BEFORE THE

PUBLIC UTILITIES COMMISSION

OF RHODE ISLAND

THE CITY OF NEWPORT WATER DIVISION	**)** **)**	**DOCKET NO. 4933**

DIRECT TESTIMONY

OF

JEROME D. MIERZWA

ON BEHALF OF THE

DIVISION OF PUBLIC UTILITIES AND CARRIERS

July 10, 2019

EXETER

ASSOCIATES, INC.

BEFORE THE
PUBLIC UTILITIES COMMISSION
OF RHODE ISLAND

CITY OF NEWPORT) DOCKET NO. 4933

DIRECT TESTIMONY OF JEROME D. MIERZWA

I. INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Jerome D. Mierzwa. I am a principal and President of Exeter Associates, Inc. ("Exeter"). My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044. Exeter specializes in providing public utility-related consulting services.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I graduated from Canisius College in Buffalo, New York, in 1981 with a Bachelor of Science Degree in Marketing. In 1985, I received a Master's Degree in Business Administration with a concentration in finance, also from Canisius College. In July 1986, I joined National Fuel Gas Distribution Corporation ("NFG Distribution") as a Management Trainee in the Research and Statistical Services Department ("RSS"). I was promoted to Supervisor RSS in January 1987. While employed with NFG Distribution, I conducted various financial and statistical analyses related to the Company's market research activity and state regulatory affairs. In April 1987, as part of a corporate reorganization, I was transferred to National Fuel Gas Supply Corporation's ("NFG Supply") rate department where my responsibilities included

utility cost of service and rate design analysis, expense and revenue requirement forecasting and activities related to federal regulation. I was also responsible for preparing NFG Supply's Purchase Gas Adjustment ("PGA") filings and developing interstate pipeline and spot market supply gas price projections. These forecasts were utilized for internal planning purposes as well as in NFG Distribution's purchased gas cost proceedings.

In April 1990, I accepted a position as a Utility Analyst with Exeter Associates, Inc. ("Exeter"). In December 1992, I was promoted to Senior Regulatory Analyst. Effective April 1, 1996, I became a principal of Exeter. Since joining Exeter, my assignments have included water and gas utility class cost of service and rate design analysis, evaluating the gas purchasing practices and policies of natural gas utilities, sales and rate forecasting, performance-based incentive regulation, revenue requirement analysis, the unbundling of utility services, and the evaluation of customer choice natural gas transportation programs.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY PROCEEDINGS ON UTILITY RATES?

A. Yes. I have provided testimony on more than 300 occasions in proceedings before the Federal Energy Regulatory Commission ("FERC"), utility regulatory commissions in Arkansas, Delaware, Georgia, Illinois, Indiana, Louisiana, Maine, Montana, Nevada, New Jersey, Ohio, Pennsylvania, Texas, Utah, and Virginia, as well as before the Public Utilities Commission of Rhode Island ("Commission").

Q. HAVE YOU PREVIOUSLY TESTIFIED ON WATER UTILITY ISSUES BEFORE THIS COMMISSION?

A. Yes. I have previously testified before this Commission in the following proceedings:

- City of Newport, Water Division Docket Nos. 2985, 4355, and 4295;
- Providence Water Supply Board Docket Nos. 2048, 3163, 3832, 4406, and 4618;
- Kent County Water Authority Docket Nos. 2555, 3311, and 4611;
- Pawtucket Water Supply Board Docket Nos. 2674 and 3945;
- Suez Water Rhode Island, Inc. Docket No. 4800; and
- Woonsocket Water Division Docket Nos. 4320 and 4879.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. On February 13, 2019, the City of Newport, Water Division ("Newport Water") , filed an application to increase its rates in two phases. Under Phase 1, proposed to take effect March 15, 2019, Newport Water has proposed a rate increase of $2,432,021, or 14.0 percent. In Phase 2, proposed to take effect on July 1, 2021, Newport Water has proposed an additional revenue increase of $556,867, or 2.8 percent. Exeter Associates, Inc. ("Exeter") was retained by the Division of Public Utilities and Carriers ("Division") to evaluate and review Newport Water's application. My testimony addresses the Class Cost of Service Study ("CCOSS") presented by Newport Water and the proposed distribution of the revenue increases authorized by the Commission in this proceeding to the various customer classes served by Newport Water. My colleague, Mr. Lafayette K. Morgan, addresses the reasonableness of the Phase 1 and 2 increases requested by Newport Water.

