

**NATIONAL GRID  
RHODE ISLAND GAS**

**REQUEST FOR CHANGE OF  
GAS DISTRIBUTION RATES**

**RIPUC DOCKET NO. 3943**

**BEFORE THE  
RHODE ISLAND PUBLIC UTILITIES COMMISSION**

**TESTIMONY AND EXHIBITS  
OF DAVID J. EFFRON**

**ON BEHALF OF THE**

**DIVISION OF  
PUBLIC UTILITIES AND CARRIERS**

**JULY 25, 2008**

RIPUC DOCKET NO. 3943  
DIRECT TESTIMONY  
OF DAVID J. EFFRON

TABLE OF CONTENTS

	<u>Page</u>
I. STATEMENT OF QUALIFICATIONS	1
II. PURPOSE AND SUMMARY OF TESTIMONY	2
III. REVENUE REQUIREMENT	4
A. SUMMARY	4
B. COST OF SERVICE	5
1. Operation and Maintenance Expenses	5
2. Depreciation Expense	16
4. Income Tax Expense	16
5. Return on Rate Base	17
IV. RECONCILIATION MECHANISMS	24
A. PENSION/PBOP RECONCILIATION MECHANISM	24
B. ARP RATE ADJUSTMENT MECHANISM	28
V. ALTERNATIVE THREE-YEAR RATE PLAN	31

1 **I. STATEMENT OF QUALIFICATIONS**

2 Q. Please state your name and business address.

3 A. My name is David J. Effron. My business address is 12 Pond Path, North Hampton,  
4 New Hampshire, 03862.

5

6 Q. What is your present occupation?

7 A. I am a consultant specializing in utility regulation.

8

9 Q. Please summarize your professional experience.

10 A. My professional career includes over thirty years as a regulatory consultant, two  
11 years as a supervisor of capital investment analysis and controls at Gulf & Western  
12 Industries and two years at Touche Ross & Co. as a consultant and staff auditor. I am  
13 a Certified Public Accountant and I have served as an instructor in the business  
14 program at Western Connecticut State College.

15

16 Q. What experience do you have in the area of utility rate setting proceedings?

17 A. I have analyzed numerous electric, gas, telephone, and water filings in different  
18 jurisdictions. Pursuant to those analyses I have prepared testimony, assisted attorneys  
19 in case preparation, and provided assistance during settlement negotiations with  
20 various utility companies.

21 I have testified in over two hundred cases before regulatory commissions in  
22 Alabama, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Kansas,  
23 Kentucky, Maryland, Massachusetts, Missouri, Nevada, New Jersey, New York,

1 North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont,  
2 Virginia, and Washington.

3

4 Q. Please describe your other work experience.

5 A. As a supervisor of capital investment analysis at Gulf & Western Industries, I was  
6 responsible for reports and analyses concerning capital spending programs, including  
7 project analysis, formulation of capital budgets, establishment of accounting  
8 procedures, monitoring capital spending and administration of the leasing program.  
9 At Touche Ross & Co., I was an associate consultant in management services for one  
10 year and a staff auditor for one year.

11

12 Q. Have you earned any distinctions as a Certified Public Accountant?

13 A. Yes. I received the Gold Charles Waldo Haskins Memorial Award for the highest  
14 scores in the May 1974 certified public accounting examination in New York State.

15

16 Q. Please describe your educational background.

17 A. I have a Bachelor's degree in Economics (with distinction) from Dartmouth College  
18 and a Masters of Business Administration Degree from Columbia University

19

20 **II. PURPOSE AND SUMMARY OF TESTIMONY**

21 Q. On whose behalf are you testifying?

22 A. I am testifying on behalf of the Rhode Island Division of Public Utilities and Carriers  
23 ("the Division").

1

2 Q. What is the purpose of your testimony?

3 A. I am addressing the revenue requirement of the Rhode Island gas operations of The  
4 Narragansett Electric Company, d/b/a National Grid (“National Grid” or “the  
5 Company”) based on a test year consisting of the twelve months ended September 30,  
6 2007 and a rate year consisting of the twelve months ending September 30, 2009. I  
7 also address the Company’s proposed reconciliation mechanism for pensions and  
8 postretirement benefits other than pensions (“PBOP”), the proposal to implement  
9 annual rate adjustments for the revenue requirement impact of capital additions  
10 related to the Accelerated Replacement Program (“ARP”), and the alternative three-  
11 year rate plan proposed by the Company.

12

13 Q. Please summarize your testimony.

14 A. I have calculated a base rate revenue requirement of \$131,225,000 for gas distribution  
15 service provided by National Grid in Rhode Island. The Company’s revenue  
16 deficiency is \$8,527,000, which is 6.95% greater than the revenues produced by the  
17 base rates presently in effect (Schedule DJE-1).

18 With regard to the rate reconciliation mechanisms and rate plan being  
19 proposed by the Company:

- 20 • The Commission should not approve the pension/PBOP reconciliation  
21 mechanism proposed by the Company.
- 22 • The Commission should not approve the annual ARP rate adjustment mechanism  
23 as presented by the Company. However, with certain modifications,

1 implementation of a mechanism for reconciling the revenue requirement effect of  
2 actual ARP expenditures, with annual rate adjustments, should be considered.

- 3 • The Commission should not approve the alternative three-year rate plan proposed  
4 by the Company.

### 6 **III. REVENUE REQUIREMENT**

#### 7 **A. SUMMARY**

8 Q. Have you prepared a summary of the Company's net revenue requirement?

9 A. Yes, I prepared a summary on Schedule DJE-1. On this schedule, I compare the  
10 Company's presentation of its revenue deficiency to the Division's recommendation.  
11 I have begun with the Company's base rate cost of service. The base rate cost of  
12 service comp is comprised of operating expenses plus the return on rate base, as  
13 shown on my Schedule DJE-2. Next costs that are recovered through certain riders  
14 are added. I then subtract the miscellaneous revenues earned by the Company,  
15 including rider revenues (which are assumed to be equal to the costs subject to  
16 recovery through the riders), interruptible firm revenues, and other miscellaneous  
17 revenues. The total cost of service net of miscellaneous revenues is the revenue  
18 requirement from services that are provided pursuant to Commission approved base  
19 rates. The difference between the net revenue requirement and the rate year revenues  
20 earned from tariff services is the Company's revenue deficiency.

21 National Grid has calculated a revenue deficiency of \$20,036,000, which is  
22 equal to 16.33% of rate year tariff revenues. I have calculated a revenue deficiency  
23 of \$8,527,000, which is equal to 6.95% of rate year tariff revenues

1

2 **B. COST OF SERVICE**

3 Q. What are the elements of the cost of service?

4 A. The elements of the rate year cost of service are operation and maintenance expenses  
5 (with uncollectible accounts expense, which is derived from the other elements of the  
6 revenue requirement, shown separately), depreciation, taxes other than income taxes,  
7 income taxes, and return on rate base. These elements of the total cost of service are  
8 summarized on Schedule DJE-2.

9

10 Q. Are you proposing adjustments to the rate year cost of service calculated by the  
11 Company?

12 A. Yes. The Company has calculated a pro forma rate year net revenue requirement of  
13 \$142,734,000. Based on the adjustments to the Company's position that I have  
14 identified, I am proposing a net base rate revenue requirement of \$131,225,000. I  
15 address the individual adjustments to the Company's calculated cost of service in the  
16 following testimony.

