



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
LITIGATION OFFICE
720 KENNON STREET SE ROOM 136
WASHINGTON NAVY YARD DC 20374-5051

IN REPLY REFER TO

September 14, 2009

Luly Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

In Re: Narragansett Electric Company d/b/a National Grid
Application For Approval of a Change in Electric Base Distribution Rates
Docket No. 4065

Dear Ms. Massaro

Enclosed please find the original and nine copies of the Department of the Navy's
Testimony of Ali Al-Jabir's testimony in the above-referenced Docket.

Sincerely,

A handwritten signature in cursive script, reading "Joshua Harvey", is written over a faint circular stamp.

Joshua Harvey for
AUDREY VAN DYKE
Counsel for the
Secretary of the Navy

Cc: (by email)
Service List

**APPLICATION OF THE
NARRAGANSETT ELECTRIC
COMPANY D/B/A NATIONAL GRID
FOR APPROVAL OF A CHANGE IN
ELECTRIC BASE DISTRIBUTION
RATES PURSUANT TO R.I.G.L.
SECTIONS 39-3-10 AND 39-3-11**



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| APPLICATION OF THE | |) | |
| NARRAGANSETT ELECTRIC | |) | |
| COMPANY D/B/A NATIONAL GRID | |) | DOCKET NO. 4065 |
| FOR APPROVAL OF A CHANGE IN | |) | |
| ELECTRIC BASE DISTRIBUTION | |) | |
| RATES PURSUANT TO R.I.G.L. | |) | |
| SECTIONS 39-3-10 AND 39-3-11 | |) | |
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BEFORE THE
RHODE ISLAND PUBLIC UTILITIES COMMISSION

APPLICATION OF THE
NARRAGANSETT ELECTRIC
COMPANY D/B/A NATIONAL GRID
FOR APPROVAL OF A CHANGE IN
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SECTIONS 39-3-10 AND 39-3-11

DOCKET NO. 4065

Direct Testimony of Ali Al-Jabir

Introduction

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A My name is Ali Al-Jabir and my business address is 6810 Saratoga Boulevard, Suite
202, Corpus Christi, Texas, 78414.

Q WHAT IS YOUR OCCUPATION?

A I am an energy advisor and a consultant in the field of public utility regulation with the
firm of Brubaker & Associates, Inc ("BAI").

**Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND
EXPERIENCE.**

A These are set forth in Appendix A to my testimony.

1 **Q ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

2 A I am testifying on behalf of the United States Department of the Navy ("Navy"). The
3 Navy is a large consumer of electricity in the service territory of the Narragansett
4 Electric Company ("Company") and takes service from the Company primarily on
5 Rate Schedule G-62.

6 **Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 A The purpose of my testimony is to discuss the Company's class cost of service study
8 ("CCOSS") and proposed revenue distribution. The fact that I am not addressing a
9 specific issue in the Company's application in this proceeding should not be
10 construed as an endorsement of the Company's position with regard to such issue.

11 **Q PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.**

12 A My conclusions and recommendations can be summarized as follows:

- 13 1. The Company's CCOSS classified the investment in distribution line costs in
14 Accounts 364 - 367 as entirely demand-related. This is inconsistent with cost
15 causation and generally accepted cost allocation methodologies.
- 16 2. The Rhode Island Public Utilities Commission ("Commission") should require the
17 Company to conduct a Minimum Distribution System study and to develop a
18 CCOSS that classifies and allocates distribution line costs in Accounts 364 - 368
19 into demand and customer components in the Company's next base rate case.
- 20 3. The Company's proposal to allocate economic development costs only to
21 commercial and industrial customers on the basis of energy consumption should
22 be rejected. Instead, the Commission should broadly allocate the costs
23 associated with the Company's economic development initiatives to all customer
24 classes on the basis of delivery service revenues.
- 25 4. The revenue distribution in this case should be guided by the results of the
26 modified CCOSS that reflects my recommended allocation of economic
27 development costs. If the Commission determines that gradualism concerns
28 justify capping the rate increase for the Lighting and Propulsion classes as
29 proposed by the Company, it is not reasonable to impose full responsibility for this
30 revenue subsidy only on the Commercial & Industrial ("C&I") Large Demand
31 class. To remedy this inequity, I recommend that the Commission directly assign
32 to the C&I Large Demand class any reductions that it orders to the Company's

requested revenue requirement in this proceeding. If the reduction to the Company's requested revenue requirement that the Commission orders is more than sufficient to bring the C&I Large Demand class to cost of service, then any additional revenue reduction should be allocated based on rate base to all customer classes.

Cost of Service Overview

Q HAS THE COMPANY FILED A CCROSS IN THIS PROCEEDING?

A Yes.

Q WHAT INFORMATION IS CONTAINED IN A CCROSS?

A A CCROSS is used to determine the cost that the Company incurs to serve the various customer classes in its service territory. A CCROSS compares the cost that each customer class imposes on the system to the revenues that each class contributes. This relationship is generally presented by comparing the rate of return that a class is providing to the utility's overall jurisdictional rate of return.

For example, when a customer class produces the same rate of return as the total utility rate of return, the customer class is paying revenue to the utility just sufficient to cover the costs that the utility incurs to serve that class. If a class produces a below-average rate of return, it may be concluded that the revenue provided by the class is insufficient to cover all relevant costs to serve that class. On the other hand, if a class produces a rate of return above the system average, it is not only paying revenues sufficient to cover the cost attributable to it, but in addition, it is paying part of the cost attributable to other classes who produce below system average rates of return.

1 **Q WHY IS A CCOSS OF IMPORTANCE?**

2 A A CCOSS illustrates the costs that a utility incurs to serve each customer class. It is
3 a widely held principle that costs should be allocated among customer classes on the
4 basis of cost-causation. That principle is perhaps the most universally accepted tenet
5 of allocating cost that cannot be directly assigned to a particular customer class. In
6 other words, costs should be allocated to those classes on the basis of how or why
7 those costs are incurred by the utility. The results of such studies are used in
8 assigning cost responsibilities to various customer classes in regulatory proceedings.

9 **Q DO YOU SUPPORT THE PREMISE THAT COST-CAUSATION PRINCIPLES**
10 **SHOULD GUIDE THE ALLOCATION OF COSTS TO THE CUSTOMER CLASSES?**

11 A Yes. Rates that are based on consistently applied cost-causation principles are not
12 only fair and reasonable, but further the cause of stability, conservation and
13 efficiency. When consumers are presented with price signals that convey the
14 consequences of their consumption decisions (i.e., how much energy to consume, at
15 what rate, and when) they tend to take actions which not only minimize their own
16 costs, but those of the utility as well.

17 Although factors such as simplicity, gradualism, economic development and
18 ease of administration may also be taken into consideration when determining the
19 final spread of the revenue requirement among classes, the fundamental starting
20 point and guideline should be the cost of serving each customer class produced by
21 the CCOSS.

