

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

**THE NARRAGANSETT)
BAY COMMISSION)** **DOCKET NO. 4478**

**DIRECT TESTIMONY
OF
THOMAS S. CATLIN**

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

May 16, 2014

EXETER

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TABLE OF CONTENTS

	<u>Page</u>
Introduction.....	1
Summary and Recommendations	5
Revenues from REC Sales	6
Personnel Costs.....	7
Workers Compensation – Old Claims	10
Postage Costs	10
Biosolids Disposal Costs.....	11
Maintenance and Service Agreements.....	13
Electricity Costs	15
Natural Gas Costs	16
Field’s Point Chemical Costs.....	18
Management Services Expense.....	20
Debt Service Expense	21
Special Master Funds Utilization.....	22
Operating Reserve.....	22
Rate Design.....	23

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Direct Testimony of Thomas S. Catlin

Introduction

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- Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?
- A. My name is Thomas S. Catlin. I am a principal with Exeter Associates, Inc. Our offices are located at 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044. Exeter is a firm of consulting economists specializing in issues pertaining to public utilities.
- Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.
- A. I hold a Master of Science Degree in Water Resources Engineering and Management from Arizona State University (1976). Major areas of study for this degree included pricing policy, economics, and management. I received my Bachelor of Science Degree in Physics and Math from the State University of New York at Stony Brook in 1974. I have also completed graduate courses in financial and management accounting.
- Q. WOULD YOU PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE?
- A. From August 1976 until June 1977, I was employed by Arthur Beard Engineers in Phoenix, Arizona, where, among other responsibilities, I conducted economic

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 more than 250 occasions before the
6 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 and have appeared as a witness on
12 behalf of the Louisiana Public Service Commission before the Nineteenth Judicial
13 District Court.

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

15 A. Yes. I am a member of the American Water Works Association (AWWA) and the
16 Chesapeake Section of the AWWA.

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 numerous Narragansett Bay
23 Commission (NBC) rate filings before this Commission. This includes NBC's
24 general rate case in Docket No. 3162, its abbreviated rate proceeding in Docket No.
25 3409, the Commission's examination of issues related to the implementation of a

1 CSO abatement fee or stormwater fee by NBC in Docket No. 3432, NBC's general
2 rate case in Docket No. 3483, its abbreviated rate filing in Docket No. 3592, its
3 compliance filing on Docket No. 3639, its abbreviated rate filing in Docket No. 3707,
4 its compliance rate filing in docket No. 3775, its general rate filing in Docket No.
5 3797, its general rate filing in Docket No. 4026, and its compliance rate filing in
6 docket No. 4151. I was also was involved in reviewing and evaluating NBC's
7 general rate case in Docket No. 4205 before it was withdrawn and reviewed and
8 provided memorandums to the Division which were provided to the Commission
9 regarding NBC's compliance filings in Dockets 4214, 4305 and 4352. Most recently,
10 I presented testimony on behalf of the Division in NBC's general rate filing in Docket
11 No. 4364.

12 In addition to filings before this Commission, I have also assisted in reviewing
13 a number of the filings that NBC has made with the Division seeking authorization to
14 issue new debt, including the most recent filing in Docket No. D-13-143.

15 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

16 A. Exeter Associates was retained by the Division to assist it in the evaluation of the
17 General Rate Filing submitted by NBC on December 23, 2014. This testimony
18 presents my findings and recommendations both with regard to the overall revenue
19 increase to which NBC is entitled and with regard to the design of rates to recover
20 those additional revenues.

21 Q. HAVE YOU PREPARED SCHEDULES TO ACCOMPANY YOUR
22 TESTIMONY?

23 A. Yes. I have prepared Schedules TSC-1 through TSC-15. Schedule TSC-1 provides a
24 summary of revenues and expenses under present and proposed rates. Schedules
25 TSC-2 through TSC-13 present the adjustments that I am recommending be made to

1 NBC's claimed revenues and operating expenses. Schedules TSC-14 and TSC-15 set
2 forth my findings and recommendations with regard to rate design.

3

4 **Summary and Recommendations**

5 Q. PLEASE SUMMARIZE THE RATE RELIEF REQUESTED BY NBC IN
6 ITS FILING.

7 A. As discussed in the testimony of NBC witness Walter E. Edge, NBC's filing seeks an
8 increase in revenues of \$4,898,768, which represents an overall revenue increase in
9 user fee revenues of 5.46 percent. To develop its claim, NBC started with the results
10 for the rate year in Docket No. 4364, which corresponded to fiscal year (FY) 2014, as
11 the test year. NBC then adjusted the FY 2014 rate year cost of service from Docket
12 No. 4364 to reflect changes to become effective for a FY 2015 rate year.

13 Q. PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.

14 A. As shown on Schedule TSC-1, I have determined the NBC's overall revenue
15 requirement to be \$95,383,177. This represents an increase over revenues at present
16 rates of \$2,489,039. The revenue increase that I have identified is \$2,409,729 less
17 than the revenue increase of \$4,898,768 requested by NBC. This difference is the
18 result of the adjustments to NBC's claimed revenues and operating expenses that are
19 summarized on Schedule TSC-2.

20 With regard to the development of rates to recover the NBC's overall cost of
21 service, I have accepted NBC's proposal to recover the additional revenues through a
22 uniform percentage increase in the flat fees and volumetric rates applicable to
23 residential, commercial and industrial customers.

24 Q. WHAT TIME PERIODS HAVE YOU UTILIZED IN MAKING YOUR
25 DETERMINATION OF NBC'S REVENUE REQUIREMENTS?

1 A. I have accepted NBC's use of the FY 2014 rate year from Docket No. 4364 as the test
2 year starting point as well as the use of a rate year ending June 30, 2015 as the basis
3 for determining NBC's revenue requirements and the revenue increase necessary to
4 recover those requirements. However, I have also utilized FY 2013 as a point of
5 comparison and have made several adjustments to the cost of service to reflect more
6 recent actual experience than the projected FY 2014 rate year costs from Docket No.
7 4364, which were developed using FY 2012 as a starting point.

8 Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

9 A. The remainder of my testimony is organized into sections corresponding to the issue
10 or topic being addressed. These sections are set forth in the Table of Contents for
11 this testimony.
12

13 **Revenues from REC Sales**

14 Q. PLEASE EXPLAIN THE DIVISION ADJUSTMENT TO REVENUES
15 FROM THE SALE OF RECS SHOWN ON SCHEDULE TSC-2.

16 A. In Docket No. 4364, revenues from the sale of renewable energy credits (RECs) were
17 estimated based on projections of energy generation from NBC's wind turbines at
18 Field's Point and estimated REC prices because those wind turbines were just
19 entering service. NBC made no adjustment to those revenues in this filing. I have
20 adjusted revenues for the rate year to reflect the actual sales of RECs during the 12
21 months ended December 31, 2013 and the price at which the RECs generated in the
22 first and second quarters of 2013 were sold. This adjustment, which is calculated in
23 conjunction with my adjustment to electricity costs on Schedule TSC-8, results in an
24 increase in miscellaneous revenue of \$61,630.
25

Personnel Costs

Q. HOW DID NBC DEVELOP ITS CLAIM FOR SALARY EXPENSE AND
RELATED PERSONNEL COSTS FOR THE FY 2015 RATE YEAR?

A. As discussed in more detail by NBC witness Walter E. Edge, NBC started with the salaries and wages approved in Docket No. 4364 for the FY 2014 rate year. These amounts were then adjusted to reflect union step increases, an allowance for compensated absence payments, and projected wage increases to take effect on July 1, 2014. Based on these projected salaries and wages and projected FY 2015 contribution rates, NBC adjusted union retirement, union retiree health, non-union retirement, and FICA costs to projected FY 2015 rate year levels.