17

18 **1. Operation and Maintenance Expenses**

19 **a. Medical and Dental Expenses**

20 Q. How did the Company determine pro forma rate year medical and dental expense?

21 A. The Company's calculation of pro forma medical and dental expense is shown on  
22 Attachment NG-MDL-1, Page 8. First, the medical and dental expenses were  
23 estimated for calendar year 2008 based on the employee enrollment selections made

1 in November 2007. Then, the estimated 2008 medical and dental costs were  
2 escalated by 8% to project the 2009 costs. The medical and dental costs for the  
3 twelve months ending September 30, 2009 consist of three months of the 2008  
4 estimated costs and nine months of the projected 2009 costs. The pro forma rate year  
5 National Grid RI medical and dental expense of \$4,614,000 represents a 21.4%  
6 increase over the actual test year expense.

7  
8 Q. Have the Company's estimates of the increases in the medical and dental expense  
9 subsequent to the end of the September 2007 test year been borne out by actual  
10 experience?

11 A. No. In response to Division Data Request 4-11, the Company provided the actual  
12 medical and dental costs for each month from October 2006 through April 2008. The  
13 actual costs for the seven months ended April 2008 were actually less than the actual  
14 cost for the seven months ended April 2007, even with a significant credit to  
15 expenses that was recorded in October 2006. For the first four months of calendar  
16 2008, the actual medical and dental costs were approximately 29% less than the costs  
17 in the corresponding months of 2008.

18  
19 Q. Should the pro forma rate year medical and dental expense calculated by the  
20 Company be modified?

21 A. Yes. The actual experience in the months immediately after the test year does not  
22 support the Company's forecast of medical and dental expenses. As noted above, the  
23 costs in the first four months of 2008 were actually lower than the actual costs in the

1 first four months in the corresponding months of 2007. Although four months of data  
2 might not offer conclusive evidence, the increases in expenses forecasted by the  
3 Company do not appear to be taking place. Therefore, I recommend that the  
4 Company's pro forma adjustment of \$907,000 to medical and dental expenses be  
5 eliminated (Schedule DJE-4). This results in the pro forma rate year medical and  
6 dental expense being set at the same level as the actual test year expense. As the  
7 actual medical and dental expenses have decreased from 2007 to 2008, this allowance  
8 provides for escalation in the actual medical and dental costs incurred since the end of  
9 the test year.

10  
11 b. Gas Marketing Expense

12 Q. Has the Company included expenses associated with its proposed gas marketing  
13 program in pro forma rate year operating expenses?

14 A. Yes. As shown on Attachment NG-MDL-1, Page 5, the Company includes  
15 \$1,377,000 of gas marketing program costs in pro forma rate year operation and  
16 maintenance expenses. Additional support and explanation of the gas marketing  
17 program and the associated expenses are provided in the testimony of Company  
18 Witness Mongan.

19  
20 Q. How have you treated these expenses in your determination of the Company's  
21 revenue requirement?

22 A. Division Witness Oliver addresses these programs and the associated expenses in his  
23 testimony. Consistent with that testimony, I have eliminated all but \$148,000 of the

1 expenses associated with the gas marketing programs. This adjustment results in a  
2 \$1,229,000 reduction to pro forma rate year operation and maintenance expenses  
3 (Schedule DJE-4).

4  
5 Q. Have you eliminated the incremental rate year sales that the Company has estimated  
6 will be produced by the gas marketing programs?

7 A. No. Given the present cost of gas of relative to the price of alternative fuels such as  
8 heating oil, I do not believe that it is unreasonable to expect that such growth in sales  
9 will be achieved even in the absence of the programs described by the Company. Mr.  
10 Oliver addresses this matter further in his testimony. In addition, I have also included  
11 the future additions to plant in service associated with the incremental sales in my  
12 calculation of rate base, and inclusion of the incremental sales in the rate year billing  
13 determinants is consistent with the recognition of these plant costs.

14  
15 c. Encroachment Expense

16 Q. Has the Company included increased expenses related to “encroachment activity”  
17 in pro forma rate year expenses?

18 A. Yes. The Company has included \$1,034,000 of additional test year operation and  
19 maintenance related to the encroachment activities in pro forma rate year expenses.  
20 As explained in the response to Division Data Request 1-11, this additional expense  
21 is inadvertently labeled as Accelerated Replacement Program expense on  
22 Attachment NG-MDL-1, Page 5. The Company further described the “increased  
23 encroachment activity” as referring to additional work resulting from increased

1 public works activities and third party excavations (response to Division Data  
2 Request 4-10). The Company also explained that the increased expense is based on  
3 the backlog existing in early 2008 plus new encroachment anticipated in fiscal year  
4 2008/2009. The Company's adjustment is based on its estimated increase from the  
5 \$21,000 of expense actually incurred in the test year to a forecasted annual level of  
6 \$1,054,000.

7

8 Q. Has the Company actually experienced an increase in spending on encroachment  
9 activity?

10 A. Yes. In the five months ended February 2008 the actual expense was \$124,000  
11 (response to Division Data Request 4-10). This is a significant increase in the rate  
12 of spending over the actual spending incurred in the test year; however it is still  
13 well short of the annual spending rate of \$1,054,000 reflected by the Company in  
14 pro forma rate year expenses.

15

16 Q. Should the pro forma level of expenses relate to encroachment activity included by  
17 the Company in its revenue requirement be adjusted?

18 A. Yes. The actual experience cited by the Company does not support the annual  
19 level of expense of \$1,054,000. If the actual expense of \$124,000 for the five  
20 months ended February 2008 is annualized, the result is \$298,000. This is \$756,000  
21 less than the pro forma expense reflected by the Company (Schedule DJE-4).  
22 Accordingly, I recommend that pro forma rate year operation and maintenance

1 expense be reduced by \$756,000, in order to reflect a rate of spending that is more  
2 in line with the Company's actual experience since the end of the test year.

3  
4 d. Distribution Maintenance

5 Q. What amount of distribution maintenance expense did the Company incur in the  
6 twelve months ended September 30, 2007?

7 A. The Company incurred actual distribution maintenance expense of \$16,804,000 in  
8 the test year.

9  
10 Q. Did this maintenance expense include catch-up activities necessary to reduce  
11 backlogs of work existing prior to the beginning of the test year?

12 A. Yes. As explained in the responses to Division Data Requests 1-28 and 9-3, the  
13 actual test year maintenance expense included costs incurred to reduce the backlog  
14 of work associated with Grade 2 leaks and paving restoration existing prior to the  
15 beginning of the test year. The reduction in these backlogs was cited by the  
16 Company as one reason for the increase in distribution maintenance expense in the  
17 test year over prior periods.

18  
19 Q. Should the pro forma distribution maintenance expense be adjusted?

20 A. Yes. In response to Division Data Request 9-4, the Company provided the  
21 distribution maintenance expense by month from October 2006 through May 2008.  
22 Based on this response, the increase in maintenance expense related to the backlog  
23 reduction does not appear to be continuing in nature. For example, the distribution

1 maintenance expense for the twelve months ended March 31, 2008, the Company's  
2 latest fiscal year, was nearly \$1 million less than the distribution maintenance in the  
3 test year. The expense for the twelve months ended May 31, 2008 was \$539,000  
4 less than the test year expense.

5  
6 Q. What do you recommend?

7 A. The increased distribution maintenance expense related to the backlog reduction  
8 incurred in the test year does not appear to be continuing. I recommend that the pro  
9 forma distribution maintenance expense be reduced to reflect the actual expense for  
10 the twelve months ended May 31, 2008. This adjustment reduces pro forma  
11 operation and maintenance expense by \$539,000 (Schedule DJE-4).

