

**BEFORE THE
PUBLIC UTILITIES COMMISSION
OF RHODE ISLAND**

**THE NARRAGANSETT)
BAY COMMISSION)** **DOCKET NO. 4026**

**DIRECT TESTIMONY
OF
THOMAS S. CATLIN**

**ON BEHALF OF THE
DIVISION OF PUBLIC UTILITIES AND CARRIERS**

APRIL 2009

EXETER

ASSOCIATES, INC.
5565 Sterrett Place
Suite 310
Columbia, Maryland 21044

TABLE OF CONTENTS

	<u>PAGE</u>
Introduction.....	1
Conversion to Monthly Billing.....	4
Rate Design.....	6

1 feasibility, financial and implementation analyses in conjunction with utility
2 construction projects. I also served as project engineer for two utility valuation
3 studies.

4 From June 1977 until September 1981, I was employed by Camp Dresser &
5 McKee, Inc. Prior to transferring to the Management Consulting Division of CDM in
6 April 1978, I was involved in both project administration and design. My project
7 administration responsibilities included budget preparation and labor and cost
8 monitoring and forecasting. As a member of CDM's Management Consulting
9 Division, I performed cost of service, rate, and financial studies on approximately 15
10 municipal and private water, wastewater and storm drainage utilities. These projects
11 included: determining total costs of service; developing capital asset and depreciation
12 bases; preparing cost allocation studies; evaluating alternative rate structures and
13 designing rates; preparing bill analyses; developing cost and revenue projections; and
14 preparing rate filings and expert testimony.

15 In September 1981, I accepted a position as a utility rates analyst with Exeter
16 Associates, Inc. I became a principal and vice-president of the firm in 1984. Since
17 joining Exeter, I have continued to be involved in the analysis of the operations of
18 public utilities, with particular emphasis on utility rate regulation. I have been
19 extensively involved in the review and analysis of utility rate filings, as well as other
20 types of proceedings before state and federal regulatory authorities. My work in
21 utility rate filings has focused on revenue requirements issues, but has also addressed
22 service cost and rate design matters. I have also been involved in analyzing affiliate
23 relations, alternative regulatory mechanisms, and regulatory restructuring issues.

1 This experience has involved electric, natural gas transmission and distribution, and
2 telephone utilities, as well as water and wastewater companies.

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

5 A. Yes. I have previously presented testimony on approximately 250 occasions before
6 the Federal Energy Regulatory Commission and the public utility commissions of
7 Arizona, California, Colorado, Delaware, the District of Columbia, Florida, Idaho,
8 Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland, Montana, Nevada, New
9 Jersey, Ohio, Oklahoma, Pennsylvania, Utah, Virginia and West Virginia, as well as
10 before this Commission. I have also filed rate case evidence by affidavit with the
11 Connecticut Department of Public Utility Control.

12 Q. ARE YOU A MEMBER OF ANY PROFESSIONAL SOCIETIES?

13 A. Yes. I am a member of the American Water Works Association (AWWA) and the
14 Chesapeake Section of the AWWA. I serve on the AWWA's Rates and Charges
15 Committee and the AWWA Water Utility Council's Technical Advisory Group on
16 Economics.

17 Q. ON WHOSE BEHALF ARE YOU APPEARING?

18 A. I am presenting testimony on behalf of the Division of Public Utilities and Carriers
19 (the Division).

20 Q. DO YOU HAVE PREVIOUS EXPERIENCE IN MATTERS INVOLVING
21 THE NARRAGANSETT BAY COMMISSION?

22 A. Yes, I presented testimony on behalf of the Division in the Narragansett Bay
23 Commission's (NBC's) general rate case in Docket No. 3162, its abbreviated rate
24 proceeding in Docket No. 3409, in the Commission's examination of issues related to
25 the implementation of a CSO abatement fee or stormwater fee by NBC in Docket No.

