

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

**THE NARRAGANSETT)
BAY COMMISSION) DOCKET NO. 4364**

**DIRECT TESTIMONY
OF
THOMAS S. CATLIN**

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

March 22, 2013

EXETER

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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 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, its general rate
4 filing in Docket No. 3797, its general rate filing in Docket No. 4026, and its
5 compliance rate filing in docket No. 4151. I was also was involved in reviewing and
6 evaluating NBC's general rate case in Docket No. 4205 before it was withdrawn and
7 reviewed and provided memorandums to the Division which were provided to the
8 Commission regarding NBC's compliance filings in Dockets 4214, 4305 and 4352. I
9 have also assisted in reviewing the a number of the filings that NBC has made with
10 the Division seeking authorization to issue new debt, including the most recent filing
11 in Docket No. D-13-13.

12 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

13 A. Exeter Associates was retained by the Division to assist it in the evaluation of the
14 General Rate Filing submitted by NBC on October 5, 2012. This testimony presents
15 my findings and recommendations both with regard to the overall revenue increase to
16 which NBC is entitled and with regard to the design of rates to recover those
17 additional revenues.

18 Q. HAVE YOU PREPARED SCHEDULES TO ACCOMPANY YOUR
19 TESTIMONY?

20 A. Yes. I have prepared Schedules TSC-1 through TSC-14. Schedule TSC-1 provides a
21 summary of revenues and expenses under present and proposed rates. Schedules
22 TSC-2 through TSC-12 present the adjustments that I am recommending be made to
23 NBC's claimed revenues and operating expenses. Schedules TSC-13 and TSC-14 set
24 forth my findings and recommendations with regard to rate design.

25

1 **Summary and Recommendations**

2 Q. PLEASE SUMMARIZE THE RATE RELIEF REQUESTED BY NBC IN
3 ITS FILING.

4 A. As discussed in the testimony of NBC witness Walter E. Edge, NBC's filing seeks an
5 increase in revenues of \$12,483,704, which represents an overall revenue increase of
6 14.50 percent. To develop its claim, NBC utilized the results for fiscal year (FY)
7 2012 as the test year. NBC then adjusted the test year cost of service to reflect
8 changes to become effective for a FY 2014 rate year. The increase sought in this
9 docket is in addition to the increase of \$5,877,586 that was approved in NBC's
10 Compliance filing in Docket No. 4352 to cover additional debt service effective
11 January 1, 2013.

12 Q. PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.

13 A. As shown on Schedule TSC-1, I have determined the NBC's overall revenue
14 requirement to be \$93,377,869. This represents an increase over revenues at present
15 rates of \$7,291,683. The revenue increase that I have identified is \$5,192,022 less
16 than the revenue increase of \$12,483,704 requested by NBC. This difference is the
17 result of the adjustments to NBC's claimed revenues and operating expenses that are
18 summarized on Schedule TSC-2.

19 With regard to the development of rates to recover the NBC's overall cost of
20 service, I have accepted NBC's proposal to recover the additional revenues through a
21 uniform percentage increase in the flat fees and volumetric rates applicable to
22 residential, commercial and industrial customers. However, as I discuss in the final
23 section of my testimony, given the nature of NBC's costs, it would be appropriate to
24 reevaluate the possibility of implementing a stormwater fee that applies to more than
25 just wastewater customers.

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

3 A. Consistent with NBC's filing, I have utilized a test year ended June 30, 2012 and a
4 rate year ending June 30, 2014 as the basis for determining NBC's revenue
5 requirements and the revenue increase necessary to recover those requirements.

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

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

10

11

Revenues

12 Q. PLEASE EXPLAIN THE DIVISION ADJUSTMENT TO REVENUES AT
13 PRESENT RATES SHOWN ON SCHEDULE TSC-1.

14 A. I have calculated rate year revenues at present rates based on the billing determinants
15 shown on Schedule WEE-15 accompanying Mr. Edge's testimony. As Mr. Edge
16 notes on page 7 of his direct testimony, this amount is \$1,703 greater than the
17 revenues Mr. Edge utilized as his starting point based on adjusting test year revenues
18 by the percentage increases allowed in Docket Nos. 4305 and 4352. Because Mr.
19 Edge uses the billing determinants on Schedule WEE-15 to calculate revenues at
20 proposed rates, the \$1,703 is effectively included in Mr. Edge's final revenues. I
21 have simply used the billing determinants to calculate revenues at both present and
22 proposed rates for purposes of consistency.

23

1 **Grant Related Costs**

2 Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO GRANT RELATED
3 COSTS.

4 A. In developing projected revenues and expenses for the rate year, NBC adjusted the
5 test year revenues and expenses that it used as the starting point to remove grant
6 revenues and the related operating expenses. However, in response to Division data
7 request set 1, question 1 (DIV. 1-1), NBC stated that it had determined that an
8 additional \$4,247 should have been removed from operating expenses. As shown on
9 Schedule TSC-3, I have reduced operating expenses for the rate year by this amount.
10

11 **Employee Health Insurance**

12 Q. WHAT CHANGES ARE YOU PROPOSING TO MAKE TO EMPLOYEE
13 HEALTH INSURANCE COSTS?

14 A. I am proposing to make two adjustments to NBC's rate year claim for employee
15 health insurance costs. First, I have revised the growth rate used to project medical
16 and dental premiums for the FY 2014 rate year. In its filing, NBC estimated the rate
17 year premiums by escalating the premiums for FY 2013 by the percentage increase in
18 premiums experienced from FY 2012 to FY 2013. Because the percentage increase
19 for a single year can be distorted by various factors, I have revised the calculation of
20 rate year premiums to use an the average annual increase in medical and dental
21 premiums that NBC experienced over the three year period from FY 2010 to FY
22 2013. This change results in only a minor difference in the growth rate for medical
23 premiums. However for dental premiums, the three-year average increase was
24 reduced from the 7.5 percent increase used by NBC to approximately 2.3 percent
25 overall.

1 expense by \$20,374 to reflect the amounts that are no longer being paid. This
2 adjustment is shown on Schedule TSC-5.

3
4 **Biosolids Disposal Costs**

5 Q. HOW ARE THE COSTS FOR BIOSOLIDS DISPOSAL AT THE FIELD'S
6 POINT AND BUCKLIN POINT TREATMENT FACILITIES
7 DETERMINED?

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

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

17 A. NBC estimated the quantity of biosolids for the rate year based on the average tons of
18 sludge at each facility in FY 2011 and FY 2012. To determine the rates applicable in
19 the rate year, NBC escalated the contract rate for calendar year 2012 by 3.12 percent
20 per year to determine the rate for 2013 (applicable to the first half of the rate year)
21 and by an additional 3.12 percent to determine that rate for 2014 (applicable to the
22 second half of the rate year). The 3.12 percent annual escalation rate used by NBC
23 was based on the increase in the CPI-W for the Boston area from November 2010 to
24 November 2011.