12  
13 e. Merger Synergies and Costs to Achieve

14 Q. Has the Company included expense adjustments related to merger synergies and  
15 costs to achieve ("CTA") those synergies in its pro forma cost of service?

16 A. Yes. In August 2006, Narragansett Electric Company acquired the Rhode Island  
17 assets and operations of the former New England Gas division of Southern Union  
18 ("National Grid/Southern Union transaction"). The Company has quantified what it  
19 believes to be the synergy savings from that transaction and has included the  
20 Company share, or 50%, of those quantified savings in its revenue requirement in  
21 this case. This adjustment to expenses is \$1,141,000. The assumptions underlying  
22 this expense adjustment are that 1) the synergies resulting from the Southern Union  
23 transaction are implicitly reflected in test year operating expenses, 2) the synergy

1 savings would not have been possible in the absence of the transaction, and 3)  
2 shareholders are entitled to a share of the demonstrated savings in order to cover the  
3 costs of the transaction not explicitly included in the revenue requirement. The  
4 Company also includes the recovery of the CTA over ten years, with return, in pro  
5 forma expenses, resulting in an additional expense adjustment of \$158,000. Thus  
6 the total expense adjustment related to the National Grid/Southern Union  
7 transaction is \$1,299,000.

8 The Company has also reflected synergies and CTA associated with the  
9 acquisition of KeySpan by National Grid USA (“National Grid/KeySpan  
10 transaction”). The synergies from the National Grid/KeySpan transaction are not  
11 included in the actual test year cost of service, because the synergy savings had not  
12 been achieved in the test year. The Company has estimated annual synergy savings  
13 of \$6,400,000 and annual CTA of \$1,500,000 (again reflecting a ten year recovery  
14 of the total CTA, with return). The Company reflects 50% of the annual net  
15 savings of \$4,900,000, or \$2,450,000, as a credit to the pro forma cost of service  
16 (Attachment MDL-1, Page 5).

17  
18 Q. How did the Company calculate the synergies from the National Grid/Southern  
19 Union transaction?

20 A. The Company’s calculation of the synergies from the National Grid/Southern Union  
21 transaction is shown on Attachment NG-MDL-1, Page 20. The gross merger  
22 savings are calculated based on the reduction in the employee complement  
23 attributable to the transaction and the savings from the sale of the Providence office

1 building, which the Company treats as having been made possible by the merger.  
2 These gross merger savings are offset by increases in non-labor customer  
3 accounting and A&G expenses from the twelve months ended June 30 2006 (pre-  
4 merger) to the twelve months ended September 30, 2007 (post-merger) and the  
5 costs to achieve the synergies. The calculated net synergies are \$2,281,000, of  
6 which the Company's share is 50%, or \$1,141,000.

7  
8 Q. Should the Company share of synergies and the CTA associated with the National  
9 Grid/Southern Union transaction be included in the Company's pro forma test year  
10 revenue requirement?

11 A. No. The Company uses an after-the-fact method that takes into account only  
12 selected changes in expenses in order to calculate achieved synergies. This is not to  
13 say that the Company intentionally contrived a method of measurement to show  
14 synergy savings when no such savings actually exist. However, when the method  
15 of measuring savings is determined after the transaction has taken place, it is not  
16 unlikely that the method selected from a number of possible different methods is  
17 going to show the results of the merger in the most favorable light. The method of  
18 measuring the savings on Attachment NG-MDL-1, page 20 should not be accepted  
19 for the purpose of measuring synergy savings from the National Grid/Southern  
20 Union transaction.

21 The Commission has already adopted a method of measuring synergy  
22 savings achieved by the former New England Gas, which was formed by the merger  
23 of the former Providence Gas Company and the former Valley Gas Company and

1 the acquisition of those companies by Southern Union. I have replicated this  
2 method, which is substantially the same as the method used to measure synergies  
3 achieved by the merger of the former Blackstone Valley Electric Company and  
4 Newport Electric Company into Narragansett Electric Company, on Schedule DJE-  
5 4.1. This method considers changes in the total cost of service, not just changes in  
6 selected expenses. This is the method of measuring achieved synergies that should  
7 be used to measure the synergies achieved by the National Grid/Southern Union  
8 transaction because: 1) it has already been approved for this Company, 2) it was  
9 already in existence prior to the transaction, and 3) and it is a broad measure of  
10 changes in the cost of service.

11 If the method on Schedule DJE-4.1, rather than the method on Attachment  
12 NG-MDL-1, Page 20, is used to measure synergies achieved by the National  
13 Grid/Southern Union transaction, there are no synergies. Accordingly, the  
14 Company share of the synergies and the associated CTA should be eliminated from  
15 the Company's revenue requirement. This elimination of the Company's  
16 adjustment reduces pro forma operation and maintenance expense by \$1,299,000  
17 (Schedule DJE-4).

18  
19 Q. Should the synergies net of CTA associated with the National Grid/KeySpan  
20 transaction be included in the determination of the Company's test year revenue  
21 requirement in this case?

22 A. Because the effect of the National Grid/KeySpan transaction is not already reflected  
23 in the test year cost of service, this adjustment is a credit to the Company's revenue

1 requirement. As this treatment is beneficial to customers, there is no reason to  
2 oppose the Company's adjustment to recognize these synergy savings in this case.

3 However, in future cases, the full savings from National Grid/KeySpan  
4 transaction will already be included in the test year cost of service. In those future  
5 cases, the Company will therefore be seeking to include its retained share of the  
6 savings and the CTA as a pro forma expense to be recovered in its revenue  
7 requirement (in the same manner that it seeks to include its share of the claimed  
8 National Grid/Southern Union synergies and CTA in this case). The inclusion of  
9 the expected synergy savings in the present case should not be deemed to be a  
10 finding that the savings have actually been achieved *and* will continue in effect in  
11 future years. In response to Division Data Request 9-2, the Company stated that its  
12 share of the calculated savings and the CTA, \$2,450,000, is a fixed amount that will  
13 be included in the cost of service in future rate cases. The Commission should not  
14 approve the inclusion of this pro forma expense in future rate cases unless the  
15 Company can demonstrate, using a method similar to that on Schedule DJE-4.1, that  
16 the synergies have been achieved and are actually continuing. In addition, there  
17 should be a time limit of ten years on the inclusion of this item in the Company's  
18 revenue requirement.

19  
20 f. Uncollectible Accounts Expense

21 Q. Have you also adjusted the uncollectible accounts expense included in the  
22 Company's revenue requirement?

1 A. Yes. The allowance for uncollectible accounts is calculated as a percentage of the  
2 other components of the cost of service. Therefore, the pro forma uncollectible  
3 accounts expense is affected by the other adjustments to the Company's revenue  
4 requirement. My calculation of the adjustment to the uncollectible accounts  
5 expense related to the other revenue requirement adjustments is shown on Schedule  
6 DJE-3. I also reflect the adjustment to uncollectible accounts expense related to the  
7 Company's proposed rate discounts for low income customers, which is addressed  
8 in the testimony of Mr. Oliver.

9

10 **2. Depreciation Expense**

11 Q. Have you reflected an adjustment to test year depreciation expense in you  
12 calculation of the rate year cost of service?

