthly	100	66.37	6,637.00	76.50	7,650.00	15.263 %
4" Monthly	110	102.71	11,298.10	125.90	13,849.00	22.578 %
6" Monthly	86	203.63	17,512.18	249.27	21,437.22	22.413 %
8" Monthly	40	324.74	12,989.60	397.17	15,886.80	22.304 %
5/8" Quarterly	1,127	17.45	19,666.15	21.04	23,712.08	20.573 %
3/4" Quarterly	302	17.45	5,269.90	28.64	8,649.28	64.126 %
1" Quarterly	226	35.62	8,050.12	43.92	9,925.92	23.302 %
1 1/2" Quarterly	259	65.89	17,065.51	81.28	21,051.52	23.357 %
2" Quarterly	364	102.23	37,211.72	126.47	46,035.08	23.711 %
3" Quarterly	142	199.12	28,275.04	229.49	32,587.58	15.252 %
4" Quarterly	130	308.12	40,055.60	377.71	49,102.30	22.585 %
6" Quarterly	40	610.89	24,435.60	747.82	29,912.80	22.415 %
8" Quarterly	4	974.23	3,896.92	1,191.51	4,766.04	22.303 %
Total Fixed Charge	3,381		\$ 241,789.36		\$ 296,258.37	22.527 %
<u>Usage Charge</u>						
Block 1:	83,567	\$ 3.2900	\$ 274,935.43	\$ 3.5500	\$ 296,662.85	7.903 %
Block 2:	410,546	2.8000	1,149,528.80	3.0900	1,268,587.14	10.357 %
Block 3:	186,095	2.4300	452,210.85	2.6700	496,873.65	9.877 %
Total Usage Charges			1,876,675.08		2,062,123.64	
Total Public Customers			\$ 2,118,464.44		\$ 2,358,382.01	11.325 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2015

Bulk Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
4" Monthly	30	\$ 102.71	\$ 3,081.30	\$ 125.90	\$ 3,777.00	22.578 %
6" Monthly	10	203.63	2,036.30	249.27	2,492.70	22.413 %
8" Monthly	46	324.74	14,938.04	397.17	18,269.82	22.304 %
Total Fixed Charge	86		\$ 20,055.64		\$ 24,539.52	22.357 %

Usage Charge

Bulk Rate	1,180,569	2.8000	<u>3,305,593.09</u>	\$ 2.9900	<u>3,529,901.19</u>	6.786 %
Total Bulk Customers			\$ 3,325,648.73		\$ 3,554,440.71	6.880 %

Other Revenues:

Fire Line Revenues			\$ 954,470.28		\$ 1,055,324.00	10.566 %
Fixed Fee Customers			<u>24,021.30</u>		<u>27,450.66</u>	14.276 %

Total Other Revenues			\$ 978,491.58		\$ 1,082,774.66	
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Total Water Charges			<u>29,793,494.82</u>		<u>32,969,451.44</u>	10.660 %
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Total Water Service			\$ 30,771,986.40		\$ 34,052,226.10	10.660 %
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Total Requested Revenue					\$ 34,092,435.00	
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Difference					(\$40,208.90)	-0.12 %
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Erie City Water Authority

Test Period Ending December 31, 2016
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense											
Distribution Expenses											
501.1	Personnel (Salaries)	\$ 168,291	\$ 72,247	\$ 24,655	\$ 29,350	\$ -	\$ -	\$ -	\$ 28,744	\$ 13,295	7
501.2	Personnel (Wages)	322,267	138,349	47,212	56,204	-	-	-	55,043	25,459	7
501.3	Personnel (Emergency and Scheduled OT)	81,467	34,974	11,935	14,208	-	-	-	13,914	6,436	7
502.1	Benefits (FICA)	42,789	18,369	6,269	7,463	-	-	-	7,308	3,380	7
502.4	Benefits (Workers Comp)	20,640	10,578	4,297	5,144	-	-	-	1,947	803	7
502.5	Benefits (Pension)	101,765	43,688	14,909	17,748	-	-	-	17,381	8,039	7
503.1	Supplies & Materials (Office)	1,208	519	177	211	-	-	-	206	95	7
503.2	Supplies & Materials (Operating)	74,394	31,937	10,899	12,974	-	-	-	12,707	5,877	7
503.3	Supplies & Materials (Fuel)	41,971	18,018	6,149	7,320	-	-	-	3,316	1,616	7
503.4	Supplies & Materials (Backfill)	165,379	70,997	24,228	28,842	-	-	-	28,247	13,065	7
503.6	Supplies & Materials (Small Tools)	20,938	8,989	3,067	3,652	-	-	-	3,576	1,664	7
503.7	Supplies & Materials (Uniforms)	6,197	2,660	908	1,081	-	-	-	1,058	490	7
503.8	Supplies & Materials (Printing)	239	102	35	42	-	-	-	102	19	7
503.9	Supplies & Materials (Software, Refer, Subs)	597	256	88	104	-	-	-	132	47	7
504.3	Other Svcs & Chgs (Training & Seminars)	1,670	717	245	291	-	-	-	285	132	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	57,766	24,799	8,463	10,074	-	-	-	9,866	4,564	7
504.9	Other Svcs & Chgs (Rentals)	7,949	3,413	1,165	1,385	-	-	-	628	302	7
504.10.0	Other Svcs & Chgs (Contracted Svcs - Vehicles)	22,639	9,719	3,317	3,948	-	-	-	3,867	1,788	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	61,642	26,463	9,031	10,750	-	-	-	10,528	4,870	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Barricades)	330,696	141,968	48,447	57,673	-	-	-	56,483	26,125	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	3,819	1,640	559	666	-	-	-	652	302	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Maint)	14,322	6,148	2,098	2,498	-	-	-	2,446	1,132	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,536	1,518	518	617	-	-	-	604	279	7
504.11	Misc Svcs & Chgs	1,263	542	185	220	-	-	-	216	100	7
Total Distribution Expenses		\$ 1,557,444	\$ 668,610	\$ 228,169	\$ 271,618	\$ -	\$ -	\$ -	\$ 266,008	\$ 123,039	
Transmission Expenses											
501.1	Personnel (Salaries)	\$ 205,690	\$ 88,302	\$ 30,134	\$ 35,872	\$ -	\$ -	\$ -	\$ 35,132	\$ 16,250	7
501.2	Personnel (Wages)	393,881	169,093	57,703	68,693	-	-	-	67,275	31,117	7
501.3	Personnel (Emergency and Scheduled OT)	99,570	42,745	14,587	17,365	-	-	-	17,007	7,866	7
502.1	Benefits (FICA)	52,297	22,451	7,662	9,121	-	-	-	8,932	4,131	7
502.4	Benefits (Workers Comp)	30,116	12,928	4,412	5,253	-	-	-	5,144	2,379	7
502.5	Benefits (Pension)	124,379	53,396	18,221	21,692	-	-	-	21,244	9,826	7
503.1	Supplies & Materials (Office)	1,477	634	216	258	-	-	-	252	117	7
503.2	Supplies & Materials (Operating)	90,925	39,034	13,321	15,857	-	-	-	15,530	7,183	7
503.3	Supplies & Materials (Fuel)	51,297	22,022	7,515	8,946	-	-	-	8,762	4,052	7
503.4	Supplies & Materials (Backfill)	202,131	86,775	29,612	35,252	-	-	-	34,524	15,968	7
503.6	Supplies & Materials (Small Tools)	25,590	10,986	3,749	4,463	-	-	-	4,371	2,021	7
503.7	Supplies & Materials (Uniforms)	7,574	3,251	1,110	1,321	-	-	-	1,294	598	7
503.8	Supplies & Materials (Printing)	291	125	43	51	-	-	-	50	22	7
503.9	Supplies & Materials (Software, Refer, Subs)	729	313	107	127	-	-	-	124	58	7
504.3	Other Svcs & Chgs (Training & Seminars)	2,041	876	299	356	-	-	-	349	161	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	70,604	30,310	10,344	12,313	-	-	-	12,059	5,578	7
504.9	Other Svcs & Chgs (Rentals)	9,715	4,171	1,423	1,694	-	-	-	1,659	768	7
504.10.0	Other Svcs & Chgs (Contracted Svcs - Vehicles)	27,669	11,878	4,054	4,825	-	-	-	4,726	2,186	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	75,341	32,345	11,037	13,139	-	-	-	12,868	5,952	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Barricades)	404,184	173,516	59,213	70,490	-	-	-	69,035	31,930	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	4,668	2,004	684	814	-	-	-	797	369	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Maint)	17,505	7,515	2,564	3,053	-	-	-	2,990	1,383	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	4,322	1,855	633	754	-	-	-	738	342	7
504.11	Misc Svcs & Chgs	1,543	662	226	269	-	-	-	264	122	7
Total Transmission Expenses		\$ 1,903,539	\$ 817,187	\$ 278,869	\$ 331,978	\$ -	\$ -	\$ -	\$ 325,126	\$ 150,379	

Erie City Water Authority

Test Period Ending December 31, 2016
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Meter Expenses											
501.1	Personnel (Salaries)	\$ 172,903	\$ -	\$ -	\$ -	\$ 10,374	\$ 155,613	\$ 6,916	\$ -	\$ -	9
501.2	Personnel (Wages)	360,331	-	-	-	21,620	324,298	14,413	-	-	9
501.3	Personnel (Emergency and Scheduled OT)	8,672	-	-	-	520	7,805	347	-	-	9
502.1	Benefits (FICA)	40,980	-	-	-	2,459	36,882	1,639	-	-	9
502.4	Benefits (Workers Comp)	48,218	-	-	-	2,893	43,396	1,929	-	-	9
502.5	Benefits (Pension)	105,201	-	-	-	6,312	94,681	4,208	-	-	9
503.1	Supplies & Materials (Office)	1,273	-	-	-	76	1,146	51	-	-	9
503.2	Supplies & Materials (Operating)	27,054	-	-	-	1,623	24,349	1,082	-	-	9
503.3	Supplies & Materials (Fuel)	33,078	-	-	-	1,985	29,770	1,323	-	-	9
503.6	Supplies & Materials (Small Tools)	6,299	-	-	-	378	5,669	252	-	-	9
503.7	Supplies & Materials (Uniforms)	3,717	-	-	-	223	3,345	149	-	-	9
503.8	Supplies & Materials (Printing)	545	-	-	-	33	490	22	-	-	9
504.3	Other Svcs & Chgs (Training & Seminars)	4,635	-	-	-	278	4,172	185	-	-	9
504.6	Other Svcs & Chgs (Permits, Fees Damages)	257	-	-	-	15	231	11	-	-	9
504.9	Other Svcs & Chgs (Rentals)	478	-	-	-	29	430	19	-	-	9
504.10.0	Other Svcs & Chgs (Contracted Svcs)	10,290	-	-	-	617	9,261	412	-	-	9
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	12,727	-	-	-	764	11,454	509	-	-	9
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	21,229	-	-	-	1,274	19,106	849	-	-	9
	Total Meter Expenses	\$ 857,887	\$ -	\$ -	\$ -	\$ 51,473	\$ 772,098	\$ 34,316	\$ -	\$ -	
Operation Expenses											
501.1	Personnel (Salaries)	\$ 296,198	\$ 195,994	\$ 98,723	\$ -	\$ -	\$ -	\$ -	\$ 1,007	\$ 474	2
501.2	Personnel (Wages)	905,341	599,064	301,750	-	-	-	-	3,078	1,449	2
501.3	Personnel (Emergency and Scheduled OT)	55,298	36,591	18,431	-	-	-	-	188	88	2
502.1	Benefits (FICA)	73,773	48,016	24,588	-	-	-	-	251	118	2
502.4	Benefits (Workers Comp)	8,195	5,423	2,731	-	-	-	-	28	13	2
502.5	Benefits (Pension)	172,533	114,165	57,505	-	-	-	-	587	276	2
503.1	Supplies & Materials (Office)	637	422	212	-	-	-	-	2	1	2
503.2	Supplies & Materials (Operating)	8,419	5,571	2,806	-	-	-	-	29	13	2
503.3	Supplies & Materials (Fuel)	20,947	13,861	6,982	-	-	-	-	70	34	2
503.5	Supplies & Materials (Chemicals)	447,372	444,016	-	-	-	-	-	2,282	1,074	1
503.6	Supplies & Materials (Small Tools)	21,219	14,041	7,072	-	-	-	-	72	34	2
503.7	Supplies & Materials (Uniforms)	5,949	3,936	1,983	-	-	-	-	20	10	2
503.8	Supplies & Materials (Printing)	54	36	18	-	-	-	-	-	-	2
503.9	Supplies & Materials (Software, Refer, Subs)	1,592	1,053	531	-	-	-	-	5	3	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,015	1,333	672	-	-	-	-	7	3	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	3,194	2,113	1,065	-	-	-	-	11	5	2
504.7.0	Other Svcs & Chgs (Utilities)	1,697	1,684	-	-	-	-	-	9	4	1
504.7.1	Other Svcs & Chgs (Utilities - Electric)	1,982,750	1,967,979	-	-	-	-	-	10,112	4,759	1
504.7.2	Other Svcs & Chgs (Utilities - Natural Gas)	154,500	153,341	-	-	-	-	-	788	371	1
504.8	Other Svcs & Chgs (Refuse & Disposal)	758,338	752,650	-	-	-	-	-	3,868	1,820	1
504.9	Other Svcs & Chgs (Rentals)	798	528	266	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	36,820	24,364	12,272	-	-	-	-	125	59	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	5,419	3,586	1,806	-	-	-	-	18	9	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,168	2,096	1,056	-	-	-	-	11	5	2
	Total Operation Expenses	\$ 4,966,226	\$ 4,392,563	\$ 540,469	\$ -	\$ -	\$ -	\$ -	\$ 22,571	\$ 10,623	

Erie City Water Authority

Test Period Ending December 31, 2016
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Maintenance Expenses											
501.1	Personnel (Salaries)	\$ 178,923	\$ 118,394	\$ 59,635	-	-	-	\$ -	\$ 608	\$ 286	2
501.2	Personnel (Wages)	684,177	452,720	228,036	-	-	-	-	2,326	1,095	2
501.3	Personnel (Emergency and Scheduled OT)	24,462	16,187	8,153	-	-	-	-	83	39	2
502.1	Benefits (FICA)	52,122	34,489	17,372	-	-	-	-	177	84	2
502.4	Benefits (Workers Comp)	10,569	6,993	3,523	-	-	-	-	36	17	2
502.5	Benefits (Pension)	133,282	88,193	44,423	-	-	-	-	453	213	2
503.1	Supplies & Materials (Office)	2,706	1,791	902	-	-	-	-	9	4	2
503.2	Supplies & Materials (Operating)	89,714	59,364	29,902	-	-	-	-	305	143	2
503.3	Supplies & Materials (Fuel)	20,123	13,315	6,707	-	-	-	-	69	32	2
503.6	Supplies & Materials (Small Tools)	38,083	25,200	12,693	-	-	-	-	129	61	2
503.7	Supplies & Materials (Uniforms)	5,076	3,359	1,692	-	-	-	-	17	8	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,228	1,474	743	-	-	-	-	8	3	2
504.2	Other Svcs & Chgs (Prof. Svcs Other)	390	258	130	-	-	-	-	1	1	2
504.3	Other Svcs & Chgs (Training & Seminars)	4,773	3,158	1,591	-	-	-	-	16	8	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	4,135	2,736	1,378	-	-	-	-	14	7	2
504.8	Other Svcs & Chgs (Refuse & Disposal)	16,663	10,837	5,323	-	-	-	-	85	41	1
504.9	Other Svcs & Chgs (Rentals)	1,169	773	390	-	-	-	-	4	2	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	132,320	87,556	44,102	-	-	-	-	450	212	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	17,511	11,587	5,836	-	-	-	-	60	28	2
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuis)	43,512	28,791	14,503	-	-	-	-	148	70	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	75,961	50,263	25,318	-	-	-	-	258	122	2
	Total Maintenance Expenses	\$ 1,537,899	\$ 1,023,138	\$ 507,029	\$ -	\$ -	\$ -	\$ -	\$ 5,256	\$ 2,476	
Laboratory Expenses											
501.1	Personnel (Salaries)	\$ 86,692	\$ 57,364	\$ 28,894	-	-	-	\$ -	\$ 295	\$ 139	2
501.2	Personnel (Wages)	110,582	73,172	36,857	-	-	-	-	376	177	2
501.3	Personnel (Emergency and Scheduled OT)	1,327	878	442	-	-	-	-	5	2	2
502.1	Benefits (FICA)	12,619	8,350	4,206	-	-	-	-	43	20	2
502.4	Benefits (Workers Comp)	1,936	1,281	645	-	-	-	-	7	3	2
502.5	Benefits (Pension)	32,337	21,397	10,778	-	-	-	-	110	52	2
503.1	Supplies & Materials (Office)	985	652	328	-	-	-	-	3	2	2
503.2	Supplies & Materials (Operating)	21,763	14,400	7,254	-	-	-	-	74	35	2
503.3	Supplies & Materials (Fuel)	1,523	1,008	508	-	-	-	-	5	2	2
503.6	Supplies & Materials (Small Tools)	10,691	7,075	3,563	-	-	-	-	36	17	2
503.7	Supplies & Materials (Uniforms)	341	225	114	-	-	-	-	1	1	2
503.8	Supplies & Materials (Printing)	319	211	106	-	-	-	-	1	1	2
503.9	Supplies & Materials (Software, Refer, Subs)	4,350	2,878	1,450	-	-	-	-	15	7	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,291	1,515	764	-	-	-	-	8	4	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	42,457	28,094	14,131	-	-	-	-	144	68	2
504.9	Other Svcs & Chgs (Rentals)	826	547	275	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	918	608	306	-	-	-	-	3	1	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	1,342	888	447	-	-	-	-	5	2	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	14,193	9,391	4,731	-	-	-	-	48	23	2
	Total Laboratory Expenses	\$ 347,492	\$ 229,934	\$ 115,819	\$ -	\$ -	\$ -	\$ -	\$ 1,182	\$ 557	

Erie City Water Authority

Test Period Ending December 31, 2016
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Customer Services Expenses											
501.1	Personnel (Salaries)	\$ 63,333	\$ -	\$ -	\$ -	\$ 63,333	\$ -	\$ -	\$ -	\$ -	8
501.2	Personnel (Wages)	300,903	-	-	-	300,903	-	-	-	-	8
501.3	Personnel (Emergency and Scheduled OT)	2,880	-	-	-	2,880	-	-	-	-	8
502.1	Benefits (FICA)	21,566	-	-	-	21,566	-	-	-	-	8
502.4	Benefits (Workers Comp)	4,509	-	-	-	4,509	-	-	-	-	8
502.5	Benefits (Pension)	54,994	-	-	-	54,994	-	-	-	-	8
503.1	Supplies & Materials (Office)	8,488	-	-	-	8,488	-	-	-	-	8
503.2	Supplies & Materials (Operating)	1,730	-	-	-	1,730	-	-	-	-	8
503.7	Supplies & Materials (Uniforms)	532	-	-	-	532	-	-	-	-	8
503.8	Supplies & Materials (Printing)	4,775	-	-	-	4,775	-	-	-	-	8
503.9	Supplies & Materials (Software, Refer, Subs)	636	-	-	-	636	-	-	-	-	8
504.3	Other Svcs & Chgs (Training & Seminars)	531	-	-	-	531	-	-	-	-	8
504.5	Other Svcs & Chgs (Postage)	84,872	-	-	-	84,872	-	-	-	-	8
504.6	Other Svcs & Chgs (Permits, Fees Damages)	55,174	-	-	-	55,174	-	-	-	-	8
504.10.0	Other Svcs & Chgs (Contracted Svcs)	4,561	-	-	-	4,561	-	-	-	-	8
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	8,498	-	-	-	8,498	-	-	-	-	8
	Total Customer Services Expenses	\$ 617,982	\$ -	\$ -	\$ -	\$ 617,982	\$ -	\$ -	\$ -	\$ -	
Engineering Expenses											
501.1	Personnel (Salaries)	\$ 316,667	\$ 209,538	\$ 105,545	\$ -	\$ -	\$ -	\$ -	\$ 1,077	\$ 507	2
501.2	Personnel (Wages)	218,154	144,352	72,711	-	-	-	-	742	349	2
501.3	Personnel (Emergency and Scheduled OT)	3,042	2,013	1,014	-	-	-	-	10	5	2
502.1	Benefits (FICA)	38,701	25,608	12,899	-	-	-	-	132	62	2
502.4	Benefits (Workers Comp)	2,055	1,360	685	-	-	-	-	7	3	2
502.5	Benefits (Pension)	104,775	69,330	34,921	-	-	-	-	356	168	2
503.1	Supplies & Materials (Office)	5,304	3,510	1,768	-	-	-	-	18	8	2
503.2	Supplies & Materials (Operating)	3,228	2,136	1,076	-	-	-	-	11	5	2
503.3	Supplies & Materials (Fuel)	4,731	3,130	1,577	-	-	-	-	16	8	2
503.6	Supplies & Materials (Small Tools)	2,660	1,760	887	-	-	-	-	9	4	2
503.7	Supplies & Materials (Uniforms)	1,060	701	353	-	-	-	-	4	2	2
503.8	Supplies & Materials (Printing)	741	490	247	-	-	-	-	3	1	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,016	1,334	672	-	-	-	-	7	3	2
504.3	Other Svcs & Chgs (Training & Seminars)	8,488	5,616	2,829	-	-	-	-	29	14	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	8,497	5,622	2,832	-	-	-	-	29	14	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	1,835	1,214	612	-	-	-	-	6	3	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	1,906	1,261	635	-	-	-	-	7	3	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	29,178	19,307	9,725	-	-	-	-	99	47	2
	Total Engineering Expenses	\$ 753,038	\$ 498,282	\$ 250,988	\$ -	\$ -	\$ -	\$ -	\$ 2,562	\$ 1,206	
	Total Operating Expenses Before General and Admin	\$ 12,541,507	\$ 7,629,714	\$ 1,921,343	\$ 603,596	\$ 669,455	\$ 772,098	\$ 34,316	\$ 622,705	\$ 288,280	
	Less: Power / Chemical / Waste Expense	\$ 3,361,320	\$ 3,336,107	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,144	\$ 8,069	
	Total Operating Expense Less Power / Chem / Waste Exp.	\$ 9,180,187	\$ 4,293,607	\$ 1,921,343	\$ 603,596	\$ 669,455	\$ 772,098	\$ 34,316	\$ 605,561	\$ 280,211	
	Allocation Factor for General and Administrative Expenses (Factor 12)	100.00 %	46.77 %	20.93 %	6.58 %	7.29 %	8.41 %	0.37 %	6.60 %	3.05 %	