1 3432, NBC's general rate case in Docket No. 3483, its abbreviated rate filing in
2 Docket No. 3592, its compliance filing on Docket No. 3639, its abbreviated rate filing
3 in Docket No. 3707, its compliance rate filing in docket No. 3775 and its general rate
4 filings in Docket No. 3797 and Docket No. 3905.

5 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

6 A. Exeter Associates was retained by the Division to assist it in the evaluation of the
7 General Rate Filing submitted by NBC on December 22, 2008. My associate, Mr.
8 Lafayette K. Morgan, is addressing NBC's revenue requirements. This testimony
9 presents my findings and recommendations with regard to NBC's proposal to move to
10 monthly billing and with regard to the design of rates to recover the additional
11 revenues authorized in this proceeding.

12 Q. HAVE YOU PREPARED SCHEDULES TO ACCOMPANY YOUR
13 TESTIMONY?

14 A. Yes. I have prepared Schedules TSC-1 through TSC-3, which set forth my findings
15 and recommendations with regard to rate design.

16
17 **Conversion to Monthly Billing**

18 Q. HOW DOES NBC CURRENTLY BILL FOR SERVICE?

19 A. NBC currently bills its customers on a quarterly basis. The quarterly service charge
20 per dwelling unit (residential) or per meter (commercial and industrial customers) are
21 billed in advance. Charges based on water usage are billed in arrears following the
22 provision of the consumption data by the customers' water suppliers. For most
23 customers, water consumption data is provided quarterly. However, Cumberland
24 provides data semi-annually and Lincoln, East Smithfield and Smithfield only bill
25 their customers and provide data to NBC annually.

1 Q. WHAT CHANGE HAS NBC PROPOSED TO MAKE TO ITS BILLING
2 PROCEDURES?

3 A. NBC is proposing to convert to monthly billing for all customers. Instead of billing
4 one-quarter of the annual service charge in advance each quarter, one-twelfth of the
5 service charge would be billed in advance each month. In addition, NBC has
6 redesigned its billing software to allow it to bill for estimated usage on a monthly
7 basis. It is my understanding that NBC would begin billing customers for their
8 estimated monthly usage in the month after NBC receives the actual usage for the
9 prior quarter, six months or year for quarterly, semi-annually or annually billed
10 customers, respectively.

11 Q. WHAT IS YOUR POSITION WITH REGARD TO THIS PROPOSAL TO
12 CONVERT TO MONTHLY BILLING?

13 A. Under the specific conditions and considering the benefits discussed subsequently, I
14 believe that NBC's proposal to convert to monthly billing should be accepted.

15 Q. WHAT ARE THE SPECIFIC CONDITIONS THAT ARE IMPORTANT IN
16 ACCEPTING NBC'S PROPOSAL?

17 A. First, NBC has not requested recovery of the conversion costs associated with the
18 change, such as redesigning its billing software. Second, the ongoing costs are not
19 significant. The \$387,242 incremental expense requested by NBC represents an
20 incremental cost per bill of approximately \$0.25. Finally, the change will not have an
21 adverse affect on small customers because NBC has effectively proposed to divide
22 the quarterly service charge by three to determine the monthly service charge. It has
23 not proposed to assess the same customer charges for monthly billing that it now
24 assesses on quarterly basis.

1 Q. WHAT ARE THE BENEFITS THAT RESULT FROM THE CONVERSION
2 TO MONTHLY BILLING?

3 A. The conversion to monthly billing will result in a significant reduction in the amount
4 of NBC's unbilled receivables. This will occur because, instead of billing for
5 consumption or usage by at least three months, and as much as 12 or more¹ months,
6 in arrears, consumption will be billed only one month in arrears. As a result, over the
7 course of the first year after monthly billing is implemented, NBC will realize a one-
8 time increase in cash flow of as much as \$10 million dollars. This improvement in
9 cash flow will allow NBC to address the liquidity concerns discussed by Mr. Edge
10 and Ms. Gurghigian. This, in turn, will help NBC maintain or improve its recently
11 achieved AA- Standard and Poor's credit rating and help minimize NBC's cost of
12 borrowing.