Q. DID NEWPORT WATER REVISE THE CCOSS INITIALLY FILED IN ITS FEBRUARY 13, 2019 APPLICATION?

A. Yes. On April 10, 2019, Newport Water submitted a Supplemental Response to the initial response to DIV. 1-1 to correct two errors in the original CCOSS and provided a revised CCOSS. The original CCOSS was revised to reflect a corrected value for

the average day demand of the Navy and corrected plant production data for FY 2016 through FY 2018. These corrections resulted in relatively minor changes to the results of the initial CCOSS. In my testimony I subsequently refer to the CCOSS submitted by Newport Water on April 10, 2019 as the Revised CCOSS.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS CONCERNING NEWPORT WATER'S REVISED CCOSS AND THE DISTRIBUTION OF THE REVENUE INCREASES AUTHORIZED BY THE COMMISSION IN THIS PROCEEDING.

A. While I found Newport's Revised CCOSS generally to be reasonable, I believe several modifications are appropriate:

- The Revised CCOSS assigns treatment plant natural gas costs and salary/wage-related costs to the base and maximum day extra capacity functional costs category. These costs are consistent throughout the year and do not increase on a maximum day. Therefore, these costs should be assigned solely to the base functional cost category;

- In the Revised CCOSS, no base functional costs are assigned to Fire Protection services. That is, the Revised CCOSS assumes no volumes will be required to provide Fire Protection services. This is unreasonable and I recommend that the Revised CCOSS be modified to reflect a one percent assignment of base functional costs to Fire Protection services;

- Newport Water's Revised CCOSS assigns maximum day and maximum hour extra capacity costs to Fire Protection services based on a fire flow of 4,000 gallon per minute for 6 hours. I recommend that extra capacity costs be assigned to Fire Protection services based on a fire flow of 4,350 gallon per minute for 10 hours, which is consistent with the fire flow recommendations of the National Board of Fire Underwriters; and

- The maximum hour demand factor for the Navy should be modified from 2.46 to 2.26.

In this proceeding, Newport Water has proposed a revenue distribution for the Phase 1 increase reflecting the cost of service indicated by its CCOSS. The Phase 1

revenue distribution in this proceeding should reflect the results of the Division's CCOSS. However, strict adherence to this approach would result in a significant rate increase for certain customers. Therefore, to provide for gradualism in the rate setting process, I recommend that no customer class receive an increase which is greater than two times the system average increase authorized by the Commission in this proceeding. Any revenue deficiency resulting from the application of this recommendation should be addressed through an equivalent percentage increase to the volume charge of those customer classes whose increase is less than two times the system average increase.

Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A. Following this introductory section, my testimony is divided into three additional sections. The first section provides an overview of water utility cost of service methodologies. Next, I address Newport Water's Revised CCOSS. Finally, I present my recommendations concerning the distribution of the revenue increases authorized by the Commission in this proceeding.

II. OVERVIEW OF CLASS COST OF SERVICE METHODOLOGIES

Q. WHAT IS THE OBJECTIVE OF A CLASS COST OF SERVICE STUDY?

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

Q. WHAT ARE THE PRIMARY COST OF SERVICE STUDY METHODOLOGIES UTILIZED FOR WATER UTILITIES?

A. The two most commonly used and widely recognized methods of allocating costs to customer classes for water utilities are the base-extra capacity method and the commodity-demand method. Both of these methods are set forth in the American Water Works Association's ("AWWA") *Principles of Water Rates, Fees and Charges* ("AWWA M1 Manual").