22 **Q HOW IS THE COST OF SERVING EACH CUSTOMER CLASS DETERMINED?**

23 A The appropriate mechanism to determine the cost of serving each customer class is a
24 fully allocated embedded CCOSS. It follows, however, that the objective of

cost-based rates cannot be attained unless the CCOSS is developed using cost-causation principles.

Q WHAT ARE THE MAJOR STEPS IN A CCOSS?

A The first step in a CCOSS is known as functionalization. This refers to the process by which the company's investments and expenses are reviewed and put into different categories of cost. The primary functions utilized are production, transmission and distribution. Of course, each broad function may have several subcategories to provide for a more refined determination of cost of service.

The second major step is known as classification. In the classification step, the functionalized costs are separated into the categories of demand-related, energy-related and customer-related costs in order to facilitate the allocation of costs by applying cost-causation principles.

Demand- or capacity-related costs are those costs that are incurred by the utility to serve the amount of demand that each customer class places on the system. A traditional example of capacity-related costs is the investment associated with generating stations, transmission lines and a portion of the distribution system. Once the utility makes an investment in these facilities, the costs continue to be incurred, irrespective of the number of kilowatthours generated and sold or the number of customers taking service from the utility.

Energy-related costs are those costs that are incurred by the utility to provide the energy required by its customers. Energy-related costs, such as fuel expense, are almost directly proportional to the amount of kilowatthours supplied by the utility system to meet its customers' energy requirements. As a general rule, delivery service costs are not energy-related.

Customer-related costs are those costs that are incurred to connect customers to the system and are independent of the customer's demand and energy requirements. Primary examples of customer-related costs are investments in meters, services and the portion of the distribution system that is necessary to connect customers to the system. In addition, such accounting functions as meter reading, bill preparation and revenue accounting are considered customer-related costs.

The final step in the CCOSS is the allocation of each category of the functionalized and classified costs to the various customer classes using cost-causation principles. Demand-related costs are allocated on a basis that gives recognition to each class's responsibility for the Company's need to build plant to serve the demands imposed on the system. Energy-related costs are allocated on the basis of energy use by each customer class. Customer-related costs are allocated based upon the number of customers in each class, weighted to account for the complexity of servicing the needs of the different classes of customers.

Q WHY IS IT IMPORTANT TO ADHERE TO BASIC COST OF SERVICE PRINCIPLES IN THE RATEMAKING PROCESS?

A The basic reasons for using cost of service as the primary factor in the revenue allocation/rate design process are equity, cost causation, appropriate price signals, conservation and revenue stability.

Q HOW IS THE EQUITY PRINCIPLE ACHIEVED BY BASING RATES ON COSTS?

A To the extent practical, when rates are based on cost, each customer pays what it costs the utility to serve them, no more and no less. If rates are not based on cost of

service, then some customers contribute disproportionately to the utility's revenue requirement and provide contributions to the cost to serve other customers.

Q HOW DO COST-BASED RATES PROVIDE APPROPRIATE PRICE SIGNALS TO CUSTOMERS?

A Rate design is the process of translating the cost of providing service for each customer class into per unit charges that recover the targeted revenue requirement for each class. It is important that the proper amounts and types of costs be allocated to the appropriate customer classes so that they may ultimately be reflected in the rates.

When the rates are designed so that the demand, energy, and customer costs are properly reflected in the demand, energy and customer components of the rate schedules, respectively, customers are provided with the appropriate price signals to manage their loads accordingly. This, in turn, provides the correct signal to the utility (and other competitive power suppliers if applicable) about the need for new investment to meet the customers' needs. When customers impose a certain level of demand on the system, they should pay for the prudent cost that the utility incurs to supply that demand and the energy charge that they pay should reflect the cost of providing that energy.

From a rate design perspective, overpricing one portion of the rate (i.e., energy) and under pricing the other components of the rate, such as customer and demand charges, will result in a disproportionate share of revenues being collected from high load factor customers and send distorted price signals to all customers.

1 **Q HOW DO COST-BASED RATES FURTHER THE GOAL OF CONSERVATION?**

2 A Conservation occurs when wasteful or inefficient uses of electricity are discouraged or
3 minimized. Only when rates are based on the cost to serve them do customers
4 receive an accurate and appropriate price signal against which to make their
5 consumption decisions. If rates are not based on costs, then customers may be
6 induced to use electricity inefficiently in response to the distorted price signals.

7 **Q PLEASE DISCUSS THE REVENUE STABILITY CONSIDERATION.**

8 A Rates that are designed to track changes in the level of costs result in revenue
9 changes that mirror cost changes. Thus, cost-based rates provide an important
10 enhancement to a utility's earnings stability, reducing its need to file for rate
11 increases.

12 From the perspective of the customer, cost-based rates provide a more
13 reliable and transparent means of determining future levels of power costs. If rates
14 are based on factors other than the cost to serve, it becomes much more difficult for
15 customers to translate utility-wide cost changes into changes in the rates applicable
16 to customer classes and to particular customers within each class. For the customer,
17 this situation reduces the attractiveness of expansion, as well as continued
18 operations, in the utility's service territory because of the limited ability to plan and
19 budget for the level of future power costs that the customer will incur.

20 **The Company's Cost of Service Study**

21 **Q PLEASE PROVIDE AN OVERVIEW OF THE COMPANY'S CCOSS.**

22 A The Company presented a traditional, embedded CCOSS that was used to establish
23 the level of revenues necessary for each customer class to provide a return on rate

1 base equal to the overall rate of return. The Company developed a CCOSS for the
2 following customer classes: Residential, Small C&I, General C&I, C&I 200 kW
3 Demand, C&I 3,000 kW Demand, Lighting and Propulsion. The rate year used for the
4 CCOSS is the 12-month period ending December 31, 2010.

5 **Q DO YOU DISAGREE WITH ANY ASPECTS OF THE COMPANY'S CCOSS AND**
6 **REVENUE DISTRIBUTION?**

7 A Yes. Primarily, I take exception to the Company's proposed classification and
8 allocation of certain components of distribution costs. Specifically, I disagree with the
9 Company's allocation of the costs associated with investments in Plant Accounts
10 364 - 368. The costs associated with these accounts should be classified and
11 allocated based on both demands and customer counts. By contrast, the Company
12 proposes to allocate distribution poles and wires costs in Accounts 364 - 367 entirely
13 on a demand basis. The Company is proposing to allocate transformer costs in
14 Account 368 exclusively on a customer basis.

15 I also take exception to the Company's proposal to allocate the costs
16 associated with its proposed economic development program exclusively to
17 commercial and industrial customers. The costs associated with this program should
18 be broadly allocated across all of the customer classes in the CCOSS.

19 With respect to revenue distribution, I disagree with the Company's proposal
20 regarding the allocation of the proposed revenue subsidy for the Lighting and
21 Propulsion classes. Specifically, it is inappropriate and inequitable to assign the
22 entire burden of this revenue subsidy to the C&I Large Demand class. This treatment
23 should be corrected by assigning any revenue requirement reductions that the
24 Commission orders in this case exclusively to the C&I Large Demand class, to the
25 extent required to ensure that this class achieves a unity rate of return. Each of the

points referenced above is addressed in more detail in subsequent sections of my direct testimony.