13 The second benefit is that customers that are currently billed annually (or
14 semi-annually) for their consumption will no longer experience one large bill each
15 year (or every six months) for their usage charges. The average consumption charges
16 for a residential customer are \$204 per year at current rates and estimated FY 2009
17 consumption. Having those charges spread out over the course of a year will make it
18 easier for those customers to budget and pay their bills.

19

20 **Rate Design**

21 Q. HOW HAS NBC PROPOSED TO RECOVER THE REVENUE INCREASE
22 ALLOWED IN THIS PROCEEDING?

23 A. NBC has proposed to recover the allowed increase in revenue through a uniform
24 percentage increase in service charges and consumption charges.

¹ The lag can be more than 12 months depending on when Smithfield, East Smithfield and Lincoln provide their water consumption data to NBC relative to when NBC bills its customers.

1 Q. WHAT IS YOUR RECOMMENDATION REGARDING THE RECOVERY
2 OF THE ADDITIONAL REVENUES ALLOWED IN THIS PROCEEDING?

3 A. Rather than increasing both service charges and consumption charges, I am proposing
4 that the rate increase be recovered through an increase in the dwelling unit and meter
5 service charges. In order to maintain the same overall split of total revenues
6 recovered from residential and non-residential customers, I am proposing to allocate
7 the allowed increase between residential and non-residential customers in proportion
8 to test year revenues at present rates. I am then proposing to recover the revenue
9 increase allocated to the residential class through a uniform increase in the per
10 dwelling unit charge. To recover the portion of revenue allocated to non-residential
11 customers, I am proposing that the current service charges based on meter size be
12 increased by a uniform percentage.

13 Q. HAVE YOU PREPARED SCHEDULES SHOWING THE DEVELOPMENT
14 OF RATES UNDER YOUR RECOMMENDED METHODOLOGY?

15 A. Yes. Schedule TSC-1 shows the calculation of the percentage of test year revenue at
16 present rates derived from residential and non-residential customers. As shown there,
17 residential customers account for 56.06 percent of user fee revenue and non-
18 residential customers account for the remaining 43.94 percent of user fee revenue.

19 On Schedule TSC-2, I have provided a calculation showing the derivation of
20 rates based on NBCs requested revenue increase of \$8,990,368. As indicated on page
21 1 of this schedule, under my proposed methodology, residential dwelling unit charges
22 would increase by \$42.88 per year to recover 56.06 percent of NBC's requested
23 increase. By way of comparison, the average residential customer would experience
24 an increase of \$43.68 under NBC's rate proposal. Meter service charges would
25 increase by 44.24 percent to recover 43.94 percent of the additional revenues

1 requested by NBC. Page 2 of Schedule TSC-2 shows the derivation of the total
2 residential dwelling unit rate and metered service charges that would be required to
3 generate the revenues requested by NBC.

4 Schedule TSC-3 provides the calculation of the proposed rates in this
5 proceeding based on the Division's recommended revenue increase and using my
6 methodology. As shown on page 1 of Schedule 3, the residential dwelling unit would
7 increase by \$31.92 to recover 56.06 percent of the overall revenue increase of
8 \$6,692,683 recommended by Mr. Morgan on behalf of the Division. The annual
9 meter charges for commercial and industrial customers would increase by 32.93
10 percent. Page 2 of Schedule TSC-3 shows the calculation proposed dwelling unit and
11 meter service charges and provides a proof of revenue at proposed rates.

12 Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

13 A. I am proposing to recover the allowed revenue increase through an increase in the
14 residential dwelling unit charges and meter service charges for several reasons. First,
15 recovery on this basis is consistent with the fact that the major factor affecting NBC's
16 revenue requirement is the costs of the CSO project and the treatment of stormwater.
17 These costs are not a function of customers' wastewater volumes. Second, more than
18 50 percent of NBC's costs are debt service related costs. As customers reduce
19 consumption, recovery of additional revenue through service charges will provide a
20 more stable revenue stream to meet this high level of debt service. Finally, recovery
21 of additional revenues through fixed service charges will address concerns raised by
22 the rating agencies with regard to NBC's revenues and, this help maintain or improve
23 its credit rating. This will, in turn, assist in minimizing revenue requirements by
24 reducing borrowing costs.