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

3 A. I am proposing to adjust NBC's claimed costs to reflect revised sludge disposal rates
4 for the rate year. As noted previously, NBC escalated the disposal rate for 2012 by
5 3.12 percent per year to project the disposal rates for 2013 and 2014. This escalation
6 rate of 3.12 percent was based on the historical increase in the CPI-W for the Boston
7 area from November 2010 to November 2011 that was used to establish the disposal
8 rate for 2012 and not the prospective level of inflation that will determine 2013 and
9 2014 sludge disposal rates. I have revised the 2013 sludge disposal rate to reflect the
10 actual increase in the CPI for the Boston area from November 2011 to November
11 2012 of 1.90 percent. I have revised the 2014 sludge disposal rate to reflect projected
12 inflation from November 2012 to November 2013 based on the Blue Chip Economic
13 Indicators consensus forecast of the increase in the CPI for all urban consumers
14 (CPI-U) from the fourth quarter of 2012 to the fourth quarter of 2013.

15 Q. HAVE YOU PREPARED A SCHEDULE SHOWING THE EFFECT OF
16 YOUR ADJUSTMENT TO THE 2013 AND 2014 SLUDGE DISPOSAL
17 RATES ON PROJECTED RATE YEAR BIOSOLIDS DISPOSAL COSTS?

18 A. Yes. Schedule TSC-6 presents my adjustment to biosolids disposal costs. As shown
19 there, I have calculated biosolids disposal costs for the first half of the rate year using
20 NBC's estimated sludge quantities and the actual rate that will be in effect during the
21 period from July 1, 2012 through December 31, 2013. For the second half of the rate
22 year, I have escalated the 2013 disposal rate by 1.9 percent. As noted previously, this
23 reflects the projected increase in the CPI-U from the fourth quarter of 2012 to the
24 fourth quarter of 2013 based on the February 10, 2013 Blue Chip Economic
25 Indicators consensus forecast. I have then applied this rate to NBC's projected sludge

1 quantities for the second half of the rate year. As shown on Schedule TSC-6, I have
2 estimated biosolids disposal costs to be \$4,223,730, which is \$76,364 less than the
3 estimate of \$4,300,094 that NBC included in its filed claim.

4
5 **Maintenance and Service Agreements**

6 Q. HOW DID NBC DEVELOP ITS CLAIM FOR MAINTENANCE AND
7 SERVICE AGREEMENT COSTS?

8 A. NBC projected the rate year level of maintenance and service (M&S) agreement costs
9 by escalating the test year expense for these agreements by a 13.8 percent annual
10 growth rate for two years and then adding the cost for two new agreements. The 13.8
11 percent annual escalation rate was calculated based on the increase in M&S
12 agreement expense from FY 2010 to FY 2012. The two new agreements, totaling
13 \$108,434, are identified as being associated with the new Field's Point facilities and a
14 new maintenance agreement for laboratory instruments.

15 Q. DO YOU AGREE WITH THIS PROJECTION?

16 A. No. The growth rate utilized by NBC is largely driven by the increase in M&S
17 agreement costs from \$597,968 in FY 2011 to \$735,174 in FY 2012. However, in
18 Docket No. 4205, NBC noted that FY 2011 costs were expected to increase by
19 \$106,867 because the costs associated with two service agreements that had
20 previously been charged to capital would be charged to expense prospectively.
21 Accordingly, basing the annual growth rate for the period from FY 2010 to FY 2012
22 significantly overstates the normal growth rate.

23 Q. DO YOU HAVE ANY OTHER COMMENTS WITH REGARD TO THE
24 PROJECTED INCREASE IN THE COSTS OF M&S AGREEMENTS?

1 A. Yes. In dockets prior to Docket 4205, NBC was able to provide a breakdown of the
2 amounts spent on M&S agreements by vendor/provider. However, NBC's new
3 Oracle accounting software is not capable of providing that information. As a result,
4 it was not possible to determine whether the increase from FY 2010 to FY 2012, other
5 than the increase due to agreements being expensed instead of capitalized, was the
6 result of normal growth or new agreements (or some other cause).

7 Q. WHAT IS YOUR RECOMMENDATION FOR ESTABLISHING THE
8 ALLOWABLE LEVEL OF M&S AGREEMENT COSTS FOR THE RATE
9 YEAR?

10 A. I am proposing to establish the allowable level of M&S agreement expense for the
11 rate year by escalating the FY 2012 amount for projected inflation from FY 2012 to
12 FY 2014 and adding the cost of the two new agreements that NBC has identified. As
13 shown on Schedule TSC-7, this results in rate year M&S agreement costs of
14 \$899,322. This represents a reduction of \$161,230 compared to NBC's claimed rate
15 year M&S agreement expense.

16

17

Natural Gas Costs

18 Q. PLEASE SUMMARIZE HOW NBC DEVELOPED ITS RATE YEAR
19 PROJECTION OF NATURAL GAS COSTS.

20 A. NBC first estimated the quantities of natural gas that would be required at each of its
21 existing facilities based on the average therms of gas used at each facility in FY 2011
22 and FY 2012. NBC then projected the costs at each facility based on the average rate
23 per therm paid to National Grid for delivery at that facility in FY 2012 plus the two

1 year average National Grid GCR rate for FY 2011 and FY 2012.² To the projected
2 costs at its existing facilities, NBC added the projected costs of natural gas at the new
3 Field's Point Biological Nutrient Removal (BNR) facilities based on the estimated
4 therms of usage provided by SEA consultants multiplied by the estimated delivery
5 rate and the historical average supply rate for FY 2011 and FY 2012.

6 Q. WHAT CONCERN DO YOU HAVE WITH REGARD TO NBC'S
7 ESTIMATE OF RATE YEAR NATURAL GAS COSTS?

8 A. By utilizing National Grid's average GCR rate over the 24 months ended June 30,
9 2012, NBC has overstated its rate year natural gas costs by failing to recognize the
10 decline in natural gas commodity or supply costs that took place both during that
11 period and that has taken place subsequently. During the two year historical period
12 that NBC utilized, National Grid's primary GCR rate was: \$1.0801 per therm for the
13 months of July through October of 2010; \$0.9091 per therm for the months from
14 November 2010 through October 2011; and \$0.7896 per therm for the period from
15 November 2011 through July 2012. Since then, National Grid's primary GCR rate
16 had been further reduced to \$0.6725 per therm for the 12 months from November 1,
17 2012 through October 2013. Moreover, based on National Grid's hedged volumes
18 and prices for the year ended October 2014 compared to those for the year ended
19 October 2013, as reported to the PUC on a quarterly basis, the GCR rates for the 2014
20 year can be expected to decline further.

21 Q. HOW ARE YOU PROPOSING TO ACCOUNT FOR THE DECLINE THAT
22 HAS TAKEN PLACE IN NATURAL GAS SUPPLY COSTS?

² National Grid has two separate GCR rates for non-residential accounts: one that applies to small and large, low load factor accounts and a slightly lower rate for large, high load factor commercial/industrial customers. NBC has facilities that qualify for both of these GCR rates.