Allocation of Distribution Line Costs

Q PLEASE BRIEFLY DESCRIBE THE INVESTMENT THAT IS INCLUDED IN PLANT ACCOUNTS 364 - 368.

A Plant Accounts 364 - 368 contain the following types of investment:

| TABLE 1 | |
|--|------------------------------------|
| <u>Plant Accounts 364 - 368 Description</u> | |
| <u>Account</u> | <u>Delivery Service</u> |
| 364 | Poles, towers and fixtures |
| 365 | Overhead conductors and devices |
| 366 | Underground conduit |
| 367 | Underground conductors and devices |
| 368 | Line transformers |

Collectively, the investment that is shown in Plant Accounts 364 - 368 is sometimes referred to as distribution line costs.

Q HOW DID THE COMPANY CLASSIFY AND ALLOCATE THE DISTRIBUTION LINE COSTS IN PLANT ACCOUNTS 364 - 368 IN ITS CCROSS?

A The Company's CCROSS classifies and allocates the distribution line costs in Accounts 364 - 367 exclusively on a demand basis. At the same time, the Company is proposing to allocate transformer costs in Account 368 entirely on a customer basis.

Q DO YOU BELIEVE IT IS APPROPRIATE TO CLASSIFY AND ALLOCATE THE DISTRIBUTION LINE COSTS IN PLANT ACCOUNTS 364 - 367 ENTIRELY ON THE BASIS OF CUSTOMER DEMANDS?

A No. This is inconsistent with cost-causation and generally accepted cost allocation methodologies. The primary purpose of the distribution system is to deliver power from the transmission grid to the customer. Certain distribution investments must be made just to connect a customer to the system. These investments are customer-related.

Q IS IT COMMON PRACTICE TO CLASSIFY A PORTION OF THE DISTRIBUTION LINE COSTS AS CUSTOMER-RELATED?

A Yes. The National Association of Regulatory Utility Commissioners ("NARUC") Electric Utility Cost Allocation Manual states that:

"Distribution plant Accounts 364 through 370 involve demand and customer costs. The customer component of distribution facilities is that portion of costs which varies with the number of customers. Thus, the number of poles, conductors, transformers, services, and meters are directly related to the number of customers on the utility's system. As shown in Table 6-1, each primary plant account can be separately classified into a demand and customer component. Two methods are used to determine the demand and customer components of distribution facilities. They are, the minimum-size-of-facilities method, and the minimum-intercept cost (zero-intercept or positive-intercept cost, as applicable) of facilities."¹

Table 6-1 from the NARUC Manual is included in my testimony as Exhibit AZA-1. This exhibit shows that Distribution Plant Accounts 364 - 368 have a customer component. The Company must incur costs to construct a distribution line irrespective of the amount (i.e., energy) or rate (i.e., demand) of electricity usage. Therefore, a portion of these distribution line costs is properly classified and allocated

¹National Association of Regulatory Utility Commissioners, Electric Utility Cost Allocation Manual, January 1992, page 90.

as customer-related. The remaining distribution investment is needed to provide sufficient capacity to meet customers' demands when they arise. This portion of the distribution investment is demand-related. By classifying and allocating the distribution investment in Plant Accounts 364 - 367 entirely on a demand basis, the Company's CCOSS ignores sound cost-causation principles with respect to this category of costs.

Q PLEASE EXPLAIN ONE OF THE METHODS USED FOR CLASSIFYING DISTRIBUTION LINE COSTS.

A One of the methods that the NARUC Manual discusses is the minimum size method. The minimum size method determines the minimum size distribution system that could be built to serve the minimum load requirements of customers on the system. This method involves determining the smallest size pole, conductor, cable and transformer that is currently installed by the utility. The cost of the smallest size facility is classified as customer-related. The demand-related cost is the difference between the total cost and the customer-related cost.

Q WOULD YOU PROVIDE A SIMPLE ILLUSTRATION THAT SUPPORTS THE CLASSIFICATION OF A PORTION OF THE DISTRIBUTION SYSTEM AS CUSTOMER-RELATED?

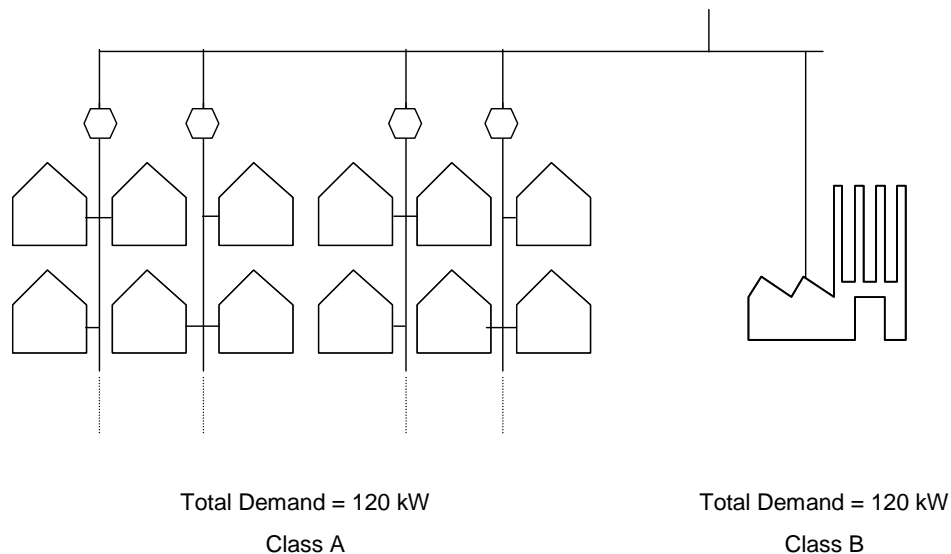
A Yes. The following diagram shows the distribution network for a utility with two customer classes, A and B. The physical distribution network necessary to attach Class A is designed to serve 12 customers, each with a 10 kW load, having a total demand of 120 kW. This is the same total demand imposed on the utility system by Class B, which consists of a single customer. Clearly, a much more extensive distribution system is required to attach the multitude of small customers (Class A),

than to attach the single larger customer (Class B), despite the fact that the total demand of each customer class is the same.

Although some additional customers can be attached without additional investment in certain areas of the system, it is obvious that attaching a large number of customers requires investment in facilities, not only initially but also on a continuing basis for maintenance.

To the extent that the distribution system components must be sized to accommodate additional load beyond the minimum required level, this additional distribution line investment is a demand-related cost. Thus, the distribution system is properly classified as both demand-related and customer-related.