1 Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

2 A. Yes, it does.

3

4

5

6 W:\3346\tsc\dirtest\direct.doc

**BEFORE THE
PUBLIC UTILITIES COMMISSION
OF RHODE ISLAND**

**THE NARRAGANSETT)
BAY COMMISSION)** **DOCKET NO. 4026**

**SCHEDULES ACCOMPANYING THE
DIRECT TESTIMONY
OF
THOMAS S. CATLIN**

**ON BEHALF OF THE
DIVISION OF PUBLIC UTILITIES AND CARRIERS**

APRIL 2009

EXETER

ASSOCIATES, INC.
5565 Sterrett Place
Suite 310
Columbia, Maryland 21044

THE NARRAGANSETT BAY COMMISSION
Determination of Percent of Revenue Based on
Test Year Billing Units and Current Rates
Rate Year Ended June 30 2010

<u>User Fee Revenues</u>	<u>Units (1)</u>	<u>Docket 3905 Rates</u>	<u>Revenue at Present Rates</u>	<u>Percent of Revenue</u>
Residential				
Dwelling Units	117,528	\$ 124.98	\$ 14,688,595	20.44%
Consumption	9,964,506	\$ 2.569	<u>\$ 25,598,816</u>	<u>35.62%</u>
Total Residential			\$ 40,287,411	56.06%
Non-Residential - Metered Accounts				
5/8"	3,688	\$ 281	1,036,360	
3/4"	966	420	405,658	
1"	1,079	699	753,878	
1 1/2"	826	1,401	1,157,712	
2"	1,686	2,239	3,775,515	
3"	77	4,195	325,052	
4"	39	6,991	274,296	
6"	56	13,987	783,272	
8"	17	22,379	386,452	
10"	<u>1</u>	<u>32,171</u>	<u>32,171</u>	
Total Flat Fees from Metered Accounts	8,436		\$ 8,930,366	12.43%
Commercial Consumption	5,713,560	\$ 3.725	\$ 21,283,011	29.62%
Industrial Consumption	569,139	\$ 2.395	<u>\$ 1,363,088</u>	<u>1.90%</u>
Total Non Residential			\$ 31,576,465	43.94%
Total User Fee Revenue at Current Rates			\$ 71,863,876	100.00%

Notes:

(1) Per Schedule WEE-2A.

THE NARRAGANSETT BAY COMMISSION

**Calculation of Required Rate Changes
Based on NBC Requested Revenue Increase
Rate Year Ended June 30 2010**

NBC Requested Revenue Increase (1)	\$ 8,990,368
Percent to Residential Customers (2)	<u>56.06%</u>
Residential Increase	\$ 5,040,000
Residential Dwelling Units	<u>117,528</u>
Increase in Rate per Dwelling Unit	<u>\$ 42.88</u>
NBC Requested Revenue Increase (1)	\$ 8,990,368
Percent to Non-Residential Customers (2)	<u>43.94%</u>
Increase to Non-Residential Customers	\$ 3,950,368
Non-Residential Meter Revenue	<u>8,930,366</u>
Percent Increase in Meter Revenue	<u>44.24%</u>

Notes:

(1) Per Schedule WEE-1

(2) Per Schedule TSC-1

THE NARRAGANSETT BAY COMMISSION

Determination of Required Rates and Proof of Revenue
 Based on NBC Requested Revenue Increase
 Rate Year Ended June 30 2010