Erie City Water Authority
Test Period Ending December 31, 2016
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Finance Expenses											
501.1	Personnel (Salaries)	\$ 168,327	78,727	35,230	11,076	12,271	14,156	623	11,110	5,134	12
501.2	Personnel (Wages)	160,983	75,291	33,694	10,593	11,736	13,539	596	10,625	4,909	12
501.3	Personnel (Emergency and Scheduled OT)	1,132	529	237	74	83	95	4	75	35	12
502.1	Benefits (FICA)	19,330	9,041	4,046	1,272	1,409	1,626	71	1,276	589	12
502.4	Benefits (Workers Comp)	2,374	1,110	497	156	173	200	9	157	72	12
502.5	Benefits (Pension)	60,312	28,208	12,623	3,969	4,397	5,072	223	3,980	1,840	12
503.1	Supplies & Materials (Office)	3,712	1,736	777	244	271	312	14	245	113	12
503.2	Supplies & Materials (Operating)	1,065	498	223	70	78	90	4	70	32	12
503.7	Supplies & Materials (Uniforms)	532	249	111	35	39	45	2	35	16	12
503.8	Supplies & Materials (Printing)	530	248	111	35	39	44	2	35	16	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	49,465	23,135	10,353	3,255	3,606	4,160	183	3,265	1,508	12
504.4	Other Svcs & Chgs (Communications)	132,079	61,773	27,644	8,691	9,629	11,108	489	8,717	4,028	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	15,911	7,442	3,330	1,047	1,160	1,338	59	1,050	485	12
504.7.3	Other Svcs & Chgs (Utilities - Telecommunications)	74,263	34,733	15,543	4,887	5,413	6,246	275	4,901	2,265	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	8,009	3,746	1,676	527	584	673	30	529	244	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	10,812	5,057	2,263	711	788	909	40	714	330	12
504.12.1	Insurance - General Liability	262,042	122,557	54,845	17,242	19,103	22,038	970	17,295	7,992	12
	Total Finance Expenses	\$ 970,878	\$ 454,080	\$ 203,203	\$ 63,884	\$ 70,779	\$ 81,651	\$ 3,594	\$ 64,079	\$ 29,608	
Board Expenses											
503.2	Supplies & Materials (Operating)	5,291	2,475	1,107	348	386	445	20	349	161	12
504.3	Other Svcs & Chgs (Training & Seminars)	794	372	166	52	58	67	3	52	24	12
	Total Board Expenses	\$ 6,085	\$ 2,847	\$ 1,273	\$ 400	\$ 444	\$ 512	\$ 23	\$ 401	\$ 185	
Administrative Expenses											
501.1	Personnel (Salaries)	\$ 751,092	351,286	157,203	49,422	54,755	63,167	2,779	49,572	22,908	12
501.2	Personnel (Wages)	304,664	142,491	63,766	20,047	22,210	25,622	1,127	20,108	9,293	12
501.3	Personnel (Emergency and Scheduled OT)	21,383	9,569	4,270	1,383	1,511	1,744	81	1,383	635	12
502.1	Benefits (FICA)	67,865	31,741	14,204	4,466	4,947	5,707	251	4,479	2,070	12
502.2	Benefits (Op Ins.)	1,827,098	854,534	382,412	120,223	133,195	153,659	6,760	120,588	55,727	12
502.5	Benefits (Pension)	174,129	81,440	36,445	11,458	12,694	14,644	644	11,493	5,311	12
503.1	Supplies & Materials (Office)	4,244	1,985	888	279	309	357	16	280	130	12
503.2	Supplies & Materials (Operating)	9,184	4,296	1,922	604	670	772	34	606	280	12
503.3	Supplies & Materials (Fuel)	5,519	2,581	1,155	363	403	464	21	364	168	12
503.7	Supplies & Materials (Uniforms)	3,790	1,773	793	249	276	319	14	250	116	12
503.8	Supplies & Materials (Printing)	22,278	10,419	4,663	1,466	1,624	1,874	82	1,470	680	12
503.9	Supplies & Materials (Software, Refer, Subs)	1,274	596	266	84	93	107	5	84	39	12
504.1	Other Svcs & Chgs (Prof. Svcs Engin)	18,727	8,759	3,920	1,232	1,365	1,575	69	1,236	571	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	600,145	280,688	125,610	39,490	43,751	50,472	2,221	39,610	18,303	12
504.3	Other Svcs & Chgs (Training & Seminars)	15,915	7,444	3,331	1,047	1,160	1,339	59	1,050	485	12
504.4	Other Svcs & Chgs (Communications)	6,369	2,979	1,333	419	464	536	24	420	194	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	27,145	12,696	5,681	1,786	1,979	2,283	100	1,792	828	12
504.9	Other Svcs & Chgs (Rentals)	18,564	8,682	3,886	1,222	1,353	1,561	69	1,225	566	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	33,038	15,452	6,915	2,174	2,408	2,778	122	2,181	1,008	12
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	635	297	133	42	46	53	2	43	19	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	133,678	62,521	27,979	8,796	9,745	11,242	495	8,823	4,077	12
504.11	Misc Svcs & Chgs	58,994	27,591	12,348	3,882	4,301	4,961	218	3,894	1,799	12
504.13	MTWA Related Expenses	-	-	-	-	-	-	-	-	-	12
	Total Administrative Expenses	\$ 4,130,067	\$ 1,931,634	\$ 864,422	\$ 271,759	\$ 301,081	\$ 347,337	\$ 15,281	\$ 272,586	\$ 125,967	
	Total Pro Forma Operating Expenses	\$ 17,648,537	\$ 10,018,275	\$ 2,990,241	\$ 939,639	\$ 1,041,759	\$ 1,201,598	\$ 53,214	\$ 959,771	\$ 444,040	
	Total Labor Expense	\$ 6,492,969	\$ 3,121,684	\$ 1,446,116	\$ 315,912	\$ 504,018	\$ 608,140	\$ 26,974	\$ 321,418	\$ 148,707	
	Total Labor Expense (Factor 13) %	100.00 %	48.08 %	22.27 %	4.86 %	7.76 %	9.37 %	0.42 %	4.95 %	2.29 %	

Erie City Water Authority
Test Period Ending December 31, 2016
Allocation of Pro Forma Revenue Requirement

Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma Revenue Requirement										
Operating Expenses	\$ 17,648,537	\$ 10,018,275	\$ 2,990,241	\$ 939,639	\$ 1,041,759	\$ 1,201,598	\$ 53,214	\$ 959,771	\$ 444,040	
Debt Service	14,524,810	7,018,388	2,656,588	2,007,329	20,335	306,473	13,072	1,711,023	791,602	11
City Lease Payment	3,600,000	1,739,520	658,440	497,520	5,040	75,960	3,240	424,080	196,200	11
COLA Pension Liability	-	-	-	-	-	-	-	-	-	13
Total Revenue Requirement	\$ 35,773,347	\$ 18,776,183	\$ 6,305,269	\$ 3,444,488	\$ 1,067,134	\$ 1,584,031	\$ 69,526	\$ 3,094,874	\$ 1,431,842	
Total Revenue Requirement %	100.00 %	52.49 %	17.63 %	9.63 %	2.98 %	4.43 %	0.19 %	8.65 %	4.00 %	
Other Revenues	(816,100)	(381,690)	(170,810)	(53,699)	(59,494)	(68,634)	(3,020)	(53,862)	(24,891)	12
Net Revenue Requirement	\$ 34,957,247	\$ 18,394,493	\$ 6,134,459	\$ 3,390,789	\$ 1,007,640	\$ 1,515,397	\$ 66,506	\$ 3,041,012	\$ 1,406,951	
Net Revenue Requirement less Public Fire	\$ 31,916,235	\$ 18,394,493	\$ 6,134,459	\$ 3,390,789	\$ 1,007,640	\$ 1,515,397	\$ 66,506	\$ -	\$ 1,406,951	
Reallocation of Public Fire Costs	\$ 3,041,012	-	-	-	182,461	2,736,911	121,640	-	-	9
Net Revenue Requirement	\$ 34,957,247	\$ 18,394,493	\$ 6,134,459	\$ 3,390,789	\$ 1,190,101	\$ 4,252,308	\$ 188,146	\$ -	\$ 1,406,951	

Erie City Water Authority
Customer Class Allocation
Water Pro Forma Net Revenue Requirement
For the Year Ending December 31, 2016

	Total	Domestic	Commercial	Industrial	Public	Bulk	Allocation Code
Base Cost	\$ 18,394,493	\$ 8,450,430	\$ 2,626,734	\$ 3,305,491	\$ 1,471,559	\$ 2,540,279	14
Maximum Day	6,134,459	3,417,507	743,496	735,522	416,530	821,404	15
Maximum Hour	3,390,789	1,961,571	518,113	326,194	290,252	294,659	16
Customer Costs	1,190,101	1,089,299	73,667	7,379	19,280	476	17
Meters	4,252,308	3,053,582	710,986	179,873	281,078	26,789	18
Services	188,146	159,962	19,755	2,578	5,625	226	19
Total	\$ 33,550,296	\$ 18,132,351	\$ 4,692,751	\$ 4,557,037	\$ 2,484,324	\$ 3,683,833	
	100.00 %	54.05 %	13.99 %	13.58 %	7.40 %	10.98 %	
Indicated Private Fire	\$ 1,406,951						
Recommended Private Fire	\$ 1,166,746						
Difference	\$ 240,205						
Allocation of Difference		145,829	37,736	36,655	19,985	-	
Total	\$ 33,790,501	18,278,180	4,730,487	4,593,692	2,504,309	3,683,833	
Revenue Requirement	\$ 34,957,247						

Erie Water Works
Development of Fixed Charges and Volumetric Block Rates
For the Year Ended December 31, 2016

First	70	Base Cost of Water	Capacity Factor	Cost per CCF	Capacity Factor	Cost per CCF	Total Cost
Next	4930	\$ 2.15	200	\$ 0.87	320	\$ 0.92	\$ 3.62
Over	5000	\$ 2.15	170	\$ 0.61	272	\$ 0.72	\$ 3.18
		\$ 2.15	155	\$ 0.48	206	\$ 0.45	\$ 2.75

Basis for Cost per CCF

Required Revs from Sales	\$ 18,394,493.00	Cost per CCF	\$ 3,390,789.00
Excess Capacity Revenue / CCF	23,423.00		22,322.00
Cost Per CCF	785.32		151.90
	2.15		0.42

Bulk Rate	Amount Covered in FC	Indicated COS	Shortfall	CCF Consumption	Total Cost
	\$ 25,206.56	\$ 3,683,833.00	\$ 3,658,626.44	1,180,569	\$ 3.05

DESCRIPTION	BILLING	METERS	SERVICES	TOTAL
TOTAL CUSTOMER ANNUAL COSTS	\$1,190,101	\$4,252,308	\$188,146	\$5,630,555
NUMBER OF BILLS	209,420	70,326	57,224	
NO. OF EQUIVALENT METERS		\$60,447	\$3,229	\$69,44
UNIT COST				

METER SIZE	EQ. METER RATIO	COST PER BILL	EQ. SERVICE RATIO	METERS	QUARTERLY COST SERVICES	TOTAL QUARTERLY CHARGES	TOTAL MONTHLY CHARGES
5/8"	1.0	\$ 5.68	1.0	15.12	\$ 0.82	\$ 21.62	\$ 7.21
3/4"	1.5	5.68	1.3	22.68	1.07	29.43	9.81
1"	2.5	5.68	2.0	37.79	1.65	45.12	15.04
1 1/2"	5.0	5.68	2.7	75.59	2.22	83.49	27.83
2"	8.0	5.68	4.0	120.94	3.29	129.91	43.30
3"	15.0	5.68	4.0	226.76	3.29	235.73	78.58
4"	25.0	5.68	5.3	377.94	4.36	387.98	129.33
6"	50.0	5.68	8.0	755.88	6.58	768.14	256.05
8"	80.0	5.68	10.7	1,209.40	8.80	1,223.88	407.96
10"	115.0	5.68	13.3	1,738.51	10.94	1,755.13	585.04
12"	215.0	5.68	16.0	3,250.26	13.16	3,269.10	1,089.70

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2016

Domestic Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	3,178	\$ 7.01	\$ 22,277.78	\$ 7.21	\$ 22,913.38	2.853 %
3/4" Monthly	41	9.55	391.55	9.81	402.21	2.723 %
1" Monthly	179	14.64	2,620.56	15.04	2,692.16	2.732 %
1.5" Monthly	30	27.09	812.70	27.83	834.90	2.732 %
2" Monthly	40	42.16	1,686.40	43.30	1,732.00	2.704 %
4" Monthly	40	125.90	5,036.00	129.33	5,173.20	2.724 %
6" Monthly	10	249.27	2,492.70	256.05	2,560.50	2.720 %
8" Monthly	10	397.17	3,971.70	407.96	4,079.60	2.717 %
5/8" Quarterly	181,966	21.04	3,828,564.64	21.62	3,934,104.92	2.757 %
3/4" Quarterly	3,615	28.64	103,533.60	29.43	106,389.45	2.758 %
1" Quarterly	1,510	43.92	66,319.20	45.12	68,131.20	2.732 %
1.5" Quarterly	679	81.28	55,189.12	83.49	56,689.71	2.719 %
2" Quarterly	248	126.47	31,364.56	129.91	32,217.68	2.720 %
3" Quarterly	44	229.49	10,097.56	235.73	10,372.12	2.719 %
4" Quarterly	76	377.71	28,705.96	387.98	29,486.48	2.719 %
6" Quarterly	8	747.82	5,982.56	768.14	6,145.12	2.717 %
8" Quarterly	4	1,191.51	4,766.04	1,223.88	4,895.52	2.717 %
Total Fixed Charges	191,678		\$ 4,173,812.63		\$ 4,288,820.15	2.755 %
<u>Usage Charge</u>						
Block 1:	3,526,759.50	\$ 3.5500	\$ 12,519,996.23	\$ 3.6200	\$ 12,766,869.39	1.972 %
Block 2:	371,348.00	3.0900	1,147,465.32	3.1800	1,180,886.64	2.913 %
Block 3:	29,070.00	2.6700	77,616.90	2.7500	79,942.50	2.996 %
Total Usage Charges			13,745,078.45		14,027,698.53	
Total Domestic			\$ 17,918,891.08		\$ 18,316,518.68	2.219 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2016

Commercial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	80	\$ 7.01	\$ 560.80	\$ 7.21	\$ 576.80	2.853 %
3/4" Monthly	40	9.55	382.00	9.81	392.40	2.723 %
1" Monthly	102	14.64	1,493.28	15.04	1,534.08	2.732 %
1 1/2" Monthly	70	27.09	1,896.30	27.83	1,948.10	2.732 %
2" Monthly	301	42.16	12,690.16	43.30	13,033.30	2.704 %
3" Monthly	60	76.50	4,590.00	78.58	4,714.80	2.719 %
4" Monthly	121	125.90	15,233.90	129.33	15,648.93	2.724 %
6" Monthly	60	249.27	14,956.20	256.05	15,363.00	2.720 %
8" Monthly	10	397.17	3,971.70	407.96	4,079.60	2.717 %
10" Monthly	20	569.57	11,391.40	585.04	11,700.80	2.716 %
5/8" Quarterly	2,585	21.04	54,388.40	21.62	55,887.70	2.757 %
3/4" Quarterly	5,083	28.64	145,577.12	29.43	149,592.69	2.758 %
1" Quarterly	1,700	43.92	74,664.00	45.12	76,704.00	2.732 %
1 1/2" Quarterly	1,068	81.28	86,807.04	83.49	89,167.32	2.719 %
2" Quarterly	1,209	126.47	152,902.23	129.91	157,061.19	2.720 %
3" Quarterly	137	229.49	31,440.13	235.73	32,295.01	2.719 %
4" Quarterly	238	377.71	89,894.98	387.98	92,339.24	2.719 %
6" Quarterly	60	747.82	44,869.20	768.14	46,088.40	2.717 %
8" Quarterly	24	1,191.51	28,596.24	1,223.88	29,373.12	2.717 %
Total Fixed Charges	12,968.00		\$ 776,305.08		\$ 797,500.48	2.730 %
<u>Usage Charge</u>						
Block 1:	340,164	\$ 3.5500	\$ 1,207,582.20	\$ 3.6200	\$ 1,231,393.68	1.972 %
Block 2:	818,285	3.0900	2,528,500.40	3.1800	2,602,146.05	2.913 %
Block 3:	62,332	2.6700	166,425.80	2.7500	171,412.34	2.996 %
Total Usage Charges			\$ 3,902,508.40		\$ 4,004,952.07	
Total Commercial			\$ 4,678,813.48		\$ 4,802,452.55	2.643 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2016

Industrial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	10	\$ 7.01	\$ 70.10	\$ 7.21	\$ 72.10	2.853 %
3/4" Monthly	50	9.55	477.50	9.81	490.50	2.723 %
1" Monthly	30	14.64	439.20	15.04	451.20	2.732 %
1 1/2" Monthly	46	27.09	1,246.14	27.83	1,280.18	2.732 %
2" Monthly	178	42.16	7,504.48	43.30	7,707.40	2.704 %
3" Monthly	30	76.50	2,295.00	78.58	2,357.40	2.719 %
4" Monthly	79	125.90	9,946.10	129.33	10,217.07	2.724 %
6" Monthly	140	249.27	34,897.80	256.05	35,847.00	2.720 %
8" Monthly	30	397.17	11,915.10	407.96	12,238.80	2.717 %
10" Monthly	30	569.57	17,087.10	585.04	17,551.20	2.716 %
12" Monthly	20	1,060.87	21,217.40	1,089.70	21,794.00	2.718 %
5/8" Quarterly	52	21.04	1,094.08	21.62	1,124.24	2.757 %
3/4" Quarterly	125	28.64	3,580.00	29.43	3,678.75	2.758 %
1" Quarterly	147	43.92	6,456.24	45.12	6,632.64	2.732 %
1 1/2" Quarterly	79	81.28	6,421.12	83.49	6,595.71	2.719 %
2" Quarterly	201	126.47	25,420.47	129.91	26,111.91	2.720 %
3" Quarterly	16	229.49	3,671.84	235.73	3,771.68	2.719 %
4" Quarterly	44	377.71	16,619.24	387.98	17,071.12	2.719 %
Total Fixed Charges	1,307.00		170,358.91		174,992.90	2.720 %
<u>Usage Charge</u>						
Block 1:	32,757	\$ 3.5500	\$ 116,287.35	\$ 3.6200	\$ 118,580.34	1.972 %
Block 2:	372,547	\$ 3.0900	1,151,170.23	3.1800	1,184,699.46	2.913 %
Block 3:	1,131,501	\$ 2.6700	3,021,107.67	2.7500	3,111,627.75	2.996 %
Total Usage Charges			\$ 4,288,565.25		\$ 4,414,907.55	
Total Industrial			\$ 4,458,924.16		\$ 4,589,900.45	2.937 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2016

Public Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	85	\$ 7.01	\$ 595.85	\$ 7.21	\$ 612.85	2.853 %
3/4" Monthly	26	9.55	248.30	9.81	255.06	2.723 %
1" Monthly	50	14.64	732.00	15.04	752.00	2.732 %
1 1/2" Monthly	140	27.09	3,792.60	27.83	3,896.20	2.732 %
2" Monthly	150	42.16	6,324.00	43.30	6,495.00	2.704 %
3" Monthly	100	76.50	7,650.00	78.58	7,858.00	2.719 %
4" Monthly	110	125.90	13,849.00	129.33	14,226.30	2.724 %
6" Monthly	86	249.27	21,437.22	256.05	22,020.30	2.720 %
8" Monthly	40	397.17	15,886.80	407.96	16,318.40	2.717 %
5/8" Quarterly	1,127	21.04	23,712.08	21.62	24,365.74	2.757 %
3/4" Quarterly	302	28.64	8,649.28	29.43	8,887.86	2.758 %
1" Quarterly	226	43.92	9,925.92	45.12	10,197.12	2.732 %
1 1/2" Quarterly	259	81.28	21,051.52	83.49	21,623.91	2.719 %
2" Quarterly	364	126.47	46,035.08	129.91	47,287.24	2.720 %
3" Quarterly	142	229.49	32,587.58	235.73	33,473.66	2.719 %
4" Quarterly	130	377.71	49,102.30	387.98	50,437.40	2.719 %
6" Quarterly	40	747.82	29,912.80	768.14	30,725.60	2.717 %
8" Quarterly	4	1,191.51	4,766.04	1,223.88	4,895.52	2.717 %
Total Fixed Charge	3,381		\$ 296,258.37		\$ 304,328.16	2.724 %
<u>Usage Charge</u>						
Block 1:	83,567	\$ 3.5500	\$ 296,662.85	\$ 3.6200	\$ 302,512.54	1.972 %
Block 2:	410,546	\$ 3.0900	1,268,587.14	3.1800	1,305,536.28	2.913 %
Block 3:	186,095	\$ 2.6700	496,873.65	2.7500	511,761.25	2.996 %
Total Usage Charges			2,062,123.64		2,119,810.07	
Total Public Customers			\$ 2,358,382.01		\$ 2,424,138.23	2.788 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2016

Bulk Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
4" Monthly	30	\$ 125.90	\$ 3,777.00	\$ 129.33	\$ 3,879.90	2.724 %
6" Monthly	10	249.27	2,492.70	256.05	2,560.50	2.720 %
8" Monthly	46	397.17	18,269.82	407.96	18,766.16	2.717 %
Total Fixed Charge	86		\$ 24,539.52		\$ 25,206.56	2.718 %
<u>Usage Charge</u>						
Bulk Rate	1,180,569	\$ 2.9900	<u>3,529,901.19</u>	\$ 3.0500	<u>3,600,735.33</u>	2.007 %
Total Bulk Customers			\$ 3,554,440.71		\$ 3,625,941.89	2.012 %
<u>Other Revenues:</u>						
Fire Line Revenues			\$ 1,055,324.00		\$ 1,166,781.44	10.561 %
Fixed Fee Customers			<u>27,450.66</u>		<u>\$28,146.99</u>	2.537 %
Total Other Revenues			\$1,082,774.66		\$1,194,928.43	
Total Water Charges			<u>\$ 32,969,451.44</u>		<u>\$ 33,758,951.79</u>	2.395 %
Total Water Service			\$ 34,052,226.10		\$ 34,953,880.22	2.648 %
Total Requested Revenue					\$ 34,957,247.00	
Difference					(\$3,366.78)	-0.01 %