Classification of Distribution Investment



1 **Q HAVE UTILITY COMMISSIONS ADOPTED CLASS COST OF SERVICE STUDIES**
2 **THAT CLASSIFY AND ALLOCATE A PORTION OF DISTRIBUTION LINE COSTS**
3 **ON A CUSTOMER BASIS?**

4 A Yes. Among others, state regulatory commissions in Connecticut, Florida, Hawaii,
5 Maine, Massachusetts, Minnesota, Missouri, New Mexico, New York, North Carolina,
6 Oregon, Pennsylvania, Utah and Wisconsin have classified and allocated the
7 distribution plant costs in Accounts 364 - 368 on both a customer- and demand-
8 related basis for class cost of service purposes.

9 **Q DO YOU BELIEVE ADOPTION OF THIS APPROACH IS APPROPRIATE IN**
10 **RHODE ISLAND?**

11 A Yes. I recommend the Commission adopt this approach because it is consistent with
12 cost-causation principles. The allocation of distribution plant costs based upon
13 customer- and demand-related components would promote the establishment of
14 rates in a manner that reflects cost causation, and would be revenue neutral to the
15 Company.

16 **Q DOES THE COMPANY'S TESTIMONY IN THIS CASE ACKNOWLEDGE THAT**
17 **DISTRIBUTION LINE COSTS ARE OFTEN CLASSIFIED AND ALLOCATED ON**
18 **BOTH A DEMAND AND CUSTOMER BASIS?**

19 A Yes. In his direct testimony, Company witness Howard S. Gorman recognizes that
20 such treatment of distribution line costs is common in a CCOSS. On this topic, Mr.
21 Gorman stated as follows:

22 "A Minimum System Study is often used to classify the following
23 Secondary distribution assets: Poles, Towers and Fixtures; Overhead
24 Conductors and Devices; Underground Conduits; Underground
25 Conductors and Devices; and Line Transformers. The Minimum
26 System Study recognizes that these assets have a dual purpose –

1 both to connect customers to the system and to meet peak demand,
2 and that the Company's investment in these assets is affected by both
3 purposes."²

4 **Q DID THE COMPANY PERFORM A MINIMUM DISTRIBUTION SYSTEM STUDY IN**
5 **THIS CASE?**

6 A No.

7 **Q HAS THE COMPANY PROVIDED ANY RATIONALE FOR NOT CONDUCTING**
8 **SUCH A STUDY?**

9 A The Company explains that it did not perform a Minimum Distribution System study in
10 its last rate case. The Company also contends that such studies are not routinely
11 performed in Rhode Island. Finally, the Company points out that it classified
12 distribution line costs in Accounts 364 - 367 as exclusively demand-related in
13 previous cases, including Docket Nos. 2072 and 2290.³

14 **Q HOW DO YOU RESPOND TO THE COMPANY'S ARGUMENTS?**

15 A The Company's reliance on its experience in prior Rhode Island base rate cases does
16 not justify its proposed treatment of distribution line costs in this proceeding. As I
17 explained above, classifying and allocating distribution line costs using both customer
18 and demand components is consistent with sound principles of cost causation. This
19 consideration should provide sufficient cause for the Commission to reexamine the
20 treatment of distribution line costs in this case. Moreover, the Company's response to
21 Navy Data Request 3-5 states that the class cost of service studies in Docket Nos.
22 2072 and 2290 were not fully litigated, but were rather part of a settlement

²Docket No. 4065, Direct Testimony of Howard S. Gorman, page 15.

³Docket No. 4065, Company's response to Navy Data Request 3-5.

1 agreement. As such, the Company's treatment of distribution line costs in these prior
2 cases should not have precedential value in this or future rate proceedings.

3 **Q WHAT IS YOUR RECOMMENDATION WITH RESPECT TO THE CLASSIFICATION**
4 **AND ALLOCATION OF DISTRIBUTION LINE COSTS?**

5 A The classification and allocation of distribution line costs using both demand and
6 customer components is an approach that is widely employed in class cost of service
7 studies and is consistent with cost causation. Therefore, I recommend that the
8 Commission require the Company to conduct a Minimum Distribution System study
9 and develop a CCROSS that classifies and allocates distribution line costs into demand
10 and customer components in the Company's next rate case. This would allow the
11 Commission to apply this approach using actual data for the Company's distribution
12 system.

13 **Allocation of Economic Development Costs**

14 **Q PLEASE PROVIDE A BRIEF DESCRIPTION OF THE COMPANY'S PROPOSED**
15 **ECONOMIC DEVELOPMENT PROGRAM.**

16 A The Company is proposing a total allowance of \$1 million per year that would be
17 dedicated to new economic development initiatives in the areas of targeted
18 infrastructure improvement, urban revitalization and strategic business development
19 efforts. The Company intends to develop the details of this economic development
20 program through a collaborative effort with interested parties. The Company is not
21 proposing to include any energy price incentive programs in its economic
22 development proposal.⁴

⁴Docket No. 4065, Direct Testimony of Company witness Carmen Fields, pages 3-9.

1 **Q HOW IS THE COMPANY PROPOSING TO ALLOCATE THESE ECONOMIC**
2 **DEVELOPMENT COSTS TO THE RATE CLASSES IN ITS CCROSS?**

3 A The Company proposes to allocate these costs on a kWh basis, but using only the
4 energy consumption of commercial and industrial customers. The result of this
5 method is that the Residential, Lighting and Propulsion classes bear no responsibility
6 for the Company's economic development program costs.⁵

7 **Q WHAT IS THE COMPANY'S RATIONALE FOR ALLOCATING ECONOMIC**
8 **DEVELOPMENT COSTS IN THIS MANNER?**

9 A In response to discovery in this case, the Company stated that its economic
10 development program is targeted to helping commercial and industrial customers
11 grow, retain and attract business to Rhode Island. Consequently, the Company's
12 discovery response asserted that these costs are closely related to energy
13 consumption by the commercial and industrial customer classes.⁶

14 **Q DO YOU AGREE WITH THE COMPANY'S REASONING?**

15 A No. Economic development programs are not intended exclusively to benefit
16 commercial and industrial customers. Rather, such programs are designed to reduce
17 the escalation of electricity rates for all customer classes by spreading the fixed costs
18 of providing delivery service over a larger customer base.

19 **Q PLEASE EXPLAIN.**

20 A The costs associated with the provision of delivery service are predominantly fixed,
21 sunk costs that are incurred to construct the facilities necessary for delivering power

⁵Docket No. 4065, Direct Testimony of Howard S. Gorman, Schedule NG-HSG-2, page 26.

⁶Docket No. 4065, Company's response to Navy Data Request 3-2(c).

1 to customers over the electrical grid. If the total load on the system declines due to
2 deteriorating economic conditions, these same sunk costs will be spread over a
3 smaller amount of remaining load on the system. This would lead to higher per unit
4 delivery service charges for all customers in future rate cases. Conversely, an
5 expansion in customer sales through economic development efforts can reduce rates
6 for all customer classes as the fixed costs of the power grid are spread over larger
7 delivery service volumes.