Q. HAVE YOU PREPARED A SCHEDULE SHOWING THE
DEVELOPMENT OF YOUR PROJECTION OF RATE YEAR SALARIES
AND WAGES AND RELATED COSTS?

A. Yes. Schedule TSC-3 presents my calculation of FY 2015 rate year salaries and wages and related costs. As shown there, I have started with actual FY 2013 regular and overtime salaries and wages. I have then adjusted those amounts for the actual July 1, 2013 and projected July 1, 2014 union step increases and union and non-union wage increases. As discussed subsequently, I have also included an allowance for compensated absences based on the actual amount of such payments in FY 2013. For non-union employees, I have used a normalized level of overtime expenses.

As also shown on Schedule TSC-3, I have calculated the rate year level of capitalized wages and benefits (salary and fringe reimbursements) by escalating the FY 2013 amounts by the July 1, 2013 and July 1, 2014 non-union percentage salary increases. Finally, I have calculated FICA taxes and retiree benefits costs based on

1 my projections of FY 2015 rate year salaries and wages and the applicable 2015
2 employee contribution rates.

3 Q. PLEASE DISCUSS YOUR TREATMENT OF COMPENSATED
4 ABSENCES.

5 A. NBC has adjusted projected FY 2014 salaries from Docket No. 4364 to include an
6 additional \$250,000 for Compensated Absences. According to the responses to
7 COMM 1-30 and 2-13, this represents the projected increase in the payout of unused
8 sick leave to employees at the time of retirement. I am proposing to eliminate that
9 amount and instead base the allowance for Compensated Absences on the amounts
10 paid to retirees for unused sick leave in FY 2013.

11 Q. WHY HAVE YOU MADE THIS ADJUSTMENT?

12 A. I have revised the allowance for Compensated Absences to reflect actual experienced
13 costs for several reasons. First, the \$250,000 claimed by NBC is not known and
14 measurable. NBC has provided no support for this claim other than the response to
15 COMM 2-13 indicating that NBC is projecting approximately 13 additional
16 employees will become eligible for sick compensated absences in FY 2015 at an
17 average expense of \$19,230 each. By way of comparison, over the Fiscal Years 2009
18 through 2013, only three or four employees have retired and received compensation
19 for unused sick time in any year. The average payment has been roughly \$9,300 per
20 retired employee. Hence, the amounts claimed are not consistent with actual
21 experience. Finally, when long-term employees retire and are replaced, wage savings
22 normally occur because the new employees will be hired at a lower wage rate than the
23 retiring employees. These savings will at least partially offset the costs of paying for
24 unused sick leave.

1 Q. WHAT ALLOWANCE HAVE YOU INCLUDED FOR
2 UNCOMPENSATED ABSENCES PAYMENTS FOR UNUSED SICK
3 LEAVE?

4 A. Over the last five years, NBC paid out an average of approximately \$33,400 per year
5 to retiring employees for unused sick leave based on one-half of the accrued balance.
6 For FY 2013, the amount was \$53,900 and I have added that amount to the FY 2013
7 salaries and wages that I have used as my starting point to project rate year wages in
8 this case.

9 Q. PLEASE EXPLAIN WHY YOU NORMALIZED NON-UNION OVERTIME
10 RATHER THAN SIMPLY USING THE FY 2013 AMOUNT IN YOUR
11 DETERMINATION OF RATE YEAR SALARIES AND WAGES.

12 A. During FY 2013, non-union overtime was \$95,267 compared to \$59,947 in FY 2011
13 and \$66,499 in FY 2012. Because of the unusual increase in FY 2013, I utilized a
14 three-year average level of overtime to normalize non-union overtime expense. In
15 developing the average, I adjusted FY 2011 and FY 2012 to FY 2013 wage levels to
16 account for the wage increases that took place on July 1, 2012 and July 1, 2013.

17 Q. WHAT IS THE EFFECT OF YOUR ADJUSTMENT TO PERSONNEL ON
18 RATE YEAR EXPENSE?

19 A. The overall effect of my adjustment to salaries and wages and related costs is to
20 reduce rate year expenses by \$697,492. I would note that \$304,328 of this reduction
21 is due to NBC's decision to eliminate its claim for increased non-union retirement
22 funding as communicated by letter from Joseph A. Keough, Jr., Esq., to Patricia
23 Lucarelli, Esq., dated January 30, 2014.

1 **Workers Compensation – Old Claims**

2 Q. WHAT ADJUSTMENT ARE YOU PROPOSING TO MAKE TO THE
3 EXPENSE INCLUDED BY NBC FOR WORKERS COMPENSATION–
4 OLD CLAIMS?

5 A. Workers Compensation (W/C) Old Claims reflects amounts that NBC is paying for
6 workers compensation claims related to the period when NBC was self-insured for
7 such claims. According to the supplemental response to DIV 1-12, there are two
8 remaining claims for which the cost will total \$23,388 for FY 2015. As shown on
9 Schedule TSC-4, this is \$18,858 less than the amount that NBC has included in its
10 claimed cost of service based on the approved amount from Docket No. 4364.
11

12 **Postage Costs**

13 Q. WHAT ADJUSTMENT DID NBC MAKE TO POSTAGE COSTS?

14 A. NBC calculated rate year postage costs by escalating FY 2013 postage costs by the
15 average annual increase over the two-year period from FY 2011 through FY 2013 of
16 11.3 percent. This resulted in an increase on postage expense of \$112,627 compared
17 to the Docket No. 4364 amount that was based on actual FY 2012 postage costs.

18 Q. DO YOU AGREE WITH NBC’S METHOD OF PROJECTING RATE
19 YEAR POSTAGE COSTS?

20 A. No. NBC’s adjustment assumes that increases on the number of bills and increases in
21 postage rates from FY 2013 to FY 2015 will continue to increase at the same rate as
22 occurred from FY 2011 to FY 2013. However, NBC has provided no support for this
23 assumption. In fact, NBC has projected no growth in the number of customers in this
24 case compared to FY 2012.

1 Q. HOW ARE YOU PROPOSING TO PROJECT POSTAGE EXPENSE FOR
2 THE RATE YEAR?

3 A. My determination of rate year postage expense is presented on Schedule TSC-5. As
4 shown there, I have calculated the average postage expense per bill issued in FY 2013
5 (\$0.3797 per bill). I have then added \$0.035 to this amount to annualize the one-cent
6 postage increase that occurred in January 2013 and to reflect the full annual effect of
7 the three-cent postage increase that occurred on January 26, 2014. I then multiplied
8 this adjusted postage expense per bill by the FY 2013 number of bills to arrive at
9 annual postage expense for the rate year of \$405,586. This represents a reduction of
10 \$54,786 compared to NBC's claim.

11

12 **Biosolids Disposal Costs**

13 Q. HOW ARE THE COSTS FOR BIOSOLIDS DISPOSAL AT THE FIELD'S
14 POINT AND BUCKLIN POINT WASTEWATER TREATMENT
15 FACILITIES DETERMINED?

16 A. NBC has a contract for the disposal of the biosolids at the Field's Point Wastewater
17 Treatment Facility (Field's Point) and the Bucklin Point Wastewater Treatment
18 Facility (Bucklin Point) under which the costs are based on the tons of sludge
19 produced and the applicable rate for a given contract year. (Contract years
20 correspond to calendar years.) The disposal rate is adjusted annually based on the
21 increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers
22 (CPI-W) for Boston-Brockton-Nashua (Boston area) from November to November.