Erie City Water Authority

Test Period Ending December 31, 2017
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense											
Distribution Expenses											
501.1	Personnel (Salaries)	\$ 174,181	\$ 74,776	\$ 25,518	\$ 30,377	\$ -	\$ -	\$ -	\$ 29,750	\$ 13,760	7
501.2	Personnel (Wages)	331,129	142,154	48,510	57,749	-	-	-	56,557	26,159	7
501.3	Personnel (Emergency and Scheduled OT)	83,707	35,935	14,599	17,688	-	-	-	14,297	6,613	7
502.1	Benefits (FICA)	44,085	18,926	6,458	7,688	-	-	-	7,530	3,483	7
502.4	Benefits (Workers Comp)	25,379	10,895	3,718	4,426	-	-	-	4,335	2,005	7
502.5	Benefits (Pension)	117,072	50,259	17,151	20,417	-	-	-	19,996	9,249	7
503.1	Supplies & Materials (Office)	1,245	535	182	217	-	-	-	213	98	7
503.2	Supplies & Materials (Operating)	78,113	33,534	11,443	13,623	-	-	-	13,342	6,171	7
503.3	Supplies & Materials (Fuel)	44,069	18,919	6,456	7,686	-	-	-	7,527	3,481	7
503.4	Supplies & Materials (Backfill)	170,341	73,127	24,955	29,707	-	-	-	29,094	13,458	7
503.6	Supplies & Materials (Small Tools)	21,566	9,258	3,159	3,761	-	-	-	3,684	1,704	7
503.7	Supplies & Materials (Uniforms)	6,383	2,740	935	1,113	-	-	-	1,090	505	7
503.8	Supplies & Materials (Printing)	246	106	36	43	-	-	-	42	19	7
503.9	Supplies & Materials (Software, Refer, Subs)	615	264	90	107	-	-	-	105	49	7
504.3	Other Svcs & Chgs (Training & Seminars)	1,720	738	252	300	-	-	-	294	136	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	59,499	25,543	8,717	10,377	-	-	-	10,162	4,700	7
504.9	Other Svcs & Chgs (Rentals)	8,187	3,515	1,199	1,428	-	-	-	1,398	647	7
504.10	Other Svcs & Chgs (Contracted Svcs - Vehicles)	23,318	10,010	3,416	4,067	-	-	-	3,983	1,842	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	63,491	27,257	9,301	11,073	-	-	-	10,844	5,016	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Barricades)	340,617	146,227	49,900	59,404	-	-	-	58,177	26,909	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	3,934	1,689	576	686	-	-	-	672	311	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	14,752	6,333	2,161	2,573	-	-	-	2,520	1,165	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,642	1,563	534	635	-	-	-	622	288	7
504.11	Misc Svcs & Chgs	1,301	558	191	227	-	-	-	222	103	7
	Total Distribution Expenses	\$ 1,618,592	\$ 694,861	\$ 237,121	\$ 282,283	\$ -	\$ -	\$ -	\$ 276,456	\$ 127,871	
Transmission Expenses											
501.1	Personnel (Salaries)	\$ 212,889	\$ 91,393	\$ 31,188	\$ 37,128	\$ -	\$ -	\$ -	\$ 36,362	\$ 16,818	7
501.2	Personnel (Wages)	404,713	173,743	59,291	70,582	-	-	-	69,125	31,972	7
501.3	Personnel (Emergency and Scheduled OT)	102,308	43,921	14,988	17,843	-	-	-	17,474	8,082	7
502.1	Benefits (FICA)	53,881	23,131	7,893	9,397	-	-	-	9,203	4,257	7
502.4	Benefits (Workers Comp)	31,019	13,316	4,544	5,410	-	-	-	5,298	2,451	7
502.5	Benefits (Pension)	143,088	61,428	20,962	24,955	-	-	-	24,439	11,304	7
503.1	Supplies & Materials (Office)	1,521	653	223	265	-	-	-	260	120	7
503.2	Supplies & Materials (Operating)	95,472	40,986	13,987	16,650	-	-	-	16,307	7,542	7
503.3	Supplies & Materials (Fuel)	53,863	23,123	7,891	9,394	-	-	-	9,200	4,255	7
503.4	Supplies & Materials (Backfill)	208,194	89,378	30,500	36,309	-	-	-	35,560	16,447	7
503.6	Supplies & Materials (Small Tools)	26,358	11,316	3,861	4,597	-	-	-	4,502	2,082	7
503.7	Supplies & Materials (Uniforms)	7,802	3,349	1,143	1,361	-	-	-	1,333	616	7
503.8	Supplies & Materials (Printing)	300	129	44	52	-	-	-	51	24	7
503.9	Supplies & Materials (Software, Refer, Subs)	751	323	110	131	-	-	-	128	59	7
504.3	Other Svcs & Chgs (Training & Seminars)	2,103	903	308	367	-	-	-	359	166	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	72,722	31,219	10,654	12,683	-	-	-	12,421	5,745	7
504.9	Other Svcs & Chgs (Rentals)	10,007	4,296	1,466	1,745	-	-	-	1,709	791	7
504.10	Other Svcs & Chgs (Contracted Svcs)	28,500	12,235	4,175	4,970	-	-	-	4,868	2,252	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	77,601	33,314	11,369	13,534	-	-	-	13,254	6,130	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	416,309	178,722	60,989	72,604	-	-	-	71,106	32,888	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Barricades)	4,808	2,064	704	839	-	-	-	821	380	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	18,030	7,740	2,641	3,145	-	-	-	3,080	1,424	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	4,452	1,911	652	777	-	-	-	760	352	7
504.11	Misc Svcs & Chgs	1,589	682	233	277	-	-	-	271	126	7
	Total Transmission Expenses	\$ 1,978,280	\$ 849,275	\$ 289,816	\$ 345,015	\$ -	\$ -	\$ -	\$ 337,891	\$ 156,283	

Erie City Water Authority

Test Period Ending December 31, 2017
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Meter Expenses											
501.1	Personnel (Salaries)	\$ 178,954	\$ -	\$ -	\$ -	\$ 10,737	\$ 161,059	\$ 7,158	\$ -	\$ -	9
501.2	Personnel (Wages)	370,240	-	-	-	22,214	333,216	14,810	-	-	9
501.3	Personnel (Emergency and Scheduled OT)	8,910	-	-	-	535	8,019	356	-	-	9
502.1	Benefits (FICA)	42,221	-	-	-	2,533	37,999	1,689	-	-	9
502.4	Benefits (Workers Comp)	49,664	-	-	-	2,980	44,698	1,986	-	-	9
502.5	Benefits (Pension)	121,025	-	-	-	7,261	108,923	4,841	-	-	9
503.1	Supplies & Materials (Office)	1,312	-	-	-	79	1,181	52	-	-	9
503.2	Supplies & Materials (Operating)	28,407	-	-	-	1,705	25,566	1,136	-	-	9
503.3	Supplies & Materials (Fuel)	34,732	-	-	-	2,084	31,259	1,389	-	-	9
503.6	Supplies & Materials (Small Tools)	6,488	-	-	-	389	5,839	260	-	-	9
503.7	Supplies & Materials (Uniforms)	3,828	-	-	-	230	3,445	153	-	-	9
503.8	Supplies & Materials (Printing)	561	-	-	-	34	505	122	-	-	9
504.3	Other Svcs & Chgs (Training & Seminars)	4,774	-	-	-	286	4,297	191	-	-	9
504.6	Other Svcs & Chgs (Permits, Fees Damages)	264	-	-	-	16	238	10	-	-	9
504.9	Other Svcs & Chgs (Rentals)	492	-	-	-	29	443	20	-	-	9
504.10.0	Other Svcs & Chgs (Contracted Svcs)	10,598	-	-	-	636	9,538	424	-	-	9
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	13,109	-	-	-	787	11,798	524	-	-	9
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	21,866	-	-	-	1,312	19,679	875	-	-	9
	Total Meter Expenses	\$ 897,445	\$ -	\$ -	\$ -	\$ 53,847	\$ 807,702	\$ 35,896	\$ -	\$ -	
Operation Expenses											
501.1	Personnel (Salaries)	\$ 306,565	\$ 202,854	\$ 102,178	\$ -	\$ -	\$ -	\$ -	\$ 1,042	\$ 491	2
501.2	Personnel (Wages)	930,238	615,539	310,048	-	-	-	-	31,163	1,488	2
501.3	Personnel (Emergency and Scheduled OT)	56,819	37,597	18,938	-	-	-	-	193	91	2
502.1	Benefits (FICA)	76,007	50,294	25,333	-	-	-	-	258	122	2
502.4	Benefits (Workers Comp)	8,441	5,585	2,813	-	-	-	-	29	14	2
502.5	Benefits (Pension)	198,485	131,337	66,155	-	-	-	-	675	318	2
503.1	Supplies & Materials (Office)	656	434	219	-	-	-	-	2	1	2
503.2	Supplies & Materials (Operating)	8,840	5,850	2,946	-	-	-	-	30	14	2
503.3	Supplies & Materials (Fuel)	21,995	14,554	7,331	-	-	-	-	75	35	2
503.5	Supplies & Materials (Chemicals)	456,319	452,897	-	-	-	-	-	2,327	1,095	1
503.6	Supplies & Materials (Small Tools)	21,855	14,462	7,284	-	-	-	-	74	35	2
503.7	Supplies & Materials (Uniforms)	6,127	4,054	2,042	-	-	-	-	21	10	2
503.8	Supplies & Materials (Printing)	55	37	18	-	-	-	-	-	-	2
503.9	Supplies & Materials (Software, Refer, Subs)	1,639	1,084	546	-	-	-	-	6	3	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,076	1,374	692	-	-	-	-	7	3	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	3,289	2,177	1,096	-	-	-	-	11	5	2
504.7.0	Other Svcs & Chgs (Utilities)	1,748	1,735	-	-	-	-	-	9	4	1
504.7.1	Other Svcs & Chgs (Utilities - Electric)	2,042,233	2,026,916	-	-	-	-	-	10,416	4,901	1
504.7.2	Other Svcs & Chgs (Utilities - Natural Gas)	159,135	157,941	-	-	-	-	-	812	382	1
504.8	Other Svcs & Chgs (Refuse & Disposal)	733,875	728,371	-	-	-	-	-	3,743	1,761	1
504.9	Other Svcs & Chgs (Rentals)	822	544	274	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	37,925	25,095	12,640	-	-	-	-	129	61	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	5,582	3,694	1,860	-	-	-	-	19	9	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,263	2,159	1,088	-	-	-	-	11	5	2
	Total Operation Expenses	\$ 5,063,989	\$ 4,486,584	\$ 563,501	\$ -	\$ -	\$ -	\$ -	\$ 23,055	\$ 10,849	

Erie City Water Authority

Test Period Ending December 31, 2017
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Maintenance Expenses											
501.1	Personnel (Salaries)	\$ 185,185	\$ 122,537	\$ 61,722	\$ -	\$ -	\$ -	\$ -	\$ 630	\$ 296	2
501.2	Personnel (Wages)	702,992	465,170	234,307	-	-	-	-	2,390	1,125	2
501.3	Personnel (Emergency and Scheduled OT)	25,135	16,632	8,378	-	-	-	-	85	40	2
502.1	Benefits (FICA)	53,701	35,534	17,898	-	-	-	-	183	86	2
502.4	Benefits (Workers Comp)	10,886	7,203	3,628	-	-	-	-	37	18	2
502.5	Benefits (Pension)	153,330	101,459	51,105	-	-	-	-	521	245	2
503.1	Supplies & Materials (Office)	2,787	1,844	929	-	-	-	-	10	4	2
503.2	Supplies & Materials (Operating)	94,200	62,332	31,397	-	-	-	-	320	151	2
503.3	Supplies & Materials (Fuel)	21,129	13,981	7,042	-	-	-	-	72	34	2
503.6	Supplies & Materials (Small Tools)	39,226	25,956	13,074	-	-	-	-	133	63	2
503.7	Supplies & Materials (Uniforms)	5,228	3,459	1,743	-	-	-	-	18	8	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,295	1,519	765	-	-	-	-	8	3	2
504.2	Other Svcs & Chgs (Prof. Svcs Other)	420	278	140	-	-	-	-	1	1	2
504.3	Other Svcs & Chgs (Training & Seminars)	4,916	3,253	1,638	-	-	-	-	17	8	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	4,259	2,818	1,420	-	-	-	-	14	7	2
504.8	Other Svcs & Chgs (Refuse & Disposal)	16,125	10,003	-	-	-	-	-	82	40	1
504.9	Other Svcs & Chgs (Rentals)	1,204	797	401	-	-	-	-	4	2	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	136,290	90,183	45,426	-	-	-	-	463	218	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	18,037	11,935	6,012	-	-	-	-	61	29	2
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuis)	44,817	29,655	14,938	-	-	-	-	152	72	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	78,240	51,772	26,077	-	-	-	-	266	125	2
	Total Maintenance Expenses	\$ 1,600,402	\$ 1,064,320	\$ 528,040	\$ -	\$ -	\$ -	\$ -	\$ 5,467	\$ 2,575	
Laboratory Expenses											
501.1	Personnel (Salaries)	\$ 89,726	\$ 59,371	\$ 29,906	\$ -	\$ -	\$ -	\$ -	\$ 305	\$ 144	2
501.2	Personnel (Wages)	113,623	75,184	37,871	-	-	-	-	386	182	2
501.3	Personnel (Emergency and Scheduled OT)	1,363	902	454	-	-	-	-	5	2	2
502.1	Benefits (FICA)	13,001	8,603	4,333	-	-	-	-	44	21	2
502.4	Benefits (Workers Comp)	1,994	1,319	665	-	-	-	-	7	3	2
502.5	Benefits (Pension)	37,201	24,616	12,399	-	-	-	-	126	60	2
503.1	Supplies & Materials (Office)	1,015	672	338	-	-	-	-	3	2	2
503.2	Supplies & Materials (Operating)	22,851	15,120	7,616	-	-	-	-	78	37	2
503.3	Supplies & Materials (Fuel)	1,599	1,058	533	-	-	-	-	5	3	2
503.6	Supplies & Materials (Small Tools)	11,012	7,287	3,670	-	-	-	-	37	18	2
503.7	Supplies & Materials (Uniforms)	351	232	117	-	-	-	-	1	1	2
503.8	Supplies & Materials (Printing)	328	217	109	-	-	-	-	1	1	2
503.9	Supplies & Materials (Software, Refer, Subs)	4,480	2,965	1,493	-	-	-	-	15	7	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,260	1,561	787	-	-	-	-	8	4	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	43,731	28,936	14,576	-	-	-	-	149	70	2
504.9	Other Svcs & Chgs (Rentals)	850	563	283	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	945	625	315	-	-	-	-	3	2	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	1,382	914	461	-	-	-	-	5	2	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	14,619	9,673	4,873	-	-	-	-	50	23	2
	Total Laboratory Expenses	\$ 362,431	\$ 239,818	\$ 120,799	\$ -	\$ -	\$ -	\$ -	\$ 1,231	\$ 583	

Erie City Water Authority

Test Period Ending December 31, 2017
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Customer Services Expenses											
501.1	Personnel (Salaries)	\$ 65,550	\$ -	\$ -	\$ -	\$ 65,550	\$ -	\$ -	\$ -	\$ -	8
501.2	Personnel (Wages)	309,177	-	-	-	309,177	-	-	-	-	8
501.3	Personnel (Emergency and Scheduled OT)	2,959	-	-	-	2,959	-	-	-	-	8
502.1	Benefits (FICA)	22,219	-	-	-	22,219	-	-	-	-	8
502.4	Benefits (Workers Comp)	4,644	-	-	-	4,644	-	-	-	-	8
502.5	Benefits (Pension)	63,266	-	-	-	63,266	-	-	-	-	8
503.1	Supplies & Materials (Office)	8,742	-	-	-	8,742	-	-	-	-	8
503.2	Supplies & Materials (Operating)	1,817	-	-	-	1,817	-	-	-	-	8
503.7	Supplies & Materials (Uniforms)	548	-	-	-	548	-	-	-	-	8
503.8	Supplies & Materials (Printing)	4,919	-	-	-	4,919	-	-	-	-	8
503.9	Supplies & Materials (Software, Refer, Subs)	655	-	-	-	655	-	-	-	-	8
504.3	Other Svcs & Chgs (Training & Seminars)	547	-	-	-	547	-	-	-	-	8
504.5	Other Svcs & Chgs (Postage)	87,418	-	-	-	87,418	-	-	-	-	8
504.6	Other Svcs & Chgs (Permits, Fees Damages)	56,830	-	-	-	56,830	-	-	-	-	8
504.10.0	Other Svcs & Chgs (Contracted Svcs)	4,698	-	-	-	4,698	-	-	-	-	8
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	8,753	-	-	-	8,753	-	-	-	-	8
	Total Customer Services Expenses	\$ 642,742	\$ -	\$ -	\$ -	\$ 642,742	\$ -	\$ -	\$ -	\$ -	
Engineering Expenses											
501.1	Personnel (Salaries)	\$ 327,751	\$ 216,874	\$ 109,239	\$ -	\$ -	\$ -	\$ -	\$ 1,114	\$ 524	2
501.2	Personnel (Wages)	224,154	148,322	74,711	-	-	-	-	762	359	2
501.3	Personnel (Emergency and Scheduled OT)	3,125	2,067	1,042	-	-	-	-	11	5	2
502.1	Benefits (FICA)	39,873	26,383	13,290	-	-	-	-	136	64	2
502.4	Benefits (Workers Comp)	2,117	1,401	706	-	-	-	-	7	3	2
502.5	Benefits (Pension)	120,535	79,758	40,174	-	-	-	-	410	193	2
503.1	Supplies & Materials (Office)	5,463	3,614	1,821	-	-	-	-	19	9	2
503.2	Supplies & Materials (Operating)	3,389	2,242	1,130	-	-	-	-	12	5	2
503.3	Supplies & Materials (Fuel)	4,967	3,286	1,656	-	-	-	-	17	8	2
503.6	Supplies & Materials (Small Tools)	2,740	1,814	913	-	-	-	-	9	4	2
503.7	Supplies & Materials (Uniforms)	1,092	722	364	-	-	-	-	4	2	2
503.8	Supplies & Materials (Printing)	764	505	255	-	-	-	-	3	1	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,076	1,374	692	-	-	-	-	7	3	2
504.3	Other Svcs & Chgs (Training & Seminars)	8,743	5,785	2,914	-	-	-	-	30	14	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	8,752	5,791	2,917	-	-	-	-	30	14	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	1,891	1,252	630	-	-	-	-	6	3	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	1,964	1,299	655	-	-	-	-	7	3	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	30,054	19,887	10,017	-	-	-	-	102	48	2
	Total Engineering Expenses	\$ 789,450	\$ 522,376	\$ 263,126	\$ -	\$ -	\$ -	\$ -	\$ 2,686	\$ 1,262	
	Total Operating Expenses Before General and Admin	\$ 12,973,331	\$ 7,857,234	\$ 2,002,403	\$ 627,298	\$ 696,589	\$ 807,702	\$ 35,896	\$ 646,786	\$ 299,423	
	Less: Power / Chemical / Waste Expense	\$ 3,409,435	\$ 3,383,863	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,389	\$ 8,183	
	Total Operating Expense Less Power / Chem / Waste Exp.	\$ 9,563,896	\$ 4,473,371	\$ 2,002,403	\$ 627,298	\$ 696,589	\$ 807,702	\$ 35,896	\$ 629,397	\$ 291,240	
	Allocation Factor for General and Administrative Expenses (Factor 12)	100.00 %	46.77 %	20.94 %	6.56 %	7.28 %	8.45 %	0.37 %	6.58 %	3.05 %	

Erie City Water Authority
Test Period Ending December 31, 2017
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Finance Expenses											
501.1	Personnel (Salaries)	\$ 174,219	81,482	36,481	11,429	12,683	14,721	645	11,464	5,314	12
501.2	Personnel (Wages)	165,410	77,362	34,637	10,851	12,042	13,977	612	10,884	5,045	12
501.3	Personnel (Emergency and Scheduled OT)	1,164	544	244	76	85	98	4	77	36	12
502.1	Benefits (FICA)	19,915	9,314	4,170	1,307	1,450	1,683	74	1,310	607	12
502.4	Benefits (Workers Comp)	2,445	1,144	512	159	178	207	9	161	75	12
502.5	Benefits (Pension)	69,384	32,451	14,529	4,552	5,051	5,863	257	4,565	2,116	12
503.1	Supplies & Materials (Office)	3,824	1,788	801	251	278	323	14	252	117	12
503.2	Supplies & Materials (Operating)	1,118	523	234	73	81	95	4	74	34	12
503.7	Supplies & Materials (Uniforms)	548	256	115	36	40	46	2	36	17	12
503.8	Supplies & Materials (Printing)	546	255	114	36	40	46	2	36	17	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	53,270	24,914	11,155	3,495	3,878	4,501	197	3,505	1,625	12
504.4	Other Svcs & Chgs (Communications)	136,041	63,626	28,487	8,924	9,904	11,496	503	8,952	4,149	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	16,388	7,665	3,432	1,075	1,193	1,385	61	1,077	500	12
504.7.3	Other Svcs & Chgs (Utilities - Telecommunications)	76,491	35,775	16,017	5,018	5,569	6,463	283	5,033	2,333	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	8,250	3,858	1,728	541	601	697	30	543	252	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	11,137	5,209	2,332	730	811	941	41	733	340	12
504.12.1	Insurance - General Liability	269,904	126,234	56,518	17,706	19,649	22,806	999	17,760	8,232	12
	Total Finance Expenses	\$ 1,010,054	\$ 472,400	\$ 211,506	\$ 66,259	\$ 73,533	\$ 85,348	\$ 3,737	\$ 66,462	\$ 30,809	
Board Expenses											
503.2	Supplies & Materials (Operating)	5,556	2,600	1,163	364	404	469	21	366	169	12
504.3	Other Svcs & Chgs (Training & Seminars)	818	382	171	54	60	69	3	54	25	12
	Total Board Expenses	\$ 6,374	\$ 2,982	\$ 1,334	\$ 418	\$ 464	\$ 538	\$ 24	\$ 420	\$ 194	
Administrative Expenses											
501.1	Personnel (Salaries)	\$ 777,380	363,581	162,783	50,996	56,593	65,689	2,876	51,152	23,710	12
501.2	Personnel (Wages)	313,042	146,410	65,551	20,536	22,789	26,452	1,158	20,598	9,548	12
501.3	Personnel (Emergency and Scheduled OT)	46,978	21,971	3,082	3,082	3,420	3,970	174	3,091	1,433	12
502.1	Benefits (FICA)	69,920	32,701	14,641	4,587	5,090	5,908	259	4,601	2,133	12
502.2	Benefits (Op Ins.)	2,009,808	939,987	420,854	131,844	146,314	169,829	7,436	132,245	61,299	12
502.5	Benefits (Pension)	200,321	93,690	41,947	13,141	14,584	16,927	741	13,181	6,110	12
503.1	Supplies & Materials (Office)	4,371	2,044	916	287	318	369	16	288	133	12
503.2	Supplies & Materials (Operating)	9,644	4,510	2,019	633	702	815	36	635	294	12
503.3	Supplies & Materials (Fuel)	5,795	2,710	1,214	380	422	490	21	381	177	12
503.7	Supplies & Materials (Uniforms)	3,903	1,825	817	256	284	331	14	257	119	12
503.8	Supplies & Materials (Printing)	22,947	10,732	4,805	1,505	1,671	1,939	85	1,510	700	12
503.9	Supplies & Materials (Software, Refer, Subs)	1,312	614	275	86	95	111	5	86	40	12
504.1	Other Svcs & Chgs (Prof. Svcs Engin)	19,102	8,933	4,000	1,253	1,391	1,614	71	1,257	583	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	646,310	302,279	135,537	42,398	47,052	54,613	2,391	42,527	19,713	12
504.3	Other Svcs & Chgs (Training & Seminars)	16,393	7,667	3,433	1,075	1,193	1,385	61	1,079	500	12
504.4	Other Svcs & Chgs (Communications)	6,560	3,068	1,374	430	478	554	24	432	200	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	27,960	13,077	5,855	1,834	2,035	2,363	103	1,840	853	12
504.9	Other Svcs & Chgs (Rentals)	19,121	8,943	4,004	1,254	1,392	1,616	71	1,258	583	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	34,029	15,915	7,126	2,232	2,477	2,876	126	2,239	1,088	12
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	655	306	137	43	48	56	2	43	20	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	137,688	64,397	28,832	9,032	10,024	11,635	509	9,060	4,199	12
504.11	Misc Svcs & Chgs	60,764	28,419	12,724	3,986	4,424	5,135	225	3,988	1,853	12
504.13	MTWA Related Expenses	-	-	-	-	-	-	-	-	-	12
	Total Administrative Expenses	\$ 4,434,003	\$ 2,073,779	\$ 928,481	\$ 290,870	\$ 322,796	\$ 374,677	\$ 16,404	\$ 291,758	\$ 135,238	
	Total Pro Forma Operating Expenses	\$ 18,423,762	\$ 10,406,395	\$ 3,143,724	\$ 984,845	\$ 1,093,382	\$ 1,268,265	\$ 56,061	\$ 1,005,426	\$ 465,664	
	Total Labor Expense	\$ 6,689,586	\$ 3,216,321	\$ 1,490,085	\$ 325,248	\$ 518,784	\$ 627,201	\$ 27,793	\$ 330,917	\$ 153,237	
	Total Labor Expense (Factor 13) %	100.00 %	48.08 %	22.27 %	4.86 %	7.75 %	9.38 %	0.42 %	4.95 %	2.29 %	