13 A. Yes. As depreciation expense is calculated by applying the relevant depreciation  
14 accrual rates to the depreciable plant in service, my proposed adjustment to plant in  
15 service (addressed in my testimony on rate base) affects the rate year depreciation  
16 expense. The adjustment to depreciation expense resulting from my proposed  
17 adjustment to plant in service is shown on Schedule DJE-5.

18

19 **4. Income Tax Expense**

20 Q. Have you calculated the pro forma income tax expense to be included in the  
21 Company's revenue requirement?

22 A. Yes. I have calculated the pro forma income tax expense on my Schedule DJE-6. I  
23 have used what is commonly referred to as the "return method" of calculating pro

1           forma income tax expense. This method begins by calculating the taxable income  
2           base (that is, the net income after income tax expense) by applying the weighted  
3           return on equity to the rate base and adjusting the product of that calculation by  
4           permanent tax reconciling items. To determine the taxable income, the adjusted net  
5           income must then be grossed up, as the income tax expense itself is not deductible  
6           for federal income taxes. Finally, the income tax rate of 35% is applied to the  
7           taxable income to calculate the pro forma income tax expense to be included in the  
8           Company's revenue requirement.

9  
10           **5.       Return on Rate Base**

11   Q.    How is the return on rate base to be included in the total revenue requirement  
12           calculated?

13   A.    The return on rate base is calculated by multiplying the rate of return by the rate  
14           base. The rate base is the net investment in facilities necessary to provide utility  
15           service. I am proposing adjustments to rate base, and I have incorporated the  
16           recommendation of Mr. Rothschild on rate of return into my calculation of the  
17           required return on rate base.

18  
19           a.       Rate Base

20   Q.    How did the Company determine the balance of gross utility plant that it is proposing  
21           to include in its pro forma rate base?

22   A.    The gross utility plant included in rate base is the forecasted average balance for the  
23           twelve months ending September 30, 2009, the Company's rate year. The Company

1 began with the actual balance of plant as of September 30, 2007, the end of the test  
2 year, and then adjusted that balance for forecasted additions to and retirements from  
3 plant in through September 30, 2009. The average balance of gross utility plant  
4 forecasted by the Company for its rate year is \$589,769,000.

5  
6 Q. Have you analyzed the Company's forecast of gross utility plant for the twelve  
7 months ending September 30, 2009?

8 A. Yes. I have reviewed the budgeted additions to plant for fiscal years 2008, 2009 and  
9 2010<sup>1</sup> and the conversion of the budgets for those fiscal years to the forecasts of  
10 additions for the twelve months ending September 30, 2008 and the twelve months  
11 ending September 30, 2009. I have also compared the Company's forecasts of  
12 additions and retirements in those fiscal years to actual additions and retirements in  
13 recent years, and I have reviewed the actual and budgeted additions to plant in service  
14 from October 2007 through March 2008.

15  
16 Q. Based on your analysis, are you proposing any adjustments to the forecasted plant  
17 balance included in rate base by the Company?

18 A. Yes. Referring to Attachment NG-MDL-1, it can be seen that the Company is  
19 forecasting additions to plant in service of \$36,679,000 in the twelve months ending  
20 September 30, 2008 and \$60,780,000 in the twelve months ending September 30,  
21 2009. These forecasts, even exclusive of the effect of new programs such as the  
22 ARP, exceed the level of additions to plant in service in recent years and also the rate

---

<sup>1</sup> I refer to the twelve months ending March 31 of a given year as the Company's fiscal year.

1 of actual additions to plant in service since the end of the test year. Accordingly, I  
2 recommend that the Company's forecast of additions to plant in service subsequent to  
3 the end of the test year be modified.

4  
5 Q. How are you proposing to modify the Company's forecast of plant additions  
6 through the end of the rate year?

7 A. My proposed adjustments to the Company's forecast of rate year plant in service are  
8 shown on Schedule DJE-7.1, Page 2. My adjustments can be broken out into four  
9 separate six-month time periods: October 2007 – March 2008, April 2008 –  
10 September 2008, October 2008 – March 2009, and April 2009 – September 2009.

11  
12 Q. Please explain your proposed adjustment to the Company's forecast of plant  
13 additions for the period October 2007 – March 2008.

14 A. The Company's estimate is based on its forecasted plant additions in its 2008 fiscal  
15 year. The forecasted plant additions for that fiscal year were \$31.2 million.  
16 However, the actual rate of spending through September 30, 2007, the end of the  
17 test year, was only \$13.4 million. The Company assumed that the slower rate of  
18 spending in the first six months of the 2008 fiscal year would be made up by a  
19 higher rate of spending in the last six months of the fiscal year, resulting in  
20 forecasted average spending of \$2,968,000 per month for the six months October  
21 2007 – March 2008, or a total of \$17,909,000 for that period.

22 The response to Division Data Request 1-2 provided the actual plant  
23 additions by month for the six months October 2007 – March 2008. This response

1 shows that the actual spending for that six month period was \$14,360,000. Not only  
2 was the actual spending below the Company's revised forecast of increased spending  
3 for the last six months of fiscal 2008, it was also below the average forecasted rate of  
4 spending for fiscal year 2008 as a whole. As we now have the actual plant additions  
5 for the six months October 2007 – March 2008, those actual additions should be  
6 substituted for the Company's forecast, which was clearly overstated. This  
7 adjustment reduces the plant in service by \$3,449,000. I show this adjustment by  
8 month on Schedule DJE 7.1, Page 2.

9  
10 Q. Please explain your proposed adjustment to the Company's forecast of plant  
11 additions for the period April 2008 – September 2008.

12 A. The Company's forecast of spending for this period is shown in the response to  
13 Division Data Request 1-1, Page 2 of the Attachment. The forecast is based on the  
14 fiscal year 2009 budget. Other than the Accelerated Pipe Replacement Program  
15 ("the ARP", only \$86,000 per month in this period) and spending related to the  
16 marketing program (which, as I explained above, I am not challenging) the  
17 budgeted routine capital spending is \$2,699,000 per month.

18 I recommend that the routine plant additions included in rate base for this  
19 period reflect the actual experience for the six months October 2007 – March 2008,  
20 or \$2,393,000 per month. First, based on the comparison of actual plant additions to  
21 budgeted plant additions in fiscal year 2008, the Company has demonstrated a  
22 tendency to over-estimate future plant additions, so downward adjustment to the  
23 Company's budget is warranted on these grounds. Second, the budgeted additions of

1           \$2,699,000 per month are well in excess of the average rate of actual plant additions  
2           in recent years, and a downward adjustment would bring the projection more into line  
3           with recent experience.

4           Reducing the projected plant additions from \$2,699,000 per month to  
5           \$2,393,000 per month decreases the total plant addition for the six month period by  
6           \$1,831,000. Again, this adjustment is shown on Schedule DJE-7.1, Page 2.

7

8   Q.   Please explain your proposed adjustment to the Company's forecast of plant  
9       additions for the period October 2008– March 2009

10   A.   The Company's forecast of spending for this period is also based on the fiscal year  
11       2009 budget. However, the spending on the ARP is budgeted to increase from  
12       \$86,000 per month to \$1,691,000 per month<sup>2</sup> for this period. With regard to the  
13       routine plant additions (other than ARP and spending related to the marketing  
14       program), I recommend that the estimated additions be assumed to continue at  
15       \$2,393,000 per month. With regard to the ARP, I believe that it is difficult to know  
16       at this time just what the rate of spending will be. However, the Company's  
17       forecast of \$1.7 million per month is well in excess of the rate of spending that the  
18       Company itself is forecasting over time. For example, the budgeted ARP  
19       replacement in fiscal 2010 is \$1.1 million per month. For the purpose of calculating  
20       the rate year rate base, I have reflected ARP spending of \$1,000,000 per month for  
21       the period October 2008– March 2009. However, as I explain in my testimony on

---

<sup>2</sup> This amount and the amount for the first six months of the fiscal 2009 represent the true acceleration of the pipe replacement program. The routine capital spending also includes \$10.8 million for mains and services replacement.