23 Q. HOW DID NBC DEVELOP ITS CLAIMED RATE YEAR SLUDGE
24 DISPOSAL COSTS PURSUANT TO THIS ARRANGEMENT?

1 A. For Bucklin Point, NBC estimated the quantity of biosolids for the rate year based on
2 the average tons of biosolids produced in FY 2011 through FY 2013. For Field's
3 Point, the tons of biosolids produced have been increasing due to the new (Biological
4 Nutrient Removal (BNR) facilities located there. Accordingly, NBC estimated the
5 quantity of sludge produced at Field's Point by increasing the FY 2013 quantity to FY
6 2015 levels based on the average annual percentage increase from FY 2011 to FY
7 2013.

8 To determine the rates applicable in the rate year, NBC escalated the contract
9 rate for calendar year 2013 by 1.90 percent to determine the rate for 2014 (applicable
10 to the first half of the rate year) and by an additional 1.90 percent to determine that
11 rate for 2015 (applicable to the second half of the rate year). The 1.90 percent annual
12 escalation rate used by NBC was based on the increase in the CPI-W for the Boston
13 area from November 2011 to November 2012.

14 Q. WHAT ADJUSTMENT ARE YOU PROPOSING TO MAKE TO NBC'S
15 CLAIMED BIOSOLIDS DISPOSAL COSTS?

16 A. I am proposing to adjust NBC's claimed costs to reflect revised sludge disposal rates
17 for the rate year. As noted previously, NBC escalated the disposal rate for 2013 by
18 1.90 percent per year to project the disposal rates for 2014 and 2015. This escalation
19 rate of 1.90 percent was based on the historical increase in the CPI-W for the Boston
20 area from November 2011 to November 2012 that was used to establish the disposal
21 rate for 2013 and not the prospective level of inflation that will determine 2014 and
22 2015 sludge disposal rates. I have revised the 2014 sludge disposal rate to reflect the
23 actual increase in the CPI for the Boston area from November 2012 to November
24 2013 of 0.94 percent. I have revised the 2015 sludge disposal rate to reflect projected
25 inflation from November 2013 to November 2014 of 2.0 percent based on the April

1 10, 2014 Blue Chip Economic Indicators consensus forecast of the increase in the CPI
2 for all urban consumers (CPI-U) from the fourth quarter of 2013 to the fourth quarter
3 of 2014.

4 Q. HAVE YOU PREPARED A SCHEDULE SHOWING THE EFFECT OF
5 YOUR ADJUSTMENT TO THE 2014 AND 2015 SLUDGE DISPOSAL
6 RATES ON PROJECTED RATE YEAR BIOSOLIDS DISPOSAL COSTS?

7 A. Yes. Schedule TSC-6 presents my adjustment to biosolids disposal costs. As shown
8 there, I have calculated biosolids disposal costs for the first half of the rate year using
9 NBC's estimated sludge quantities and the actual rate that will be in effect during the
10 period from July 1, 2014 through December 31, 2014. As noted previously, I have
11 determined the disposal rate for the second half of the rate year by escalating the 2014
12 disposal rate by 2.0 percent. This reflects the projected increase in the CPI-U from
13 the fourth quarter of 2013 to the fourth quarter of 2014 based on the April 10, 2014
14 Blue Chip Economic Indicators consensus forecast. I have then applied this rate to
15 NBC's projected sludge quantities for the second half of the rate year. As shown on
16 Schedule TSC-6, I have estimated biosolids disposal costs to be \$4,975,663, which is
17 \$45,063 less than the estimate of \$5,020,726 that NBC included in its filed claim.
18

19 **Maintenance and Service Agreements**

20 Q. HOW DID NBC DEVELOP ITS CLAIM FOR MAINTENANCE AND
21 SERVICE AGREEMENT COSTS?

22 A. NBC projected the rate year level of maintenance and service (M&S) agreement costs
23 by escalating the projected expense for the FY 2014 rate year in Docket No. 4364 by
24 an annual growth rate of 12.1 percent. The 12.1 percent annual escalation rate was

1 calculated based on the increase in M&S agreement expense from FY 2011 to FY
2 2013.

3 Q. DO YOU AGREE WITH THIS PROJECTION?

4 A. No, I believe that NBC's projection is overstated for several reasons. First, the
5 projected cost of M&S agreements for FY 2014 from Docket No. 4364 is \$1,007,802.
6 This amount is inconsistent with actual experience for the first 6 months of FY 2014,
7 during which the cost of M&S agreements totaled \$345,744. Second, the FY 2014
8 starting point that NBC has used represents a 36 percent increase over the actual cost
9 of M&S agreements in FY 2013 expense of \$742,665. NBC's has not provided any
10 explanation why an increase of this magnitude will take place from FY 2013 to FY
11 2014. Finally, one of the causes of the projected increase in M&S agreement costs
12 included in the FY 2014 rate year in Docket No. 4364 was the cost of new service
13 agreements totaling \$108,434 for laboratory instruments and the new Field's Point
14 facilities. However, all but \$3,835 of the cost for these new agreements was already
15 incurred beginning in FY 2013.

16 Q. HOW ARE YOU PROPOSING TO PROJECT THE FY 2015 RATE YEAR
17 COST OF M&S AGREEMENTS?

18 A. Consistent with the practice for projecting M&S agreement costs in recent dockets, as
19 well as for other costs, I am proposing to utilize actual FY 2013 M&S costs of
20 \$742,665 as my starting point. I have then increased these amounts to rate year levels
21 based on the average compound rate of growth of 11.44 percent based on experience
22 over the period FY 2011 to FY 2013.¹ As shown on Schedule TSC-7, this results in

¹ This rate of growth differs from the 12.1 percent rate used by NBC because NBC has taken the increase from FY 2011 to FY 2013 of 24.2 percent and divided by 2. I have calculated the compound rate of growth, which accounts for the compounding of the percentage increase from year to year. To demonstrate, if the FY 2011 cost of \$597,968 is multiplied by 1 plus a growth rate of 11.44 percent (1.11444209 unrounded) two times, the result is the actual cost FY 2013 cost of \$742,665. If the same is done with NBC's rate of 12.1 percent, the calculated amount is \$751,418, a difference of nearly \$9,000.

1 rate year M&S agreement costs of \$922,306. This represents a reduction of \$138,246
2 compared to NBC's claimed rate year M&S agreement expense.
3

4 **Electricity Costs**

5 Q. WHAT ANALYSIS DID YOU UNDERTAKE WITH REGARD TO RATE
6 YEAR ELECTRICITY COSTS IN THIS PROCEEDING?

7 A. In its filing, NBC did not make any adjustment to the electricity costs included for the
8 FY 2014 rate year in Docket No. 4364. Because the electricity usage included for the
9 new Field's Point BNR facilities and the electricity generated by the new wind
10 turbines at Field's Point were both estimated in Docket No. 4364 without the benefit
11 of actual experience, I undertook a review of the projected electricity costs from
12 Docket No. 4364 to ensure that the costs remain representative.

13 Q. WHAT WERE YOUR FINDINGS?

14 A. Based on the information provided in discovery by NBC, the electricity usage at
15 Field's Point has been less than was projected at the time of Docket No. 4364. In
16 addition, the electricity for Interceptor Maintenance (IM), the Central Office Building
17 (COB) and Bucklin Point varied from the amounts included in Docket No. 4364, but
18 overall were not significantly different. However, NBC is under a Consent
19 Agreement to begin operating BNR facilities at Bucklin Point beginning May 1, 2014
20 and the electricity usage at those facilities was not considered in Docket No. 4364.
21 Finally, the electricity produced by the wind turbines at Field's Point was 6.5 GWh
22 during calendar year (CY) 2013, which is below the 7.1 GWh approved for the FY
23 2014 rate year, but well above the 5.3 GWh initially projected by NBC.