1 A. To account for the decline in natural gas costs, I have developed a projection of
2 National Grid's GCR rates for the period November 1, 2013 through October 31,
3 2014 (the 2014 GCR rates) by adjusting the 2013 GCR rates to account for the known
4 decline in National Grid's hedged gas costs. As shown on page 2 of Schedule TSC-8,
5 I have compared the average cost of gas for the 2013 and 2014 GCR years based on
6 the prices that National Grid has paid for its hedged gas purchases in each month of
7 those two years. As shown there, the average cost for the 2014 GCR year is \$0.5563
8 per dekatherm (or \$0.05563 per therm) less than the cost for the 2013 GCR year.
9 Accordingly, I have reduced National Grid's 2011 GCR rates by this amount to
10 estimate the GCR rates that will be in effect for the 12 months ending October 2014.

11 Page 1 of Schedule TSC-8 shows my calculation of NBC's natural gas supply
12 costs for the rate year. I have used the same therms of gas that NBC utilized in
13 preparing its projection of rate year costs. For the GCR rates applicable in the rate
14 year I have used composite rates based on averages of four months (July through
15 October) of the 2013 GCR rates and eight months (November through June) of the
16 2014 GCR rates. Because I am not proposing any adjustment to delivery rates, I have
17 not included those costs in the calculation of my adjustment. As shown on page 1 of
18 Schedule TSC-8, I have estimated rate year gas supply costs to be \$212,028. This is
19 \$95,937 less than NBC's projection before accounting for gross earnings tax savings
20 of \$2,967.

21

22

Electricity Costs

23 Q.

PLEASE SUMMARIZE HOW NBC DEVELOPED ITS RATE YEAR
24 PROJECTION OF ELECTRICITY COSTS.

1 A. Similar to natural gas, NBC first estimated the quantities of electricity (kWh) that
2 would be required at each of its existing facilities based on the average kWh used at
3 each facility in FY 2011 and FY 2012. NBC then projected the rate year costs at each
4 facility based on National Grid's tariffed delivery rates for each facility in FY 2012
5 plus National Grid's Standard Offer supply rate for FY 2012.³ To the projected costs
6 at existing facilities, NBC added the projected costs of electricity at the new Field's
7 Point BNR facilities based on the estimated electricity usage provided by SEA
8 consultants multiplied by the estimated delivery rate and National Grid's Standard
9 Offer supply rate for FY 2012. Finally, NBC reflected an offset to the cost of
10 electricity at the Field's Point facilities to reflect the reduced purchases that will be
11 required during the rate year due to the kWh that will be generated by the three new
12 wind turbines installed there in late 2012.

13 Q. WHAT ADJUSTMENTS HAVE YOU IDENTIFIED WITH REGARD TO
14 NBC'S ESTIMATE OF RATE YEAR ELECTRICITY COSTS?

15 A. I have identified three adjustments that should be made to NBC's estimate of rate
16 year electricity costs. First, I have updated the Standard Offer rates to reflect
17 National Grid's average rate for the most recent 12 months available. For the G-02
18 rate, information on approved rates was available through June 2013. For the G-32
19 rate, approved rates were available through March 2013. However, National Grid
20 recently filed for approval of G-32 rates for April-June of 2013 and I have used those
21 proposed rates pending Commission approval. National Grid's Standard Offer rates
22 have been gradually declining due to reductions in the market for electricity and those

³ National Grid's G-32 Standard Offer for Industrial Customers was applied to all facilities except the Interceptor Maintenance (IM) facilities for which the G-02 Standard Offer rate for Large Customers was used.

1 reductions should be taken into account in projecting NBC's rate year electricity
2 costs.

3 Second, I have increased the projected kWh that will be available from the
4 three wind turbines at Field's Point to reduce the amount of electricity that must be
5 purchased at that facility. In developing its estimate of the kWh that will be
6 generated by those three wind turbines, NBC reduced the engineer's estimate that
7 7,113,000 kWh per year that will be generated by 25 percent. However, based on the
8 information submitted to the Division in Division Docket D-12-7 seeking approval to
9 construct the wind turbines, the engineer's estimate of the kWh generation already
10 assumes that the turbines will operate with only an 18 percent capacity factor based
11 on a site specific wind resources study. NBC relied on that estimate to demonstrate
12 the cost effectiveness of the turbine project and it has not justified why that same
13 estimate should not be used in estimating FY 2014 electricity costs in this case.
14 Therefore, I have adjusted rate year electricity costs to eliminate the 25 percent
15 reduction applied by NBC to the engineer's estimated wind generation.

16 Finally, in determining electricity costs, NBC did not recognize any revenues
17 from the sale of the renewable energy credits (RECs) that will be produced in
18 conjunction with the electricity generated by the wind turbines nor did it recognize
19 any operating costs for those turbines. In the "Fields Point Renewable Wind Energy
20 Feasibility Study Report and Project Cost Analysis" provided in Division Docket No.
21 D-12-7, it was projected that NBC would initially receive revenues of 4.9 cents per
22 kWh (\$49 per MWh) for its wind RECs. It is my understanding that current REC
23 prices in New England have increased to levels in excess of \$60 per MWh. Based on
24 this information, but to be conservative to account for the possibility of REC market
25 price reductions from present levels, I have recognized revenues from the sale of the

1 wind RECs of \$50 per MWh or 5.0 cents per kWh. I have also recognized that NBC
2 has agreed to pay Gilbane Building Company \$62,000 per year for monitoring and
3 maintenance service for the wind turbines.

4 Q. HAVE YOU PREPARED A SCHEDULE SHOWING YOUR
5 ADJUSTMENT TO NBC'S PROJECTED RATE YEAR ELECTRICITY
6 COSTS?

7 A. Yes, my adjustment to NBC's rate year projection of electricity costs is shown on
8 Schedule TSC-9. As shown there, adjusting the supply rate to reflect National Grid's
9 most recent 12 month average standard offer rates and eliminating the 25 percent
10 reduction in the expected wind turbine output results in total electricity costs of
11 \$3,462,634, which is \$489,498 less than NBC's projection. After accounting for the
12 projected revenues from the sale of RECs and the O&M costs associated with the
13 wind turbines, I have estimated net electricity costs to be \$3,168,984, which is
14 \$783,148 less than NBC's estimate of rate year electricity costs.

15
16 **Field's Point Chemical Costs**

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

19 A. In response to DIV. 1-19, NBC indicated that it made an error in the calculation of its
20 filed claim for bisulfate costs at Field's Point and provided a revised estimate of the
21 rate year expense. I have adjusted rate year expense to reflect that correction. As
22 shown on Schedule TSC-10, this adjustment reduces projected rate year chemical
23 expense at the Field's Point by \$68,136.