8 **Q ARE ECONOMIC DEVELOPMENT PROGRAMS DESIGNED TO BROADLY**
9 **BENEFIT ALL CUSTOMERS IN OTHER RESPECTS?**

10 A Yes. A principal benefit of economic development programs is to retain existing jobs
11 and to create new jobs in the Company's service territory. Indeed, the Company
12 asserts that National Grid's economic development programs in New York State have
13 contributed to the creation or retention of 10,000 jobs since 2003.⁷

14 Although these enhanced employment opportunities are created at the
15 companies targeted by economic development programs in the first instance, these
16 programs indirectly benefit the local economy in general, as the beneficiaries of the
17 programs spend money to acquire goods and services from other businesses. This
18 creates a ripple effect that generates job opportunities at other businesses in the
19 Company's service territory. The local employment opportunities created by
20 economic development programs inure to the benefit of the entire customer base,
21 including residential customers who are able to obtain new jobs or retain existing jobs
22 as a result of such programs.

⁷Docket No. 4065, Direct Testimony of Carmen Fields, page 8.

1 **Q HAS THE COMPANY ACKNOWLEDGED THE BROAD DISTRIBUTION OF**
2 **BENEFITS ASSOCIATED WITH ECONOMIC DEVELOPMENT PROGRAMS?**

3 A Yes. Company witness Carmen Fields states as follows with respect to the value of
4 economic development programs in controlling the rate of growth in delivery service
5 rates:

6 “The programs will generate system benefits in the form of a stable
7 customer base and more efficient utilization of existing energy delivery
8 assets – both of which will help mitigate potential delivery price
9 increases, and encourage economic growth in the long run.”⁸

10 In response to discovery in this case, the Company also stated that a failure to
11 adopt its proposed economic development initiative could lead to a “lost benefit of
12 additional customer revenues that would reduce costs for all customers in the
13 ratemaking setting.” [Emphasis added.]⁹

14 Finally, the Company has recognized that job creation is a central benefit of
15 economic development programs, stating that one of the overarching principles that
16 applies to the Company’s economic development initiatives is “the Company’s keen
17 desire to help create jobs.”¹⁰ As noted above, job creation and retention is a broad
18 benefit of economic development programs for the entire customer base.

⁸Docket No. 4065, Direct Testimony of Carmen Fields, page 7.

⁹Docket No. 4065, Company’s response to Division Data Request 16-21(e).

¹⁰Docket No. 4065, Direct Testimony of Carmen Fields, page 6.

1 **Q IS THE COMPANY'S PROPOSAL REGARDING THE ALLOCATION OF**
2 **ECONOMIC DEVELOPMENT COSTS IN THIS CASE CONSISTENT WITH THE**
3 **TREATMENT AFFORDED TO OTHER COSTS ASSOCIATED WITH ECONOMIC**
4 **DEVELOPMENT EFFORTS CONDUCTED BY THE COMPANY AND NATIONAL**
5 **GRID?**

6 A Based on the Company's response to discovery in this case, the answer is no. For
7 example, the Company stated that the revenue shortfalls associated with previous
8 economic development discounts that it has offered were not allocated exclusively to
9 commercial and industrial customers. In Docket No. 2290, these costs were allocated
10 to most customer classes, including residential customers.¹¹ In addition, the
11 Company stated that the revenue shortfalls associated with National Grid's economic
12 development programs in upstate New York and Metro New York were broadly
13 allocated to all other retail customers that did not participate in these programs.¹²
14 These examples reflect a broad allocation of economic development program costs
15 that contradicts the Company's current proposal to allocate such costs exclusively to
16 commercial and industrial customers.

17 **Q WHAT IS YOUR RECOMMENDATION REGARDING THE ALLOCATION OF**
18 **ECONOMIC DEVELOPMENT COSTS IN THIS CASE?**

19 A I recommend that the Commission reject the Company's proposal to allocate
20 economic development costs only to commercial and industrial customers. This
21 proposal ignores the fact that such programs are implemented to benefit the entire
22 customer base by mitigating delivery service rate increases and expanding job
23 opportunities in the Company's service area. Moreover, this proposal contradicts the

¹¹Docket No. 4065, Company's response to Division Data Request 15-2.

¹²Docket No. 4065, Company's response to Division Data Request 15-3.

1 broad allocation of the revenue shortfalls associated with the Company's economic
2 development rate discount programs in Docket No. 2290. For these reasons, the
3 Commission should broadly allocate the costs associated with the Company's
4 economic development initiative to all customers on the basis of delivery service
5 revenues. This approach recognizes that the Company's entire customer base has
6 an interest in the successful pursuit of economic development programs.

7 **Q HAVE YOU REVISED THE CCROSS TO REFLECT YOUR RECOMMENDED**
8 **ALLOCATION OF ECONOMIC DEVELOPMENT COSTS?**

9 A Yes. Exhibit AZA-2 provides a comparison of the class allocation of economic
10 development costs using delivery service revenues relative to the allocation that
11 results from the Company's method. Because the Company included economic
12 development costs as part of the Account 910 allocator in the CCROSS, the exhibit
13 also shows the impact of my recommended change on the total allocation of costs in
14 this account. As can be seen in this exhibit, the allocation method I am proposing
15 distributes the cost burden of these economic development programs to all customer
16 classes. By contrast, the Company's proposal would inappropriately exempt certain
17 customer classes from any responsibility for economic development program costs.

18 **Revenue Distribution**

19 **Q HAVE YOU REVIEWED THE RESULTS OF THE CCROSS?**

20 A Yes. I reviewed the results of the CCROSS for the rate year ending December 31,
21 2010. The results of the CCROSS are summarized in Exhibit AZA-3. This exhibit
22 shows the CCROSS results at present and proposed rates, both under the Company's
23 proposal and under the modified CCROSS that reflects my recommended allocation of

economic development costs. The CCROSS results include the rate of return, the relative rate of return index, and the revenue under- or over-collection.

Q HOW CAN THE CCROSS RESULTS BE INTERPRETED WITH RESPECT TO THE REVENUE CONTRIBUTION OF EACH CLASS RELATIVE TO ITS COST OF SERVICE?

A The rates of a customer class are set at cost of service when the relative rate of return index of the class is 100. At that level, the rate of return derived from the class is equal to the system rate of return. A customer class has a revenue under-collection when the revenues provided through its rates are less than the cost to serve that class, resulting in a class relative rate of return index below 100. Conversely, a customer class has a revenue over-collection when the revenues collected from the class are greater than the cost to serve that class, resulting in a relative rate of return index greater than 100.

Q HOW DOES THE COMPANY PROPOSE TO DISTRIBUTE THE PROPOSED REVENUE INCREASE AMONG THE CUSTOMER CLASSES?

A Exhibit AZA-4 shows the Company's proposed revenue increase by amount and as a percentage of present revenue for each customer class. For comparison purposes, the exhibit also shows the rate increases that would result from a direct application of the results of the CCROSS in this proceeding. It should be noted that, for revenue distribution purposes, the Company consolidated the C&I 200 kW Demand and the C&I 3,000 kW Demand rate classes into a single C&I Large Demand class.