Erie City Water Authority

Test Period Ending December 31, 2017
Allocation of Pro Forma Revenue Requirement

Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma Revenue Requirement										
Operating Expenses	\$ 18,423,762	\$ 10,406,395	\$ 3,143,724	\$ 984,845	\$ 1,093,382	\$ 1,268,265	\$ 56,061	\$ 1,005,426	\$ 465,664	
Debt Service	16,451,880	7,949,548	3,009,049	2,273,650	23,033	347,135	14,807	1,938,031	896,627	11
City Lease Payment	3,600,000	1,739,520	658,440	497,520	5,040	75,960	3,240	424,080	196,200	11
COLA Pension Liability	-	-	-	-	-	-	-	-	-	13
Total Revenue Requirement	\$ 38,475,642	\$ 20,095,463	\$ 6,811,213	\$ 3,756,015	\$ 1,121,455	\$ 1,691,360	\$ 74,108	\$ 3,367,537	\$ 1,558,491	
Total Revenue Requirement %	100.00 %	52.23 %	17.70 %	9.76 %	2.91 %	4.40 %	0.19 %	8.75 %	4.06 %	
Other Revenues	(816,100)	(381,690)	(170,891)	(53,536)	(59,412)	(68,961)	(3,020)	(53,699)	(24,891)	12
Net Revenue Requirement	\$ 37,659,542	\$ 19,713,773	\$ 6,640,322	\$ 3,702,479	\$ 1,062,043	\$ 1,622,399	\$ 71,088	\$ 3,313,838	\$ 1,533,600	
Net Revenue Requirement less Public Fire	\$ 34,345,704	\$ 19,713,773	\$ 6,640,322	\$ 3,702,479	\$ 1,062,043	\$ 1,622,399	\$ 71,088	\$ -	\$ 1,533,600	
Reallocation of Public Fire Costs	\$ 3,313,838	-	-	-	198,830	2,982,454	132,554	-	-	9
Net Revenue Requirement	\$ 37,659,542	\$ 19,713,773	\$ 6,640,322	\$ 3,702,479	\$ 1,260,873	\$ 4,604,853	\$ 203,642	\$ -	\$ 1,533,600	

Erie City Water Authority
Customer Class Allocation
Water Pro Forma Net Revenue Requirement
For the Year Ending December 31, 2017

	Total	Domestic	Commercial	Industrial	Public	Bulk	Allocation Code
Base Cost	\$ 19,713,773	\$ 9,056,507	\$ 2,815,127	\$ 3,542,565	\$ 1,577,102	\$ 2,722,472	14
Maximum Day	6,640,322	3,699,323	804,807	796,175	450,878	889,139	15
Maximum Hour	3,702,479	2,141,884	565,739	356,179	316,932	321,745	16
Customer Costs	1,260,873	1,154,077	78,048	7,818	20,426	504	17
Meters	4,604,853	3,306,745	769,931	194,785	304,381	29,011	18
Services	203,642	173,136	21,382	2,791	6,089	244	19
Total	\$ 36,125,942	\$ 19,531,672	\$ 5,055,034	\$ 4,900,313	\$ 2,675,808	\$ 3,963,115	
	100.00 %	54.07 %	13.99 %	13.56 %	7.41 %	10.97 %	
Indicated Private Fire	\$ 1,533,600						
Recommended Private Fire	\$ 1,289,981						
Difference	\$ 243,619						
Allocation of Difference		147,950	38,297	37,103	20,269	-	
Total	\$ 36,369,561	19,679,622	5,093,331	4,937,416	2,696,077	3,963,115	
Revenue Requirement	\$ 37,659,542						

Erie Water Works
Development of Fixed Charges and Volumetric Block Rates
For the Year Ended December 31, 2017

First	70	Base Cost of Water	2.31	Capacity Factor	200	Cost per CCF	0.94	Capacity Factor	320	Cost per CCF	0.99	Total Cost	3.88
Next	4930	\$	\$ 23,423.00	170	\$	\$ 0.66	\$	272	\$	\$ 0.77	\$	\$ 3.43	
Over	5000	\$	\$ 841.64	155	\$	\$ 0.52	\$	206	\$	\$ 0.48	\$	\$ 2.99	

Basis for Cost per CCF

Required Revs from Sales	\$19,713,773.00	Shortfall	\$	3,935,824.24	CCF Consumption	1,180,569	Total Cost	\$	3.28
Excess Capacity Revenue / CCF	23,423.00	Indicated COS	\$	3,963,115.00					
Cost Per CCF	841.64								
	2.31								

Bulk Rate		Amount Covered in FC	\$	27,290.76									
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DESCRIPTION

	BILLING	METERS	SERVICES	TOTAL
TOTAL CUSTOMER ANNUAL COSTS	\$1,260,873	\$4,604,853	\$203,642	\$6,069,368
NUMBER OF BILLS	209,420			
NO. OF EQUIVALENT METERS		70,326	57,224	
UNIT COST	\$6.02	\$65.48	\$3.56	\$75.06

METER SIZE	EQ. METER RATIO	COST PER BILL	EQ. SERVICE RATIO	METERS	QUARTERLY COST SERVICES	TOTAL QUARTERLY CHARGES	TOTAL MONTHLY CHARGES
5/8"	1.0	\$ 6.02	1.0	16.37	\$ 0.89	\$ 23.28	\$ 7.76
3/4"	1.5	6.02	1.3	24.56	1.16	31.74	10.58
1"	2.5	6.02	2.0	40.93	1.78	48.73	16.24
1 1/2"	5.0	6.02	2.7	81.85	2.40	90.27	30.09
2"	8.0	6.02	4.0	130.96	3.56	140.54	46.85
3"	15.0	6.02	4.0	245.55	3.56	255.13	85.04
4"	25.0	6.02	5.3	409.25	4.72	419.99	140.00
6"	50.0	6.02	8.0	818.50	7.12	831.64	277.21
8"	80.0	6.02	10.7	1,309.60	9.52	1,325.14	441.71
10"	115.0	6.02	13.3	1,882.55	11.84	1,900.41	633.47
12"	215.0	6.02	16.0	3,519.55	14.24	3,539.81	1,179.94

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2017

Domestic Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	3,178	\$ 7.21	\$ 22,913.38	\$ 7.76	\$ 24,661.28	7.628 %
3/4" Monthly	41	9.81	402.21	10.58	433.78	7.849 %
1" Monthly	179	15.04	2,692.16	16.24	2,906.96	7.979 %
1.5" Monthly	30	27.83	834.90	30.09	902.70	8.121 %
2" Monthly	40	43.30	1,732.00	46.85	1,874.00	8.199 %
4" Monthly	40	129.33	5,173.20	140.00	5,600.00	8.250 %
6" Monthly	10	256.05	2,560.50	277.21	2,772.10	8.264 %
8" Monthly	10	407.96	4,079.60	441.71	4,417.10	8.273 %
5/8" Quarterly	181,966	21.62	3,934,104.92	23.28	4,236,168.48	7.678 %
3/4" Quarterly	3,615	29.43	106,389.45	31.74	114,740.10	7.849 %
1" Quarterly	1,510	45.12	68,131.20	48.73	73,582.30	8.001 %
1.5" Quarterly	679	83.49	56,689.71	90.27	61,293.33	8.121 %
2" Quarterly	248	129.91	32,217.68	140.54	34,853.92	8.183 %
3" Quarterly	44	235.73	10,372.12	255.13	11,225.72	8.230 %
4" Quarterly	76	387.98	29,486.48	419.99	31,919.24	8.250 %
6" Quarterly	8	768.14	6,145.12	831.64	6,653.12	8.267 %
8" Quarterly	4	1,223.88	4,895.52	1,325.14	5,300.56	8.274 %
Total Fixed Charges	191,678		\$ 4,288,820.15		\$ 4,619,304.69	7.706 %
<u>Usage Charge</u>						
Block 1:	3,526,759.50	\$ 3.6200	\$ 12,766,869.39	\$ 3.8800	\$ 13,683,826.86	7.182 %
Block 2:	371,348.00	3.1800	1,180,886.64	3.4300	1,273,723.64	7.862 %
Block 3:	29,070.00	2.7500	79,942.50	2.9900	86,919.30	8.727 %
Total Usage Charges			14,027,698.53		15,044,469.80	
Total Domestic			\$ 18,316,518.68		\$ 19,663,774.49	7.355 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2017

Commercial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	80	\$ 7.21	\$ 576.80	\$ 7.76	\$ 620.80	7.628 %
3/4" Monthly	40	9.81	392.40	10.58	423.20	7.849 %
1" Monthly	102	15.04	1,534.08	16.24	1,656.48	7.979 %
1 1/2" Monthly	70	27.83	1,948.10	30.09	2,106.30	8.121 %
2" Monthly	301	43.30	13,033.30	46.85	14,101.85	8.199 %
3" Monthly	60	78.58	4,714.80	85.04	5,102.40	8.221 %
4" Monthly	121	129.33	15,648.93	140.00	16,940.00	8.250 %
6" Monthly	60	256.05	15,363.00	277.21	16,632.60	8.264 %
8" Monthly	10	407.96	4,079.60	441.71	4,417.10	8.273 %
10" Monthly	20	585.04	11,700.80	633.47	12,669.40	8.278 %
5/8" Quarterly	2,585	21.62	55,887.70	23.28	60,178.80	7.678 %
3/4" Quarterly	5,083	29.43	149,592.69	31.74	161,334.42	7.849 %
1" Quarterly	1,700	45.12	76,704.00	48.73	82,841.00	8.001 %
1 1/2" Quarterly	1,068	83.49	89,167.32	90.27	96,408.36	8.121 %
2" Quarterly	1,209	129.91	157,061.19	140.54	169,912.86	8.183 %
3" Quarterly	137	235.73	32,295.01	255.13	34,952.81	8.230 %
4" Quarterly	238	387.98	92,339.24	419.99	99,957.62	8.250 %
6" Quarterly	60	768.14	46,088.40	831.64	49,898.40	8.267 %
8" Quarterly	24	1,223.88	29,373.12	1,325.14	31,803.36	8.274 %
Total Fixed Charges	12,968.00		\$ 797,500.48		\$ 861,957.76	8.082 %
<u>Usage Charge</u>						
Block 1:	340,164	\$ 3.6200	\$ 1,231,393.68	\$ 3.8800	\$ 1,319,836.32	7.182 %
Block 2:	818,285	3.1800	\$ 2,602,146.05	3.4300	\$ 2,806,717.28	7.862 %
Block 3:	62,332	2.7500	\$ 171,412.34	2.9900	\$ 186,371.96	8.727 %
Total Usage Charges			\$ 4,004,952.07		\$ 4,312,925.56	
Total Commercial			\$ 4,802,452.55		\$ 5,174,883.32	7.755 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2017

Industrial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	10	\$ 7.21	\$ 72.10	\$ 7.76	\$ 77.60	7.628 %
3/4" Monthly	50	9.81	490.50	10.58	529.00	7.849 %
1" Monthly	30	15.04	451.20	16.24	487.20	7.979 %
1 1/2" Monthly	46	27.83	1,280.18	30.09	1,384.14	8.121 %
2" Monthly	178	43.30	7,707.40	46.85	8,339.30	8.199 %
3" Monthly	30	78.58	2,357.40	85.04	2,551.20	8.221 %
4" Monthly	79	129.33	10,217.07	140.00	11,060.00	8.250 %
6" Monthly	140	256.05	35,847.00	277.21	38,809.40	8.264 %
8" Monthly	30	407.96	12,238.80	441.71	13,251.30	8.273 %
10" Monthly	30	585.04	17,551.20	633.47	19,004.10	8.278 %
12" Monthly	20	1,089.70	21,794.00	1,179.94	23,598.80	8.281 %
5/8" Quarterly	52	21.62	1,124.24	23.28	1,210.56	7.678 %
3/4" Quarterly	125	29.43	3,678.75	31.74	3,967.50	7.849 %
1" Quarterly	147	45.12	6,632.64	48.73	7,163.31	8.001 %
1 1/2" Quarterly	79	83.49	6,595.71	90.27	7,131.33	8.121 %
2" Quarterly	201	129.91	26,111.91	140.54	28,248.54	8.183 %
3" Quarterly	16	235.73	3,771.68	255.13	4,082.08	8.230 %
4" Quarterly	44	387.98	17,071.12	419.99	18,479.56	8.250 %
Total Fixed Charges	1,307.00		174,992.90		189,374.92	8.219 %
<u>Usage Charge</u>						
Block 1:	32,757	\$ 3.6200	\$ 118,580.34	\$ 3.8800	\$ 127,097.16	7.182 %
Block 2:	372,547	\$ 3.1800	1,184,699.46	3.4300	1,277,836.21	7.862 %
Block 3:	1,131,501	\$ 2.7500	3,111,627.75	2.9900	3,383,187.99	8.727 %
Total Usage Charges			\$ 4,414,907.55		\$ 4,788,121.36	
Total Industrial			\$ 4,589,900.45		\$ 4,977,496.28	8.445 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2017

Public Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	85	\$ 7.21	\$ 612.85	\$ 7.76	\$ 659.60	7.628 %
3/4" Monthly	26	9.81	255.06	10.58	275.08	7.849 %
1" Monthly	50	15.04	752.00	16.24	812.00	7.979 %
1 1/2" Monthly	140	27.83	3,896.20	30.09	4,212.60	8.121 %
2" Monthly	150	43.30	6,495.00	46.85	7,027.50	8.199 %
3" Monthly	100	78.58	7,858.00	85.04	8,504.00	8.221 %
4" Monthly	110	129.33	14,226.30	140.00	15,400.00	8.250 %
6" Monthly	86	256.05	22,020.30	277.21	23,840.06	8.264 %
8" Monthly	40	407.96	16,318.40	441.71	17,668.40	8.273 %
5/8" Quarterly	1,127	21.62	24,365.74	23.28	26,236.56	7.678 %
3/4" Quarterly	302	29.43	8,887.86	31.74	9,585.48	7.849 %
1" Quarterly	226	45.12	10,197.12	48.73	11,012.98	8.001 %
1 1/2" Quarterly	259	83.49	21,623.91	90.27	23,379.93	8.121 %
2" Quarterly	364	129.91	47,287.24	140.54	51,156.56	8.183 %
3" Quarterly	142	235.73	33,473.66	255.13	36,228.46	8.230 %
4" Quarterly	130	387.98	50,437.40	419.99	54,598.70	8.250 %
6" Quarterly	40	768.14	30,725.60	831.64	33,265.60	8.267 %
8" Quarterly	4	1,223.88	4,895.52	1,325.14	5,300.56	8.274 %
Total Fixed Charge	3,381		\$ 304,328.16		\$ 329,164.07	8.161 %
<u>Usage Charge</u>						
Block 1:	83,567	\$ 3.6200	\$ 302,512.54	\$ 3.8800	\$ 324,239.96	7.182 %
Block 2:	410,546	\$ 3.1800	1,305,536.28	3.4300	1,408,172.78	7.862 %
Block 3:	186,095	\$ 2.7500	511,761.25	2.9900	556,424.05	8.727 %
Total Usage Charges			2,119,810.07		2,288,836.79	
Total Public Customers			\$ 2,424,138.23		\$ 2,618,000.86	7.997 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2017

Bulk Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
4" Monthly	30	\$ 129.33	\$ 3,879.90	\$ 140.00	\$ 4,200.00	8.250 %
6" Monthly	10	256.05	2,560.50	277.21	2,772.10	8.264 %
8" Monthly	46	407.96	18,766.16	441.71	20,318.66	8.273 %
Total Fixed Charge	86		\$ 25,206.56		\$ 27,290.76	8.268 %
<u>Usage Charge</u>						
Bulk Rate	1,180,569	\$ 3.0500	<u>3,600,735.33</u>	\$ 3.2800	<u>3,872,266.19</u>	7.541 %
Total Bulk Customers			\$ 3,625,941.89		\$ 3,899,556.95	7.546 %
<u>Other Revenues:</u>						
Fire Line Revenues			\$ 1,166,781.44		\$ 1,290,047.59	10.565 %
Fixed Fee Customers			<u>28,146.99</u>		<u>30,322.83</u>	7.730 %
Total Other Revenues			\$ 1,194,928.43		\$ 1,320,370.42	
Total Water Charges			<u>33,758,951.80</u>		<u>36,333,711.90</u>	7.627 %
Total Water Service			\$ 34,953,880.23		\$ 37,654,082.32	7.725 %
Total Requested Revenue					\$ 37,659,542.00	
Difference					(\$5,459.68)	-0.01 %

Erie City Water Authority

Test Period Ending December 31, 2018
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense											
Distribution Expenses											
501.1	Personnel (Salaries)	\$ 180,278	\$ 77,393	\$ 26,411	\$ 31,440	\$ -	\$ -	\$ -	\$ 30,792	\$ 14,242	7
501.2	Personnel (Wages)	341,063	146,418	49,966	59,481	-	-	-	58,254	26,944	7
501.3	Personnel (Emergency and Scheduled OT)	86,218	15,036	12,631	37,014	-	-	-	14,726	6,811	7
502.1	Benefits (FICA)	45,489	19,528	6,664	7,933	-	-	-	7,770	3,594	7
502.4	Benefits (Workers Comp)	11,222	26,140	4,559	3,829	-	-	-	4,465	2,065	7
502.5	Benefits (Pension)	132,379	56,830	19,394	22,087	-	-	-	22,610	10,458	7
503.1	Supplies & Materials (Office)	1,282	550	188	224	-	-	-	219	101	7
503.2	Supplies & Materials (Operating)	82,019	35,211	12,016	14,304	-	-	-	14,009	6,479	7
503.3	Supplies & Materials (Fuel)	46,273	19,865	8,070	8,070	-	-	-	7,903	3,656	7
503.4	Supplies & Materials (Backfill)	175,451	75,321	25,703	30,599	-	-	-	29,967	13,861	7
503.6	Supplies & Materials (Small Tools)	22,213	9,536	3,254	3,674	-	-	-	3,794	1,755	7
503.7	Supplies & Materials (Uniforms)	6,575	2,823	963	1,147	-	-	-	1,123	519	7
503.8	Supplies & Materials (Printing)	253	109	37	44	-	-	-	43	20	7
503.9	Supplies & Materials (Software, Refer, Subs)	633	272	93	110	-	-	-	108	50	7
504.3	Other Svcs & Chgs (Training & Seminars)	1,772	761	259	309	-	-	-	303	140	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	61,284	26,309	8,978	10,688	-	-	-	10,467	4,842	7
504.9	Other Svcs & Chgs (Rentals)	8,433	3,620	1,236	1,471	-	-	-	1,440	666	7
504.10.0	Other Svcs & Chgs (Contracted Svcs - Vehicles)	24,017	10,311	3,518	4,189	-	-	-	4,102	1,897	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	65,396	28,074	9,581	11,405	-	-	-	11,170	5,166	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Barricades)	350,835	150,613	51,397	61,186	-	-	-	59,923	27,716	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	4,052	1,739	594	707	-	-	-	692	320	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Maint)	15,194	6,523	2,226	2,650	-	-	-	2,595	1,200	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,752	1,611	550	654	-	-	-	641	296	7
504.11	Misc Svcs & Chgs	1,340	575	196	234	-	-	-	229	106	7
	Total Distribution Expenses	\$ 1,682,341	\$ 722,228	\$ 246,463	\$ 293,401	\$ -	\$ -	\$ -	\$ 287,345	\$ 132,904	
Transmission Expenses											
501.1	Personnel (Salaries)	\$ 220,339	\$ 94,591	\$ 32,280	\$ 38,427	\$ -	\$ -	\$ -	\$ 37,634	\$ 17,407	7
501.2	Personnel (Wages)	416,855	178,956	61,069	72,699	-	-	-	71,199	32,932	7
501.3	Personnel (Emergency and Scheduled OT)	105,378	15,438	10,378	18,378	-	-	-	17,998	8,325	7
502.1	Benefits (FICA)	55,598	23,868	8,145	9,697	-	-	-	9,496	4,392	7
502.4	Benefits (Workers Comp)	31,950	13,716	4,681	5,572	-	-	-	5,457	2,524	7
502.5	Benefits (Pension)	161,797	69,460	23,703	28,217	-	-	-	27,635	12,782	7
503.1	Supplies & Materials (Office)	1,567	673	229	273	-	-	-	268	124	7
503.2	Supplies & Materials (Operating)	100,246	43,036	14,686	17,483	-	-	-	17,122	7,919	7
503.3	Supplies & Materials (Fuel)	56,555	24,279	8,285	9,863	-	-	-	9,660	4,468	7
503.4	Supplies & Materials (Backfill)	214,440	92,059	31,416	37,398	-	-	-	36,626	16,941	7
503.6	Supplies & Materials (Small Tools)	27,149	11,655	3,977	4,735	-	-	-	4,637	2,145	7
503.7	Supplies & Materials (Uniforms)	8,035	3,450	1,177	1,401	-	-	-	1,372	685	7
503.8	Supplies & Materials (Printing)	309	133	45	54	-	-	-	53	24	7
503.9	Supplies & Materials (Software, Refer, Subs)	774	332	114	135	-	-	-	132	61	7
504.3	Other Svcs & Chgs (Training & Seminars)	2,165	929	317	378	-	-	-	370	171	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	74,903	32,157	10,973	13,063	-	-	-	12,793	5,917	7
504.9	Other Svcs & Chgs (Rentals)	10,306	4,425	1,510	1,797	-	-	-	1,760	814	7
504.10.0	Other Svcs & Chgs (Contracted Svcs - Vehicles)	29,355	12,602	4,300	5,120	-	-	-	5,014	2,319	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	79,929	34,313	11,710	13,940	-	-	-	13,652	6,314	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Barricades)	428,799	184,083	62,819	74,783	-	-	-	73,239	33,875	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	4,952	2,126	725	864	-	-	-	846	391	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Maint)	18,571	7,972	2,721	3,239	-	-	-	3,172	1,467	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	4,585	1,968	672	800	-	-	-	783	362	7
504.11	Misc Svcs & Chgs	1,637	703	240	285	-	-	-	280	129	7
	Total Transmission Expenses	\$ 2,056,194	\$ 882,725	\$ 301,232	\$ 358,601	\$ -	\$ -	\$ -	\$ 351,198	\$ 162,438	