1 Q. DO YOU HAVE ANY OTHER CONCERNS ABOUT NBC'S CLAIMED
2 CHEMICAL COSTS?

3 A. Yes. NBC is expected to begin operation of the Field's Point BNR facilities around
4 July 1, 2013. As part of its claimed rate year chemical costs, NBC has included the
5 engineer's estimate of the annual costs that will be incurred for the new carbon feed
6 and sodium hydroxide that will be used by those facilities. In the case of both
7 electricity and natural gas, the engineer's estimated costs were based on prices that
8 were well above current levels based on the amounts that NBC included in its filing,
9 even before the Division's adjustments. I am concerned that that the estimated
10 chemical prices that the engineer used for carbon feed and sodium hydroxide may
11 also be overly conservative. The Division has requested that NBC attempt to obtain
12 indicative prices for these chemicals from its suppliers. In addition, NBC is also
13 expected to obtain new bids for the hypochlorite and bisulfate, the chemicals that it
14 currently uses at the Field's Point facility before June 30, 2013. If any new chemical
15 prices become available, I will update the Division's recommendation.

16

17 **Bad Debt Expense**

18 Q. WHAT CONCERN DO YOU HAVE WITH REGARD TO NBC'S
19 CLAIMED BAD DEBT EXPENSE FOR THE RATE YEAR?

20 A. NBC treated its test year bad debt expense of \$170, 457 as representative of the bad
21 debt expense that would be incurred in the rate year. Prior to FY 2012, the last time
22 NBC recorded any bad debt expense was in FY 2008, when \$77,534 was written off
23 as uncollectible. In FY 2009 and FY 2010, NBC recorded negative bad debt expense
24 indicating the recovery of prior period write-offs, and in FY 2011, NBC recorded \$0
25 of bad debt expense. This would indicate that the test year expense may include the

1 write-off of amounts of uncollectible revenue accrued over more than a single year.
2 This is supported by the response to DIV. 1-2, which indicates that the past due
3 receivables at the time of the response were \$68,500.

4 Q. WHAT ADJUSTMENT ARE YOU PROPOSING TO MAKE TO NBC'S
5 CLAIMED EXPENSE?

6 A. As shown on Schedule TSC-11, the average annual bad debt expense that NBC
7 incurred over the period from FY 2008, when NBC last recorded the write-off of
8 receivables, through FY 2012 was \$43,901. However, it is possible that some portion
9 of the negative bad debt recorded in FY 2009 and FY 2010 represents the recovery of
10 write-offs taken prior to FY 2008. Therefore, to be conservative, I am proposing to
11 utilize the average bad debt in FY 2011 and FY 2012 as representative of the ongoing
12 level of bad debt expense. As shown on Schedule TSC-11, this results in a reduction
13 in bad debt expense of \$85,229.

14
15 **Debt Service Expense**

16 Q. WHAT ADJUSTMENT ARE YOU PROPOSING TO MAKE TO RATE
17 YEAR DEBT SERVICE EXPENSE?

18 A. Recently, NBC filed an update to its debt issuance plans in Division Docket No. D-
19 13-13. In that filing, NBC indicated that it will be borrowing a total of \$107 million
20 in FY 2013, including \$82 million of open market bonds and \$25 million of State
21 Revolving Fund (SRF) debt from the Rhode Island Clean Water Finance Agency
22 (RICWFA). Because of favorable interest rates, NBC will be able to meet the debt
23 service for this \$107 million of debt based on the revenues approved by the
24 Commission in Docket No. 4352, at which time only \$73 million was expected to be
25 issued. In addition, NBC also noted that its FY 2013 and FY 2014 capital needs had

1 been reduced by approximately \$17.5 million. As a result, it is now estimated that
2 NBC will only need to issue approximately \$50 million in additional debt in FY 2014
3 instead of the \$111,470,000 anticipated at the time of this filing. Accordingly, I am
4 proposing to reduce rate year debt service to account for this reduction in the
5 expected issuance of new debt in FY 2014.

6 Q. HOW DID YOU ESTIMATE THE DEBT SERVICE REQUIREMENTS
7 FOR THE RATE YEAR?

8 A. I utilized the debt service schedule provided by NBC in Division Docket No. D-13-13
9 as my starting point. That debt service schedule includes the principal and interest
10 payments on NBC's existing debt plus the payments associated with the planned
11 issuance of \$25 million of SRF debt and \$82 million of open market bonds in FY
12 2013. To these amounts, I added the estimated debt service for \$12 million of SRF
13 loans in FY 2014, as provided in response to DIV 1-28. I also included debt service
14 on an additional \$40 million of open market bonds. I estimated the debt service on
15 these bonds based on an interest only payment with interest at 5.0 percent, consistent
16 with the method that NBC used to estimate the debt service associated with its
17 original projection that \$99.47 million of open market bonds would be issued in FY
18 2014. While I believe this interest rate is conservative, I have accepted it in order to
19 allow some cushion for issuing additional debt if needed.

20 The calculation of my debt service allowance is shown on Schedule TSC -12.
21 As indicated there, the debt service associated with the current debt plus the FY 2013
22 debt issues of \$107 million is \$42,062,563.⁴ I have then added the debt service for
23 the 2014 SRF loan of \$831,767 and the open 2014 market bonds of \$2,000,000 to

⁴ Consistent with the requirement of the Trust Indenture that revenues be sufficient to cover the highest debt service during the three year certificate period, FY 2015 was utilized as to determine rate year debt service, although the amounts do not vary significantly from year to year.

1 arrive at total debt service of \$44,894,330. After adding the 25 percent coverage
2 requirement, I have determined the total amount required for debt service and
3 coverage is \$56,117,913. This is \$3,619,652 less than the amount included in NBC's
4 filing.

5

6

Operating Reserve

7 Q.

HOW HAVE YOU CALCULATED THE OPERATING RESERVE
8 ALLOWANCE INCLUDED IN THE DIVISION'S RECOMMENDED
9 TOTAL COST OF SERVICE?

10 A.

I have set the allowed operating reserve included in my determination of NBC's
11 overall cost of service equal to one percent (1%) of total expenses excluding
12 personnel services, debt service and debt coverage. This is the same method for
13 determining NBC's operating reserve that the Commission has adopted in each NBC
14 rate case since Docket No. 3797 in 2007. As shown on Schedule TSC-1, this results
15 in a reduction of \$414,269 to NBC's requested operating reserve allowance based on
16 1.5 percent of total expenses excluding debt service and debt coverage.

17

18

Rate Design

19 Q.

HOW ARE YOU PROPOSING TO DESIGN RATES TO RECOVER THE
20 REVENUE INCREASE THAT YOU HAVE IDENTIFIED ON BEHALF OF
21 THE DIVISION?

22 A.

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

1 Q. DO YOU HAVE ANY OTHER COMMENTS WITH REGARD TO THE
2 RECOVERY OF NBC'S COSTS?

3 A. Yes. My agreement to recover the revenue increase through a uniform percentage
4 increase in all user charges recognizes that the options that can be considered in the
5 context of this or any other NBC rate proceeding are extremely limited. As I noted in
6 NBC's rate case in Docket No. 4026, the major factors affecting NBC's revenue
7 requirements are the costs of the CSO project and the treatment (and collection) of
8 stormwater. These costs are not a function of customers' wastewater volumes.