Q HOW DOES THE COMPANY'S REVENUE DISTRIBUTION PROPOSAL COMPARE TO THE ACTUAL COST TO SERVE EACH RATE CLASS, AS INDICATED BY THE CCROSS RESULTS?

A As shown in Exhibit AZA-3, the Company's proposed revenue distribution results in a relative rate of return equal to 100 for the Residential, Small C&I, and General C&I customer classes. The proposed revenue distribution yields a relative rate of return of less than 100 for the Lighting and Propulsion classes, while the C&I Large Demand class has a relative of return of 110.

This means that the Company distributed its proposed revenue increase in a manner that requires the C&I Large Demand class to subsidize the provision of delivery services to the Lighting and Propulsion classes. These inter-class subsidies result from the Company's proposal to limit the rate increase to the Lighting and Propulsion classes to two times the system average increase. Moreover, the Company proposes to assign this revenue subsidy exclusively to the C&I Large Demand class.

Q IS IT APPROPRIATE TO ASSIGN THE ENTIRE AMOUNT OF THE REVENUE SUBSIDY TO ONE CUSTOMER CLASS?

A No. The goal of the revenue distribution process should be to maximize the movement of all customer classes to a unity rate of return, such that the amount of inter-class subsidies is minimized. If the Commission determines that gradualism concerns justify capping the rate increase for the Lighting and Propulsion classes as proposed by the Company, it is not reasonable to impose full responsibility for this revenue subsidy only on the C&I Large Demand class.

Q PLEASE EXPLAIN WHY THE COMPANY'S TREATMENT OF THE PROPOSED REVENUE SUBSIDY IS INEQUITABLE.

A The CCOSS study results show that, at present rates, the C&I Large Demand class has a relative rate of return of 264. This figure significantly exceeds the relative rates of return at present rates for all other classes on the Company's system. This means that, at current rates, large commercial and industrial customers are paying rates that are significantly above cost and providing large subsidies to some other customer classes on the system (including Lighting and Propulsion customers). In light of this historical pattern of rate subsidization, it is inappropriate to single out the C&I Large Demand class to bear the burden of perpetuating rate subsidies for Lighting and Propulsion customers through future rates.

Q WHAT IS YOUR RECOMMENDATION REGARDING THE DISTRIBUTION OF ANY REVENUE INCREASE IN THIS PROCEEDING?

A The revenue distribution in this case should be guided by the results of the modified CCOSS that reflects my recommended allocation of economic development costs. Specifically, the Commission should seek to maximize the movement of all customer classes to cost of service, as dictated by the modified CCOSS results. The Company proposes to bring the Residential, Small C&I and General C&I classes to cost of service, but it would also inequitably require the C&I Large Demand class to bear the full burden of the proposed revenue subsidy for the Lighting and Propulsion classes.

If the Commission accepts the Company's proposal to moderate the rate increase dictated by the CCOSS for the Lighting and Propulsion classes, it is inappropriate to assign the entire amount of the resulting revenue subsidy only to the C&I Large Demand class. To bring the C&I Large Demand class to cost of service without imposing a greater cost burden on other customer classes, I recommend that

1 the Commission directly assign to the C&I Large Demand class any reductions that it
2 orders to the Company's requested revenue requirement in this proceeding. This
3 approach would maximize movement toward cost-based rates for the C&I Large
4 Demand class, while preserving the Company's proposal to moderate the rate
5 increase for the Lighting and Propulsion classes. If the reduction to the Company's
6 requested revenue requirement that the Commission orders is more than sufficient to
7 bring the C&I Large Demand class to cost of service as dictated by the modified
8 CCROSS results, then any additional revenue reduction should be allocated based on
9 rate base to all customer classes.

10 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

11 **A** Yes.

Appendix A

Qualifications of Ali Al-Jabir

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Ali Al-Jabir. My business address is 6810 Saratoga Boulevard, Suite 202, Corpus
3 Christi, Texas, 78414.

4 **Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?**

5 A I am a consultant in the field of public utility regulation with the firm of Brubaker &
6 Associates, Inc. ("BAI").

7 **Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND.**

8 A I am a graduate of the University of Texas at Austin ("UT-Austin"). I hold the degrees
9 of Bachelor of Arts and Master of Arts in Economics, both from UT-Austin. I have
10 also completed course work at Harvard University. I received my B.A. degree with
11 highest honors, and I am a member of the Phi Beta Kappa Honor Society.

12 **Q PLEASE STATE YOUR EXPERIENCE.**

13 A I joined BAI in January 1997. My work consists of preparing economic studies and
14 economic policy analysis related to investor-owned, cooperative, and municipal
15 utilities. Prior to joining BAI, I was employed at the Public Utility Commission of
16 Texas ("Texas Commission") since 1991, where I held various positions including
17 Policy Advisor to the Chairman. As Policy Advisor, I advised the Chairman on policy
18 decisions in numerous rate and rulemaking proceedings. In 1995, I advised the
19 Texas Legislature on the development of the statutory framework for wholesale
20 competition in the Electric Reliability Council of Texas ("ERCOT"), and I was involved

1 in subsequent rulemakings at the Texas Commission to implement wholesale open
2 access transmission service in the region.

3 During my tenure at the Texas Commission and in my present capacity, I have
4 reviewed and analyzed several electric utility base rate and fuel filings in Texas. I
5 have also worked on utility rate, fuel, and merger proceedings and rulemakings in
6 Virginia, Missouri, Colorado, Indiana, Alberta, Pennsylvania, North Carolina, South
7 Carolina, Michigan and Nova Scotia. In addition to my work on such proceedings, I
8 have drafted policy papers and comments regarding electric industry restructuring
9 and competitive policy issues in Texas, Alabama, Louisiana, Georgia, and Delaware,
10 as well as before the Federal Energy Regulatory Commission. I have been an invited
11 speaker at several electric utility industry conferences, and I have presented seminars
12 on utility regulation and industry restructuring.

13 BAI and its predecessor firms have been active in utility rate and economic
14 consulting since 1937. The firm provides consulting services in the field of public
15 utility regulation to many clients, including large industrial and institutional customers,
16 some competitive retail power providers and utilities and, on occasion, state
17 regulatory agencies. In addition, we have prepared depreciation and feasibility
18 studies relating to utility service. We assist in the negotiation of contracts and the
19 solicitation and procurement of competitive energy supplies for large energy users,
20 provide economic policy analysis on industry restructuring issues, and present
21 seminars on utility regulation. In general, we are engaged in regulatory consulting,
22 economic analysis, energy procurement, and contract negotiation.

23 In addition to our main office in St. Louis, the firm also has branch offices in
24 Corpus Christi, Texas and Phoenix, Arizona.

Q HAVE YOU PREVIOUSLY FILED TESTIMONY IN CONTESTED UTILITY PROCEEDINGS?