1 the Company's proposed reconciliation mechanisms, the Commission should  
2 consider reconciling actual ARP spending against the assumed level of ARP  
3 spending included in rate base in this case and implement appropriate rate  
4 adjustments.

5 Reducing the projected monthly spending on routine plant additions by  
6 \$305,000 and the projected ARP monthly spending by \$691,000 decreases the total  
7 plant addition for this six month period by \$5,977,000. This adjustment is also  
8 shown on Schedule DJE-7.1, Page 2.

9

10 Q. Please explain your proposed adjustment to the Company's forecast of plant  
11 additions for the period April 2009 – September 2009.

12 A. The Company's forecast of spending for this period is based on the fiscal year 2010  
13 budget (response to Division Data Request 1-1, Attachment, Page 3). In addition to  
14 the spending categories in fiscal year 2009, the fiscal year 2010 spending includes  
15 \$4,600,000 of spending on automatic meter reading equipment, all of which is in  
16 the first three months of the fiscal year. The routine spending is forecasted to  
17 increase from \$2,699,000 per month to \$3,048,000 per month, and the ARP sending  
18 is forecasted to decrease to \$1,115,000 per month.

19 I am proposing to increase the forecast of routine capital spending from  
20 \$2,393,000 per month in fiscal 2009 to \$2,500,000 to in fiscal 2010. I believe that  
21 this is a reasonable allowance for inflation and system growth from fiscal 2009 to  
22 fiscal 2010. It is a reduction of \$548,000 per month to the Company's forecast. I  
23 am also proposing to maintain the ARP spending at a rate of \$1,000,000 per month,

1 which is \$115,000 per month less than the Company's forecast. Together, these  
2 adjustments represent a decrease of \$663,000 per month, or \$3,977,000 from the  
3 Company's forecast of additions for the six month period.

4  
5 Q. What is the effect of your proposed adjustments to the Company's forecast of plant  
6 additions through the end of the rate year?

7 A. The effect of my proposed adjustments to the Company's forecast of capital  
8 additions is summarized on Schedule DJE-7.1, Page 1. I am proposing to reduce  
9 the Company's forecast of plant additions for the twelve months ending September  
10 30, 2008 by \$5,282,000. This adjustment results in a reduction to the rate year rate  
11 base by the same amount. I am also proposing to reduce the Company's forecast of  
12 plant additions for the twelve months ending September 30, 2009 by \$9,954,000.  
13 As the rate year rate base reflects the forecasted average balance of plant in service  
14 for the twelve months ending September 30, 2009, this adjustment to plant  
15 additions reduces the rate year rate base by one-half of the amount of the  
16 adjustment, or \$4,977,000. My proposed adjustment to the Company's forecast of  
17 plant additions reduces the plant in service included in the rate year rate base by  
18 \$10,259,000.

19 As the pro forma rate year depreciation expense is calculated by applying  
20 the composite depreciation rate to the average balance of rate year plant, my  
21 proposed adjustment to plant in service also affects the pro forma depreciation  
22 expense. On Schedule, DJE-5, I have calculated a reduction of \$347,000 to pro  
23 forma rate year depreciation expense related to the adjustment to plant in service.

1           The adjustment to plant additions also results in a reduction of \$279,000 to  
2           the balance of accumulated depreciation deducted from plant in service in the  
3           determination of rate base. This adjustment is shown on Schedule DJE-7.1, Page 1.

4

5           b.       Rate of Return

6   Q.       What rate of return have you used to calculate the return requirement to be included  
7           in the total cost of service?

8   A.       I have used the rate of return of 8.56% proposed by Mr. Rothschild to calculate the  
9           required return on rate base.

10

11   Q.       What return on rate base have you calculated?

12   A.       I have calculated a required return on rate base of \$23,734,000 (Schedule DJE-7)  
13           and included this return component in the Company's total revenue requirement.

14

15   **IV. RECONCILIATION MECHANISMS**

16   **A. PENSION/PBOP RECONCILIATION MECHANISM**

17   Q.       Please describe the pension/PBOP reconciliation mechanism being proposed by the  
18           Company.

19   A.       The pension/PBOP reconciliation mechanism will allow the Company to recover  
20           changes in pensions and postretirement benefits other than pension ("PBOP")  
21           through a reconciling mechanism that will be included in the distribution adjustment  
22           clause ("DAC"). The mechanism would reconcile the future actual pension and  
23           PBOP expenses recorded by the Company to the pension and PBOP expenses

1 included in its revenue requirement in this case. Any difference between the actual  
2 expenses and the amounts included in the revenue requirement would be recovered  
3 or refunded to customers through the Company's DAC in the following year. In  
4 addition, if the amount contributed to the pension and PBOP funds differs from the  
5 actual expense accruals, ratepayers would pay carrying costs (at the authorized pre-  
6 tax rate of return) on any excess funding or be credited for carrying costs on any  
7 under-funding.

8  
9 Q. What objectives does the Company seek to achieve by implementing this reconciling  
10 mechanism?

11 A. The Company cites two objectives. First, the proposed mechanism would provide  
12 adequate funding to support the pension and PBOP obligations. Second, the  
13 proposed mechanism would ensure that customers pay the amounts necessary to  
14 provide pension and PBOP benefits to employees.

15  
16 Q. Has National Grid established that the proposed pension and PBOP reconciliation is a  
17 necessary and appropriate mechanism to implement at this time?

18 A. No. As a general matter, reconciliation mechanisms are contrary to sound  
19 ratemaking practice, as such mechanisms tend to either reduce or eliminate incentives  
20 to control costs that exist under traditional ratemaking practices. National Grid  
21 presents the reconciling mechanism as a means of addressing the volatility of pension  
22 and PBOP costs and mitigating potential financial concerns resulting from such  
23 volatility. However, the Company has not provided any measurement of the

1 volatility of pension and PBOP costs or any measurement of how the magnitude of  
2 changes in these expenses relate to overall revenue requirements; nor has the  
3 Company compared the magnitude or volatility of pension and PBOP costs relative to  
4 other costs for which there is no adjustment mechanism.

5  
6 Q. Has the Company presented any data or analysis that establishes the potential for the  
7 volatility of the pension/PBOP expense to impair its financial integrity?

8 A. No. Pension costs are accrued pursuant to Statement of Financial Accounting  
9 Standards 87 and PBOP expenses are accrued pursuant to Statement of Financial  
10 Accounting Standards 106. Both of these accounting standards require certain  
11 actuarial and financial assumptions. While it is true that changes in those  
12 assumptions can cause pension and PBOP expenses to fluctuate, just about all other  
13 expenses included in the Company's base rate cost of service are also subject to  
14 fluctuation. The Company has not adequately explained why pension and PBOP  
15 costs should be treated differently from these other expenses that go into the base  
16 rate revenue requirement. Further, the Company has not presented any analysis  
17 showing that the fluctuations in pension and PBOP costs are of such a magnitude  
18 that they have the potential to impair its financial integrity.