9 A significant portion of NBC's costs that are associated with the CSO project
10 and the collection and treatment of stormwater are attributable to non-wasterwater
11 customers and/or to wastewater customers in a manner that is unrelated to those
12 customers' wastewater system usage. However, the current system of cost recovery
13 imposes none of NBC's costs on those "non-customers," which are sometimes
14 referred to as "free riders." Instead, all of NBC's costs are imposed on its wastewater
15 customers based on their use of the wastewater collection and treatment system.

16 In Docket No. 3342 in 2002-2003, the Commission conducted an
17 investigation into issues related to the implementation of a stormwater abatement fee
18 that would recover a portion of NBC's costs from non-wastewater system users. At
19 that time, it was determined that legislation would be required to allow such fees to be
20 imposed. Given the continued growth in NBC's costs that can be expected as Phase
21 II and Phase III of the CSO facilities are constructed, consideration should again be
22 given to the possibility of implementing a stormwater fee that applies to a broader
23 customer base.

24 Q. HAVE YOU PREPARED SCHEDULES SHOWING THE CALCULATION
25 OF THE RATES THAT YOU ARE PROPOSING?

1 A. Yes. Schedule TSC-13 shows the derivation of the uniform percentage increase in
2 existing rates necessary to generate the required rate increase. As shown on that
3 schedule, the overall percentage increase in rates is 8.75 percent.

4 Schedule TSC-14 shows the calculation of the proposed rates based on the
5 application of the 8.75 percent increase to the current rates. Schedule TSC-14 also
6 provides a proof of revenue at present and proposed rates.

7 Q. DOES THIS COMPLETE YOUR TESTIMONY?

8 A. Yes, it does.

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

**THE NARRAGANSETT)
BAY COMMISSION) DOCKET NO. 4364**

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

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

March 22, 2013

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, 2014

| | Rate Year Amount Per NBC | Division Adjustments | Rate Year at Present Rates | Allowable Rate Increase | Rate Year at Proposed Rates |
|-------------------------------|--------------------------------|-------------------------|----------------------------------|-------------------------------|-----------------------------------|
| Revenue | | | | | |
| User Fee Revenue | \$ 83,335,797 | \$ 1,703 | \$ 83,337,500 | \$ 7,291,683 | \$ 90,629,183 |
| Other Service Revenue | 1,570,246 | - | 1,570,246 | - | 1,570,246 |
| Miscellaneous | 1,178,440 | - | 1,178,440 | - | 1,178,440 |
| Total Revenue | \$ 86,084,483 | \$ 1,703 | \$ 86,086,186 | \$ 7,291,683 | \$ 93,377,869 |
| Expenses | | | | | |
| Personnel Services | 21,011,491 | 120,859 | 21,132,350 | - | 21,132,350 |
| Operating Supplies & Expenses | 14,520,058 | (1,277,258) | 13,242,800 | - | 13,242,800 |
| Professional Services | 2,715,533 | - | 2,715,533 | - | 2,715,533 |
| Capital Outlays | - | - | - | - | - |
| Amortization | 9,690 | - | 9,690 | - | 9,690 |
| Debt Service | 47,790,051 | (2,895,721) | 44,894,330 | - | 44,894,330 |
| Debt Coverage | 11,947,513 | (723,930) | 11,223,583 | - | 11,223,583 |
| Total Expenses | \$ 97,994,336 | \$ (4,776,050) | \$ 93,218,286 | \$ - | \$ 93,218,286 |
| Operating Reserve | 573,852 | (414,269) | 159,583 | - | 159,583 |
| Total Cost of Service | \$ 98,568,188 | \$ (5,190,319) | \$ 93,377,869 | \$ - | \$ 93,377,869 |
| Revenue Surplus/(Deficiency) | \$ (12,483,705) | \$ 5,192,022 | \$ (7,291,683) | \$ 7,291,683 | \$ - |

THE NARRAGANSETT BAY COMMISSION

Summary of Division Adjustments to
 Rate Year Revenues and Expenses at Present Rates
 Rate Year Ended June 30, 2014

| <u>Description</u> | <u>Amount</u> | <u>Source</u> |
|---|----------------------------|--------------------|
| <u>Revenue Adjustments</u> | | |
| Billing Determinant True-Up | 1,703 | Refer to testimony |
| <u>Expense Adjustments</u> | | |
| Grant Expense | (4,247) | Schedule TSC-3 |
| Employee Health Insurance | 141,233 | Schedule TSC-4 |
| Workers' Compensation-Old Claims | (20,374) | Schedule TSC-5 |
| Biosolids Disposal Costs | (76,364) | Schedule TSC-6 |
| Maintenance & Service Agreements | (161,230) | Schedule TSC-7 |
| Natural Gas Expense | (98,904) | Schedule TSC-8 |
| Electricity Expense | (783,148) | Schedule TSC-9 |
| Field's Point Chemicals | (68,136) | Schedule TSC-10 |
| Bad Debt Expense | (85,229) | Schedule TSC-11 |
| Debt Service | (3,619,651) | Schedule TSC-12 |
| Operating Reserve | (414,269) | See Note (1) |
| Total Division Adjustments to Expenses | <u>\$ (5,190,319)</u> | |
| Total Division Adjustments to Operating Income | <u><u>\$ 5,192,022</u></u> | |

Note:

(1) Adjusted to reflect 1.0% of Division Operating Expenses excluding Personnel and Debt costs per Schedule TSC-1. Refer to testimony for explanation.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Remove Additional Grant Related Costs
Rate Year Ended June 30, 2014

| | <u>Amount</u> |
|--|--------------------------|
| Additional Grant Related Expenses in Test Year (1) | <u>\$ 4,247</u> |
| Adjustment to Rate Year Expense | <u><u>\$ (4,247)</u></u> |

Note:

(1) Per response to DIV. 1-1.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Health Insurance Expense
 Rate Year Ended June 30, 2014

| | <u>Health Insurance</u> | <u>Dental Insurance</u> | <u>Total</u> |
|--|-----------------------------|-----------------------------|--------------------------|
| Rate Year Weighted Average Premium (1) | \$ 16,811 | \$ 982 | \$ 17,793 |
| Number of Employees (2) | <u>249</u> | <u>249</u> | <u>249</u> |
| Annual Premiums | \$ 4,185,939 | \$ 244,518 | \$ 4,430,457 |
| Less Employee Copayments (3) | <u>(778,585)</u> | <u>-</u> | <u>(778,585)</u> |
| NBC Premium Expense | \$ 3,407,354 | \$ 244,518 | \$ 3,651,872 |
| Amount per NBC (2) | <u>3,259,966</u> | <u>250,673</u> | <u>3,510,639</u> |
| Adjustment to Rate Year Expense | \$ 147,388 | \$ (6,155) | <u><u>\$ 141,233</u></u> |