Q. PLEASE SUMMARIZE EACH OF THESE METHODS.

A. Under the base-extra capacity method, investment and costs are first classified into four primary functional cost categories: base or average capacity, extra capacity, customer, and direct fire protection. Customer costs are commonly further divided between meter and service related and account or bill related costs. Extra capacity costs may also be divided between maximum day and maximum hour costs. Once investment and costs are classified to these functional categories, they are then allocated to customer classes. Base costs are allocated according to average water use, and extra capacity costs are allocated on the basis of the excess of peak demands over average demands. Meter and service-related customer costs are allocated on the basis of relative meter and service investment or a proxy thereof. Account related customer costs are allocated in proportion to the number of customers or the number of bills. The Revised CCOSS presented by Newport Water in this proceeding utilizes the base extra-capacity methodology.

The commodity-demand method follows the same general procedures. However, usage related costs are classified as commodity and demand related rather than as base and extra capacity related. Commodity related costs are allocated to customer classes on the basis of total water use (which is equivalent to average demand), and demand related costs are allocated on the basis of each class'

contribution to peak demand rather than on the basis of class demands in excess of average use.

III. EVALUATION OF NEWPORT WATER'S CCOSS

Q. PLEASE IDENTIFY THE CUSTOMER CLASSES INCLUDED IN NEWPORT WATER'S REVISED CCOSS.

A. Newport's Revised CCOSS includes two retail classes—Residential and Non-Residential; two wholesale customers—the Navy and Portsmouth Water and Fire Department ("PWFD"); and Public and Private Fire Protection.

Q. DID YOUR EVALUATION AND REVIEW FIND NEWPORT WATER'S REVISED CCOSS TO BE REASONABLE?

A. My evaluation and review generally found Newport Water's Revised CCOSS to be reasonable, with several exceptions. First, the Revised CCOSS assigns treatment plant natural gas costs and salary/wage-related costs to the base and maximum day extra capacity functions. As explained in the response to DIV. 1-2, these costs are consistent throughout the year and would not increase on a maximum day. Therefore, these costs should be assigned solely to the base functional cost category.

Second, to correct an error identified and explained in Newport Water's response to Navy 3-6, the maximum hour demand factor for the Navy should be modified from 2.46 to 2.26.

Third, in Newport Water's Revised CCOSS, no base functional costs are assigned to Fire Protection services. That is, the Revised CCOSS assumes no volumes will be required to provide Fire Protection services. This is unreasonable. I recommend that the Revised CCOSS be modified to reflect a one percent assignment

of base functional costs to Fire Protection services. This approach has historically been utilized by the Providence Water Supply Board.

Finally, Newport Water's Revised CCOSS assigns maximum day and maximum hour extra capacity costs to Fire Protection services based on a fire flow of 4,000 gallon per minute for 6 hours. I recommend that extra capacity costs be assigned to Fire Protection services based on a fire flow of 4,350 gallon per minute for 10 hours, which is consistent with the fire flow recommendations of the National Board of Fire Underwriters for a city or town like Newport with a population of 20,000.

Q. HAVE YOU AMENDED NEWPORT WATER'S REVISED CCOSS TO REFLECT YOUR RECOMMENDED MODIFICATIONS?

A. Yes. A summary of the results of the Division's CCOSS is presented in Schedule JDM-1. For comparison purposes, a summary of the results of Newport Water's Revised CCOSS is presented in Schedule JDM-2. As shown in these schedules, the primary impact of my modifications to Newport Water's Revised CCOSS is to increase the indicated cost of service for Public and Private Fire Protection services.

IV. REVENUE DISTRIBUTION

Q. WHAT ARE SOME OF THE PRINCIPLES OF A SOUND REVENUE ALLOCATION?

A. A sound revenue allocation should:

- Utilize class cost of service study results as a guide;
- Provide stability and predictability of the rates themselves, with a minimum of unexpected changes seriously adverse to ratepayers or the utility (gradualism);
- Yield the total revenue requirement;
- Provide for simplicity, certainty, convenience of payment, understandability,

public acceptability, and feasibility of application; and

- Reflect fairness in the apportionment of the total cost of service among the various customer classes.