19  
20 Q. Is the proposed mechanism necessary to achieve the objectives cited by the  
21 Company?

22 A. No. The funding for the pension and PBOP programs is provided by the inclusion  
23 of the accruals in the cost of service, regardless of whether those accruals are

1 subject to reconciliation. That is, the Company gets the cash from customers to pay  
2 for these programs by including the expenses in the revenue requirement. The  
3 expense accruals are already calculated in a manner so as to provide adequate  
4 funding of the programs, even without any reconciliation mechanism. With regard  
5 to the second objective, the amounts to pay pension and PBOP benefits to  
6 employees come from the separate funds from those programs. The contributions  
7 to those funds come from the recovery of the expense accruals in rates. The  
8 Company has presented no evidence that the present method has resulted in  
9 inadequate funding of the pension and PBOP programs.

10  
11 Q. If the Company could demonstrate that, absent the implementation of the proposed  
12 mechanism, the fluctuations in the pension and PBOP pose a significant risk, is its  
13 proposal complete?

14 A. No. The Company does not presently have any pension and PBOP reconciliation  
15 mechanism in place, nor were any such mechanisms in place at the time of the last  
16 base rate case. Thus, to the extent the volatility of pension and PBOP expense  
17 causes financial risks, such risks are implicitly incorporated into the cost of  
18 common equity. If a reconciliation mechanism is approved, then such financial  
19 risks are transferred to the Company's customers, and the authorized return on  
20 common equity should be reduced to incorporate that reduced level of risk.

21  
22 Q. Should the pension and PBOP reconciliation mechanism proposed by the Company  
23 be approved?

1 A. No. The Company has not established that the pension and PBOP expenses should  
2 be treated differently from the other expenses that go into its revenue requirement,  
3 or that such a mechanism is necessary to assure adequate funding of the pension and  
4 PBOP programs.

5

6 **B. ARP RATE ADJUSTMENT MECHANISM**

7 Q. Please describe the Accelerated Replacement Program (“ARP”) annual rate  
8 adjustment mechanism being proposed by the Company.

9 A. As referenced in my testimony on rate year plant in service, National Grid is  
10 proposing to accelerate the replacement of bare steel and cast iron mains and high  
11 pressure bare steel services. The Company is requesting authorization to implement  
12 annual rate adjustments for the revenue requirement effect of the capital additions  
13 related to this program to the extent that the additions exceed the amounts included  
14 in the rate year rate base. The rate adjustments would include the effect of the  
15 return on cumulative incremental investment, incremental depreciation, and  
16 property taxes.

17

18 Q. Should the ARP rate adjustment mechanism as proposed by the Company be  
19 approved?

20 A. No. First there are several mechanical problems with the mechanism as proposed by  
21 the Company. For example, as the title implies the ARP is a *replacement* program,  
22 not just a capital additions program. That is, as plant is added, other plant will be  
23 retired. However, the calculation of the revenue requirement effect, while

1 recognizing the increase in depreciation expense related to plant additions, does not  
2 recognize reductions to depreciation expense related to associated plant retirements  
3 (Attachment NG-MDL-5). Further, the calculation of the additional depreciation  
4 expense applies the proposed composite depreciation expense on all plant in service,  
5 although the depreciation rates on the mains and services are somewhat lower than  
6 the average composite rate. Finally, the Company calculates the incremental property  
7 taxes by applying the composite municipal property tax rate to the gross plant  
8 additions (without consideration of plant retirements or growth in accumulated  
9 depreciation). However, as can be seen on Attachment NG-MDL-1, page 22, the pro  
10 forma municipal property tax expense included in the Company's revenue  
11 requirement is not calculated as a percentage of plant in service, but rather is a  
12 projection of the trend in the expense in recent years, without explicit regard to plant  
13 additions.

14 There are two more basic problems with the ARP rate mechanism proposed  
15 by the Company. First, as described by Mr. Laflamme at pages 52 – 55 of his  
16 testimony, the ARP rate adjustment would apply to *all* main and service replacement  
17 expenditures, not just the *acceleration* of such expenditures. For example, the fiscal  
18 year 2009-2010 capital spending budget reflects \$26.7 million for main and service  
19 replacements (Attachment NG-SLF-2), substantially all of which would be subject to  
20 the ARP rate adjustment mechanism. However, as can be seen in the response to  
21 Division Data Request 1-1, only about half that amount, \$13.4 million, relates to the  
22 *accelerated* replacement program. Based on the Company's capital budget for fiscal  
23 year 2009-2010, the remaining \$13.3 million would be spent on main and service

1 replacements, even in the absence of the accelerated pipe replacement program. The  
2 Company's proposal is especially problematical in the fiscal years subsequent to  
3 2010, when the rate adjustments would apply to the full amount of the main and  
4 service replacements<sup>3</sup>, even though a substantial portion of those replacements would  
5 be routine replacements unrelated to the program to accelerate the replacement of  
6 mains and services

7 Second, the mechanism as proposed by the Company would allow for rate  
8 increases for main and service replacements, even if the additions did not result in an  
9 overall revenue deficiency. Thus, the ARP rate adjustment mechanism as proposed  
10 by the Company could lead to, or even enhance, an excess earnings situation.

11  
12 Q. Should the Commission approve the annual ARP rate adjustment mechanism as  
13 proposed by the Company?

14 A. No. However, the Division believes that the ARP is a beneficial program, and to the  
15 extent that any disincentives to incurring necessary and prudent expenditures can be  
16 removed by means of an appropriately designed rate adjustment mechanism, the  
17 Commission should not reject the implementation of such a mechanism out of hand.  
18 However, the ARP rate adjustment mechanism proposed by the Company should be  
19 modified to address the above described technical issues, should apply only to the  
20 *acceleration* of main and service replacements, and should be subject to an earnings  
21 test so that any resulting rate increases do not result in excess earnings.

22  

---

<sup>3</sup> Actual replacements in fiscal years 2009 and 2010 would be reconciled to the main and service

1 V. **ALTERNATIVE THREE-YEAR RATE PLAN**

2 Q. Please describe the alternative three-year rate plan (“Rate Plan”) being proposed by  
3 the Company.

4 A. The proposed three-year rate plan would implement annual rate increases of  
5 approximately \$13.8 million per year for three years beginning with the conclusion  
6 of this case, rather than a one-time increase of \$20.0 million. The annual rate  
7 increases are based on the Company’s calculated revenue deficiency for the rate  
8 year and its projected revenue requirements for the two years following the rate  
9 year. The stated purpose of the three-year rate plan is to mitigate the initial rate  
10 increase and to smooth the revenue requirements over three years. The three year  
11 rate plan would subsume the ARP rate adjustment mechanism during its term, as the  
12 ARP capital expenditures would be included in the rate base, along with all other  
13 capital additions, over the course of the plan. The proposed ARP rate adjustment  
14 would be replaced by a more comprehensive Capital Tracker, which would reconcile  
15 *all* capital expenditures, including the Accelerated Pipe Replacement Program,  
16 against the capital additions forecasted in the calculation of the three year revenue  
17 requirement.

18  
19 Q. Should the Commission approve the alternative three-year rate plan proposed by the  
20 Company?

21 A. No. First, the Division is proposing a substantial reduction to the initial rate  
22 increase being requested by the Company. To the extent that the rate increase is

---

replacements included in the rate year rate base in this case.

1 reduced, the effect of mitigating that rate increase by phasing it in over three years  
2 is of less benefit.