Notes:

- (1) Refer to page 2 of this schedule.
- (2) Per Schedule WEE-4.
- (3) Reflects weighted average copayment of 18.6%.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Health Insurance Expense
 Rate Year Ended June 30, 2014

| | <u>FY 2013 Annual Premium (1)</u> | <u>Percentage Increase (2)</u> | <u>Projected FY 2014 Premium</u> | <u>FTEs</u> | <u>Weighted Average</u> |
|-------------------------|---|------------------------------------|--|-------------|-----------------------------|
| <u>Medical Premiums</u> | | | | | |
| Family | \$ 20,057 | 7.44% | \$ 21,548 | 172 | 14,825 |
| Single | 7,340 | 7.43% | 7,886 | 56 | 1,766 |
| Waivers | 2,500 | - | 2,500 | 22 | 220 |
| Total | | | | <u>250</u> | <u>16,811</u> |
| <u>Dental Premiums</u> | | | | | |
| Family | \$ 1,159 | 2.44% | \$ 1,187 | 187 | 888 |
| Single | 399 | 1.37% | 405 | 56 | 91 |
| Waivers | 110 | - | 110 | 7 | 3 |
| Total | | | | <u>250</u> | <u>982</u> |

Notes:

(1) Per response to DIV. 1-8.

(2) Based on average annual increase from FY 2010 to FY 2013. FY 2010 premiums per response to DIV. 2-3.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Workers' Compensation Claims Expense
Rate Year Ended June 30, 2014

| | <u>Amount</u> |
|-----------------------------------|---------------------------|
| FY 2012 Workers' Comp--Old Claims | \$ 62,620 |
| Less: Discontinued Amounts (1) | <u>(20,374)</u> |
| Estimated Rate Year Expense | \$ 42,246 |
| Amount per NBC (2) | <u>62,620</u> |
| Adjustment to Rate Year Expense | <u><u>\$ (20,374)</u></u> |

Notes:

(1) Per response to DIV. 1-10.

(2) Per Schedule WEE-1.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Biosolids Disposal Costs
 Rate Year Ended June 30, 2014

| | <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) | 3,864 | 3,864 | 7,728 |
| Bucklin Point-Dry Tons (1) | <u>1,050</u> | <u>1,050</u> | <u>2,100</u> |
| Total Biosolids for Disposal-Dry Tons | 4,914.0 | 4,914.0 | 9,828 |
| Rate per Ton (2) | <u>\$ 425.72</u> | <u>\$ 433.81</u> | |
| Biosolids Disposal Costs | \$ 2,091,988 | \$ 2,131,742 | \$ 4,223,730 |
| Amount per NBC (1) | | | <u>4,300,094</u> |
| Adjustment to Rate Year Expense | | | <u>\$ (76,364)</u> |

Notes:

(1) Per Schedule WEE-6

(2) Rates calculated as follows:

| | |
|--|---------------|
| Disposal rate for Calendar Year 2012 | \$ 417.77 |
| Increase in CPI for Boston Area from November 2011 to November 2012 | <u>1.019</u> |
| Disposal rate for Calendar Year 2013 (3) | \$ 425.72 |
| Projected increase in CPI-U from 4Q12 to 4Q13 per Blue Chip Economic Indicators dated 1/10/2013 | <u>1.0190</u> |
| Disposal rate for Calendar Year 2014 | \$ 433.81 |

(3) Matches actual rate per response to DIV. 2-5.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Maintenance & Service Agreement Costs
Rate Year Ended June 30, 2014

| | <u>Amount</u> |
|---|----------------------------|
| FY 2012 Maintenance & Service Agreement Expense (1) | \$ 735,174 |
| Escalation from FY 2012 to FY 2014 (2) | <u>1,0372</u> |
| Rate Year Allowance for Existing Agreements | \$ 790,888 |
| Additional Agreements Expensed (1) | <u>108,434</u> |
| Rate Year Expense | \$ 899,322 |
| Amount per NBC (1) | <u>1,060,552</u> |
| Adjustment to Rate Year Expense | <u><u>\$ (161,230)</u></u> |

Notes:

(1) Per Schedule WEE-7.

(2) Based on the 2 year increase in the CPI from 1st Quarter of 2012 to projected 1st Quarter of 2014 of 3.8% per Blue Chip Economic Indicators, February 10, 2013.

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, 2014

| | Annual Therms (1) | GCR Rate Per NBC (1) | GCR Rate per Division (2) | Supply Cost Per NBC (1) | Supply Cost per Division |
|---------------------------------|----------------------|-------------------------|------------------------------|----------------------------|-----------------------------|
| Field's Point | | | | | |
| Tunnel Pump Station | 38,449 | \$ 0.88980 | \$ 0.58692 | \$ 34,212 | \$ 22,566 |
| 2 Ernest | 79,208 | 0.90990 | 0.63542 | 72,071 | 50,330 |
| 37 Ernest | 28,081 | 0.91210 | 0.63542 | 25,613 | 17,843 |
| BNR Facilities | 36,658 | 0.90990 | 0.63542 | 33,355 | 23,293 |
| Bucklin Point | | | | | |
| Admin | 6,350 | 0.90800 | 0.63542 | 5,766 | 4,035 |
| Plant | 33,226 | 0.91700 | 0.63542 | 30,468 | 21,112 |
| Exchange | 65,263 | 0.91700 | 0.63542 | 59,846 | 41,469 |
| Interceptor Maintenance | 13,291 | 0.90990 | 0.63542 | 12,093 | 8,445 |
| COB | 19,977 | 0.99510 | 0.63542 | 19,879 | 12,694 |
| Lab | 16,113 | 0.90990 | 0.63542 | 14,661 | 10,239 |
| Total | 336,616 | | | \$ 307,965 | \$ 212,028 |
| Difference in Supply Costs | | | | | \$ (95,937) |
| RIGET at 3.09278% (1) | | | | | (2,967) |
| Adjustment to Natural Gas Costs | | | | | \$ (98,904) |

Notes:

(1) Per response to DIV. 1-14.