24 Q. HAVE YOU PREPARED A SCHEDULE SHOWING YOUR
25 ADJUSTMENT TO RATE YEAR ELECTRICITY COSTS?

1 A. Yes, my adjustment to the rate year electricity costs included by NBC in its filing is
2 shown on Schedule TSC-8. In developing this estimate, I have utilized the updated
3 projections of electricity usage at each location as provided by NBC in response to
4 DIV 2-6. The one change I made to the amounts provided in response is that I used
5 the actual electricity generated by the wind turbines in CY 2013 rather than the
6 straight line projection based on the last 6 months of 2013. I based my estimate on
7 the National Grid delivery costs and the energy supply rate utilized in Docket No.
8 4364 because NBC indicated that those delivery rates had not changed and electricity
9 is being supplied under a three year contract.

10 As shown on Schedule TSC-8, there, I have estimated net electricity costs for
11 the rate year in this proceeding to be to be \$3,310,383. This is \$545,420 less than that
12 the final 2014 rate year estimate of electricity costs accepted in Docket No. 4364,
13 primarily due to lower than estimated usage at Field's Point, offset by higher usage at
14 Bucklin Point. I would note that because the Tunnel Pump Station at Field's Point is
15 on a separate meter from the other Field's Point facilities, I have broken the usage for
16 this location out separately from the total Field's Point usage provided by NBC.
17 Because a separate estimate was not provided in discovery, I based the usage at the
18 Tunnel Pump Station on the amount accepted in Docket No. 4364 and set the usage
19 for the other Field's Point facilities as the difference between the total provided by
20 NBC and the Tunnel Pump Station usage.

21
22 **Natural Gas Costs**

23 Q. DID YOU ALSO REVIEW NATURAL GAS COSTS?

24 A. Yes. As with electricity costs, NBC did not make any adjustment to the natural gas
25 costs included for the FY 2014 rate year in Docket No. 4364. Therefore, I undertook

1 a review of natural gas costs to determine whether the amounts from Docket No.
2 4364 are still representative for the rate year in this proceeding.

3 Q. WHAT WERE YOUR FINDINGS?

4 A. I determined that the estimates of natural gas usage from Docket No. 4364 are
5 consistent with current estimates. While the 2014 gas cost recovery (GCR) rates
6 implemented by National Grid on November 1, 2013 were initially in line, albeit
7 slightly higher than those used for gas supply costs in Docket No. 4364, National
8 Grid's GCR rates beginning April 1, 2014 increased significantly as a result of the
9 run-up in gas prices that occurred this winter due to the cold weather and the resulting
10 supply and delivery constraints. Due to this run-up in prices, National Grid
11 implemented a surcharge of \$0.2582 effective from April 1, 2014 through October
12 31, 2014 to recover roughly one-half of the projected 2014 GCR year short-fall in gas
13 cost revenues.² The remaining short-fall will be recovered during the 2015 GCR year
14 that begins November 1, 2014. Accordingly, I am proposing to update natural gas
15 costs to reflect these higher supply prices.

16 Q. HOW DID YOU ESTIMATE THE NATURAL GAS SUPPLY RATE THAT
17 WILL BE IN EFFECT DURING THE FY 2015 RATE YEAR?

18 A. To develop my estimate of National Grid's supply rate for the FY 2015, I started with
19 the GCR rate that is in effect from April through October 2014, including the
20 surcharge of \$0.2582 per therm. For FY 2015, I adjusted this rate to recognize that
21 the remaining approximately one-half of the winter 2014 shortfall would be recovered
22 over the full 12 months of the 2015 GCR year. Because April through October sales
23 represent approximately 25 percent of total annual volumes, I calculated the estimated
24 2015 GCR rate by adjusting the 2014 GCR rate to include a surcharge of one quarter

² National Grid's 2014 GCR year runs from November 1, 2013 through October 31, 2014.

1 of the current surcharge of \$0.2582 or \$0.06455. I then calculated a composite
2 natural gas supply rate for FY 2015 based on the use of four months of the 2014 GCR
3 rate and eight months of the 2015 GCR rate. This calculation is shown at the bottom
4 of page 2 of Schedule TSC-9.

5 Q. PLEASE EXPLAIN HOW YOU USED THIS RATE TO DETERMINE
6 YOUR UPDATED ESTIMATE OF NATURAL GAS COSTS.

7 A. Schedule TSC-9 presents my calculation of natural gas costs based on current
8 estimates of natural gas usage and gas supply costs. As shown on page 2 of this
9 schedule, I started with the estimate of FY 2014 natural gas usage at each applicable
10 location as well as the projected supply and delivery costs provided by NBC in
11 response to DIV 1-22. I then revised the supply rate to reflect the updated supply rate
12 for FY 2015 as discussed above to calculate projected costs at each location. As
13 summarized on page 1 of Schedule TSC-9, I have estimated total natural gas costs for
14 the FY 2015 rate year of \$418,633. This is \$59,418 greater than the natural gas costs
15 included by NBC in its cost of service.
16

17 **Field's Point Chemical Costs**

18 Q. WHAT ADJUSTMENT ARE YOU PROPOSING TO MAKE TO NBC'S
19 CLAIM FOR CHEMICAL COSTS AT THE FIELD'S POINT TREATMENT
20 FACILITY?

21 A. In its filing, NBC made no adjustment to the chemical costs incorporated in the FY
22 2014 rate year expense in Docket No. 4364. I am proposing to update chemical costs
23 to reflect updated chemical quantities and prices.

1 Q. HAVE YOU PREPARED A SCHEDULE SHOWING YOUR ANALYSIS
2 OF THE UPDATED CHEMICAL COSTS THAT SHOULD BE INCLUDED
3 IN THIS PROCEEDING?

4 A. Yes. Schedule TSC-10 presents my analysis of chemical costs for the FY 2015 rate
5 year in this proceeding. As shown there, I have first updated the two-year average of
6 hypochlorite and bisulfate usage at Field's Point, consistent with past practice for
7 estimating these chemical quantities.³ To estimate the polymer (sodium hydroxide)
8 and carbon feed requirements for the Field's Point BNR facilities, I relied on the
9 response to DIV 1-26, which provided the quantities of those chemicals purchased
10 during the May to October 2013 permit period. Because those quantities were
11 identified as reflecting deliveries and not necessarily use, I have assumed that 90
12 percent was used and 10 percent remained in inventory at the end of the permit
13 season. Finally, for the new Bucklin Point BNR facilities, I utilized the engineer's
14 estimates of polymer and carbon feed usage provided in response to DIV 1-23.⁴

15 To estimate rate year chemical costs, I multiplied my estimates of rate year
16 quantities utilized by the most recent bid prices for each chemical. As shown on
17 Schedule TSC-10, I have estimated total chemical costs for the rate year to be
18 \$866,243, which is \$168,146 less than the projection from Docket No. 4364 included
19 by NBC.
20

³ The costs of hypochlorite and bisulfate for the Bucklin Point are included as part of the cost of the Bucklin Point Management Contract.

⁴ These costs will be assessed to NBC through the Bucklin Point Management contract, but will be incremental to the current costs.