Erie City Water Authority

Test Period Ending December 31, 2018
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Meter Expenses											
501.1	Personnel (Salaries)	\$ 185,218	\$ -	\$ -	\$ -	\$ 11,113	\$ 166,696	\$ 7,409	\$ -	\$ -	9
501.2	Personnel (Wages)	381,347	-	-	-	22,881	343,212	15,254	-	-	9
501.3	Personnel (Emergency and Scheduled OT)	9,177	-	-	-	551	8,259	367	-	-	9
502.1	Benefits (FICA)	43,567	-	-	-	2,614	39,210	1,743	-	-	9
502.4	Benefits (Workers Comp)	51,154	-	-	-	3,069	46,039	2,046	-	-	9
502.5	Benefits (Pension)	136,849	-	-	-	8,211	123,164	5,474	-	-	9
503.1	Supplies & Materials (Office)	1,351	-	-	-	81	1,216	54	-	-	9
503.2	Supplies & Materials (Operating)	29,827	-	-	-	1,790	26,844	1,193	-	-	9
503.3	Supplies & Materials (Fuel)	36,469	-	-	-	2,188	32,822	1,459	-	-	9
503.6	Supplies & Materials (Small Tools)	6,683	-	-	-	401	6,015	267	-	-	9
503.7	Supplies & Materials (Uniforms)	3,943	-	-	-	236	3,549	158	-	-	9
503.8	Supplies & Materials (Printing)	578	-	-	-	35	520	23	-	-	9
504.3	Other Svcs & Chgs (Training & Seminars)	4,917	-	-	-	295	4,425	197	-	-	9
504.6	Other Svcs & Chgs (Permits, Fees Damages)	272	-	-	-	16	11	245	-	-	9
504.9	Other Svcs & Chgs (Rentals)	507	-	-	-	31	456	20	-	-	9
504.10.0	Other Svcs & Chgs (Contracted Svcs)	10,916	-	-	-	655	9,824	437	-	-	9
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	13,503	-	-	-	810	12,153	540	-	-	9
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	22,522	-	-	-	1,351	20,270	901	-	-	9
	Total Meter Expenses	\$ 938,800	\$ -	\$ -	\$ -	\$ 56,328	\$ 844,919	\$ 37,553	\$ -	\$ -	
Operation Expenses											
501.1	Personnel (Salaries)	\$ 317,295	\$ 209,954	\$ 105,754	\$ -	\$ -	\$ -	\$ -	\$ 1,079	\$ 508	2
501.2	Personnel (Wages)	958,145	634,004	319,350	-	-	-	-	3,258	1,533	2
501.3	Personnel (Emergency and Scheduled OT)	58,523	38,725	19,506	-	-	-	-	199	93	2
502.1	Benefits (FICA)	78,429	51,896	26,140	-	-	-	-	267	126	2
502.4	Benefits (Workers Comp)	8,695	5,753	2,898	-	-	-	-	30	14	2
502.5	Benefits (Pension)	224,437	148,510	74,805	-	-	-	-	763	359	2
503.1	Supplies & Materials (Office)	676	447	226	-	-	-	-	2	1	2
503.2	Supplies & Materials (Operating)	9,282	6,142	3,094	-	-	-	-	31	15	2
503.3	Supplies & Materials (Fuel)	23,094	15,281	7,697	-	-	-	-	79	37	2
503.5	Supplies & Materials (Chemicals)	465,446	461,955	-	-	-	-	-	2,374	1,117	1
503.6	Supplies & Materials (Small Tools)	22,511	14,895	7,503	-	-	-	-	77	36	2
503.7	Supplies & Materials (Uniforms)	6,311	4,176	2,104	-	-	-	-	21	10	2
503.8	Supplies & Materials (Printing)	57	38	19	-	-	-	-	-	-	2
503.9	Supplies & Materials (Software, Refer, Subs)	1,689	1,117	563	-	-	-	-	6	3	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,138	1,415	713	-	-	-	-	7	3	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	3,388	2,242	1,129	-	-	-	-	12	5	2
504.7.0	Other Svcs & Chgs (Utilities)	1,801	1,788	-	-	-	-	-	9	4	1
504.7.1	Other Svcs & Chgs (Utilities - Electric)	2,103,499	2,087,723	-	-	-	-	-	10,728	5,048	1
504.7.2	Other Svcs & Chgs (Utilities - Natural Gas)	163,909	162,680	-	-	-	-	-	836	393	1
504.8	Other Svcs & Chgs (Refuse & Disposal)	733,875	728,371	-	-	-	-	-	3,743	1,761	1
504.9	Other Svcs & Chgs (Rentals)	846	560	282	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	39,063	25,848	13,020	-	-	-	-	133	62	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	5,749	3,804	1,916	-	-	-	-	20	9	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,360	2,223	1,120	-	-	-	-	12	5	2
	Total Operation Expenses	\$ 5,232,218	\$ 4,609,547	\$ 587,839	\$ -	\$ -	\$ -	\$ -	\$ 23,689	\$ 11,143	

Erie City Water Authority

Test Period Ending December 31, 2018
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Maintenance Expenses											
501.1	Personnel (Salaries)	\$ 191,667	\$ 126,826	\$ 63,882	\$ -	\$ -	\$ -	\$ -	\$ 652	\$ 307	2
501.2	Personnel (Wages)	724,082	479,125	241,336	-	-	-	-	2,462	1,159	2
501.3	Personnel (Emergency and Scheduled OT)	25,889	17,131	8,629	-	-	-	-	88	41	2
502.1	Benefits (FICA)	55,412	36,666	18,469	-	-	-	-	188	89	2
502.4	Benefits (Workers Comp)	11,213	7,420	3,737	-	-	-	-	38	18	2
502.5	Benefits (Pension)	173,378	114,724	57,787	-	-	-	-	590	277	2
503.1	Supplies & Materials (Office)	2,871	1,900	957	-	-	-	-	10	4	2
503.2	Supplies & Materials (Operating)	98,910	65,449	32,967	-	-	-	-	336	158	2
503.3	Supplies & Materials (Fuel)	22,186	14,680	7,395	-	-	-	-	75	36	2
503.6	Supplies & Materials (Small Tools)	40,403	26,735	13,466	-	-	-	-	137	65	2
503.7	Supplies & Materials (Uniforms)	5,385	3,563	1,795	-	-	-	-	18	9	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,364	1,564	788	-	-	-	-	8	4	2
504.2	Other Svcs & Chgs (Prof. Svcs Other)	420	278	140	-	-	-	-	1	1	2
504.3	Other Svcs & Chgs (Training & Seminars)	5,063	3,350	1,688	-	-	-	-	17	8	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	4,386	2,902	1,462	-	-	-	-	15	7	2
504.8	Other Svcs & Chgs (Refuse & Disposal)	16,125	16,003	-	-	-	-	-	82	40	1
504.9	Other Svcs & Chgs (Rentals)	1,240	821	413	-	-	-	-	4	2	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	140,378	92,888	46,788	-	-	-	-	477	225	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	18,578	12,293	6,192	-	-	-	-	63	30	2
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuis)	46,162	30,545	15,386	-	-	-	-	157	74	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	80,587	53,324	26,860	-	-	-	-	274	129	2
	Total Maintenance Expenses	\$ 1,666,699	\$ 1,108,187	\$ 550,137	\$ -	\$ -	\$ -	\$ -	\$ 5,692	\$ 2,683	
Laboratory Expenses											
501.1	Personnel (Salaries)	\$ 92,867	\$ 61,449	\$ 30,953	\$ -	\$ -	\$ -	\$ -	\$ 316	\$ 149	2
501.2	Personnel (Wages)	117,031	77,439	39,007	-	-	-	-	398	187	2
501.3	Personnel (Emergency and Scheduled OT)	1,404	929	468	-	-	-	-	5	2	2
502.1	Benefits (FICA)	13,415	8,877	4,471	-	-	-	-	46	21	2
502.4	Benefits (Workers Comp)	2,054	1,359	685	-	-	-	-	7	3	2
502.5	Benefits (Pension)	42,065	27,835	14,020	-	-	-	-	143	67	2
503.1	Supplies & Materials (Office)	1,045	691	348	-	-	-	-	4	2	2
503.2	Supplies & Materials (Operating)	23,994	15,877	7,997	-	-	-	-	82	38	2
503.3	Supplies & Materials (Fuel)	1,679	1,111	559	-	-	-	-	6	3	2
503.6	Supplies & Materials (Small Tools)	11,342	7,505	3,780	-	-	-	-	39	18	2
503.7	Supplies & Materials (Uniforms)	361	239	120	-	-	-	-	1	1	2
503.8	Supplies & Materials (Printing)	338	224	113	-	-	-	-	1	-	2
503.9	Supplies & Materials (Software, Refer, Subs)	4,615	3,054	1,538	-	-	-	-	16	7	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,431	1,609	810	-	-	-	-	8	4	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	45,043	29,805	15,013	-	-	-	-	153	72	2
504.9	Other Svcs & Chgs (Rentals)	876	580	292	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	974	644	325	-	-	-	-	3	2	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	1,423	942	474	-	-	-	-	5	2	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	15,058	9,964	5,019	-	-	-	-	51	24	2
	Total Laboratory Expenses	\$ 378,015	\$ 250,133	\$ 125,992	\$ -	\$ -	\$ -	\$ -	\$ 1,287	\$ 603	

Erie City Water Authority

Test Period Ending December 31, 2018
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Customer Services Expenses											
501.1	Personnel (Salaries)	\$ 67,844	\$ -	\$ -	\$ -	\$ 67,844	\$ -	\$ -	\$ -	\$ -	8
501.2	Personnel (Wages)	318,453	-	-	-	318,453	-	-	-	-	8
501.3	Personnel (Emergency and Scheduled OT)	3,048	-	-	-	3,048	-	-	-	-	8
502.1	Benefits (FICA)	22,927	-	-	-	22,927	-	-	-	-	8
502.4	Benefits (Workers Comp)	4,783	-	-	-	4,783	-	-	-	-	8
502.5	Benefits (Pension)	71,538	-	-	-	71,538	-	-	-	-	8
503.1	Supplies & Materials (Office)	9,005	-	-	-	9,005	-	-	-	-	8
503.2	Supplies & Materials (Operating)	1,908	-	-	-	1,908	-	-	-	-	8
503.7	Supplies & Materials (Uniforms)	564	-	-	-	564	-	-	-	-	8
503.8	Supplies & Materials (Printing)	5,066	-	-	-	5,066	-	-	-	-	8
503.9	Supplies & Materials (Software, Refer, Subs)	675	-	-	-	675	-	-	-	-	8
504.3	Other Svcs & Chgs (Training & Seminars)	563	-	-	-	563	-	-	-	-	8
504.5	Other Svcs & Chgs (Postage)	90,041	-	-	-	90,041	-	-	-	-	8
504.6	Other Svcs & Chgs (Permits, Fees Damages)	58,535	-	-	-	58,535	-	-	-	-	8
504.10.0	Other Svcs & Chgs (Contracted Svcs)	4,839	-	-	-	4,839	-	-	-	-	8
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	9,015	-	-	-	9,015	-	-	-	-	8
	Total Customer Services Expenses	\$ 668,804	\$ -	\$ -	\$ -	\$ 668,804	\$ -	\$ -	\$ -	\$ -	
Engineering Expenses											
501.1	Personnel (Salaries)	\$ 339,222	\$ 224,463	\$ 113,063	\$ -	\$ -	\$ -	\$ -	\$ 1,153	\$ 543	2
501.2	Personnel (Wages)	230,878	152,772	76,952	-	-	-	-	785	369	2
501.3	Personnel (Emergency and Scheduled OT)	3,219	2,130	1,073	-	-	-	-	11	5	2
502.1	Benefits (FICA)	41,144	27,225	13,713	-	-	-	-	140	66	2
502.4	Benefits (Workers Comp)	2,181	1,444	727	-	-	-	-	7	3	2
502.5	Benefits (Pension)	136,295	90,187	45,827	-	-	-	-	463	218	2
503.1	Supplies & Materials (Office)	5,627	3,724	1,875	-	-	-	-	19	9	2
503.2	Supplies & Materials (Operating)	3,559	2,355	1,186	-	-	-	-	12	6	2
503.3	Supplies & Materials (Fuel)	5,215	3,451	1,738	-	-	-	-	18	8	2
503.6	Supplies & Materials (Small Tools)	2,822	1,866	941	-	-	-	-	10	5	2
503.7	Supplies & Materials (Uniforms)	1,125	744	375	-	-	-	-	4	2	2
503.8	Supplies & Materials (Printing)	786	520	262	-	-	-	-	3	1	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,139	1,416	713	-	-	-	-	7	3	2
504.3	Other Svcs & Chgs (Training & Seminars)	9,005	5,959	3,001	-	-	-	-	31	14	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	9,015	5,965	3,005	-	-	-	-	31	14	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	1,947	1,288	649	-	-	-	-	7	3	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	2,023	1,339	674	-	-	-	-	7	3	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	30,955	20,483	10,317	-	-	-	-	105	50	2
	Total Engineering Expenses	\$ 827,157	\$ 547,331	\$ 275,691	\$ -	\$ -	\$ -	\$ -	\$ 2,813	\$ 1,322	
	Total Operating Expenses Before General and Admin	\$ 13,450,228	\$ 8,120,151	\$ 2,087,354	\$ 652,002	\$ 725,132	\$ 844,919	\$ 37,553	\$ 672,024	\$ 311,093	
	Less: Power / Chemical / Waste Expense	\$ 3,484,655	\$ 3,458,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,772	\$ 8,363	
	Total Operating Expense Less Power / Chem / Waste Exp.	\$ 9,965,573	\$ 4,661,631	\$ 2,087,354	\$ 652,002	\$ 725,132	\$ 844,919	\$ 37,553	\$ 654,252	\$ 302,730	
	Allocation Factor for General and Administrative Expenses (Factor 12)	100.00 %	46.78 %	20.94 %	6.54 %	7.28 %	8.48 %	0.38 %	6.56 %	3.04 %	

Erie City Water Authority
Test Period Ending December 31, 2018
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Finance Expenses											
501.1	Personnel (Salaries)	\$ 180,316	84,352	37,758	11,793	13,127	15,291	685	11,829	5,481	12
501.2	Personnel (Wages)	170,372	79,700	35,676	11,142	12,403	14,448	648	11,176	5,179	12
501.3	Personnel (Emergency and Scheduled OT)	1,199	561	251	78	87	102	5	79	36	12
502.1	Benefits (FICA)	20,549	9,612	4,303	1,344	1,496	1,743	78	1,348	625	12
502.4	Benefits (Workers Comp)	2,518	1,178	527	165	183	213	10	165	77	12
502.5	Benefits (Pension)	78,456	36,702	16,429	5,131	5,711	6,653	298	5,147	2,385	12
503.1	Supplies & Materials (Office)	3,938	1,842	825	257	287	334	15	287	258	12
503.2	Supplies & Materials (Operating)	1,174	549	246	77	85	100	4	77	36	12
503.7	Supplies & Materials (Uniforms)	564	118	564	37	41	48	2	37	17	12
503.8	Supplies & Materials (Printing)	262	262	118	37	41	48	2	37	17	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	53,270	24,920	11,155	3,484	3,878	4,517	202	3,495	1,619	12
504.4	Other Svcs & Chgs (Communications)	140,122	65,549	29,342	9,164	10,201	11,882	532	9,192	4,260	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	16,880	7,897	3,535	1,104	1,229	1,431	64	1,107	513	12
504.7.3	Other Svcs & Chgs (Utilities - Telecommunications)	36,856	16,498	5,153	1,681	1,833	2,118	299	1,681	2,395	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	8,497	3,975	1,779	556	619	721	32	557	258	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	11,471	5,366	2,402	750	835	973	44	752	349	12
504.12.1	Insurance - General Liability	278,001	130,049	58,213	18,181	20,239	23,575	1,056	18,237	8,451	12
	Total Finance Expenses	\$ 1,046,675	\$ 489,634	\$ 219,175	\$ 68,453	\$ 76,198	\$ 88,760	\$ 3,976	\$ 68,661	\$ 31,818	
Board Expenses											
503.2	Supplies & Materials (Operating)	5,833	2,729	1,221	381	425	495	22	383	177	12
504.3	Other Svcs & Chgs (Training & Seminars)	842	394	176	55	61	72	3	55	26	12
	Total Board Expenses	\$ 6,675	\$ 3,123	\$ 1,397	\$ 436	\$ 486	\$ 567	\$ 25	\$ 438	\$ 203	
Administrative Expenses											
501.1	Personnel (Salaries)	\$ 804,588	376,386	168,481	52,620	58,574	68,229	3,057	52,781	24,460	12
501.2	Personnel (Wages)	322,433	150,834	67,518	21,087	23,473	27,342	1,225	21,152	9,802	12
501.3	Personnel (Emergency and Scheduled OT)	48,387	22,635	10,132	3,165	3,523	4,103	184	3,174	1,471	12
502.1	Benefits (FICA)	72,147	33,750	15,108	4,719	5,252	6,118	274	4,733	2,193	12
502.2	Benefits (Op Ins.)	2,210,788	1,034,207	462,939	144,585	160,945	187,475	8,401	145,028	67,208	12
502.5	Benefits (Pension)	226,513	105,963	47,432	14,814	16,490	19,208	861	14,859	6,886	12
503.1	Supplies & Materials (Office)	4,502	2,106	943	294	328	382	17	295	137	12
503.2	Supplies & Materials (Operating)	10,126	4,737	2,120	662	737	859	38	665	308	12
503.3	Supplies & Materials (Fuel)	6,085	2,947	1,274	398	443	516	23	399	185	12
503.7	Supplies & Materials (Uniforms)	4,020	1,880	842	263	293	341	15	264	122	12
503.8	Supplies & Materials (Printing)	23,635	11,056	4,949	1,546	1,721	2,004	90	1,550	719	12
503.9	Supplies & Materials (Software, Refer, Subs)	1,351	632	283	88	98	115	5	88	41	12
504.1	Other Svcs & Chgs (Prof. Svcs Engin)	19,484	9,115	4,080	1,274	1,419	1,652	74	1,278	592	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	646,310	302,344	135,537	42,269	47,051	54,807	2,456	42,398	19,648	12
504.3	Other Svcs & Chgs (Training & Seminars)	16,884	7,898	3,536	1,104	1,229	1,432	64	1,108	513	12
504.4	Other Svcs & Chgs (Communications)	6,756	3,160	1,415	442	492	573	26	443	205	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	28,798	13,472	6,030	1,883	2,097	2,442	109	1,889	876	12
504.9	Other Svcs & Chgs (Rentals)	19,695	9,213	4,124	1,288	1,434	1,670	75	1,292	599	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	35,050	16,396	7,340	2,292	2,552	2,972	133	2,299	1,066	12
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	674	315	141	44	49	57	3	44	21	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	141,819	66,343	29,697	9,275	10,324	12,026	539	9,303	4,312	12
504.11	Misc Svcs & Chgs	62,587	29,278	13,106	4,093	4,556	5,307	238	4,106	1,903	12
504.13	MTWA Related Expenses	-	-	-	-	-	-	-	-	-	12
	Total Administrative Expenses	\$ 4,712,632	\$ 2,204,567	\$ 986,827	\$ 308,205	\$ 343,080	\$ 399,630	\$ 17,907	\$ 309,149	\$ 143,267	
	Total Pro Forma Operating Expenses	\$ 19,216,210	\$ 10,817,475	\$ 3,294,753	\$ 1,029,096	\$ 1,144,896	\$ 1,333,876	\$ 59,461	\$ 1,050,272	\$ 486,381	
	Total Labor Expense	\$ 6,902,735	\$ 3,319,026	\$ 1,537,584	\$ 335,346	\$ 535,077	\$ 647,682	\$ 28,834	\$ 341,200	\$ 157,986	
	Total Labor Expense (Factor 13) %	100.00 %	48.08 %	22.28 %	4.86 %	7.75 %	9.38 %	0.42 %	4.94 %	2.29 %	

Erie City Water Authority
Test Period Ending December 31, 2018
Allocation of Pro Forma Revenue Requirement

Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma Revenue Requirement										
Operating Expenses	\$ 19,216,210	\$ 10,817,475	\$ 3,294,753	\$ 1,029,096	\$ 1,144,896	\$ 1,333,876	\$ 59,461	\$ 1,050,272	\$ 486,381	
Debt Service	16,464,029	7,955,419	3,011,271	2,275,329	23,050	347,391	14,818	1,939,462	897,289	11
City Lease Payment	3,600,000	1,739,520	658,440	497,520	5,040	75,960	3,240	424,080	196,200	11
COLA Pension Liability	-	-	-	-	-	-	-	-	-	13
Total Revenue Requirement	\$ 39,280,239	\$ 20,512,414	\$ 6,964,464	\$ 3,801,945	\$ 1,172,986	\$ 1,757,227	\$ 77,519	\$ 3,413,814	\$ 1,579,870	
Total Revenue Requirement %	100.00 %	52.22 %	17.73 %	9.68 %	2.99 %	4.47 %	0.20 %	8.69 %	4.02 %	
Other Revenues	(816,100)	(381,772)	(170,891)	(53,373)	(59,413)	(69,205)	(3,101)	(53,536)	(24,809)	12
Net Revenue Requirement	\$ 38,464,139	\$ 20,130,642	\$ 6,793,573	\$ 3,748,572	\$ 1,113,573	\$ 1,688,022	\$ 74,418	\$ 3,360,278	\$ 1,555,061	
Net Revenue Requirement less Public Fire	\$ 35,103,861	\$ 20,130,642	\$ 6,793,573	\$ 3,748,572	\$ 1,113,573	\$ 1,688,022	\$ 74,418	\$ -	\$ 1,555,061	
Reallocation of Public Fire Costs	\$ 3,360,278	-	-	-	201,617	3,024,250	134,411	-	-	9
Net Revenue Requirement	\$ 38,464,139	\$ 20,130,642	\$ 6,793,573	\$ 3,748,572	\$ 1,315,190	\$ 4,712,272	\$ 208,829	\$ -	\$ 1,555,061	

Erie City Water Authority
Customer Class Allocation
Water Pro Forma Net Revenue Requirement
For the Year Ending December 31, 2018

	Total	Domestic	Commercial	Industrial	Public	Bulk	Allocation Code
Base Cost	\$ 20,130,642	\$ 9,248,017	\$ 2,874,656	\$ 3,617,476	\$ 1,610,451	\$ 2,780,042	14
Maximum Day	6,793,573	3,784,700	823,381	814,549	461,284	909,659	15
Maximum Hour	3,748,572	2,168,549	572,782	360,612	320,878	325,751	16
Customer Costs	1,315,190	1,203,794	81,410	8,154	21,306	526	17
Meters	4,712,272	3,383,883	787,892	199,329	311,481	29,687	18
Services	208,829	177,546	21,927	2,861	6,244	251	19
Total	\$ 36,909,078	\$ 19,966,489	\$ 5,162,048	\$ 5,002,981	\$ 2,731,644	\$ 4,045,916	
	100.00 %	54.10 %	13.99 %	13.55 %	7.40 %	10.96 %	
Indicated Private Fire	\$ 1,555,061						
Recommended Private Fire	\$ 1,426,233						
Difference	\$ 128,828						
Allocation of Difference		78,276	20,239	19,608	10,705	-	
Total	\$ 37,037,906	20,044,765	5,182,287	5,022,589	2,742,349	4,045,916	
Revenue Requirement	\$ 38,464,139						

Erie Water Works
Development of Fixed Charges and Volumetric Block Rates
For the Year Ended December 31, 2018

First	70	Base Cost of Water	200	0.96	320	1.01	Total Cost
Next	4930	\$ 2.35	170	\$ 0.67	272	\$ 0.79	\$ 3.93
Over	5000	\$ 2.35	155	\$ 0.53	206	\$ 0.49	\$ 3.50
							\$ 3.05

Basis for Cost per CCF

Required Revs from Sales	\$20,130,642.00	Cost per CCF	\$ 3.748,572.00
Excess Capacity Revenue / CCF	23,423.00		22,322.00
Revenue / CCF	859.44		167.93
Cost Per CCF	2.35		0.46