3 Second, as noted above, the three year rate plan is based on a projection of  
4 the revenue requirements in the rate year plus the two following years. I believe  
5 that it is difficult enough to forecast the revenue requirement for the rate year, much  
6 less the two years after the rate year. In my opinion, it is not possible to project the  
7 Company's revenue requirements in the twelve months ending September 30, 2012  
8 with any reasonable degree of certainty to the extent that such projections can be  
9 used to establish rates going into effect in 2008.

10 Third, as a practical matter, the three year rate plan works only if the  
11 Commission accepts the Company's calculation of its rate year revenue deficiency  
12 exactly as presented, which in my experience would be highly unusual. If the  
13 Commission were to modify any of the elements of the Company's calculated  
14 revenue deficiency, then ancillary issues would arise as to how such modifications  
15 should be incorporated into the projections of the revenue requirements in the two  
16 years following the rate year, or if they should be incorporated at all. I believe that  
17 these practical considerations would make the three-year rate plan extremely  
18 difficult, if not impossible, to implement.

19 Over its proposed term, the Company's alternative three year rate plan, with  
20 the three annual rate increases, would, on a cumulative basis, provide it with  
21 approximately \$23 million of revenues in excess of the revenues produced by its  
22 requested one time increase of \$20 million (excluding the effect of any ARP rate

1 adjustments). I do not believe that such a plan is beneficial to customers, and the  
2 Commission should not approve it

3

4 Q. Does this conclude your direct testimony?

5 A. Yes.

6

## Schedule DJE-1

NATIONAL GRID - RI GAS  
RATE YEAR REVENUE REQUIREMENT  
(\$000)

	(A) Company Position	(B) Adjustments	Division Position
Base Rate Cost of Service	\$ 146,501	\$ (11,510)	\$ 134,992
Costs Subject to Rider Recovery	<u>3,385</u>	<u>-</u>	<u>3,385</u>
Total Cost of Service	149,886	(11,510)	138,377
Rider Revenues	3,385		3,385
Interruptible Firm Revenues	1,600		1,600
Other Miscellaneous Revenues	<u>2,167</u>	<u>-</u>	<u>2,167</u>
Base Rate Revenue Requirement	\$ 142,734	\$ (11,510)	\$ 131,225
Base Rate Revenues, Present Rates	<u>122,698</u>	<u>-</u>	<u>122,698</u>
Revenue Deficiency	<u>\$ 20,036</u>	<u>\$ (11,510)</u>	<u>\$ 8,527</u>
Percentage Rate Increase	<u>16.33%</u>		<u>6.95%</u>

## Notes:

- (A) NG-MDL-1, Page 1  
(B) Schedule DJE-2

## Schedule DJE-2

NATIONAL GRID - RI GAS  
COST OF SERVICE  
(\$000)

	(A) Company Position	Adjustments		Division Position
Uncollectible Accounts Expense	\$ 3,595	\$ (688)	(B)	\$ 2,907
Other Op & Maint Expense	78,105	(4,730)	(C)	73,375
Depreciation and Amortization	20,310	(347)	(D)	19,963
Taxes Other Than Income Taxes	10,021	-		10,021
Income Taxes	8,029	(2,862)	(E)	5,167
Return on Rate Base	<u>26,442</u>	<u>(2,883)</u>	(F)	<u>23,559</u>
Total Base Rate Cost of Service	\$ 146,501	\$ (11,510)		\$ 134,992
Costs Subject to Rider Recovery	<u>3,385</u>	<u>-</u>		<u>3,385</u>
Total Cost of Service	<u>\$ 149,886</u>	<u>\$ (11,510)</u>		<u>\$ 138,377</u>

## Sources:

- (A) NG-MDL-1, Page 1
- (B) Schedule DJE-3
- (C) Schedule DJE-4
- (D) Schedule DJE-5
- (E) Schedule DJE-6
- (F) Schedule DJE-7

NATIONAL GRID - RI GAS  
ADJUSTMENTS TO UNCOLLECTIBLE ACCOUNTS EXPENSE  
(\$000)

## Other Adjustments to Revenue Requirement:

Other Op & Maint Expense	(A)	\$ (4,730)
Depreciation and Amortization	(A)	(347)
Taxes Other Than Income Taxes		-
Income Taxes	(A)	(2,862)
Return on Rate Base	(A)	<u>(2,883)</u>
Total		(10,822)
Adjustment to Uncollectible Accounts Expense	2.46%	(B) (273)
Adjustment for Low Income Rate Discounts	(C)	<u>(415)</u>
Total Adjustment to Uncollectible Accounts Expense		<u>\$ (688)</u>

## Sources:

- (A) Schedule DJE-2
- (B) NG-MDL-1, Page 32
- (C) Testimony of Mr. Oliver

NATIONAL GRID - RI GAS  
OPERATION AND MAINTENANCE EXPENSE  
(\$000)

Medical and Dental Expenses	(A)	\$	(907)
Gas Marketing Expense	(B)		(1,229)
Increased Encroachment Activity Expense	(C)		(756)
Distribution Maintenance Expense	(D)		(539)
National Grid/Southern Union Synergies and CTA	(E)		<u>(1,299)</u>
Total Adjustment to Operation and Maintenance Expense			<u>\$ (4,730)</u>

## Sources

(A)	NG-MDL-1, Page 5		
(B)	Testimony of Division Witness Oliver	148-1377	
(C)	Encroachment Spending 10/07-02/08	124	DIV 4-10
	Annualized Spending	12/5	298
	Company Pro Forma Expense	<u>1,054</u>	DIV 4-10
	Adjustment to Company Expense	<u>(756)</u>	
(D)	Distribution Maint. 12 Mos 5/31/08	16,265	DIV 9-4
	Distribution Maint. 12 Mos 9/30/07	<u>16,804</u>	DIV 9-4
	Adjustment to Test Year Expenses	<u>(539)</u>	
(E)	NG-MDL-1, Page 5 -1141-158		

NATIONAL GRID - RI GAS  
TEST OF ACHIEVED SAVINGS - DOCKET NO. 3401 FORMULA  
(\$000)

1	Benchmark Cost of Service				127,700
2	GDPIPD Growth Y/E 6/30/2004	2.98%	* 50%	1.0149	
3	GDPIPD Growth Y/E 6/30/2005	3.29%	* 50%	1.0164	
4	GDPIPD Growth Y/E 6/30/2006	3.19%	* 50%	1.0160	
5	GDPIPD Growth Y/E 6/30/2007	2.39%	* 50%	1.0120	
6	GDPIPD Growth 3 Mos. 9/30/2007	0.60%	* 50%	1.0030	
7	Escalated Benchmark COS				135,847
8	2003 Therm Sales from Settlement (000)			345,400	
9	Weather Adjusted Y/E 9/30/2007 Therm Sales (000)			342,685	
10	Weather Normalized Sales Growth			-0.786%	
11	Cost Growth Factor			30%	
12	Adjustment for Growth				<u>(320)</u>
13	Adjusted Benchmark Cost of Service				135,526
14	Normalized Cost of Service - Year Ended 9/30/2007				147,928
15	Proved Savings				-