Management Services Expense

Q. WHAT ADJUSTMENTS ARE YOU PROPOSING TO MAKE TO
MANAGEMENT SERVICES EXPENSE?

A. I am proposing to adjust NBC's estimate of management services expense to reflect three changes. First, in response to DIV 1-27, NBC notes that it incorrectly identified the FY 2014 Bucklin Point Management Contract amount as the FY 2013 management contract amount and, as a result, overstated the FY 2015 rate year expense by applying an inflation factor for two years instead of one. I have corrected this error. Second, NBC applied an inflation rate of 3.39 percent per year to adjust the Bucklin Point contract from FY 2014 to FY 2015 levels. This percentage is the increase in the Consumer Price Index for all Urban Customers (CPI-U) for the two years from April 2011 to April 2013. The FY 2015 base contract amount will be determined based on the increase in the CPI-U from April 2013 to April 2014. Pending the release of the actual April 2014 CPI-U, I have based my estimate of the increase on the projected increase in the CPI-U from the first quarter of 2013 to the first quarter of 2014 according to the April 10, 2014 Blue Chip Economic Indicators. Third, to determine total management services expense, NBC added \$193,000 for other management and audit services to the Bucklin Point Management Contract expense. NBC indicated that it left the cost for these other services at the test year level. It is not clear where the \$193,000 NBC utilized came from, but the amounts incurred for other management and audit services was \$148,720 in FY 2011, \$67,827 in FY 2012 and \$128,581 in FY 2013. I have reduced the \$193,000 included by NBC to the FY 2013 expense of \$128,581.⁵

⁵ \$193,000 was included in Docket No 4364 as the test year amount. However, the test year in that case was FY 2012 and the response to DIV 1-28 identifies the FY 2012 cost of other Management and Audit Services as \$67,827.

1 Q. HOW DO THE THREE ADJUSTMENTS THAT YOU HAVE MADE
2 AFFECT PROJECTED RATE YEAR MANAGEMENT SERVICES
3 EXPENSE?

4 A. As shown on Schedule TSC-11, I have calculated rate year management and audit
5 services expense to be \$2,094,952. This represents a reduction of \$142,365 from
6 NBC's filed claim.

7

8 **Debt Service Expense**

9 Q. WHAT ADJUSTMENT ARE YOU PROPOSING TO MAKE TO RATE
10 YEAR DEBT SERVICE EXPENSE?

11 A. I am proposing to update debt service expense to reflect NBC's current debt service
12 schedule. NBC's principal and interest payment schedule was revised in late 2013, as
13 a result of the issuance of new debt and the restructuring of the repayment schedule
14 for its 2008 Variable Rate Demand Bonds. These plans were submitted and approved
15 in Division Docket No. D-13-143.

16 Q. WHAT DEBT SERVICE REQUIREMENTS DO YOU INCLUDE FOR THE
17 RATE YEAR?

18 As shown on Schedule TSC-12, I included debt service requirements of \$44,764,435
19 based on the payment requirements for FY 2016. This is consistent with the
20 requirement of the Trust Indenture that revenues be sufficient to cover the highest
21 debt service during the three year certificate period. After adding the 25 percent
22 coverage requirement, I have determined the total amount required for debt service
23 and coverage is \$55,955,544. This is \$162,369 less than the amount included in
24 NBC's filing.

25

1 **Special Master Funds Utilization**

2 Q. PLEASE EXPLAIN YOUR RECOMMENDATION WITH REGARD TO
3 THE UTILIZATION OF SPECIAL MASTER FUNDS.

4 A. Beginning with Docket No. 3592, NBC began setting aside \$150,000 per year out of
5 the Debt Service Coverage Account to be available to pay for a special master for
6 oversight of the CSO project if the Commission appointed one. This continued
7 through Docket No. 3707 when the Commission determined that only \$150,000
8 should remain set-aside for such a purpose. As a result, \$660,154 that was set aside
9 in the Special Master Account was freed up. The Commission authorized this
10 \$660,154 to be flowed back to customers over two years in Docket No. 3797.

11 Since Docket No. 3797 was decided in 2007, the \$150,000 which the
12 Commission determined should remain set aside has not been used and, with interest,
13 has grown to \$161,674. At this point, there does not appear to be any need for NBC
14 to retain the unused Special Master funds. Therefore, I am proposing that the
15 \$161,674 balance be returned to ratepayers over two years. I have treated this amount
16 as a source of miscellaneous revenue in order to facilitate compliance with NBC's
17 bond indenture, as was done in Docket No. 3797. As shown on Schedule TSC-13,
18 this adjustment increases miscellaneous revenue by \$80,337.

19
20 **Operating Reserve**

21 Q. HOW HAVE YOU CALCULATED THE OPERATING RESERVE
22 ALLOWANCE INCLUDED IN THE DIVISION'S RECOMMENDED
23 TOTAL COST OF SERVICE?

24 A. I have set the allowed operating reserve included in my determination of NBC's
25 overall cost of service equal to 1.5 percent of total expenses excluding personnel

1 services, debt service and debt coverage. This is the same method for determining
2 NBC's operating reserve that the Commission has adopted in NBC's last rate case in
3 Docket No. 4364. As shown on Schedule TSC-1, this results in a reduction of
4 \$353,935 to NBC's requested operating reserve allowance based on 1.5 percent of
5 total expenses excluding debt service and debt coverage.

6

7 **Rate Design**

8 Q. HOW ARE YOU PROPOSING TO DESIGN RATES TO RECOVER THE
9 REVENUE INCREASE THAT YOU HAVE IDENTIFIED ON BEHALF OF
10 THE DIVISION?

11 A. For this proceeding, I am accepting NBC's proposal to recover the revenue increase
12 through uniform percentage increases in user fee rates including residential,
13 commercial and industrial flat fees or service charges and residential commercial, and
14 industrial measured fees or usage charges.

15 Q. HAVE YOU PREPARED SCHEDULES SHOWING THE CALCULATION
16 OF THE RATES THAT YOU ARE PROPOSING?

17 A. Yes. Schedule TSC-14 shows the derivation of the uniform percentage increase in
18 existing rates necessary to generate the required rate increase. As shown on that
19 schedule, the overall percentage increase in rates is 2.77 percent.

20 Schedule TSC-15 shows the calculation of the proposed rates based on the
21 application of the 2.77 percent increase to the current rates. Schedule TSC-15 also
22 provides a proof of revenue at present and proposed rates.

23 Q. DOES THIS COMPLETE YOUR TESTIMONY?

24 A. Yes, it does.

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

**THE NARRAGANSETT)
BAY COMMISSION) DOCKET NO. 4478**

**DIRECT TESTIMONY
OF
THOMAS S. CATLIN**

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

May 16, 2014

EXETER
ASSOCIATES, INC.
10480 Little Patuxent Parkway
Suite 300
Columbia, Maryland 21044

THE NARRAGANSETT BAY COMMISSION

Summary of Revenues and Expenses at
Present and Proposed Rates
Rate Year Ended June 30, 2015

	Rate Year Amount Per NBC	Division Adjustments	Rate Year at Present Rates	Allowable Rate Increase	Rate Year at Proposed Rates
<u>Revenue</u>					
User Fee Revenue	\$ 89,740,797	\$ -	\$ 89,740,797	\$ 2,489,039	\$ 92,229,836
Other Service Revenue	1,476,784	-	1,476,784	-	1,476,784
Miscellaneous	1,534,090	142,467	1,676,557	-	1,676,557
Total Revenue	\$ 92,751,671	\$ 142,467	\$ 92,894,138	\$ 2,489,039	\$ 95,383,177
<u>Expenses</u>					
Personnel Services	22,561,064	(716,350)	21,844,714	-	21,844,714
Operating Supplies & Expenses	15,277,232	(892,243)	14,384,989	-	14,384,989
Professional Services	3,080,449	(142,365)	2,938,084	-	2,938,084
Capital Outlays	-	-	-	-	-
Amortization	-	-	-	-	-
Debt Service	44,894,330	(129,895)	44,764,435	-	44,764,435
Debt Coverage	11,223,583	(32,474)	11,191,109	-	11,191,109
Total Expenses	\$ 97,036,658	\$ (1,913,327)	\$ 95,123,331	\$ -	\$ 95,123,331
Operating Reserve	613,781	(353,935)	259,846	-	259,846
Total Cost of Service	\$ 97,650,439	\$ (2,267,262)	\$ 95,383,177	\$ -	\$ 95,383,177
Revenue Surplus/(Deficiency)	\$ (4,898,768)	\$ 2,409,729	\$ (2,489,039)	\$ 2,489,039	\$ -