<u>User Fee Revenues</u>	<u>Current Rate</u>	<u>Increase</u>	<u>Indicated Rate</u>	<u>Billing Units (1)</u>	<u>Revenue at Indicated Rates</u>
Residential					
Dwelling Units (per year)	\$ 124.98	\$ 42.88	\$ 167.86	117,528	\$ 19,728,177
Consumption (per Hcf)	\$ 2.569	0	\$ 2.569	9,114,443	\$ 23,415,004
Non-Residential - Metered Accounts (per year)					
5/8"	\$ 281	44.24%	\$ 405	3,688	1,493,686
3/4"	420	44.24%	606	966	585,307
1"	699	44.24%	1,008	1,079	1,087,137
1 1/2"	1,401	44.24%	2,021	826	1,670,047
2"	2,239	44.24%	3,230	1,686	5,446,589
3"	4,195	44.24%	6,051	77	468,865
4"	6,991	44.24%	10,084	39	395,652
6"	13,987	44.24%	20,175	56	1,129,800
8"	22,379	44.24%	32,279	17	557,410
10"	32,171	44.24%	46,403	1	46,403
Total Flat Fees from Metered Accounts				8,436	\$ 12,880,897
Commercial Consumption (per Hcf)	\$ 3.725	0	\$ 3.725	5,071,297	\$ 18,890,581
Industrial Consumption (per Hcf)	\$ 2.395	0	\$ 2.395	389,608	\$ 933,111
Total User Fee Revenue as Requested by NBC					\$ 75,847,770

Note:

(1) Per Schedule WEE-2A.

THE NARRAGANSETT BAY COMMISSION

**Calculation of Required Rate Changes
Based on Division Recommended Revenue Increase
Rate Year Ended June 30 2010**

Division Recommended Revenue Increase (1)	\$ 6,692,683
Percent to Residential Customers (2)	<u>56.06%</u>
Residential Increase	\$ 3,751,918
Residential Dwelling Units	<u>117,528</u>
Increase in Rate per Dwelling Unit	<u><u>\$ 31.92</u></u>
Division Recommended Revenue Increase (1)	\$ 6,692,683
Percent to Non-Residential Customers (2)	<u>43.94%</u>
Increase to Non-Residential Customers	\$ 2,940,765
Non-Residential Meter Revenue	<u>8,930,366</u>
Percent Increase in Meter Revenue	<u><u>32.93%</u></u>

Notes:

(1) Per Schedule LKM-1

(2) Per Schedule TSC-1

THE NARRAGANSETT BAY COMMISSION
Determination of Required Rates and Proof of Revenue
Based on Division Recommended Revenue Increase
Rate Year Ended June 30 2010

<u>User Fee Revenues</u>	<u>Current Rate</u>	<u>Increase</u>	<u>Proposed Rate</u>	<u>Billing Units (1)</u>	<u>Revenue at Proposed Rates</u>
Residential					
Dwelling Units (per year)	\$ 124.98	\$ 31.92	\$ 156.90	117,528	\$ 18,440,075
Consumption (per Hcf)	\$ 2.569	0	\$ 2.569	9,114,443	\$ 23,415,004
Non-Residential - Metered Accounts (per year)					
5/8"	\$ 281	32.93%	\$ 374	3,688	1,379,355
3/4"	420	32.93%	558	966	538,946
1"	699	32.93%	929	1,079	1,001,935
1 1/2"	1,401	32.93%	1,862	826	1,538,658
2"	2,239	32.93%	2,976	1,686	5,018,282
3"	4,195	32.93%	5,576	77	432,060
4"	6,991	32.93%	9,293	39	364,616
6"	13,987	32.93%	18,593	56	1,041,208
8"	22,379	32.93%	29,748	17	513,704
10"	32,171	32.93%	42,765	1	42,765
Total Flat Fees from Metered Accounts				<u>8,436</u>	<u>\$ 11,871,528</u>
Commercial Consumption (per Hcf)	\$ 3.725	0	\$ 3.725	5,071,297	\$ 18,890,581
Industrial Consumption (per Hcf)	\$ 2.395	0	\$ 2.395	389,608	<u>\$ 933,111</u>
Total User Fee Revenue at Division Recommended Rates					\$ 73,550,299

Notes:

(1) Per Schedule WEE-2A.