(2) Reflects Composite of following National Grid 2013 GCR rate for 4 Months and 2014 GCR rate for 8 months:

| | High Load Factor | All Other | |
|--------------------|---------------------|------------|-------------------------------|
| 2013 GCR Rate | \$ 0.62400 | \$ 0.67250 | (per page 2 of this schedule) |
| Expected Reduction | 0.05563 | 0.05563 | |
| 2014 GCR Rate | \$ 0.56837 | \$ 0.61687 | |
| Weighted Rate | \$ 0.58692 | \$ 0.63542 | |

THE NARRAGANSETT BAY COMMISSION

Analysis of Expected Reduction in National Grid
 Gas Supply Costs for the 2014 GCR Period

| | Volume Forecast (Dth) | Average Price of Hedged Dth | | 2012-13 Cost | 2013-14 Cost |
|---|-----------------------------|-----------------------------|-------------|-----------------------|-----------------------|
| | | 2012-13 | 2013-14 | | |
| November | 2,263,973 | \$ 4.5912 | \$ 4.2661 | \$ 10,394,353 | \$ 9,658,335 |
| December | 3,639,909 | 4.6429 | 4.2595 | 16,899,733 | 15,504,192 |
| January | 3,693,950 | 4.7416 | 4.1874 | 17,515,233 | 15,468,046 |
| February | 3,284,612 | 4.6180 | 4.0955 | 15,168,338 | 13,452,128 |
| March | 3,448,137 | 4.7096 | 3.9898 | 16,239,346 | 13,757,377 |
| April | 2,843,609 | 4.4707 | 3.7386 | 12,712,923 | 10,631,117 |
| May | 1,986,560 | 4.4577 | 3.8144 | 8,855,489 | 7,577,534 |
| June | 1,223,024 | 4.6068 | 3.7594 | 5,634,227 | 4,597,836 |
| July | 720,291 | 4.6961 | 3.9847 | 3,382,559 | 2,870,144 |
| August | 652,188 | 4.7776 | 3.9877 | 3,115,893 | 2,600,730 |
| September | 709,898 | 4.2978 | 3.9843 | 3,051,000 | 2,828,447 |
| October | 1,268,633 | 4.1806 | 4.1841 | 5,303,647 | 5,308,087 |
| Total | 25,734,784 | | | \$ 118,272,741 | \$ 104,253,974 |
| | | Weighted Average Price | | \$ 4.5958 | \$ 4.0511 |
| Supply Variable Cost Factor = | | \$4.6931 X | \$ 4.0511 / | \$ 4.5958 = | \$ 4.1368 |
| Reduction in 2010-11 Supply Variable Cost per Dth = | | \$4.6931 - | \$ 4.1368 = | | \$0.55627 |
| Reduction in 2010-11 Supply Variable Cost per Therm = | | | | | \$0.05563 |

Sources: National Grid Semi-Annual Report on Gas Procurement Incentive Plan dated January 31, 2013
 and Revised Gas Charge Recovery Filing Dated January 24, 2013, both filed in Docket No. 4346.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Electricity Costs to Reflect
 Updated Supply Costs and Offset for REC Revenues
 Rate Year Ended June 30, 2014

| | Cost per NBC | Cost per Division | Supply Cost per Division |
|-------------------------|-----------------|----------------------|-----------------------------|
| Field's Point | | | |
| Field's Point | 1,132,051 | \$ 1,034,790 | \$ (97,261) |
| Tunnel Pump Station | 705,634 | 650,623 | (55,011) |
| New Operations Bldg. | 71,927 | 65,696 | (6,231) |
| BNR Facilities | 1,134,439 | 1,036,158 | (98,281) |
| Turbines | (528,329) | (643,411) | (115,082) |
| Bucklin Point | 1,147,336 | 1,051,062 | (96,274) |
| Interceptor Maintenance | 139,572 | 130,187 | (9,385) |
| COB | 149,502 | 137,529 | (11,973) |
| Total Electricity Cost | \$ 3,952,132 | \$ 3,462,634 | \$ (489,498) |
| Less: RECs | - | (355,650) | (355,650) |
| Plus: Turbine O&M | - | 62,000 | 62,000 |
| Net Electricity Costs | \$ 3,952,132 | \$ 3,168,984 | \$ <u>(783,148)</u> |

Notes:

- (1) Per response to DIV. 1-18.
- (2) Refer to page 2 of this schedule.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Electricity Costs to Reflect
 Updated Supply Costs and Offset for REC Revenues
 Rate Year Ended June 30, 2014

DETAIL (1)

| | COB | FP | TPS | New Ops | BNR | Turbines | FP Total | BP | IM |
|-----------------------|------------|--------------|------------|------------|--------------|--------------|--------------|--------------|------------|
| FY 2014 Projected kWh | 1,395,500 | 11,336,000 | 6,411,600 | 726,280 | 11,454,879 | (7,113,000) | 22,815,759 | 11,221,000 | 1,029,847 |
| Rates: | | | | | | | | | |
| Customer Chg. | \$ 751 | \$ 751 | \$ 751 | | | | | \$ 751 | \$ 1,134 |
| Supply | 0.05526 | 0.05526 | 0.05526 | 0.05526 | 0.05526 | 0.05526 | 0.05526 | 0.05526 | 0.06375 |
| Avg. Delivery per kWh | 0.02955 | 0.02823 | 0.03741 | 0.02823 | 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. | \$ 9,010 | \$ 9,010 | \$ 9,010 | \$ - | \$ - | \$ - | \$ 18,020 | \$ 9,010 | \$ 13,608 |
| Supply | 77,120 | 626,465 | 354,326 | 40,137 | 633,035 | (393,088) | 1,260,875 | 620,110 | 65,654 |
| Avg. Delivery per kWh | 41,235 | 320,048 | 239,840 | 20,505 | 323,404 | (200,820) | 702,976 | 342,408 | 42,276 |
| Capacity Charge | 4,663 | 37,876 | 21,423 | 2,427 | 38,273 | (23,766) | 76,233 | 37,492 | 3,441 |
| Subtotal | \$ 132,028 | \$ 993,399 | \$ 624,599 | \$ 63,068 | \$ 994,712 | \$ (617,675) | \$ 2,058,104 | \$ 1,009,020 | \$ 124,980 |
| Gross Earnings Tax | \$ 5,501 | \$ 41,391 | \$ 26,025 | \$ 2,628 | \$ 41,446 | \$ (25,736) | \$ 85,753 | \$ 42,042 | \$ 5,207 |
| Total | \$ 137,529 | \$ 1,034,790 | \$ 650,623 | \$ 65,696 | \$ 1,036,158 | \$ (643,411) | \$ 2,143,857 | \$ 1,051,062 | \$ 130,187 |

Note:
 (1) All amounts per response to DIV. 1-18 except supply rate which is developed on page 3 of this schedule.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Electricity Costs to Reflect
 Updated Supply Costs and Offset for REC Revenues
 Determination of Updated Standard Offer Rates
 Rate Year Ended June 30, 2014

| | G-02 Standard Offer (1) | G-32 Standard Offer (1)(2) |
|----------------|-------------------------------|----------------------------------|
| July 2012 | \$ 5.9930 | \$ 4.4460 |
| August 2012 | 5.9590 | 4.4470 |
| September 2012 | 5.5900 | 4.5070 |
| October 2012 | 5.6460 | 4.5980 |
| November 2012 | 5.8660 | 4.7480 |
| December 2012 | 6.8460 | 5.7990 |
| January 2013 | 8.5820 | 8.6620 |
| February 2013 | 8.1490 | 8.0820 |
| March 2013 | 6.3730 | 5.9550 |
| April 2013 | 6.0460 | 5.2670 |
| May 2013 | 5.5650 | 4.8000 |
| June 2013 | 5.8870 | 5.0050 |
| Average | \$ 6.3752 | \$ 5.5263 |