Q. HOW HAS NEWPORT PROPOSED TO DISTRIBUTE THE REVENUE INCREASES AUTHORIZED BY THE COMMISSION IN THIS PROCEEDING?

A. For Phase 1, Newport Water is proposing to distribute the revenue increase authorized and design rates in this proceeding based on the results of its Revised CCOSS. The proposed increases in rates based on Newport Water's requested increase and Revised CCOSS are presented in Schedule JDM-2. If the increase authorized by the Commission is less than Newport Water's requested increase, rates would be designed by adjusting the costs included in the Revised CCOSS to reflect the cost of service approved by the Commission. For Phase 2, Newport Water is generally proposing to increase all rates by the average revenue increase authorized by the Commission.

Q. SHOULD THE REVENUE DISTRIBUTION PROPOSED BY NEWPORT WATER BE APPROVED?

A. For Phase 1, Newport Water's proposed revenue distribution is based on the results of the Revised CCOSS. As subsequently discussed in greater detail, the Phase 1 revenue distribution should be based on the results of the Division's CCOSS adjusted to provide gradualism for those customer classes receiving significant increases. For Phase 2, Newport Water's proposal to increase rates by the average revenue increase authorized by the Commission appears reasonable.

Q. WHAT IS YOUR RECOMMENDATION WITH RESPECT TO THOSE CUSTOMER CLASSES THAT WOULD RECEIVE SIGNIFICANT

INCREASES IF THE RESULTS OF THE DIVISION'S CCOSS WERE UTILIZED AS THE SOLE BASIS TO SET RATES IN THIS PROCEEDING?

A. In Phase 1, Newport Water is requesting a system average increase in rates of 14 percent. As shown in Schedule JDM-1, adopting cost of service based rates for certain customer classes would result in significant rate increases for those classes. More specifically, PWFD and Public and Private Fire would receive increases that exceed 28 percent, or two times the system average increase. To provide for gradualism in the rate setting process, I recommend that no customer class receive an increase which is greater than two times the system average increase authorized by the Commission in this proceeding. Any revenue deficiency resulting from the application of this recommendation should be addressed through an equivalent percentage increase in the volume charge of those customer classes whose increase is less than two times the system average increase.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

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BEFORE THE
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THE CITY OF NEWPORT WATER DIVISION	**)** **)**	**DOCKET NO. 4933**

SCHEDULES ACCOMPANYING THE
DIRECT TESTIMONY

OF

JEROME D. MIERZWA

ON BEHALF OF THE
DIVISION OF PUBLIC UTILITIES AND CARRIERS

July 10, 2019

EXETER
ASSOCIATES, INC.

Schedule JDM-1

CITY OF NEWPORT
Division Class Cost of Service Study

Rhode Island Public Utilities Commission
Docket 4933
FY 2020 Rate Filing
HJS Schedule A-2A
Cost of Service Rates and Charges

	Docket 4595 Rates	Cost of Service	Proposed Rates	% Change	Projected Revenues
Base Charge (per bill)					
Monthly					
5/8	$ 5.02	$ 5.7536	**$ 5.76**	*15%*	$741,036
3/4	$ 5.27	6.0237	**6.03**	*14%*	183,360
1	$ 7.03	7.9507	**7.96**	*13%*	54,542
1.5	$ 11.33	12.6274	**12.63**	*11%*	58,047
2	$ 15.86	17.5724	**17.58**	*11%*	53,795
3	$ 41.71	45.8282	**45.83**	*10%*	32,998
4	$ 49.12	53.9323	**53.94**	*10%*	9,709
5	$ 58.99	64.7379	**64.74**	*10%*	0
6	$ 66.40	72.8421	**72.85**	*10%*	29,723
8	$ 86.15	94.4532	**94.46**	*10%*	4,534
10	$ 121.95	133.6234	**133.63**	*10%*	3,207
Portsmouth Base Charge (4")	$ 1.36	1.7539	**1.76**	*29%*	21
					1,170,972
Volume Charge (per 1,000 gallons)					
Retail					
Residential	$ 10.02	$ 11.0906	**$ 11.10**	*11%*	6,725,490
Non-Residential	$ 11.22	$ 11.4953	**$ 11.50**	*2%*	5,081,850
					$ 11,807,340
Wholesale					
Navy	$ 6.5190	$ 8.1266	**$ 8.1266**	*25%*	1,531,864
Portsmouth Water & Fire District	$ 5.2920	$ 7.0024	**$ 7.0024**	*32%*	2,520,164
					$ 4,052,028
Fire Protection					
Public (per hydrant)	$ 944.22	$ 1,356.33	**$ 1,356.34**	*44%*	$ 1,413,306
Private (by Connection Size)					
<2		$33.26	$ 40.46	**$ 40.46**	*22%*	
2	6.19	$139.26	$ 169.39	**$ 169.40**	*22%*	-
4	38.32	$468.22	$ 618.68	**$ 618.69**	*32%*	48,877
6	111.31	$1,055.81	$ 1,465.61	**$ 1,465.61**	*39%*	347,350
8	237.21	$2,069.28	$ 2,926.38	**$ 2,926.39**	*41%*	158,025
10	426.58	$3,593.75	$ 5,123.69	**$ 5,123.70**	*43%*	25,619
12	689.04	$5,706.61	$ 8,169.08	**$ 8,169.08**	*43%*	-
					$ 579,870