A Yes, I have filed written testimony in the following dockets:

1. Texas Docket No. 10035 – Application of West Texas Utilities Company to Reconcile Fuel Costs and for Authority to Change Fixed Fuel Factors;
2. Texas Docket No. 10200 – Application of the Texas - New Mexico Power Company for Authority to Change Rates;
3. Texas Docket No. 10325 – Application of the Central Texas Electric Cooperative, Inc. for Authority to Change Rates;
4. Texas Docket No. 10600 – Application of the Brazos River Authority for Approval of Rates;
5. Texas Docket No. 10881 – Application of the New Era Electric Cooperative, Inc. for Authority to Change Rates;
6. Texas Docket No. 11244 – Petition of the Medina Electric Cooperative, Inc. to Reduce its Fixed Fuel Factor and the Application of the South Texas Electric Cooperative, Inc. for Authority to Refund an Over-Recovery of Fuel Cost Revenues and to Reduce its Fixed Fuel Factor;
7. Texas Docket No. 11271 – Application of Bowie-Cass Electric Cooperative, Inc. for Authority to Change Rates;
8. Texas Docket No. 11567 – Application of Kaufman County Electric Cooperative, Inc. for Authority to Change Rates;
9. Texas Docket No. 18607 – Application of West Texas Utilities Company for Authority to Reconcile Fuel Costs;
10. Texas Docket No. 20290 – Application of Central Power & Light Company for Authority to Reconcile Fuel Costs;
11. Virginia Case No. PUE980814 – In the matter of considering an electricity retail access pilot program: American Electric Power – Virginia;
12. Texas Docket No. 21111 – Application of Entergy Gulf States Inc. for Authority to Reconcile Fuel Costs and to Recover a Surcharge for Under-Recovered Fuel Costs;
13. Virginia Case No. PUE990717 – Application of Virginia Electric and Power Company to Revise Its Fuel Factor Pursuant to Virginia Code Section 56-249.6;

14. Texas Docket No. 22344 – Generic Issues Associated with Applications for Approval of Unbundled Cost of Service Rates Pursuant to PURA Section 39.201 and Public Utility Commission Substantive Rule § 25.344;
15. Texas Docket No. 22350 – Application of TXU Electric Company for Approval of Unbundled Cost of Service Rates Pursuant to PURA Section 39.201 and Public Utility Commission Substantive Rule 25.344 (Phase III);
16. Texas Docket No. 22352 – Application of Central Power and Light Company for Approval of Unbundled Cost of Service Rates Pursuant to PURA Section 39.201 and Public Utility Commission Substantive Rule 25.344 (Final Phase);
17. Texas Docket No. 22353 – Application of Southwestern Electric Power Company for Approval of Unbundled Cost of Service Rates Pursuant to PURA Section 39.201 and Public Utility Commission Substantive Rule 25.344 (Final Phase);
18. Texas Docket No. 22354 – Application of West Texas Utilities Company for Approval of Unbundled Cost of Service Rates Pursuant to PURA Section 39.201 and Public Utility Commission Substantive Rule 25.344 (Final Phase);
19. Texas Docket No. 22356 – Application of Entergy Gulf States, Inc. for Approval of Unbundled Cost of Service Rates Pursuant to PURA Section 39.201 and Public Utility Commission Substantive Rule 25.344;
20. Texas Docket No. 22349 – Application of Texas-New Mexico Power Company for Approval of Unbundled Cost of Service Rates Pursuant to PURA Section 39.201 and Public Utility Commission Substantive Rule 25.344 (Final Phase);
21. Virginia Case No. PUE000584 – Application of Virginia Electric and Power Company for Approval of a Functional Separation Plan under the Virginia Electric Utility Restructuring Act;
22. Texas Docket No. 24468 – Staff’s Petition to Determine Readiness for Retail Competition in the Portions of Texas Within the Southwest Power Pool;
23. Texas Docket No. 24469 – Staff’s Petition to Determine Readiness for Retail Competition in the Portions of Texas Within the Southeastern Electric Reliability Council;
24. Virginia Case No. PUE-2002-00377 – Application of Virginia Electric and Power Company to Revise Its Fuel Factor Pursuant to Section 56-249.6 of the Code of Virginia;
25. Texas Docket No. 27035 – Application of Central Power and Light Company for Authority to Reconcile Fuel Costs;
26. Texas Docket No. 28818 – Application of Entergy Gulf States, Inc. for Certification of an Independent Organization for the Entergy Settlement Area in Texas;

- 1 27. Virginia Case No. PUE-2000-00550 -- Appalachian Power Company d/b/a
2 American Electric Power: Regional Transmission Entities;
- 3 28. Texas Docket No. 29408 – Application of Entergy Gulf States, Inc. for the
4 Authority to Reconcile Fuel Costs;
- 5 29. Texas Docket No. 29801 – Application of Southwestern Public Service
6 Company for: (1) Reconciliation of its Fuel Costs for 2002 and 2003; (2) A
7 Finding of Special Circumstances; and (3) Related Relief;
- 8 30. Texas Docket No. 30143 -- Petition of El Paso Electric Company to Reconcile
9 Fuel Costs;
- 10 31. Texas Docket No. 31540 – Proceeding to Consider Protocols to Implement a
11 Nodal Market in the Electric Reliability Council of Texas Pursuant to PUC
12 Substantive Rule 25.501;
- 13 32. Texas Docket No. 32795 – Staff’s Petition to Initiate a Generic Proceeding to
14 Re-Allocate Stranded Costs Pursuant to PURA Section 39.253(f);
- 15 33. Texas Docket No. 33309 – Application of AEP Texas Central Company for
16 Authority to Change Rates;
- 17 34. Texas Docket No. 33310 – Application of AEP Texas North Company for
18 Authority to Change Rates;
- 19 35. Michigan Case No. U-15245 – In the Matter of the Application of Consumers
20 Energy Company for Authority to Increase its Rates for the Generation and
21 Distribution of Electricity and for Other Rate Relief;
- 22 36. Texas Docket No. 34800 – Application of Entergy Gulf States, Inc. for Authority
23 to Change Rates and to Reconcile Fuel Costs; and
- 24 37. Texas Docket No. 35717 – Application of Oncor Electric Delivery Company LLC
25 for Authority to Change Rates.

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TABLE 6-1
CLASSIFICATION OF DISTRIBUTION PLANT¹

| FERC Uniform System of Accounts No. | Description | Demand Related | Customer Related |
|---|---|-------------------|---------------------|
| | Distribution Plant ² | | |
| 360 | Land & Land Rights | X | X |
| 361 | Structures & Improvements | X | X |
| 362 | Station Equipment | X | - |
| 363 | Storage Battery Equipment | X | - |
| 364 | Poles, Towers, & Fixtures | X | X |
| 365 | Overhead Conductors & Devices | X | X |
| 366 | Underground Conduit | X | X |
| 367 | Underground Conductors & Devices | X | X |
| 368 | Line Transformers | X | X |
| 369 | Services | - | X |
| 370 | Meters | - | X |
| 371 | Installations on Customer Premises | - | X |
| 372 | Leased Property on Customer Premises | - | X |
| 373 | Street Lighting & Signal Systems ¹ | - | - |

¹ Assignment or "exclusive use" costs are assigned directly to the customer class or group which exclusively uses such facilities. The remaining costs are then classified to the respective cost components.