Notes:

- (1) Reflects National Grid Standard Offer rates as shown on RIPUC Website on March 4, 2013.
- (2) G-32 reflects April through June 2012 because April through June 2013 not available. Will be updated when available.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Field's Point Chemicals Costs
Rate Year Ended June 30, 2014

| | <u>Hypochlorite (1)</u> | <u>Bisulfate (1)</u> | <u>Total</u> |
|---------------------------------|-------------------------|----------------------|--------------------|
| FY 2011 Gallons | 785,597 | 233,017 | |
| FY 2012 Gallons | <u>450,103</u> | <u>193,037</u> | |
| Average | 617,850 | 213,027 | |
| Price Per Gallon (2) | <u>\$ 0.5981</u> | <u>\$ 1.4615</u> | |
| Annualized Expense | \$ 369,547 | \$ 311,329 | \$ 680,876 |
| Amount per NBC (2) | <u>369,547</u> | <u>379,465</u> | <u>749,012</u> |
| Adjustment to Rate Year Expense | <u>\$ -</u> | <u>\$ (68,136)</u> | <u>\$ (68,136)</u> |

Notes:

(1) Gallons per response to DIV. 1-19

(2) Per Schedule WEE-11.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Bad Debt Expense
Rate Year Ended June 30, 2014

| | <u>Amount</u> |
|---|--------------------|
| <u>Historical Bad Debt (1)</u> | |
| FY 2008 | \$ 77,534 |
| FY 2009 | (15,905) |
| FY 2010 | (12,582) |
| FY 2011 | - |
| FY 2012 | 170,457 |
| Average Bad Debt over 2008 through 2012 | <u>\$ 43,901</u> |
| | |
| Average Bad Debt in FY 2011 and FY 2012 | \$ 85,229 |
| | |
| Bad Debt Expense per NBC (2) | <u>170,457</u> |
| | |
| Total Adjustment to Bad Debt Expense | <u>\$ (85,229)</u> |

Notes:

(1) Per Schedule WEE-3 and Schedule WEE-3 in Docket No. 4205.

(2) Per Schedule WEE-3.

THE NARRAGANSETT BAY COMMISSION

Adjustment to Debt Service Expense
Rate Year Ended June 30, 2014

| <u>Debt Service Associated with:</u> | <u>Amount</u> |
|--|-----------------------|
| Existing Debt plus \$107 million being issued in FY 2013 (1) | \$ 42,062,563 |
| FY 2014 SRF Loan of \$12 million (2) | 831,767 |
| Open Market Bonds of \$40 million in FY 2014 (3) | <u>2,000,000</u> |
| Total Debt Service | \$ 44,894,330 |
| Coverage Requirement at 25% | <u>\$ 11,223,583</u> |
| Total Debt Service and Coverage | \$ 56,117,913 |
| Amount per NBC (4) | <u>59,737,564</u> |
| Adjustment to Rate Year Expense | <u>\$ (3,619,651)</u> |

Note:

- (1) Per Exhibit KG-2 in Division Docket No. D-13-13. Reflects expense for FY 2015.
- (2) Per response to DIV. 1-28. Reflects Expense for FY 2015.
- (3) Based on \$40 million of debt with principal only payments in initial years per response to DIV. 1-28.

THE NARRAGANSETT BAY COMMISSION

Calculation of Uniform Percentage Increase
Based on Division Recommended Revenue Increase
Rate Year Ended June 30, 2014

| | |
|--|---------------------|
| Division Recommended Revenue Increase (1) | <u>\$ 7,291,683</u> |
| Revenues from Services Subject to Increase (2) | |
| Flat Fees-Residential | \$ 21,790,217 |
| Measured Fees-Residential | 25,700,104 |
| Flat Fees-Commercial and Industrial | 13,192,676 |
| Measured Fees-Commercial | 21,439,959 |
| Measured Fees-Industrial | 1,214,544 |
| Total Revenue Subject to Increase | <u>83,337,501</u> |
| Uniform Percentage Increase | <u>8.75%</u> |

Notes:

(1) Per Schedule TSC-1

(2) Per Schedule TSC-14.

THE NARRAGANSETT BAY COMMISSION
Calculation of Proposed Rates and
Proof of Revenues at Present and Proposed Rates
Rate Year Ended June 30, 2014

| | <u>Current Rate</u> | <u>Increase</u> | <u>Present Rates</u> | <u>Billing Units (1)</u> | <u>Revenue at Present Rates</u> | <u>Revenue at Proposed Rates</u> |
|---|-------------------------|-----------------|--------------------------|------------------------------|---|--|
| Flat Fees | | | | | | |
| Residential | \$ 184.63 | 8.75% | \$ 200.78 | 118,021 | \$ 21,790,217 | \$ 23,696,770 |
| Commercial & Industrial | | | | | | |
| Meter Size | | | | | | |
| 5/8" | \$ 441.00 | 8.75% | 480.00 | 3,685 | 1,625,085 | 1,768,800 |
| 3/4" | 659.00 | 8.75% | 717.00 | 1,016 | 669,544 | 728,472 |
| 1" | 1,096.00 | 8.75% | 1,192.00 | 1,161 | 1,272,456 | 1,383,912 |
| 1.5" | 2,200.00 | 8.75% | 2,392.00 | 843 | 1,854,600 | 2,016,456 |
| 2" | 3,514.00 | 8.75% | 3,821.00 | 1,457 | 5,119,898 | 5,567,197 |
| 3" | 6,583.00 | 8.75% | 7,159.00 | 84 | 552,972 | 601,356 |
| 4" | 10,970.00 | 8.75% | 11,930.00 | 41 | 449,770 | 489,130 |
| 6" | 21,949.00 | 8.75% | 23,869.00 | 52 | 1,141,348 | 1,241,188 |
| 8" | 35,117.00 | 8.75% | 38,190.00 | 13 | 456,521 | 496,470 |
| 10" | 50,482.00 | 8.75% | 54,899.00 | 1 | 50,482 | 54,899 |
| Total Commercial & Industrial Flat Fees | | | | 8,353 | \$ 13,192,676 | \$ 14,347,880 |
| Measured Fees | | | | | | |
| Residential | \$ 2.979 | 8.75% | 3.240 | 8,627,091 | 25,700,104 | 27,951,775 |
| Commercial | 4.321 | 8.75% | 4.699 | 4,961,805 | 21,439,959 | 23,315,522 |
| Industrial | 2.778 | 8.75% | 3.021 | 437,201 | 1,214,544 | 1,320,784 |
| Total Measured Fees | | | | | \$ 48,354,608 | \$ 52,588,081 |
| Other Revenue | | | | | \$ 2,748,686 | \$ 2,748,686 |
| Total Revenue | | | | | \$ 86,086,187 | \$ 93,381,417 |
| Target Revenue (2) | | | | | | 93,377,869 |
| Variance | | | | | | \$ 3,548 |

Notes:

(1) Per Schedule WEE-15

(2) Per Schedule TSC-1.