Bulk Rate	Amount Covered in FC	Shortfall	CGF Consumption	Total Cost
	\$ 27,932.38	\$ 4,017,983.62	1,180,569	\$ 3.35
	Indicated COS	\$ 4,045,916.00		

DESCRIPTION	BILLING	METERS	SERVICES	TOTAL
TOTAL CUSTOMER ANNUAL COSTS	\$1,315,190	\$4,712,272	\$208,829	\$6,236,291
NUMBER OF BILLS	209,420	70,326	57,224	
NO. OF EQUIVALENT METERS				
UNIT COST	\$6.28	\$67.01	\$3.65	\$76.94

METER SIZE	EQ. METER RATIO	COST PER BILL	METERS	QUARTERLY COST	SERVICES	QUARTERLY CHARGES	TOTAL MONTHLY CHARGES
5/8"	1.0	\$ 6.28	\$ 16.75	\$ 0.91		\$ 23.94	\$ 7.98
3/4"	1.5	6.28	25.13	1.19		32.60	10.87
1"	2.5	6.28	41.88	1.83		49.99	16.66
1 1/2"	5.0	6.28	83.76	2.46		92.50	30.83
2"	8.0	6.28	134.02	3.65		143.95	47.98
3"	15.0	6.28	251.29	3.65		261.22	87.07
4"	25.0	6.28	418.81	4.84		429.93	143.31
6"	50.0	6.28	837.63	7.30		851.21	283.74
8"	80.0	6.28	1,340.20	9.76		1,356.24	452.08
10"	115.0	6.28	1,926.54	12.14		1,944.96	648.32
12"	215.0	6.28	3,601.79	14.60		3,622.67	1,207.56

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2018

Domestic Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	3,178	\$ 7.76	\$ 24,661.28	\$ 7.98	\$ 25,360.44	2.835 %
3/4" Monthly	41	10.58	433.78	10.87	445.67	2.741 %
1" Monthly	179	16.24	2,906.96	16.66	2,982.14	2.586 %
1.5" Monthly	30	30.09	902.70	30.83	924.90	2.459 %
2" Monthly	40	46.85	1,874.00	47.98	1,919.20	2.412 %
4" Monthly	40	140.00	5,600.00	143.31	5,732.40	2.364 %
6" Monthly	10	277.21	2,772.10	283.74	2,837.40	2.356 %
8" Monthly	10	441.71	4,417.10	452.08	4,520.80	2.348 %
5/8" Quarterly	181,966	23.28	4,236,168.48	23.94	4,356,266.04	2.835 %
3/4" Quarterly	3,615	31.74	114,740.10	32.60	117,849.00	2.710 %
1" Quarterly	1,510	48.73	73,582.30	49.99	75,484.90	2.586 %
1.5" Quarterly	679	90.27	61,293.33	92.50	62,807.50	2.470 %
2" Quarterly	248	140.54	34,853.92	143.95	35,699.60	2.426 %
3" Quarterly	44	255.13	11,225.72	261.22	11,493.68	2.387 %
4" Quarterly	76	419.99	31,919.24	429.93	32,674.68	2.367 %
6" Quarterly	8	831.64	6,653.12	851.21	6,809.68	2.353 %
8" Quarterly	4	1,325.14	5,300.56	1,356.24	5,424.96	2.347 %
Total Fixed Charges	191,678		\$ 4,619,304.69		\$ 4,749,232.99	2.813 %
<u>Usage Charge</u>						
Block 1:	3,526,759.50	\$ 3.8800	\$ 13,683,826.86	\$ 3.9300	\$ 13,860,164.84	1.289 %
Block 2:	371,348.00	3.4300	1,273,723.64	3.5000	1,299,718.00	2.041 %
Block 3:	29,070.00	2.9900	86,919.30	3.0500	88,663.50	2.007 %
Total Usage Charges			15,044,469.80		15,248,546.34	
Total Domestic			\$ 19,663,774.49		\$ 19,997,779.33	1.699 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2018

Commercial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	80	\$ 7.76	\$ 620.80	\$ 7.98	\$ 638.40	2.835 %
3/4" Monthly	40	10.58	423.20	10.87	434.80	2.741 %
1" Monthly	102	16.24	1,656.48	16.66	1,699.32	2.586 %
1 1/2" Monthly	70	30.09	2,106.30	30.83	2,158.10	2.459 %
2" Monthly	301	46.85	14,101.85	47.98	14,441.98	2.412 %
3" Monthly	60	85.04	5,102.40	87.07	5,224.20	2.387 %
4" Monthly	121	140.00	16,940.00	143.31	17,340.51	2.364 %
6" Monthly	60	277.21	16,632.60	283.74	17,024.40	2.356 %
8" Monthly	10	441.71	4,417.10	452.08	4,520.80	2.348 %
10" Monthly	20	633.47	12,669.40	648.32	12,966.40	2.344 %
5/8" Quarterly	2,585	23.28	60,178.80	23.94	61,884.90	2.835 %
3/4" Quarterly	5,083	31.74	161,334.42	32.60	165,705.80	2.710 %
1" Quarterly	1,700	48.73	82,841.00	49.99	84,983.00	2.586 %
1 1/2" Quarterly	1,068	90.27	96,408.36	92.50	98,790.00	2.470 %
2" Quarterly	1,209	140.54	169,912.86	143.95	174,035.55	2.426 %
3" Quarterly	137	255.13	34,952.81	261.22	35,787.14	2.387 %
4" Quarterly	238	419.99	99,957.62	429.93	102,323.34	2.367 %
6" Quarterly	60	831.64	49,898.40	851.21	51,072.60	2.353 %
8" Quarterly	24	1,325.14	31,803.36	1,356.24	32,549.76	2.347 %
Total Fixed Charges	12,968.00		\$ 861,957.76		\$ 883,581.00	2.509 %
<u>Usage Charge</u>						
Block 1:	340,164	\$ 3.8800	\$ 1,319,836.32	\$ 3.9300	\$ 1,336,844.52	1.289 %
Block 2:	818,285	3.4300	\$ 2,806,717.28	3.5000	\$ 2,863,997.22	2.041 %
Block 3:	62,332	2.9900	\$ 186,371.96	3.0500	\$ 190,111.87	2.007 %
Total Usage Charges			\$ 4,312,925.56		\$ 4,390,953.61	
Total Commercial			\$ 5,174,883.32		\$ 5,274,534.61	1.926 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2018

Industrial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	10	\$ 7.76	\$ 77.60	\$ 7.98	\$ 79.80	2.835 %
3/4" Monthly	50	10.58	529.00	10.87	543.50	2.741 %
1" Monthly	30	16.24	487.20	16.66	499.80	2.586 %
1 1/2" Monthly	46	30.09	1,384.14	30.83	1,418.18	2.459 %
2" Monthly	178	46.85	8,339.30	47.98	8,540.44	2.412 %
3" Monthly	30	85.04	2,551.20	87.07	2,612.10	2.387 %
4" Monthly	79	140.00	11,060.00	143.31	11,321.49	2.364 %
6" Monthly	140	277.21	38,809.40	283.74	39,723.60	2.356 %
8" Monthly	30	441.71	13,251.30	452.08	13,562.40	2.348 %
10" Monthly	30	633.47	19,004.10	648.32	19,449.60	2.344 %
12" Monthly	20	1,179.94	23,598.80	1,207.56	24,151.20	2.341 %
5/8" Quarterly	52	23.28	1,210.56	23.94	1,244.88	2.835 %
3/4" Quarterly	125	31.74	3,967.50	32.60	4,075.00	2.710 %
1" Quarterly	147	48.73	7,163.31	49.99	7,348.53	2.586 %
1 1/2" Quarterly	79	90.27	7,131.33	92.50	7,307.50	2.470 %
2" Quarterly	201	140.54	28,248.54	143.95	28,933.95	2.426 %
3" Quarterly	16	255.13	4,082.08	261.22	4,179.52	2.387 %
4" Quarterly	44	419.99	18,479.56	429.93	18,916.92	2.367 %
Total Fixed Charges	1,307.00		189,374.92		193,908.41	2.394 %
<u>Usage Charge</u>						
Block 1:	32,757	\$ 3.8800	\$ 127,097.16	\$ 3.9300	\$ 128,735.01	1.289 %
Block 2:	372,547	\$ 3.4300	1,277,836.21	3.5000	1,303,914.50	2.041 %
Block 3:	1,131,501	\$ 2.9900	3,383,187.99	3.0500	3,451,078.05	2.007 %
Total Usage Charges			\$ 4,788,121.36		\$ 4,883,727.56	
Total Industrial			\$ 4,977,496.28		\$ 5,077,635.97	2.012 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2018

Public Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	85	\$ 7.76	\$ 659.60	\$ 7.98	\$ 678.30	2.835 %
3/4" Monthly	26	10.58	275.08	10.87	282.62	2.741 %
1" Monthly	50	16.24	812.00	16.66	833.00	2.586 %
1 1/2" Monthly	140	30.09	4,212.60	30.83	4,316.20	2.459 %
2" Monthly	150	46.85	7,027.50	47.98	7,197.00	2.412 %
3" Monthly	100	85.04	8,504.00	87.07	8,707.00	2.387 %
4" Monthly	110	140.00	15,400.00	143.31	15,764.10	2.364 %
6" Monthly	86	277.21	23,840.06	283.74	24,401.64	2.356 %
8" Monthly	40	441.71	17,668.40	452.08	18,083.20	2.348 %
5/8" Quarterly	1,127	23.28	26,236.56	23.94	26,980.38	2.835 %
3/4" Quarterly	302	31.74	9,585.48	32.60	9,845.20	2.710 %
1" Quarterly	226	48.73	11,012.98	49.99	11,297.74	2.586 %
1 1/2" Quarterly	259	90.27	23,379.93	92.50	23,957.50	2.470 %
2" Quarterly	364	140.54	51,156.56	143.95	52,397.80	2.426 %
3" Quarterly	142	255.13	36,228.46	261.22	37,093.24	2.387 %
4" Quarterly	130	419.99	54,598.70	429.93	55,890.90	2.367 %
6" Quarterly	40	831.64	33,265.60	851.21	34,048.40	2.353 %
8" Quarterly	4	1,325.14	5,300.56	1,356.24	5,424.96	2.347 %
Total Fixed Charge	3,381		\$ 329,164.07		\$ 337,199.18	2.441 %
<u>Usage Charge</u>						
Block 1:	83,567	\$ 3.8800	\$ 324,239.96	\$ 3.9300	\$ 328,418.31	1.289 %
Block 2:	410,546	\$ 3.4300	1,408,172.78	3.5000	1,436,911.00	2.041 %
Block 3:	186,095	\$ 2.9900	556,424.05	3.0500	567,589.75	2.007 %
Total Usage Charges			2,288,836.79		2,332,919.06	
Total Public Customers			\$ 2,618,000.86		\$ 2,670,118.24	1.991 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2018

Bulk Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
4" Monthly	30	\$ 140.00	\$ 4,200.00	\$ 143.31	\$ 4,299.30	2.364 %
6" Monthly	10	277.21	2,772.10	283.74	2,837.40	2.356 %
8" Monthly	46	441.71	20,318.66	452.08	20,795.68	2.348 %
Total Fixed Charge	86		\$ 27,290.76		\$ 27,932.38	2.351 %
<u>Usage Charge</u>						
Bulk Rate	1,180,569	\$ 3.2800	<u>3,872,266.19</u>	\$ 3.3500	<u>3,954,906.02</u>	2.134 %
Total Bulk Customers			\$ 3,899,556.95		\$ 3,982,838.40	2.136 %
<u>Other Revenues:</u>						
Fire Line Revenues			\$ 1,290,047.59		\$ 1,426,158.28	10.551 %
Fixed Fee Customers			<u>30,322.83</u>		<u>\$30,970.68</u>	2.137 %
Total Other Revenues			\$1,320,370.42		\$1,457,128.96	
Total Water Charges			<u>\$ 36,333,711.89</u>		<u>\$ 37,002,906.54</u>	1.842 %
Total Water Service			\$ 37,654,082.31		\$ 38,460,035.50	2.140 %
Total Requested Revenue					\$ 38,464,139.00	
Difference					(\$4,103.50)	-0.01 %

Erie City Water Authority

Test Period Ending December 31, 2019
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense											
Distribution Expenses											
501.1	Personnel (Salaries)	\$ 186,588	\$ 80,102	\$ 27,335	\$ 32,541	\$ -	-	\$ -	\$ 31,869	\$ 14,741	7
501.2	Personnel (Wages)	351,295	150,811	51,465	61,266	-	-	-	60,001	27,752	7
501.3	Personnel (Emergency and Scheduled OT)	88,805	38,124	13,010	15,487	-	-	-	15,168	7,016	7
502.1	Benefits (FICA)	46,939	20,151	6,877	8,186	-	-	-	8,017	3,708	7
502.4	Benefits (Workers Comp)	26,925	11,559	3,944	4,696	-	-	-	4,599	2,127	7
502.5	Benefits (Pension)	147,686	63,402	21,636	25,756	-	-	-	25,225	11,667	7
503.1	Supplies & Materials (Office)	1,320	567	193	230	-	-	-	226	104	7
503.2	Supplies & Materials (Operating)	86,120	36,972	12,617	15,019	-	-	-	14,709	6,803	7
503.3	Supplies & Materials (Fuel)	48,586	20,858	7,118	8,473	-	-	-	8,299	3,838	7
503.4	Supplies & Materials (Backfill)	180,715	77,581	26,475	31,517	-	-	-	30,866	14,276	7
503.6	Supplies & Materials (Small Tools)	22,879	9,822	3,352	3,990	-	-	-	3,908	1,807	7
503.7	Supplies & Materials (Uniforms)	6,772	2,907	992	1,181	-	-	-	1,157	535	7
503.8	Supplies & Materials (Printing)	261	112	38	45	-	-	-	45	21	7
503.9	Supplies & Materials (Software, Refer, Subs)	652	280	96	114	-	-	-	111	51	7
504.3	Other Svcs & Chgs (Training & Seminars)	1,825	784	267	312	-	-	-	312	144	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	63,123	27,099	9,247	11,009	-	-	-	10,781	4,987	7
504.9	Other Svcs & Chgs (Rentals)	8,686	3,729	1,272	1,515	-	-	-	1,484	686	7
504.10	Other Svcs & Chgs (Contracted Svcs - Vehicles)	24,738	10,621	3,624	4,314	-	-	-	4,225	1,954	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	67,358	28,917	9,868	11,747	-	-	-	11,505	5,321	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Barricades)	361,360	155,132	52,939	63,021	-	-	-	61,720	28,548	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	4,173	1,791	611	728	-	-	-	713	330	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	15,650	6,719	2,293	2,729	-	-	-	2,673	1,236	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	3,864	1,659	566	674	-	-	-	660	305	7
504.11	Misc Svcs & Chgs	1,380	592	202	241	-	-	-	236	109	7
	Total Distribution Expenses	\$ 1,747,700	\$ 750,291	\$ 256,037	\$ 304,797	\$ -	\$ -	\$ -	\$ 296,509	\$ 138,066	
Transmission Expenses											
501.1	Personnel (Salaries)	\$ 228,051	\$ 97,902	\$ 33,409	\$ 39,772	\$ -	-	\$ -	\$ 38,952	\$ 18,016	7
501.2	Personnel (Wages)	429,360	184,324	62,901	74,880	-	-	-	73,335	33,920	7
501.3	Personnel (Emergency and Scheduled OT)	108,539	46,596	15,901	18,929	-	-	-	18,538	8,575	7
502.1	Benefits (FICA)	57,370	24,629	8,405	10,005	-	-	-	9,799	4,532	7
502.4	Benefits (Workers Comp)	32,908	14,127	4,821	5,739	-	-	-	5,621	2,600	7
502.5	Benefits (Pension)	180,506	77,491	26,444	31,480	-	-	-	30,831	14,260	7
503.1	Supplies & Materials (Office)	1,614	693	236	281	-	-	-	276	128	7
503.2	Supplies & Materials (Operating)	105,258	45,187	15,420	18,357	-	-	-	17,978	8,316	7
503.3	Supplies & Materials (Fuel)	59,384	25,493	8,700	10,357	-	-	-	10,143	4,691	7
503.4	Supplies & Materials (Backfill)	220,873	94,821	32,358	38,520	-	-	-	37,725	17,449	7
503.6	Supplies & Materials (Small Tools)	27,964	12,005	4,097	4,977	-	-	-	4,776	2,209	7
503.7	Supplies & Materials (Uniforms)	8,276	3,553	1,212	1,443	-	-	-	1,414	654	7
503.8	Supplies & Materials (Printing)	318	137	47	55	-	-	-	54	25	7
503.9	Supplies & Materials (Software, Refer, Subs)	797	342	117	139	-	-	-	136	63	7
504.3	Other Svcs & Chgs (Training & Seminars)	2,230	957	327	389	-	-	-	381	176	7
504.6	Other Svcs & Chgs (Permits, Fees Damages)	77,150	33,121	11,302	13,455	-	-	-	13,177	6,095	7
504.9	Other Svcs & Chgs (Rentals)	10,616	4,558	1,555	1,851	-	-	-	1,813	839	7
504.10	Other Svcs & Chgs (Contracted Svcs)	30,235	12,980	4,429	5,273	-	-	-	5,164	2,389	7
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	82,327	35,343	12,061	14,358	-	-	-	14,061	6,504	7
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	441,663	189,606	64,704	77,026	-	-	-	75,436	34,891	7
504.10.3	Other Svcs & Chgs (Contracted Svcs - Barricades)	5,101	2,190	747	890	-	-	-	871	403	7
504.10.4	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	19,128	8,212	2,802	3,336	-	-	-	3,267	1,511	7
504.10.5	Other Svcs & Chgs (Contracted Svcs - Lawn Cuts)	4,723	2,027	692	824	-	-	-	807	373	7
504.11	Misc Svcs & Chgs	1,686	724	247	294	-	-	-	288	133	7
	Total Transmission Expenses	\$ 2,136,077	\$ 917,018	\$ 312,934	\$ 372,530	\$ -	\$ -	\$ -	\$ 364,843	\$ 168,752	

Erie City Water Authority

Test Period Ending December 31, 2019
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Meter Expenses											
501.1	Personnel (Salaries)	\$ 191,700	\$ -	\$ -	\$ -	\$ 11,502	\$ 172,530	\$ 7,668	\$ -	\$ -	9
501.2	Personnel (Wages)	392,788	-	-	-	23,567	353,509	15,712	-	-	9
501.3	Personnel (Emergency and Scheduled OT)	9,453	-	-	-	567	8,508	378	-	-	9
502.1	Benefits (FICA)	44,955	-	-	-	2,697	40,460	1,798	-	-	9
502.4	Benefits (Workers Comp)	52,689	-	-	-	3,161	47,420	2,108	-	-	9
502.5	Benefits (Pension)	152,673	-	-	-	9,160	137,406	6,107	-	-	9
503.1	Supplies & Materials (Office)	1,392	-	-	-	83	1,253	56	-	-	9
503.2	Supplies & Materials (Operating)	31,318	-	-	-	1,879	28,186	1,253	-	-	9
503.3	Supplies & Materials (Fuel)	38,292	-	-	-	2,297	34,463	1,532	-	-	9
503.6	Supplies & Materials (Small Tools)	6,883	-	-	-	413	6,195	275	-	-	9
503.7	Supplies & Materials (Uniforms)	4,061	-	-	-	244	3,655	162	-	-	9
503.8	Supplies & Materials (Printing)	595	-	-	-	36	535	24	-	-	9
504.3	Other Svcs & Chgs (Training & Seminars)	5,064	-	-	-	304	4,558	202	-	-	9
504.6	Other Svcs & Chgs (Permits, Fees Damages)	280	-	-	-	17	252	11	-	-	9
504.9	Other Svcs & Chgs (Rentals)	522	-	-	-	31	470	21	-	-	9
504.10.0	Other Svcs & Chgs (Contracted Svcs)	11,244	-	-	-	675	10,119	450	-	-	9
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	13,908	-	-	-	835	12,517	556	-	-	9
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	23,197	-	-	-	1,392	20,877	928	-	-	9
	Total Meter Expenses	\$ 981,014	\$ -	\$ -	\$ -	\$ 58,860	\$ 882,913	\$ 39,241	\$ -	\$ -	
Operation Expenses											
501.1	Personnel (Salaries)	\$ 328,400	\$ 217,302	\$ 109,456	\$ -	\$ -	\$ -	\$ -	\$ 1,117	\$ 525	2
501.2	Personnel (Wages)	986,889	653,025	328,930	-	-	-	-	3,355	1,579	2
501.3	Personnel (Emergency and Scheduled OT)	60,279	39,887	20,091	-	-	-	-	205	96	2
502.1	Benefits (FICA)	80,928	53,550	26,973	-	-	-	-	275	130	2
502.4	Benefits (Workers Comp)	8,955	5,926	2,985	-	-	-	-	30	14	2
502.5	Benefits (Pension)	250,389	165,682	83,455	-	-	-	-	851	401	2
503.1	Supplies & Materials (Office)	696	461	232	-	-	-	-	2	1	2
503.2	Supplies & Materials (Operating)	9,746	6,449	3,248	-	-	-	-	2	1	2
503.3	Supplies & Materials (Fuel)	24,249	16,046	8,082	-	-	-	-	33	16	2
503.5	Supplies & Materials (Chemicals)	474,755	471,194	8,082	-	-	-	-	82	39	2
503.6	Supplies & Materials (Small Tools)	23,186	15,342	7,728	-	-	-	-	2,421	1,140	1
503.7	Supplies & Materials (Uniforms)	6,500	4,301	2,167	-	-	-	-	79	37	2
503.8	Supplies & Materials (Printing)	59	39	20	-	-	-	-	22	10	2
503.9	Supplies & Materials (Software, Refer, Subs)	1,739	1,150	580	-	-	-	-	6	3	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,202	1,457	734	-	-	-	-	7	4	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	3,490	2,309	1,163	-	-	-	-	12	6	2
504.7.0	Other Svcs & Chgs (Utilities)	1,855	1,842	-	-	-	-	-	9	4	1
504.7.1	Other Svcs & Chgs (Utilities - Electric)	2,166,604	2,150,354	-	-	-	-	-	11,050	5,200	1
504.7.2	Other Svcs & Chgs (Utilities - Natural Gas)	168,826	167,560	-	-	-	-	-	861	405	1
504.8	Other Svcs & Chgs (Refuse & Disposal)	733,875	728,371	-	-	-	-	-	3,743	1,761	1
504.9	Other Svcs & Chgs (Rentals)	872	577	291	-	-	-	-	3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	40,235	26,624	13,410	-	-	-	-	137	64	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	5,922	3,919	1,974	-	-	-	-	20	9	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	3,461	2,290	1,154	-	-	-	-	12	5	2
	Total Operation Expenses	\$ 5,384,112	\$ 4,735,657	\$ 612,673	\$ -	\$ -	\$ -	\$ -	\$ 24,332	\$ 11,450	