## Line Notes

1,8,11	Docket No. 3401, Settlement Appendix D				
2-6	Implicit Price Deflator for Period				
7	Product, Lines 1-6				
9	Attachment NG-PCC-2, Page 1				
10	Line 8/Line 9 -1				
12	Line 10/Line 11 * Line 7				
13	Line 7 + Line 12				
14	Attachment NG-MDL-1, Page 1				
	Other Operation and Maintenance Expenses				77,899
	Uncollectible Accounts Expense				9,005
	Depreciation and Amortization Expense				21,221
	Taxes Other Than Income				9,995
	Rate Base	252,408			
	ROR, w/ FIT Gross-up (Docket 3859)	11.81%			
	Return Requirement, Including Income Taxes				<u>29,808</u>
	Normalized Cost of Service				<u>147,928</u>
15	Line 13 - Line 14, not Less than Zero				

Schedule DJE-5

NATIONAL GRID - RI GAS  
ADJUSTMENTS TO DEPRECIATION EXPENSE  
(\$000)

Adjustment to Plant in Service	(A)	\$	(10,259)
Composite Book Depreciation Rate	(B)		<u>3.38%</u>
Adjustment to Pro Forma Depreciation Expense		\$	<u>(347)</u>

Sources:

- (A) Schedule DJE-7.1
- (B) NG-MDL-1, Page 31

## Schedule DJE-6

NATIONAL GRID - RI GAS  
INCOME TAX EXPENSE  
(\$000)

Rate Base	DJE-7	\$ 275,261
Weighted Return on Equity	DJE-8	<u>3.76%</u>
Preliminary Taxable Income Base		10,345
Tax Reconciling Items	NG-MDL-1, Page 31	<u>(749)</u>
Taxable Income Base		9,596
Taxable Income	Taxable Income Base/.65	14,763
Income Tax Rate		<u>35%</u>
Income Tax Expense		<u>5,167</u>

NATIONAL GRID - RI GAS  
RETURN ON RATE BASE  
(\$000)

	(A) Company <u>Position</u>	<u>Adjustments</u>		Division <u>Position</u>
Gas Plant in Service	\$ 589,769	(10,259)	(B)	\$ 579,510
CWIP	8,981			8,981
Contributions in Aid of Construction	(99)			(99)
Accumulated Depreciation	<u>(284,402)</u>	<u>279</u>	(B)	<u>(284,123)</u>
Net Plant	<u>314,249</u>	<u>(9,980)</u>		<u>304,269</u>
Materials and Supplies	2,227			2,227
Prepaid Expenses	46			46
Deferred Debits	1,440			1,440
Cash Working Capital	<u>11,144</u>	<u>-</u>		<u>11,144</u>
Sub-total	<u>14,857</u>	<u>-</u>		<u>14,857</u>
Accumulated Deferred FIT	8,952			8,952
Merger Hold Harmless Deferred FIT	30,337			30,337
Customer Deposits	3,736			3,736
Injuries and Damages Reserve	<u>840</u>			<u>840</u>
Sub-total	<u>43,865</u>	<u>-</u>		<u>43,865</u>
Net Rate Base	285,241	(9,980)		275,261
Rate of Return	(C) 9.27%	-0.71%		8.56%
Return on Rate Base	<u>\$ 26,442</u>	<u>\$ (2,883)</u>		<u>\$ 23,559</u>

## Sources

- (A) NG-MDL-1, Page 24
- (B) Schedule DJE-7.1, Page 2
- (C) Schedule DJE-8

NATIONAL GRID - RI GAS  
ADJUSTMENT TO RATE YEAR PLANT IN SERVICE  
(\$000)

Adjustment to Plant Additions 10/01/07 - 9/30/08	(A)	\$ (5,282)
Adjustment to Plant Additions 10/01/08 - 9/30/09	(A)	(9,954)
Effect on Average Rate Year Rate Base	50%	\$ (4,977)
 Total Adjustment to Rate Year Rate Base		 <u>\$ (10,259)</u>
 Adjustment to Rate Year Depreciation Expense	(B)	 <u>\$ (347)</u>
 Adjustment to Accumulated Depreciation 9/30/2008	(C)	 (105)
Adjustment to Accumulated Depreciation 9/30/2009	(C)	<u>(173)</u>
Adjustment to Rate Year Accumulated Depreciation		<u>\$ (279)</u>

## Sources:

- (A) Schedule DJE-7.1, Page 2
- (B) Schedule DJE-4
- (C) Adjustment to Plant Additions \* Depreciation Rate \* 1/2

NATIONAL GRID - RI GAS  
RATE YEAR PLANT IN SERVICE  
(\$000)

	Company Forecast		Adjusted		Company Forecast		Adjusted	
	Plant		Plant		Plant		Plant	
	Adds	Adjstmt.	Adds		Adds	Adjstmt.	Adds	
Oct-07	2,968	(180)	2,788		Oct-08	4,749	(996)	3,753
Nov-07	2,968	883	3,851		Nov-08	4,749	(996)	3,753
Dec-07	2,968	(352)	2,616		Dec-08	4,749	(996)	3,753
Jan-08	2,968	(1,063)	1,905		Jan-09	4,749	(996)	3,753
Feb-08	2,968	(2,148)	820		Feb-09	4,749	(996)	3,753
Mar-08	2,968	(590)	2,378		Mar-09	4,749	(996)	3,753
Apr-08	3,145	(305)	2,840		Apr-09	6,147	(663)	5,485
May-08	3,145	(305)	2,840		May-09	6,147	(663)	5,485
Jun-08	3,145	(305)	2,840		Jun-09	6,147	(663)	5,485
Jul-08	3,145	(305)	2,840		Jul-09	4,614	(663)	3,951
Aug-08	3,145	(305)	2,840		Aug-09	4,614	(663)	3,951
Sep-08	3,145	(305)	2,840		Sep-09	4,614	(663)	3,951
Totals	<u>36,679</u>	<u>(5,282)</u>	<u>31,397</u>			<u>60,781</u>	<u>(9,954)</u>	<u>50,827</u>

## Notes on Adjustments

Oct 07 -Mar 08 Adjustment reflects actual plant adds, per DIV 1-2

	Apr-08	Oct-08	Apr-09
	Sep-08	Mar-09	Sep-09
Base Spend per Company	2,548	2,548	2,838
New Program Spend per Company	150	150	210
Total	2,699	2,699	3,048
Monthly Avg. 10/07-03/08 and FY 09-10 Est.	2,393	2,393	2,500
Adjustment	<u>(305)</u>	<u>(305)</u>	<u>(548)</u>
Recommended Pipe Replacement		1,000	1,000
Company Proposed Pipe Replacement		1,691	1,115
Adjustment to Pipe Replacement		<u>(691)</u>	<u>(115)</u>
Total Adjustment		<u>(996)</u>	<u>(663)</u>

Sources: Responses to DIV 1-1, DIV 1-2

NATIONAL GRID - RI GAS  
RATE OF RETURN  
(\$000)

**Company Position**

	<u>Percent of Total</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Long Term Debt	40.63%	7.99%	3.25%
Short Term Debt	11.66%	4.59%	0.54%
Common Equity	<u>47.71%</u>	11.50%	<u>5.49%</u>
 Total Capital	 <u>100.00%</u>		 <u>9.27%</u>

**Division Position**

	<u>Percent of Total</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Long Term Debt	59.06%	7.99%	4.72%
Short Term Debt	3.17%	2.58%	0.08%
Common Equity	<u>37.77%</u>	9.95%	<u>3.76%</u>
 Total Capital	 <u>100.00%</u>		 <u>8.56%</u>

## Sources:

Attachment NG-MDL-1, Page 32

Testimony of Mr. Rothschild