THE NARRAGANSETT BAY COMMISSION

Summary of Division Adjustments to
Rate Year Revenues and Expenses at Present Rates
Rate Year Ended June 30, 2015

Description	Amount	Source
<u>Revenue Adjustments</u>		
Revenue from REC Sales	\$ 61,630	Schedule TSC-8
Special Master Fund Amortization	80,837	
Totas Division Adjustment to Revenues	<u>\$ 142,467</u>	
<u>Expense Adjustments</u>		
Personnel Expense (See Note 1)	(697,492)	Schedule TSC-3
Workers' Compensation-Old Claims	(18,858)	Schedule TSC-4
Postage Expense	(54,786)	Schedule TSC-5
Biosolids Disposal Costs	(45,063)	Schedule TSC-6
Maintenance & Service Agreements	(138,246)	Schedule TSC-7
Electricity Expense	(545,420)	Schedule TSC-8
Natural Gas Costs	59,418	Schedule TSC-9
Field's Point Chemicals	(168,146)	Schedule TSC-10
Management and Audit Services	(142,365)	Schedule TSC-11
Debt Service	(162,369)	Schedule TSC-12
Operating Reserve	<u>(353,935)</u>	See Note (2)
Total Division Adjustments to Expenses	<u>\$ (2,267,262)</u>	
Total Divison Adjustments to Operating Income	<u><u>\$ 2,409,729</u></u>	

Notes:

- (1) Includes \$304,328 reduction to reflect NBC's decision to eliminate claim for additional funding of non-union retirement plan.
- (2) Adjusted to reflect 1.5% of Division Operating Expenses excluding Personnel and Debt costs per Schedule TSC-1. Refer to direct testimony for explanation.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Personnel Costs
Rate Year Ended June 30, 2015

Base Salaries		
	Union	Non-Union
FY 2013 Amount (1)	\$ 5,568,502	\$ 8,449,979
Compensated Absences (2)	-	53,900
7/1/2013 Contracted Steps (3)	144,301	-
Adjusted Base Salaries	\$ 5,712,803	\$ 8,503,879
7/1/2013 Increase (4)	2.25%	4.15%
7/1/2013 Total Salaries	\$ 5,841,341	\$ 8,856,790
7/1/14 Contracted Steps (5)	75,618	-
Base Salary	5,916,960	8,856,790
7/1/14 COLA/Merit (5)	3.00%	3.00%
Rate Year Salaries Per Division	6,094,468	9,122,494
Rate Year Salaries Per NBC (5)	(6,308,848)	(9,111,463)
Rate Year Adjustment	\$ (214,380)	\$ 11,031

Overtime			
	Union	Non-Union	Non-Union Ltd
FY 2013 Amount (1)	\$ 439,426	\$ 76,451	\$ 23,282
7/1/2013 Contracted Steps (3)	10,913	-	-
Adjusted Overtime	\$ 450,339	\$ 76,451	\$ 23,282
7/1/2013 Increase (4)	2.25%	3.00%	3.00%
7/1/2013 Total Overtime	\$ 460,472	\$ 78,744	\$ 23,980
7/1/14 Contracted Steps (5)	5,719	-	-
Adjusted Overtime	466,191	78,744	23,980
7/1/14 COLA/Merit (5)	3.00%	3.00%	3.00%
Rate Year Overtime Per Division	\$ 480,176	\$ 81,106	\$ 24,700
Rate Year Overtime Per NBC (5)	(477,134)	(72,665)	(23,301)
Rate Year Adjustment	\$ 3,042	\$ 8,441	\$ 1,399

Capitalized Salaries and Fringe Benefits		
	Salary Reimbursement Account 59000	Fringe Reimbursement Account 59001
FY 2013 Amount (1)	\$ (1,236,491)	\$ (670,080)
7/1/2013 Increase (4)	1.0415	1.0415
7/1/2014 Increase (5)	1.0300	1.0300
Rate Year Reimbursement Per Division	(1,326,440)	(718,825)
Rate Year Reimbursement Per NBC (5)	1,209,343	660,799
Rate Year Adjustment	\$ (117,097)	\$ (58,026)

THE NARRAGANSETT BAY COMMISSION

Adjustment to Personnel Costs
Rate Year Ended June 30, 2015

FICA Taxes			
	FICA		Total FICA
	Social Security	Medicare	
Rate Year Salaries	\$ 15,216,962	\$ 15,216,962	
Overtime & Limited	585,983	585,983	
Wages Over FICA Limit	(120,000)	-	
Wages Subject to FICA	15,682,945	15,802,945	
Percent	6.20%	1.45%	
Rate Year FICA Per Division	972,343	229,143	1,201,485
Rate Year FICA Per NBC (5)			(1,216,056)
Rate Year Adjustment			\$ (14,571)

Retirement Benefits			
	Union Retirement	Union Retiree Health	Non-Union Retirement
Salaries	\$ 6,094,468	\$ 6,094,468	\$ 9,122,494
Overtime & Limited			105,806
	6,094,468	6,094,468	9,228,300
Employer Contribution Rate (5)	24.33%	6.75%	10%
	1,482,784	411,377	922,830
Increase to Maximum per Actuary Report			
Rate Year FICA Per Division	1,482,784	411,377	922,830
Rate Year FICA Per NBC (5)	(1,534,943)	(425,847)	(1,173,533)
Rate Year Adjustment	\$ (52,159)	\$ (14,470)	\$ (250,703)

Notes:

- (1) Amounts per Schedule WEE-3.
- (2) Reflects FY 2013 amount per response to COMM 1-32.
- (3) Per Schedule WEE-4 in Docket No. 4364
- (4) Per response to DIV 1-6.
- (5) Per Schedule WEE-4.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Workers' Compensation Claims Expense
Rate Year Ended June 30, 2015

	<u>Amount</u>
Ongoing Worker's Comp-Old Claims (1)	\$ 23,388
Amount per NBC (2)	<u>42,246</u>
Adjustment to Rate Year Expense	<u><u>\$ (18,858)</u></u>

Notes:

- (1) Per supplemental response to DIV. 1-12.
- (2) Per Schedule WEE-1.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Postage Expense
Rate Year Ended June 30, 2015

	<u>Amount</u>
FY 2013 Postage Expense (1)	\$ 371,359
FY 2013 Bills (2)	<u>977,919</u>
Average Postage expense per bill	\$ 0.3797
Postage Increases (3)	<u>\$ 0.035</u>
Adjusted Postage per Bill	\$ 0.4147
Number of Bills (2)	<u>977,919</u>
Adjusted Postage Expense per Division	\$ 405,586
Amount per NBC (1)	<u>460,372</u>
Adjustment to Rate Year Expense	<u><u>\$ (54,786)</u></u>

Notes:

(1) Per Schedule WEE-6.

(2) Per response to DIV 1-13.

(3) Per response to DIV 1-14. Reflects one-half year effect of \$0.01 increase on January 27, 2013 and full annual effect of \$0.03 increase on January 26, 2014.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Biosolids Disposal Costs
Rate Year Ended June 30, 2015

	<u>7/1/2013 to 12/31/2013</u>	<u>1/1/2014 to 6/30/2014</u>	<u>Total</u>
Field's Point-Dry Tons (1)	4,682	4,682	9,364
Bucklin Point-Dry Tons (1)	<u>1,050</u>	<u>1,050</u>	<u>2,100</u>
Total Biosolids for Disposal-Dry Tons	5,732.0	5,732.0	11,464
Rate per Ton (2)	<u>\$ 429.72</u>	<u>\$ 438.33</u>	
Biosolids Disposal Costs	\$ 2,463,155	\$ 2,512,508	\$ 4,975,663
Amount per NBC (1)			<u>5,020,726</u>
Adjustment to Rate Year Expense			<u><u>\$ (45,063)</u></u>

Notes:

(1) Per Schedule WEE-7.