² The amounts between classification may vary considerably. A study of the minimum intercept method or other appropriate methods should be made to determine the relationships between the demand and customer components.

Narragansett Electric Company
Summary of Economic Development Program Expense and
Total Account 910 - Customer Service - Miscellaneous Expenses

| Line | Customer Class | Economic Development Program Expense | | | | Total Account 910 Expenses | | | | Account 910 Allocator | |
|------|----------------|--------------------------------------|---------------------|--------------|-------------|----------------------------|---------------------|--------------|-------------|-----------------------|----------------|
| | | Company | Modified | Change | | Company | Modified | Change | | Company | Modified |
| | | Proposed | CCOSS | Amount | Percent | Proposed | CCOSS | Amount | Percent | Proposed | CCOSS |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1 | Residential | \$ - | \$ 525,043 | \$ 525,043 | NM | \$ 1,825,174 | \$ 2,350,218 | \$ 525,043 | 28.8% | 54.86% | 70.64% |
| 2 | Small C&I | \$ 121,921 | \$ 107,866 | \$ (14,055) | -11.5% | \$ 327,457 | \$ 313,402 | \$ (14,055) | -4.3% | 9.84% | 9.42% |
| 3 | General C&I | \$ 302,733 | \$ 147,189 | \$ (155,544) | -51.4% | \$ 414,565 | \$ 259,021 | \$ (155,544) | -37.5% | 12.46% | 7.79% |
| 4 | 200 kW Demand | \$ 450,567 | \$ 154,378 | \$ (296,189) | -65.7% | \$ 581,043 | \$ 284,854 | \$ (296,189) | -51.0% | 17.46% | 8.56% |
| 5 | 3000 kW Demand | \$ 124,779 | \$ 23,583 | \$ (101,196) | -81.1% | \$ 159,637 | \$ 58,441 | \$ (101,196) | -63.4% | 4.80% | 1.76% |
| 6 | Lighting | \$ - | \$ 41,008 | \$ 41,008 | NM | \$ 17,481 | \$ 58,489 | \$ 41,008 | 234.6% | 0.53% | 1.76% |
| 7 | Propulsion | \$ - | \$ 933 | \$ 933 | NM | \$ 1,601 | \$ 2,533 | \$ 933 | 58.3% | 0.05% | 0.08% |
| 8 | Total | \$ 1,000,000 | \$ 1,000,000 | \$ 0 | 0.0% | \$ 3,326,959 | \$ 3,326,959 | \$ 0 | 0.0% | 100.00% | 100.00% |

Source:

Docket No. R.I.P.U.C., Sponsor-H.S. Gorman, Schedule NG-HSG-2, Page 26.

Narragansett Electric Company

Summary of Cost of Service Study Results Rate Year Ended 12/31/2010

| Line | Customer Class | Present Rates | | | Company Proposed Revenue Distribution | | | Revenue Distribution Under Modified CCSS Results | | |
|------|------------------|-------------------|-------------------------------|-------------------------------------|--|-------------------------------|-------------------------------------|---|-------------------------------|-------------------------------------|
| | | Rate of Return | Relative Rate of Return | Over/(Under) Collection (000) | Rate of Return | Relative Rate of Return | Over/(Under) Collection (000) | Rate of Return | Relative Rate of Return | Over/(Under) Collection (000) |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | Residential | 1.29% | 58 | \$ (4,157) | 8.98% | 100 | \$ (0) | 8.98% | 100 | \$ (0) |
| 2 | Small C&I | 4.41% | 198 | \$ 1,868 | 8.98% | 100 | \$ (0) | 8.98% | 100 | \$ (0) |
| 3 | General C&I | 3.24% | 145 | \$ 1,233 | 8.98% | 100 | \$ (0) | 8.98% | 100 | \$ (0) |
| 4 | C&I Large Demand | 5.88% | 264 | \$ 5,055 | 9.89% | 110 | \$ 1,264 | 9.92% | 111 | \$ 1,309 |
| 5 | Lighting | -5.12% | -230 | \$ (3,235) | 7.72% | 86 | \$ (556) | 7.62% | 85 | \$ (599) |
| 6 | Propulsion | -20.25% | -909 | \$ (764) | -11.84% | -132 | \$ (708) | -11.87% | -132 | \$ (708) |
| 7 | Total | 2.23% | 100 | \$ - | 8.98% | 100 | \$ - | 8.98% | 100 | \$ - |

Source:

Docket No. R.I.P.U.C., Sponsor-H.S. Gorman, Schedule NG-HSG-4, Pages 1 and 2.

Narragansett Electric Company

Summary of Base Rate Increase Rate Year Ended 12/31/2010

| Line | Customer Class | Present Revenues (000) | Company Proposed Rate Change | | Company Proposed Cost-Based Change | | Modified CCROSS Rate Change | | Modified CCROSS Cost-Based Change | |
|------|------------------|------------------------------|---------------------------------|--------------|---------------------------------------|--------------|--------------------------------|--------------|--------------------------------------|--------------|
| | | | Amount (000) | Percent | Amount (000) | Percent | Amount (000) | Percent | Amount (000) | Percent |
| | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | Residential | \$ 117,770 | \$ 37,949 | 32.2% | \$ 37,949 | 32.2% | \$ 38,503 | 32.7% | \$ 38,503 | 32.7% |
| 2 | Small C&I | \$ 23,985 | \$ 5,292 | 22.1% | \$ 5,292 | 22.1% | \$ 5,277 | 22.0% | \$ 5,277 | 22.0% |
| 3 | General C&I | \$ 32,841 | \$ 8,607 | 26.2% | \$ 8,607 | 26.2% | \$ 8,443 | 25.7% | \$ 8,443 | 25.7% |
| 4 | C&I Large Demand | \$ 39,447 | \$ 8,283 | 21.0% | \$ 7,019 | 17.8% | \$ 7,908 | 20.0% | \$ 6,599 | 16.7% |
| 5 | Lighting | \$ 8,983 | \$ 5,274 | 58.7% | \$ 5,830 | 64.9% | \$ 5,274 | 58.7% | \$ 5,873 | 65.4% |
| 6 | Propulsion | \$ 215 | \$ 126 | 58.7% | \$ 834 | 387.3% | \$ 126 | 58.7% | \$ 835 | 387.7% |
| 7 | Total | \$ 223,242 | \$ 65,530 | 29.4% | \$ 65,530 | 29.4% | \$ 65,530 | 29.4% | \$ 65,530 | 29.4% |

Source:

Docket No. R.I.P.U.C., Sponsor-H.S. Gorman, Schedule NG-HSG-4, Pages 1 and 2.