Erie City Water Authority
Test Period Ending December 31, 2019
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Maintenance Expenses											
501.1	Personnel (Salaries)	\$ 198,375	\$ 131,265	\$ 66,118					\$ 675	\$ 317	2
501.2	Personnel (Wages)	745,804	493,499	248,576					2,536	1,193	2
501.3	Personnel (Emergency and Scheduled OT)	26,665	17,644	8,887					91	43	2
502.1	Benefits (FICA)	57,178	37,835	19,057					194	92	2
502.4	Benefits (Workers Comp)	11,549	7,642	3,849					39	19	2
502.5	Benefits (Pension)	193,426	127,990	64,469					658	309	2
503.1	Supplies & Materials (Office)	2,957	1,957	986					10	4	2
503.2	Supplies & Materials (Operating)	103,856	68,722	34,615					353	166	2
503.3	Supplies & Materials (Fuel)	23,295	15,414	7,764					79	38	2
503.6	Supplies & Materials (Small Tools)	41,615	27,537	13,870					141	67	2
503.7	Supplies & Materials (Uniforms)	5,547	3,670	1,849					19	9	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,434	1,611	811					8	4	2
504.2	Other Svcs & Chgs (Prof. Svcs Other)	420	278	140					1	1	2
504.3	Other Svcs & Chgs (Training & Seminars)	5,215	3,451	1,738					18	8	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	4,518	2,990	1,506					15	7	2
504.8	Other Svcs & Chgs (Refuse & Disposal)	16,125	16,003	-					82	40	1
504.9	Other Svcs & Chgs (Rentals)	1,278	846	426					2	2	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	144,590	95,675	48,192					492	231	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	19,135	12,662	6,378					30	65	2
504.10.2	Other Svcs & Chgs (Contracted Svcs - Street Cuts)	47,547	31,462	15,847					162	76	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	83,004	54,924	27,665					282	133	2
	Total Maintenance Expenses	\$ 1,734,533	\$ 1,153,077	\$ 572,743					\$ 5,924	\$ 2,789	
Laboratory Expenses											
501.1	Personnel (Salaries)	\$ 96,117	\$ 63,600	\$ 32,036					\$ 327	\$ 154	2
501.2	Personnel (Wages)	120,542	79,762	40,177					410	193	2
501.3	Personnel (Emergency and Scheduled OT)	1,446	957	482					5	2	2
502.1	Benefits (FICA)	13,843	9,160	4,614					47	22	2
502.4	Benefits (Workers Comp)	2,116	1,400	705					7	4	2
502.5	Benefits (Pension)	46,929	31,053	15,641					160	75	2
503.1	Supplies & Materials (Office)	1,076	711	359					4	2	2
503.2	Supplies & Materials (Operating)	25,193	16,670	8,397					86	40	2
503.3	Supplies & Materials (Fuel)	1,763	1,167	587					6	3	2
503.6	Supplies & Materials (Small Tools)	11,682	7,730	3,893					40	19	2
503.7	Supplies & Materials (Uniforms)	372	246	124					1	1	2
503.8	Supplies & Materials (Printing)	348	230	116					1	1	2
503.9	Supplies & Materials (Software, Refer, Subs)	4,253	3,145	1,584					16	8	2
504.3	Other Svcs & Chgs (Training & Seminars)	2,504	1,657	835					8	4	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	46,594	30,699	15,463					158	74	2
504.9	Other Svcs & Chgs (Rentals)	902	597	301					3	1	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	1,003	664	334					3	2	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	1,466	970	489					5	2	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	15,509	10,262	5,169					53	25	2
	Total Laboratory Expenses	\$ 393,958	\$ 260,680	\$ 131,306					\$ 1,340	\$ 632	

Erie City Water Authority

Test Period Ending December 31, 2019
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Customer Services Expenses											
501.1	Personnel (Salaries)	\$ 70,219	\$ -	\$ -	\$ -	\$ 70,219	\$ -	\$ -	\$ -	\$ -	8
501.2	Personnel (Wages)	328,006	-	-	-	328,006	-	-	-	-	8
501.3	Personnel (Emergency and Scheduled OT)	3,139	-	-	-	3,139	-	-	-	-	8
502.1	Benefits (FICA)	23,658	-	-	-	23,658	-	-	-	-	8
502.4	Benefits (Workers Comp)	4,927	-	-	-	4,927	-	-	-	-	8
502.5	Benefits (Pension)	79,810	-	-	-	79,810	-	-	-	-	8
503.1	Supplies & Materials (Office)	9,275	-	-	-	9,275	-	-	-	-	8
503.2	Supplies & Materials (Operating)	2,003	-	-	-	2,003	-	-	-	-	8
503.7	Supplies & Materials (Uniforms)	581	-	-	-	581	-	-	-	-	8
503.8	Supplies & Materials (Printing)	5,218	-	-	-	5,218	-	-	-	-	8
503.9	Supplies & Materials (Software, Refer, Subs)	695	-	-	-	695	-	-	-	-	8
504.3	Other Svcs & Chgs (Training & Seminars)	580	-	-	-	580	-	-	-	-	8
504.5	Other Svcs & Chgs (Postage)	92,742	-	-	-	92,742	-	-	-	-	8
504.6	Other Svcs & Chgs (Permits, Fees Damages)	60,291	-	-	-	60,291	-	-	-	-	8
504.10.0	Other Svcs & Chgs (Contracted Svcs)	4,984	-	-	-	4,984	-	-	-	-	8
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	9,286	-	-	-	9,286	-	-	-	-	8
	Total Customer Services Expenses	\$ 695,414	\$ -	\$ -	\$ -	\$ 695,414	\$ -	\$ -	\$ -	\$ -	
Engineering Expenses											
501.1	Personnel (Salaries)	\$ 351,095	\$ 232,319	\$ 117,020	\$ -	\$ -	\$ -	\$ -	\$ 1,194	\$ 562	2
501.2	Personnel (Wages)	237,805	157,356	79,260	-	-	-	-	809	380	2
501.3	Personnel (Emergency and Scheduled OT)	3,316	2,194	1,105	-	-	-	-	11	6	2
502.1	Benefits (FICA)	42,455	28,093	14,150	-	-	-	-	144	68	2
502.4	Benefits (Workers Comp)	2,246	1,486	748	-	-	-	-	8	4	2
502.5	Benefits (Pension)	152,055	100,615	50,680	-	-	-	-	517	243	2
503.1	Supplies & Materials (Office)	5,796	3,835	1,932	-	-	-	-	20	9	2
503.2	Supplies & Materials (Operating)	3,737	2,473	1,245	-	-	-	-	13	6	2
503.3	Supplies & Materials (Fuel)	5,476	3,623	1,825	-	-	-	-	19	9	2
503.6	Supplies & Materials (Small Tools)	2,907	1,923	969	-	-	-	-	10	5	2
503.7	Supplies & Materials (Uniforms)	1,159	767	386	-	-	-	-	4	2	2
503.8	Supplies & Materials (Printing)	810	536	270	-	-	-	-	3	1	2
503.9	Supplies & Materials (Software, Refer, Subs)	2,203	1,458	734	-	-	-	-	7	4	2
504.3	Other Svcs & Chgs (Training & Seminars)	9,275	6,137	3,091	-	-	-	-	32	15	2
504.6	Other Svcs & Chgs (Permits, Fees Damages)	9,285	6,144	3,095	-	-	-	-	31	15	2
504.10.0	Other Svcs & Chgs (Contracted Svcs)	2,006	1,327	669	-	-	-	-	7	3	2
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	0,083	1,378	694	-	-	-	-	7	4	2
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	31,884	21,098	10,627	-	-	-	-	108	51	2
	Total Engineering Expenses	\$ 865,593	\$ 572,762	\$ 288,500	\$ -	\$ -	\$ -	\$ -	\$ 2,944	\$ 1,387	
	Total Operating Expenses Before General and Admin	\$ 13,938,401	\$ 8,389,485	\$ 2,174,193	\$ 677,327	\$ 754,274	\$ 882,913	\$ 39,241	\$ 697,892	\$ 323,076	
	Less: Power / Chemical / Waste Expense	\$ 3,562,040	\$ 3,535,324	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,166	\$ 8,550	
	Total Operating Expense Less Power / Chem / Waste Exp.	\$ 10,376,361	\$ 4,854,161	\$ 2,174,193	\$ 677,327	\$ 754,274	\$ 882,913	\$ 39,241	\$ 679,726	\$ 314,526	
	Allocation Factor for General and Administrative Expenses (Factor 12)	100.00 %	46.78 %	20.95 %	6.53 %	7.27 %	8.51 %	0.38 %	6.55 %	3.03 %	

Erie City Water Authority

Test Period Ending December 31, 2019
Allocation of Pro Forma Operation and Maintenance Expense

Acct No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma O&M Expense (cont)											
Finance Expenses											
501.1	Personnel (Salaries)	\$ 186,628	87,305	39,099	12,186	13,568	15,882	709	12,224	5,655	12
501.2	Personnel (Wages)	175,483	82,091	36,764	11,458	12,758	14,934	667	11,494	5,317	12
501.3	Personnel (Emergency and Scheduled OT)	1,235	578	259	80	90	105	5	81	37	12
502.1	Benefits (FICA)	21,204	9,919	4,442	1,385	1,542	1,804	81	1,389	642	12
502.4	Benefits (Workers Comp)	2,594	1,213	543	169	189	221	10	170	79	12
502.5	Benefits (Pension)	87,528	40,946	18,337	5,716	6,363	7,449	332	5,733	2,652	12
503.1	Supplies & Materials (Office)	4,057	1,898	850	265	295	345	15	266	123	12
503.2	Supplies & Materials (Operating)	1,233	577	258	80	90	105	5	81	37	12
503.7	Supplies & Materials (Uniforms)	581	272	122	38	42	49	2	38	18	12
503.8	Supplies & Materials (Printing)	579	271	121	38	42	49	2	38	18	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	53,270	24,920	11,160	3,479	3,873	4,533	202	3,489	1,614	12
504.4	Other Svcs & Chgs (Communications)	144,326	67,516	30,236	9,425	10,493	12,282	548	9,453	4,373	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	17,386	8,133	3,642	1,135	1,264	1,480	66	1,139	527	12
504.7.3	Other Svcs & Chgs (Utilities - Telecommunications)	81,149	37,962	17,001	5,299	5,900	6,906	308	5,314	2,459	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	8,752	4,094	1,834	572	636	745	33	573	265	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	11,815	5,527	2,475	772	859	1,005	45	774	358	12
504.12.1	Insurance - General Liability	286,341	133,950	59,989	18,698	20,817	24,368	1,088	18,755	8,676	12
	Total Finance Expenses	\$ 1,084,161	\$ 507,172	\$ 227,132	\$ 70,795	\$ 78,821	\$ 92,262	\$ 4,118	\$ 71,011	\$ 32,850	
Board Expenses											
503.2	Supplies & Materials (Operating)	6,125	2,866	1,283	400	445	521	23	401	186	12
504.3	Other Svcs & Chgs (Training & Seminars)	868	406	182	57	63	74	3	57	26	12
	Total Board Expenses	\$ 6,993	\$ 3,272	\$ 1,465	\$ 457	\$ 508	\$ 595	\$ 26	\$ 458	\$ 212	
Administrative Expenses											
501.1	Personnel (Salaries)	\$ 832,749	389,560	174,461	54,379	60,541	70,867	3,164	54,545	25,232	12
501.2	Personnel (Wages)	332,106	155,359	69,576	21,687	24,144	28,262	1,262	21,753	10,063	12
501.3	Personnel (Emergency and Scheduled OT)	49,839	23,316	10,441	3,254	3,623	4,241	189	3,265	1,510	12
502.1	Benefits (FICA)	74,447	34,827	15,597	4,861	5,412	6,335	283	4,876	2,256	12
502.2	Benefits (Gp Ins.)	2,431,867	1,137,627	509,476	158,801	176,797	206,952	9,241	159,287	73,686	12
502.5	Benefits (Pension)	252,705	118,215	52,942	16,502	18,372	21,505	960	16,552	7,657	12
503.1	Supplies & Materials (Office)	4,637	2,169	971	303	337	395	17	304	141	12
503.2	Supplies & Materials (Operating)	10,632	4,974	2,228	694	773	905	40	696	322	12
503.3	Supplies & Materials (Fuel)	6,389	2,990	1,338	417	464	544	24	418	194	12
503.7	Supplies & Materials (Uniforms)	4,141	1,937	868	270	301	352	16	271	126	12
503.8	Supplies & Materials (Printing)	24,344	11,388	5,100	1,500	1,770	2,072	92	1,595	737	12
503.9	Supplies & Materials (Software, Refer, Subs)	1,392	652	292	91	101	118	5	91	42	12
504.1	Other Svcs & Chgs (Prof. Svcs Engin)	19,873	9,296	4,163	1,298	1,445	1,691	76	1,302	602	12
504.2	Other Svcs & Chgs (Prof. Svcs Other)	646,310	302,544	135,402	42,204	46,987	55,001	2,456	42,333	19,583	12
504.3	Other Svcs & Chgs (Training & Seminars)	17,391	8,136	3,643	1,136	1,264	1,480	66	1,139	527	12
504.4	Other Svcs & Chgs (Communications)	6,959	3,255	1,458	454	506	592	27	456	211	12
504.6	Other Svcs & Chgs (Permits, Fees Damages)	29,662	13,876	6,214	1,937	2,156	2,524	113	1,943	899	12
504.9	Other Svcs & Chgs (Rentals)	20,286	9,489	4,250	1,325	1,475	1,726	77	1,329	615	12
504.10.0	Other Svcs & Chgs (Contracted Svcs)	36,102	16,889	7,563	2,357	2,625	3,072	137	2,365	1,094	12
504.10.1	Other Svcs & Chgs (Contracted Svcs - Vehicles)	694	326	145	45	50	59	3	45	21	12
504.10.5	Other Svcs & Chgs (Contracted Svcs - Maint)	146,073	68,332	30,602	9,539	10,620	12,431	555	9,568	4,426	12
504.11	Misc Svcs & Chgs	64,465	30,157	13,505	4,210	4,687	5,486	245	4,222	1,953	12
504.13	MTWA Related Expenses	-	-	-	-	-	-	-	-	-	12
	Total Administrative Expenses	\$ 5,013,063	\$ 2,345,114	\$ 1,050,235	\$ 327,354	\$ 364,450	\$ 426,610	\$ 19,048	\$ 328,355	\$ 151,897	
	Total Pro Forma Operating Expenses	\$ 20,042,618	\$ 11,245,043	\$ 3,453,025	\$ 1,075,933	\$ 1,198,053	\$ 1,402,380	\$ 62,433	\$ 1,097,716	\$ 508,035	
	Total Labor Expense	\$ 7,122,716	\$ 3,424,878	\$ 1,586,759	\$ 345,919	\$ 551,724	\$ 668,838	\$ 29,754	\$ 351,960	\$ 162,884	
	Total Labor Expense (Factor 1.3) %	100.00 %	48.08 %	22.28 %	4.85 %	7.75 %	9.39 %	0.42 %	4.94 %	2.29 %	

Erie City Water Authority

Test Period Ending December 31, 2019
Allocation of Pro Forma Revenue Requirement

Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Code
Pro Forma Revenue Requirement										
Operating Expenses	\$ 20,042,618	\$ 11,245,043	\$ 3,453,025	\$ 1,075,933	\$ 1,198,053	\$ 1,402,380	\$ 62,433	\$ 1,097,716	\$ 508,035	
Debt Service	16,465,479	7,956,119	3,011,536	2,275,529	23,052	347,422	14,819	1,939,633	897,369	11
City Lease Payment	3,600,000	1,739,520	658,440	497,520	5,040	75,960	3,240	424,080	196,200	11
COLA Pension Liability	-	-	-	-	-	-	-	-	-	13
Total Revenue Requirement	\$ 40,108,097	\$ 20,940,682	\$ 7,123,001	\$ 3,848,982	\$ 1,226,145	\$ 1,825,762	\$ 80,492	\$ 3,461,429	\$ 1,601,604	
Total Revenue Requirement %	100.00 %	52.21 %	17.76 %	9.60 %	3.06 %	4.55 %	0.20 %	8.63 %	3.99 %	
Other Revenues	(816,100)	(381,772)	(170,973)	(53,291)	(59,330)	(69,450)	(3,101)	(53,455)	(24,728)	12
Net Revenue Requirement	\$ 39,291,997	\$ 20,558,910	\$ 6,952,028	\$ 3,795,691	\$ 1,166,815	\$ 1,756,312	\$ 77,391	\$ 3,407,974	\$ 1,576,876	
Net Revenue Requirement less Public Fire	\$ 35,884,023	\$ 20,558,910	\$ 6,952,028	\$ 3,795,691	\$ 1,166,815	\$ 1,756,312	\$ 77,391	\$ -	\$ 1,576,876	
Reallocation of Public Fire Costs	\$ 3,407,974	-	-	-	204,478	3,067,177	136,319	-	-	9
Net Revenue Requirement	\$ 39,291,997	\$ 20,558,910	\$ 6,952,028	\$ 3,795,691	\$ 1,371,293	\$ 4,823,489	\$ 213,710	\$ -	\$ 1,576,876	

Erie City Water Authority
Customer Class Allocation
Water Pro Forma Net Revenue Requirement
For the Year Ending December 31, 2019

	Total	Domestic	Commercial	Industrial	Public	Bulk	Allocation Code
Base Cost	\$ 20,558,910	\$ 9,444,763	\$ 2,935,812	\$ 3,694,436	\$ 1,644,713	\$ 2,839,186	14
Maximum Day	6,952,028	3,872,975	842,586	833,548	472,043	930,876	15
Maximum Hour	3,795,691	2,195,807	579,982	365,145	324,911	329,846	16
Customer Costs	1,371,293	1,255,144	84,883	8,502	22,215	549	17
Meters	4,823,489	3,463,747	806,487	204,034	318,833	30,388	18
Services	213,710	181,696	22,440	2,928	6,390	256	19
Total	\$ 37,715,121	\$ 20,414,132	\$ 5,272,190	\$ 5,108,593	\$ 2,789,105	\$ 4,131,101	
	100.00 %	54.13 %	13.98 %	13.54 %	7.40 %	10.95 %	
Indicated Private Fire	\$ 1,576,876						
Recommended Private Fire	\$ 1,576,876						
Difference	\$ -						
Allocation of Difference		-	-	-	-	-	
Total	\$ 37,715,121	20,414,132	5,272,190	5,108,593	2,789,105	4,131,101	
Revenue Requirement	\$ 39,291,997						

Erie Water Works
Development of Fixed Charges and Volumetric Block Rates
For the Year Ended December 31, 2019

First	70	Base Cost of Water	200	Capacity Factor	0.99	Cost per CCF	320	Capacity Factor	1.03	Cost per CCF	Total Cost
Next	4930	\$ 2.40	170	\$ 19,316.00	\$ 0.69	\$ 272	272	\$ 0.81	\$ 3.55	\$ 3.55	
Over	5000	\$ 2.40	155	\$ 359.91	\$ 0.54	\$ 206	206	\$ 0.50	\$ 3.11	\$ 3.11	

Basis for Cost per CCF

Required Revs from Sales	\$20,558,910.00
Excess Capacity Revenue / CCF	23,423.00
Cost Per CCF	877.72
	2.40

Bulk Rate	Amount Covered in FC	Indicated COS	Shortfall	CCF Consumption	Total Cost
	\$ 28,594.38	\$ 4,131,101.00	\$ 4,102,506.62	1,180,569	\$ 3.43

DESCRIPTION	BILLING	METERS	SERVICES	TOTAL
TOTAL CUSTOMER ANNUAL COSTS	\$1,371,293	\$4,823,489	\$213,710	\$6,408,492
NUMBER OF BILLS	209,420	70,326	57,224	
NO. OF EQUIVALENT METERS	\$6.55	\$68.59	\$37.3	\$78.87

METER SIZE	EQ. METER RATIO	COST PER BILL	EQ. SERVICE RATIO	METERS	QUARTERLY COST SERVICES	QUARTERLY CHARGES	TOTAL MONTHLY CHARGES
5/8"	1.0	\$ 6.55	1.0	\$ 17.15	\$ 0.93	\$ 24.63	\$ 8.21
3/4"	1.5	6.55	1.3	25.72	1.21	33.48	11.16
1"	2.5	6.55	2.0	42.87	1.87	51.29	17.10
1 1/2"	5.0	6.55	2.7	85.74	2.52	94.81	31.60
2"	8.0	6.55	4.0	137.18	3.73	147.46	49.15
3"	15.0	6.55	4.0	257.21	3.73	267.49	89.16
4"	25.0	6.55	5.3	428.69	4.94	440.18	146.73
6"	50.0	6.55	8.0	857.38	7.46	871.39	290.46
8"	80.0	6.55	10.7	1,371.80	9.98	1,388.33	462.78
10"	115.0	6.55	13.3	1,971.96	12.40	1,990.91	663.64
12"	215.0	6.55	16.0	3,686.71	14.92	3,708.18	1,236.06

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2019

Domestic Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	3,178	\$ 7.98	\$ 25,360.44	\$ 8.21	\$ 26,091.38	2.882 %
3/4" Monthly	41	10.87	445.67	11.16	457.56	2.668 %
1" Monthly	179	16.66	2,982.14	17.10	3,060.90	2.641 %
1.5" Monthly	30	30.83	924.90	31.60	948.00	2.498 %
2" Monthly	40	47.98	1,919.20	49.15	1,966.00	2.439 %
4" Monthly	40	143.31	5,732.40	146.73	5,869.20	2.386 %
6" Monthly	10	283.74	2,837.40	290.46	2,904.60	2.368 %
8" Monthly	10	452.08	4,520.80	462.78	4,627.80	2.367 %
5/8" Quarterly	181,966	23.94	4,356,266.04	24.63	4,481,822.58	2.882 %
3/4" Quarterly	3,615	32.60	117,849.00	33.48	121,030.20	2.699 %
1" Quarterly	1,510	49.99	75,484.90	51.29	77,447.90	2.601 %
1.5" Quarterly	679	92.50	62,807.50	94.81	64,375.99	2.497 %
2" Quarterly	248	143.95	35,699.60	147.46	36,570.08	2.438 %
3" Quarterly	44	261.22	11,493.68	267.49	11,769.56	2.400 %
4" Quarterly	76	429.93	32,674.68	440.18	33,453.68	2.384 %
6" Quarterly	8	851.21	6,809.68	871.39	6,971.12	2.371 %
8" Quarterly	4	1,356.24	5,424.96	1,388.33	5,553.32	2.366 %
Total Fixed Charges	191,678		\$ 4,749,232.99		\$ 4,884,919.87	2.857 %
<u>Usage Charge</u>						
Block 1:	3,526,759.50	\$ 3.9300	\$ 13,860,164.84	\$ 3.9900	\$ 14,071,770.41	1.527 %
Block 2:	371,348.00	3.5000	1,299,718.00	3.5500	1,318,285.40	1.429 %
Block 3:	29,070.00	3.0500	88,663.50	3.1100	90,407.70	1.967 %
Total Usage Charges			15,248,546.34		15,480,463.51	
Total Domestic			\$ 19,997,779.33		\$ 20,365,383.38	1.838 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2019