(2) Rates calculated as follows:

Disposal rate for Calendar Year 2013	\$ 425.72
Increase in CPI for Boston Area from November 2012 to November 2013	<u>1.009</u>
Disposal rate for Calendar Year 2014	\$ 429.72
Projected increase in CPI-U from 4Q14 to 4Q15 per Blue Chip Economic Indicators dated 4/10/2014	<u>1.0200</u>
Disposal rate for Calendar Year 2014	\$ 438.33

THE NARRAGANSETT BAY COMMISSION

Adjustment to Maintenance & Service Agreement Costs
Rate Year Ended June 30, 2015

	Amount
FY 2013 Maintenance & Service Agreement Expense (1)	\$ 742,665
Annual Escalation Rate (2)	1.1144
Rate Year Allowance for Existing Agreements (3)	\$ 922,306
Amount per NBC (1)	1,060,552
Adjustment to Rate Year Expense	\$ (138,246)

Notes:

(1) Per Schedule WEE-8.

(2) Based on compound annual growth rate from FY 2011 to FY 2013.

(3) Reflects escalation for 2 years from FY 2013 to FY 2015 11.44% per year.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Electricity Costs to Reflect
Updated Supply Costs and Offset for REC Revenues
Rate Year Ended June 30, 2015

	Cost per NBC (1)	Cost per Division (2)	Adjustment
Field's Point			
Field's Point	\$ 1,140,063	1,495,366	
New Operations Bldg.	72,381	-	
BNR Facilities	1,141,598	-	
Subtotal	\$ 2,354,043	\$ 1,495,366	\$ (858,677)
Tunnel Pump Station	710,568	710,568	-
Turbines	(708,885)	(650,035)	58,849
Bucklin Point (3)	1,155,276	1,429,257	273,981
Interceptor Maintenance	131,948	110,719	(21,229)
COB	151,301	152,958	1,657
Total Electricity Cost	\$ 3,794,253	\$ 3,248,833	\$ (545,420)
Plus: Turbine O&M	62,000	62,000	-
Total Electricity Costs	\$ 3,856,253	\$ 3,310,833	\$ (545,420)
Revenue from REC Sales (4)	\$ 355,650	\$ 417,280	\$ 61,630

Notes:

- (1) Per WEE-R8 Detail and Updated Schedule TSC-9 in Catlin surrebuttal in Docket No. 4364.
- (2) Per page 2 of this schedule. Amounts for Field's Point Operations Building and BNR Facilities are not separately metered and are included as part of line labeled Field's Point.
- (3) Division amount Includes estimated usage of new BNR facilities at Bucklin Point.
- (4) Division amount based on 6,520 MWh of RECs generated in CY 2013 and a price of \$64 based on actual sale price for first and second quarter RECs per DIV 1-24.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Electricity Costs to Reflect
Updated Supply Costs and Offset for REC Revenues
Rate Year Ended June 30, 2015

DETAIL (1)

	COB	FP	TPS	New Ops	BNR	Turbines	FP Total	BP	IM
FY 2014 Projected kWh Generated (2)	1,411,900	14,901,132	6,411,600	-	-	(6,522,501)	21,312,732	13,906,095	841,997
Rates:									
Customer Chg.	\$ 825	\$ 825	\$ 825					\$ 825	\$ 1,245
Supply	0.06410	0.06410	0.06410	0.06410	0.06410	0.06410	0.06410	0.06410	0.06410
Avg. Delivery per kWh	0.02955	0.02823	0.03741	0.02823	0.02823	0.02823		0.03051	0.04105
Capacity Chg	\$ 0.00334	\$ 0.00334	\$ 0.00334	\$ 0.00334	\$ 0.00334	\$ 0.00334		\$ 0.00334	\$ 0.00334
Customer Chg.	\$ 9,900	\$ 9,900	\$ 9,900	\$ -	\$ -	\$ -	\$ 19,800	\$ 9,900	\$ 14,940
Supply	90,503	955,163	410,984	-	-	(418,092)	948,054	891,381	53,972
Avg. Delivery per kwh	41,720	420,702	239,840	-	-	(184,149)	476,392	424,343	34,565
Capacity Charge	4,717	49,788	21,423	-	-	(21,793)	49,418	46,464	2,813
Subtotal	\$ 146,840	\$ 1,435,552	\$ 682,146	\$ -	\$ -	\$ (624,034)	\$ 1,493,664	\$ 1,372,088	\$ 106,290
Gross Earnings Tax	\$ 6,118	\$ 59,814	\$ 28,422	\$ -	\$ -	\$ (26,001)	\$ 62,235	\$ 57,169	\$ 4,429
Total	\$ 152,958	\$ 1,495,366	\$ 710,568	\$ -	\$ -	\$ (650,035)	\$ 1,555,899	\$ 1,429,257	\$ 110,719

Notes:

(1) All amounts per WEE-R8 Detail in Docket 4364 except FY 2015 kWh usage per response to DIV 2-6.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Natural Gas Costs to Reflect
National Grid Gas Supply Costs for the Rate Year
Rate Year Ended June 30, 2015

	Cost Per Division (1)
Field's Point	242,385
Bucklin Point	109,829
Interceptor Maintenance	23,211
COB	27,481
Lab	15,727
Total	\$ 418,633
Amount per NBC (2)	359,215
Adjustment to Natural Gas Costs	\$ 59,418

Notes:

(1) Division amounts per page 2 of this schedule.

(2) Per Schedule WEE-1.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Natural Gas Costs to Reflect
National Grid Gas Supply Costs for the Rate Year
Rate Year Ended June 30, 2015

DETAIL (1)

	COB	BP Admin	BP Plant	BP Exch	BP	FP	FP Admin	TPS	ESPS	FP	IM	Lab
FY 2015 Projected Therms	23,141	5,663	30,403	48,191	84,257	89,805	36,658	55,585	22,663	204,711	14,229	12,163
Rates:												
Customer Charge	\$ 70.00	\$ 70.00	\$ 175.00	\$ 175.00		\$ 175.00		\$ 175.00	\$ 70.00		\$ 70.00	\$ 70.00
Avg. Delivery / Therm	0.3239	0.3458	0.3860	0.4377		0.3334	0.3334	0.3239	0.4059		0.7316	0.3935
Supply (2)	0.7917	0.7917	0.7917	0.7917		0.7917	0.7917	0.7672	0.7917		0.7917	0.7917
Cost:												
Customer Charge	\$ 840	\$ 840	\$ 2,100	\$ 2,100	\$ 5,040	\$ 2,100	\$ -	\$ 2,100	\$ 840	\$ 5,040	\$ 840	\$ 840
Delivery	7,495	1,958	11,736	21,093	34,788	29,941	12,222	18,004	9,199	69,366	10,410	4,786
Supply	18,321	4,483	24,070	38,153	66,706	71,099	29,022	42,645	17,942	160,708	11,265	9,629
Subtotal	\$ 26,656	\$ 7,282	\$ 37,906	\$ 61,346	\$ 106,534	\$ 103,140	\$ 41,244	\$ 62,749	\$ 27,981	\$ 235,114	\$ 22,515	\$ 15,256
Gross Earnings Tax	\$ 824	\$ 225	\$ 1,172	\$ 1,897	\$ 3,295	\$ 3,190	\$ 1,276	\$ 1,941	\$ 865	\$ 7,272	\$ 696	\$ 472
Total	\$ 27,481	\$ 7,507	\$ 39,079	\$ 63,243	\$ 109,829	\$ 106,329	\$ 42,519	\$ 64,689	\$ 28,847	\$ 242,385	\$ 23,211	\$ 15,727

Notes:

(1) Per response to DIV 1-22 except Supply rate per Note (2).