Total Projected Rate Revenues $ 19,023,516

Schedule JDM-2

CITY OF NEWPORT
Revised Class Cost of Service Study

Rhode Island Public Utilities Commission
Docket 4933
FY 2020 Rate Filing
HJS Schedule A-2A
Cost of Service Rates and Charges

	Docket 4595 Rates	Cost of Service	Proposed Rates	% Change	Projected Revenues
Base Charge (per bill)					
Monthly					
5/8	$ 5.02	$ 5.7536	$ **5.76**	*15%*	$741,036
3/4	$ 5.27	6.0237	**6.03**	*14%*	183,360
1	$ 7.03	7.9507	**7.96**	*13%*	54,542
1.5	$ 11.33	12.6274	**12.63**	*11%*	58,047
2	$ 15.86	17.5724	**17.58**	*11%*	53,795
3	$ 41.71	45.8282	**45.83**	*10%*	32,998
4	$ 49.12	53.9323	**53.94**	*10%*	9,709
5	$ 58.99	64.7379	**64.74**	*10%*	0
6	$ 66.40	72.8421	**72.85**	*10%*	29,723
8	$ 86.15	94.4532	**94.46**	*10%*	4,534
10	$ 121.95	133.6234	**133.63**	*10%*	3,207
Portsmouth Base Charge (4")	$ 1.36	1.7539	**1.76**	*29%*	21
					1,170,972
Volume Charge (per 1,000 gallons)					
Retail					
Residential	$ 10.02	$ 11.2334	$ **11.24**	*12%*	6,810,316
Non-Residential	$ 11.22	$ 11.6842	$ **11.69**	*4%*	5,165,811
					$ 11,976,127
Wholesale					
Navy	$ 6.5190	$ 8.1735	$ **8.1736**	*25%*	1,540,724
Portsmouth Water & Fire District	$ 5.2920	$ 7.0782	$ **7.0782**	*34%*	2,547,444
					$ 4,088,168
Fire Protection					
Public (per hydrant)	$ 944.22	$ 1,213.24	$ **1,213.24**	*28%*	$ 1,264,196
Private (by Connection Size)					
<2		$33.26	$ 38.56	$ **38.56**	*16%*	
2	6.19	$139.26	$ 161.44	$ **161.44**	*16%*	-
4	38.32	$468.22	$ 569.42	$ **569.43**	*22%*	44,985
6	111.31	$1,055.81	$ 1,322.52	$ **1,322.52**	*25%*	313,437
8	237.21	$2,069.28	$ 2,621.45	$ **2,621.46**	*27%*	141,559
10	426.58	$3,593.75	$ 4,575.32	$ **4,575.32**	*27%*	22,877
12	689.04	$5,706.61	$ 7,283.30	$ **7,283.31**	*28%*	-
					$ 522,858
				Total Projected Rate Revenues	**$ 19,022,320**