Commercial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	80	\$ 7.98	\$ 638.40	\$ 8.21	\$ 656.80	2.882 %
3/4" Monthly	40	10.87	434.80	11.16	446.40	2.668 %
1" Monthly	102	16.66	1,699.32	17.10	1,744.20	2.641 %
1 1/2" Monthly	70	30.83	2,158.10	31.60	2,212.00	2.498 %
2" Monthly	301	47.98	14,441.98	49.15	14,794.15	2.439 %
3" Monthly	60	87.07	5,224.20	89.16	5,349.60	2.400 %
4" Monthly	121	143.31	17,340.51	146.73	17,754.33	2.386 %
6" Monthly	60	283.74	17,024.40	290.46	17,427.60	2.368 %
8" Monthly	10	452.08	4,520.80	462.78	4,627.80	2.367 %
10" Monthly	20	648.32	12,966.40	663.64	13,272.80	2.363 %
5/8" Quarterly	2,585	23.94	61,884.90	24.63	63,668.55	2.882 %
3/4" Quarterly	5,083	32.60	165,705.80	33.48	170,178.84	2.699 %
1" Quarterly	1,700	49.99	84,983.00	51.29	87,193.00	2.601 %
1 1/2" Quarterly	1,068	92.50	98,790.00	94.81	101,257.08	2.497 %
2" Quarterly	1,209	143.95	174,035.55	147.46	178,279.14	2.438 %
3" Quarterly	137	261.22	35,787.14	267.49	36,646.13	2.400 %
4" Quarterly	238	429.93	102,323.34	440.18	104,762.84	2.384 %
6" Quarterly	60	851.21	51,072.60	871.39	52,283.40	2.371 %
8" Quarterly	24	1,356.24	32,549.76	1,388.33	33,319.92	2.366 %
Total Fixed Charges	12,968.00		\$ 883,581.00		\$ 905,874.58	2.523 %
<u>Usage Charge</u>						
Block 1:	340,164	\$ 3.9300	\$ 1,336,844.52	\$ 3.9900	\$ 1,357,254.36	1.527 %
Block 2:	818,285	3.5000	\$ 2,863,997.22	3.5500	\$ 2,904,911.47	1.429 %
Block 3:	62,332	3.0500	\$ 190,111.87	3.1100	\$ 193,851.77	1.967 %
Total Usage Charges			\$ 4,390,953.61		\$ 4,456,017.60	
Total Commercial			\$ 5,274,534.61		\$ 5,361,892.18	1.656 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2019

Industrial Customers:

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	10	\$ 7.98	\$ 79.80	\$ 8.21	\$ 82.10	2.882 %
3/4" Monthly	50	10.87	543.50	11.16	558.00	2.668 %
1" Monthly	30	16.66	499.80	17.10	513.00	2.641 %
1 1/2" Monthly	46	30.83	1,418.18	31.60	1,453.60	2.498 %
2" Monthly	178	47.98	8,540.44	49.15	8,748.70	2.439 %
3" Monthly	30	87.07	2,612.10	89.16	2,674.80	2.400 %
4" Monthly	79	143.31	11,321.49	146.73	11,591.67	2.386 %
6" Monthly	140	283.74	39,723.60	290.46	40,664.40	2.368 %
8" Monthly	30	452.08	13,562.40	462.78	13,883.40	2.367 %
10" Monthly	30	648.32	19,449.60	663.64	19,909.20	2.363 %
12" Monthly	20	1,207.56	24,151.20	1,236.06	24,721.20	2.360 %
5/8" Quarterly	52	23.94	1,244.88	24.63	1,280.76	2.882 %
3/4" Quarterly	125	32.60	4,075.00	33.48	4,185.00	2.699 %
1" Quarterly	147	49.99	7,348.53	51.29	7,539.63	2.601 %
1 1/2" Quarterly	79	92.50	7,307.50	94.81	7,489.99	2.497 %
2" Quarterly	201	143.95	28,933.95	147.46	29,639.46	2.438 %
3" Quarterly	16	261.22	4,179.52	267.49	4,279.84	2.400 %
4" Quarterly	44	429.93	18,916.92	440.18	19,367.92	2.384 %
Total Fixed Charges	1,307.00		193,908.41		198,582.67	2.411 %
<u>Usage Charge</u>						
Block 1:	32,757	\$ 3.9300	\$ 128,735.01	\$ 3.9900	\$ 130,700.43	1.527 %
Block 2:	372,547	\$ 3.5000	1,303,914.50	3.5500	1,322,541.85	1.429 %
Block 3:	1,131,501	\$ 3.0500	<u>3,451,078.05</u>	3.1100	<u>3,518,968.11</u>	1.967 %
Total Usage Charges			\$ 4,883,727.56		\$ 4,972,210.39	
Total Industrial			\$ 5,077,635.97		\$ 5,170,793.06	1.835 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2019

Public Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
5/8" Monthly	85	\$ 7.98	\$ 678.30	\$ 8.21	\$ 697.85	2.882 %
3/4" Monthly	26	10.87	282.62	11.16	290.16	2.668 %
1" Monthly	50	16.66	833.00	17.10	855.00	2.641 %
1 1/2" Monthly	140	30.83	4,316.20	31.60	4,424.00	2.498 %
2" Monthly	150	47.98	7,197.00	49.15	7,372.50	2.439 %
3" Monthly	100	87.07	8,707.00	89.16	8,916.00	2.400 %
4" Monthly	110	143.31	15,764.10	146.73	16,140.30	2.386 %
6" Monthly	86	283.74	24,401.64	290.46	24,979.56	2.368 %
8" Monthly	40	452.08	18,083.20	462.78	18,511.20	2.367 %
5/8" Quarterly	1,127	23.94	26,980.38	24.63	27,758.01	2.882 %
3/4" Quarterly	302	32.60	9,845.20	33.48	10,110.96	2.699 %
1" Quarterly	226	49.99	11,297.74	51.29	11,591.54	2.601 %
1 1/2" Quarterly	259	92.50	23,957.50	94.81	24,555.79	2.497 %
2" Quarterly	364	143.95	52,397.80	147.46	53,675.44	2.438 %
3" Quarterly	142	261.22	37,093.24	267.49	37,983.58	2.400 %
4" Quarterly	130	429.93	55,890.90	440.18	57,223.40	2.384 %
6" Quarterly	40	851.21	34,048.40	871.39	34,855.60	2.371 %
8" Quarterly	4	1,356.24	5,424.96	1,388.33	5,553.32	2.366 %
Total Fixed Charge	3,381		\$ 337,199.18		\$ 345,494.21	2.460 %
<u>Usage Charge</u>						
Block 1:	83,567	\$ 3.9300	\$ 328,418.31	\$ 3.9900	\$ 333,432.33	1.527 %
Block 2:	410,546	\$ 3.5000	1,436,911.00	3.5500	1,457,438.30	1.429 %
Block 3:	186,095	\$ 3.0500	567,589.75	3.1100	578,755.45	1.967 %
Total Usage Charges			2,332,919.06		2,369,626.08	
Total Public Customers			\$ 2,670,118.24		\$ 2,715,120.29	1.685 %

Erie City Water Authority

Water Revenues Under Present and Proposed Rates

Water Usage Charges for the Year Ending December 31, 2019

Bulk Customers

Fixed Charge

Meter Size	Number of Bills	Present Tariff Rate	Present Revenue	Proposed Tariff Rate	Proposed Revenue	Increase
4" Monthly	30	\$ 143.31	\$ 4,299.30	\$ 146.73	\$ 4,401.90	2.386 %
6" Monthly	10	283.74	2,837.40	290.46	2,904.60	2.368 %
8" Monthly	46	452.08	20,795.68	462.78	21,287.88	2.367 %
Total Fixed Charge	86		\$ 27,932.38		\$ 28,594.38	2.370 %
<u>Usage Charge</u>						
Bulk Rate	1,180,569	\$ 3.3500	<u>3,954,906.02</u>	\$ 3.4300	<u>4,049,351.53</u>	2.388 %
Total Bulk Customers			\$ 3,982,838.40		\$ 4,077,945.91	2.388 %
<u>Other Revenues:</u>						
Fire Line Revenues			\$ 1,426,158.28		\$ 1,576,978.04	10.575 %
Fixed Fee Customers			<u>\$30,970.68</u>		<u>\$31,637.26</u>	2.152 %
Total Other Revenues			\$1,457,128.96		\$1,608,615.30	
Total Water Charges			<u>\$ 37,002,906.56</u>		<u>\$ 37,691,134.82</u>	1.860 %
Total Water Service			\$ 38,460,035.52		\$ 39,299,750.12	2.183 %
Total Requested Revenue					\$ 39,291,997.00	
Difference					\$7,753.12	0.02 %

Erie Water Works
Calculation of Allocation Factors
Allocation Factor 1: Base Costs (Average Day)

Taking the average consumption by class (estimates for fire service) Derived allocation factor splitting out general consumption and fire consumption

Class	Avg. Daily Usage (CCF)	Percent to Total	Allocation Factor	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Check Total
Domestic	10,760	45.59%							
Commercial	3,345	14.17%							
Industrial	4,210	17.85%							
Public	1,873	7.94%							
Bulk	3,234	13.70%							
General Water	23,422	99.25%							
Public Fire	121	0.51%							
Private Fire	57	0.24%							
Total Fire	178								
Total Water	23,600	100.00%							
Factor 1	99.25%						0.51%	0.24%	100.00%

Erie Water Works
Calculation of Allocation Factors
Allocation Factor 2: Max Day costs

Allocation Begins with Allocation of Max day factor for Classes

Class	Avg. Daily Usage (CCF)	Max Day Factors (1)	Amount (CCF)	Excess	Allocation
Domestic	10,760	200	21,520	10,760	0.5571
Commercial	3,345	170	5,687	2,342	0.1212
Industrial	4,210	155	6,526	2,316	0.1199
Public	1,873	170	3,184	1,311	0.0679
Bulk	3,234	180	5,821	2,587	0.1339
General Water	23,422		42,738	19,316	1.0000
Public Fire	121	0	-	-	0.0000
Private Fire	57	0	-	-	0.0000
Total Fire	178		-	-	-
Total Water	23,600		42,738	19,316	1.0000

(1) Demand Factors from settlement agreement.

After finding max day allocations by class, then allocate by system demand (150% of base demand)

Class	Allocation Factor 1	Weighted Allocation (2/3)	Max Day Allocation	Weighted Allocation (1/3)	Customer Meters	Customer Services	Public Fire	Private Fire	Check Total
Domestic	0.4559	0.3039	0.5571	0.1857					
Commercial	0.1417	0.0945	0.1212	0.0404					
Industrial	0.1785	0.1190	0.1199	0.04					
Public	0.0794	0.0529	0.0679	0.0226					
Bulk	0.1370	0.0913	0.1339	0.0446					
Total Water	0.9925	0.6617	0.3333	0.3333	1.0000				
Public Fire	0.0051	0.0034	0.0000	0.0000					
Private Fire	0.0024	0.0016	0.0000	0.0000					
	1.0000	0.6667	1.0000	0.3333					
Factor 2	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Check Total
	66.17%	33.33%					0.34%	0.16%	100.00%

Erie Water Works
Calculation of Allocation Factors

Allocation Factor 3: Max Day Demand and Fire Protection (for transmission assets)

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.50 and the average daily system sendout for year ending 12/31/2013 of 26.523 MGD. The system demand for fire protection is 1,000 Gallons per minute for 10 hours.

	Ratio	Rate of Flow, (GPD)	Weight
Average Day	1.00	17,520,252	0.5329
Maximum Day	0.50	8,760,126	0.2664
Subtotal	<u>1.50</u>	<u>26,280,378</u>	<u>0.7993</u>
Fire Protection		6,600,000	0.2007
Total		<u><u>32,880,378</u></u>	<u>1.0000</u>

Application of the Max Day factors to this weighting produces a factor which produces the allocation factor for Max Day and Fire Protection

Class	Allocation Factor 1	Weighted Allocation (53.28%)	Max Day Allocation	Weighted Allocation (26.64%)	Fire Protection	Fire Protection Allocation (20.07%)	Total
Domestic	0.4559	0.2429	0.5571	0.1484			
Commercial	0.1417	0.0755	0.1212	0.0323			
Industrial	0.1785	0.0951	0.1199	0.0319			
Public	0.0794	0.0423	0.0679	0.0181			
Bulk	0.137	0.0729	0.1339	0.0357			
Total General Water	0.9925	0.5288		0.2664			
Public Fire	0.51%	0.0027	0	0	0.6839	0.1373	0.14
Private Fire	0.24%	0.0014	0	0	0.3161	0.0634	0.0648
Total Water	100.00%	53.29%		26.64%		20.07%	100.00%

Erie Water Works
Calculation of Allocation Factors

Allocation Factor 3: Max Day Demand and Fire Protection (for transmission assets) cont.

BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE
TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS

Description (1)	Restrictive Diameters Squared (2)	Quantity (3)	Relative Demand* (4)=(2)x(3)	Allocation Factor (5)
PRIVATE FIRE PROTECTION				
Fire Lines				
5/8 -inch	0.39	0	0	
1 -inch	1.00	1	2	
2 -inch	4.00	40	240	
4 -inch	16.00	178	4,272	
6 -inch	36.00	261	14,094	
8 -inch	64.00	107	10,272	
10 -inch	100.00	6	900	
12 -inch	144.00	6	1,296	
Private Hydrants	27.60	18	745	
Total Private Fire Protection		617	31,821	0.3161
PUBLIC FIRE PROTECTION				
4 -1/4 inch w/2-2 1/2, 1-4 1/2	20.3	3,392	68,858	
5 -1/4 inch w/2-2 1/2, 1-4 1/2	27.6		0	
Total Public Fire Protection		3,392	68,858	0.6839
Total Fire Protection		4,009	100,679	1.0000

* Relative Demand for Private Fire lines and hydrants are calculated at 1.5 times the Public Fire Relative Demand

Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Check Total
52.88%	26.64%					14.00%	6.48%	100.00%

Factor 3

Erie Water Works
Calculation of Allocation Factors
Allocation Factor 4: Base and Max Hour (including Bulk)

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.25 and the average daily system sendout for the year ending 12/31/2014. The system demand for fire protection is 11,000 gallons per minute.

	Ratio	Rate of Flow, (GPM)	Weight
Average Hour	1.00	12,167	0.3171
Maximum Hour	1.25	15,209	0.3963
Subtotal	2.25	27,376	0.7134
Fire Protection		11,000	0.2866
Total		38,376	1.0000

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

Customer Classification (1)	Average Hourly Consumption CCF (2)	Factor* (3)	Maximum Hour Extra Capacity	
			CCF Per Hour (4)=(2)x(3)	Allocation Factor (5)
Residential	448.4	320.00	1,434.7	0.5292
Commercial	139.4	272.00	379.1	0.1399
Industrial	175.4	206.00	361.4	0.1333
Public	78.0	272.00	212.3	0.0783
Bulk Water	134.8	240.00	323.4	0.1193
Total	975.9		2,710.9	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands

Erie Water Works
Calculation of Allocation Factors
Allocation Factor 4: Base and Max Hour (including Bulk) cont.

Customer Classification (1)	CCF (2)	Average Hourly Consumption		Maximum Hour Extra Capacity		Fire Protection		Allocation Factor (9)=(4)+(6)+(8)	Check Total
		Allocation Factor (3)	Weighted Factor (4)=(3) X (31.71%)	Allocation Factor (5)	Weighted Factor (6)=(5) X (39.63%)	Allocation Factor (7)	Weighted Factor (8)=(7) X (28.66%)		
Residential	448.4	0.4559	0.1446	0.5292	0.2097			0.3543	
Commercial	139.4	0.1417	0.0449	0.1399	0.0554			0.1003	
Industrial	175.4	0.1784	0.0566	0.1333	0.0528			0.1094	
Public	78.0	0.0794	0.0252	0.0783	0.0311			0.0563	
Bulk Water	134.8	0.137	0.0434	0.1193	0.0473			0.0907	
General Water			0.3147		0.3963				
Public Fire Protection	5.0	0.0051	0.0016			0.6839	0.1960	0.1976	
Private Fire Protection	2.4	0.0024	0.0008			0.3161	0.0906	0.0914	
Total	983.4	0.9999	0.3171	1	0.3963	1.0000	0.2866	1	
Factor 4		31.47%	39.63%			Customer Services	Public Fire	Private Fire	100.00%
							19.76%	9.14%	

Erie Water Works
Calculation of Allocation Factors
Allocation Factor 5: Base and Max hour (excluding bulk)

Same as Allocation Factor 4, but this factor excludes bulk from the calculation of the factor

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.25 and the average daily system sendout for the year ending 12/31/2014. The system demand for fire protection is 11,000 gallons per minute.

	Ratio	Rate of Flow, (GPM)	Weight
Average Hour	1.00	10,487	0.3031
Maximum Hour			
Extra Capacity	1.25	13,108	0.3789
Subtotal	<u>2.25</u>	<u>23,595</u>	<u>0.6820</u>
Fire Protection		11,000	0.3180
Total		<u>34,595</u>	<u>1.0000</u>

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

Customer Classification (1)	Average Hourly Consumption CCF (2)	Factor* (3)	Maximum Hour Extra Capacity	
			Per Hour (4)=(2)x(3)	Allocation Factor (5)
Residential	448.4	320.0	1,434.7	0.6009
Commercial	139.4	272.0	379.1	0.1588
Industrial	175.4	206.0	361.4	0.1514
Public	78.0	272.0	212.3	0.0889
Bulk Water	-	-	-	-
Total	<u>841.2</u>		<u>2,387.5</u>	<u>1.0000</u>

* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands.

Erie Water Works
Calculation of Allocation Factors
Allocation Factor 5: Base and Max hour (excluding bulk) cont.

Customer Classification (1)	CCF (2)	Average Hourly Consumption		Maximum Hour Extra Capacity		Fire Protection		Allocation Factor (9)=(4)+(6)+(8)
		Allocation Factor (3)	Weighted Factor (30.31%) (4)=(3) X	Allocation Factor (5)	Weighted Factor (37.89%) (6)=(5) X	Allocation Factor (7)	Weighted Factor (31.80%) (8)=(7) X	
Residential	448.4	0.5283	0.1601	0.6009	0.2277			0.3878
Commercial	139.4	0.1642	0.0498	0.1588	0.0601			0.1099
Industrial	175.4	0.2067	0.0627	0.1514	0.0574			0.1201
Public	78.0	0.0920	0.0279	0.0889	0.0337			0.0616
Bulk Water	0.0	0.0000	0.0000	0.0000	0			0
General Water			0.3005		0.3789			
Public Fire Protection	5.0	0.0059	0.0018		0.6839			0.2193
Private Fire Protection	2.4	0.0028	0.0008		0.3161			0.1013
Total	848.6	0.9999	0.3031	1	0.3789	1.0000		1
Factor 5	Base Cost							
	30.05%							
		Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire
			37.89%				21.93%	10.13%
								100.00%

Allocation Factor 6: Hybrid Allocation for Distribution Assets

Adhering to the proposed settlement agreement, Original cost of distribution assets are to be allocated by an average of 4, and 4a (now 5)
The allocation for Factor 6 is as follows:

Factor	Base Cost	Extra Cap		Customer Billing		Customer Meters		Customer Services		Public Fire		Private Fire		Check Total
		Max Day	Max Hour	Max Day	Max Hour	Max Day	Max Hour	Max Day	Max Hour	Max Day	Max Hour	Max Day	Max Hour	
Factor 4	0.3147		0.3963											1.0000
Factor 5	0.3005		0.3789											1.0000
Factor 6	0.3076		0.3876										0.0964	1.0000

Erie Water Works
Calculation of Allocation Factors
Allocation Factor 7: Hybrid Allocation for T&D Expense

Adhering to the proposed settlement agreement, T&D expense is to be allocated by a composite of factors 3, 4, and 4a (now 5) based on the split between T&D mains. Assuming approximately 55% of EWW system is Transmission and approximately 45% is distribution, the allocation for factor 6 is as follows

	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Billing	Customer Meters	Customer Services	Public Fire	Private Fire	Check Total
Factor 3	0.5288	0.2664					0.14	0.0648	1.0000
Factor 4	0.3147		0.3963				0.1976	0.0914	1.0000
Factor 5	0.3005		0.3789				0.2193	0.1013	1.0000
Factor 7	0.4293	0.1465	0.1744				0.1708	0.0790	1.0000

From Wood's / Palmer Expert Reports

	Percent	Recommended
Inch Feet of Mains 10" and under (Dist)	44%	45%
Inch Feet of Mains 10" to 54" (Trans)	56%	55%

Total 31,451,389

ERIE WATER WORKS
DEVELOPMENT OF FIRE LINE CHARGES

I. CALCULATION EQUIVALENT LINES

SERVICE SIZE	NO. OF FIRE LINES	LINE EQUIVALENCY PER SIZE	TOTAL EQUIVALENT LINES
FL 01"	1	1	1
FL 02"	40	4	160
FL 04"	178	16	2,848
FL 06"	261	36	9,396
FL 08"	107	64	6,848
FL 10"	6	100	600
FL 12"	6	144	864
TOTAL	599		20,717

II. CALCULATION OF ANNUAL COST PER EQUIVALENT LINE

	2015	2016	2017	2018	2019
TOTAL ANNUAL FIRE LINE COST:	1,055,284	1,166,746	1,289,981	1,426,233	1,576,876
TOTAL NUMBER OF EQUIVALENT LINES:	20,717	20,717	20,717	20,717	20,717
ANNUAL COST PER EQUIVALENT LINE:	50.94	56.32	62.27	68.84	76.12

III. CALCULATION OF FIRE LINE CHARGES

SERVICE SIZE	EQUIVALENT UNITS PER SIZE	CALCULATED QUARTERLY CHARGE				
		2015	2016	2017	2018	2019
FL 01"	1	\$ 12.74	\$ 14.08	\$ 15.57	\$ 17.21	\$ 19.03
FL 02"	4	50.94	56.32	62.27	68.84	76.12
FL 04"	16	203.76	225.28	249.08	275.36	304.48
FL 06"	36	458.46	506.88	560.43	619.56	685.08
FL 08"	64	815.04	901.12	996.32	1,101.44	1,217.92
FL 10"	100	1,273.50	1,408.00	1,556.75	1,721.00	1,903.00
FL 12"	144	1,833.84	2,027.52	2,241.72	2,478.24	2,740.32

IV. CALCULATION OF FIRE LINE REVENUES UNDER PROPOSED RATES

SERVICE SIZE	NO. OF LINES	ANNUAL FIRE LINE REVENUES				
		2015	2016	2017	2018	2019
FL 01"	1	\$ 50.96	\$ 56.32	\$ 62.27	\$ 68.84	\$ 76.12
FL 02"	40	8,150.40	9,011.20	9,963.20	11,014.40	12,179.20
FL 04"	178	145,077.12	160,399.36	177,344.96	196,056.32	216,789.76
FL 06"	261	478,632.24	529,182.72	585,088.92	646,820.64	715,223.52
FL 08"	107	348,837.12	385,679.36	426,424.96	471,416.32	521,269.76
FL 10"	6	30,564.00	33,792.00	37,362.00	41,304.00	45,672.00
FL 12"	6	44,012.16	48,660.48	53,801.28	59,477.76	65,767.68
TOTAL	599	\$ 1,055,324.00	\$ 1,166,781.44	\$ 1,290,047.59	\$ 1,426,158.28	\$ 1,576,978.04

V. CALCULATION OF FIRE LINE REVENUES UNDER PRESENT RATES

SERVICE SIZE	EQUIVALENT NO. OF LINES	CURRENT QUARTERLY CHARGES	ANNUAL FIRE LINE REVENUES
FL 01"	1	\$ 10.23	\$ 40.92
FL 02"	40	46.07	7,371.20
FL 04"	178	184.29	131,214.48
FL 06"	261	414.65	432,894.60
FL 08"	107	737.15	315,500.20
FL 10"	6	1,151.79	27,642.96
FL 12"	6	1,658.58	39,805.92
TOTAL	599		\$ 954,470.28