(2) Reflects Composite of following National Grid 2014 GCR rate for 4 Months and
2015 GCR rate for 8 months:

	Line	High Load Factor	All Other	
2014 GCR Rate	(1)	\$ 0.63810	\$ 0.66260	
2014 surcharge	(2)	\$ 0.25820	\$ 0.25820	surcharge effective April-October 2014
Adjusted rate	(3)=(1)+(2)	\$ 0.89630	\$ 0.92080	
2015 Surcharge	(4)	0.06455	0.06455	1/4 of surcharge to reflect annual volumes
2015 GCR Rate	(5)=(1)+(4)	\$ 0.70265	\$ 0.72715	
Weighted Rate	(6)	\$ 0.76720	\$ 0.79170	4/12 x line 3 +8/12 x line 5

THE NARRAGANSETT BAY COMMISSION

Adjustment to Field's Point and Bucklin Point Chemicals Costs
Rate Year Ended June 30, 2015

	<u>Hypochlorite (1)</u>	<u>Bisulfate (1)</u>	<u>Polymer (2) (Tons)</u>	<u>Carbon Feed (2)</u>	<u>Total</u>
FY 2012 Gallons	450,103	193,037			
FY 2013 Gallons	<u>575,050</u>	<u>199,570</u>			
Average Field's Point	512,577	196,304	377	68,182	
FY 2013 Bucklin Point (3)	<u>N/A</u>	<u>N/A</u>	<u>8.3</u>	<u>24,000</u>	
Total	512,577	196,304	385	92,182	
Unit Price (4)	<u>\$ 0.5611</u>	<u>\$ 1.3772</u>	<u>477.17</u>	<u>1.52</u>	
Annualized Expense	\$ 287,607	\$ 270,349	\$ 183,925	\$ 140,117	\$ 881,998
Amount per NBC (5)	<u>369,547</u>	<u>311,329</u>	<u>196,468</u>	<u>172,800</u>	<u>1,050,144</u>
Adjustment to Rate Year Expense	<u><u>\$ (81,940)</u></u>	<u><u>\$ (40,980)</u></u>	<u><u>\$ (12,543)</u></u>	<u><u>\$ (32,683)</u></u>	<u><u>\$ (168,146)</u></u>

Notes:

(1) FY 2012 Gallons per WEE-11 in Docket No. 4364. FY 2013 Gallons per response to DIV 1-26.

(2) Carbon Feed and Polymer quantities per response to DIV 1-26. Amounts for Bucklin Point reflect engineer's estimates. Amounts provided for Field's Point reflect purchases rather than chemicals used and have been reduced by 15% to reflect carryover inventory.

(3) Per response to DIV 1-26 and supplemental information per letter dated January 28, 2014.

(4) Per Schedule WEE-R9 in Docket No. 4364.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Management and Audit Services Costs
Rate Year Ended June 30, 2015

	<u>Amount</u>
FY 2014 Bucklin Point Base Contract (1)	\$ 1,912,350
Projected Increase in CPI-U (2)	<u>1.0140</u>
Estimated FY 2015 Bucklin Point Contract	\$ 1,966,271
Other Management and Audit Expense (3)	<u>128,581</u>
Total Management and Audit Services Expense per Division	\$ 2,094,852
Amount per NBC (4)	<u>2,237,217</u>
Adjustment to Rate Year Expense	<u><u>\$ (142,365)</u></u>

Notes:

- (1) Per Schedule WEE-13.
- (2) Based on compound annual growth rate from FY 2011 to FY 2013.
- (3) Per response to DIV 1-28. Reflects FY 2013 actual amount.
- (4) Per Schedule WEE-13.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Debt Service Expense
Rate Year Ended June 30, 2015

	<u>Amount</u>
Total Debt Service (1)	\$ 44,764,435
Coverage Requirement at 25%	<u>\$ 11,191,109</u>
Total Debt Service and Coverage	\$ 55,955,544
Amount per NBC (2)	<u>56,117,913</u>
Adjustment to Rate Year Expense	<u><u>\$ (162,369)</u></u>

Note:

(1) Per response to DIV 1-39. Reflects FY 2016 expense.

(2) Per Schedule WEE-1.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Return Unused Special Master Funds
Rate Year Ended June 30, 2015

	<u>Amount</u>
Special Master Fund Balance	\$ 161,674
Amortiazation Period	<u>2</u>
Annual Amortization	\$ 80,837
Amount per NBC Filing	<u>-</u>
Increase in Miscellaneous Revenue	<u><u>\$ 80,837</u></u>

Note:

(1) Per response to COMM 1-47.

THE NARRAGANSETT BAY COMMISSION

Calculation of Uniform Percentage Increase
Based on Division Recommended Revenue Increase
Rate Year Ended June 30, 2015

Division Recommended Revenue Increase (1)	<u><u>\$ 2,489,039</u></u>
Revenues from Services Subject to Increase (2)	
Flat Fees-Residential	\$ 23,895,712
Measured Fees-Residential	27,511,057
Flat Fees-Commercial and Industrial	14,468,800
Measured Fees-Commercial	22,569,231
Measured Fees-Industrial	<u>1,295,997</u>
Total Revenue Subject to Increase	<u><u>89,740,797</u></u>
Uniform Percentage Increase	<u><u>2.77%</u></u>

Notes:

(1) Per Schedule TSC-1

(2) Per Schedule TSC-15.

THE NARRAGANSETT BAY COMMISSION

Calculation of Proposed Rates and
Proof of Revenues at Present and Proposed Rates
Rate Year Ended June 30, 2015

	Current Rate	Increase	Proposed Rates	Billing Units (1)	Revenue at Present Rates	Revenue at Proposed Rates
Flat Fees						
Residential	\$ 202.47	2.77%	\$ 208.09	118,021	\$ 23,895,712	\$ 24,558,480
Commercial & Industrial						
Meter Size						
5/8"	\$ 484	2.77%	497.00	3,685	1,783,540	1,831,445
3/4"	723	2.77%	743.00	1,016	734,568	754,888
1"	1,202	2.77%	1,235.00	1,161	1,395,522	1,433,835
1.5"	2,413	2.77%	2,480.00	843	2,034,159	2,090,640
2"	3,853	2.77%	3,960.00	1,457	5,613,821	5,769,720
3"	7,219	2.77%	7,419.00	84	606,396	623,196
4"	12,030	2.77%	12,364.00	41	493,230	506,924
6"	24,069	2.77%	24,737.00	52	1,251,588	1,286,324
8"	38,509	2.77%	39,577.00	13	500,617	514,501
10"	55,359	2.77%	56,894.00	1	55,359	56,894
Total Commercial & Industrial Flat Fees				8,353	\$ 14,468,800	\$ 14,868,367
Measured Fees						
Residential	\$ 3.267	2.77%	3.358	8,420,893	27,511,057	28,277,359
Commercial	4.738	2.77%	4.869	4,763,451	22,569,231	23,193,243
Industrial	3.046	2.77%	3.130	425,475	1,295,997	1,331,737
Total Measured Fees					\$ 51,376,285	\$ 52,802,338
Other Revenue					\$ 3,153,341	\$ 3,153,341
Total Revenue					\$ 92,894,138	\$ 95,382,527
Target Revenue (2)						95,383,177
Variance						\$ (650)

Notes:

(1) Per Schedule WEE-15

(2) Per Schedule TSC-1.