BEFORE THE

PUBLIC UTILITIES COMMISSION

OF RHODE ISLAND

THE NARRAGANSETT ELECTRIC COMPANY D/B/A NATIONAL GRID	**)** **)** **)**	**DOCKET NO. 4323**

DIRECT TESTIMONY

OF

DR. EMMA L. NICHOLSON

ON BEHALF OF THE

DIVISION OF PUBLIC UTILITIES AND CARRIERS

AUGUST 30, 2012

EXETER

ASSOCIATES, INC.
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DIRECT TESTIMONY OF DR. EMMA L. NICHOLSON

I. Introduction

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Emma L. Nicholson. I am an Economist at Exeter Associates, Inc. My business address is 10480 Little Patuxent Parkway, Suite 300, Columbia, Maryland 21044. Exeter specializes in providing public utility-related consulting services.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I am an economist and I focus on cost allocation and rate design issues, long-term power supply and planning for large customers, utility supply assessments, and electric market studies. I hold a B.A. in Economics and Government and Politics from the University of Maryland at College Park. I also hold an M.A. and Ph.D. in Economics from Georgetown University. I completed my doctoral dissertation, which focused on restructured electricity markets, in 2008. Prior to joining Exeter, I served as a senior consultant in Bates White, LLC's energy practice. I also interned at the Federal Energy Regulatory Commission while in graduate school. Prior to attending graduate school, I was a research associate at Exeter Associates, Inc. A copy of my resume is provided as an attachment to my testimony.

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

A. Yes. I have provided testimony on cost allocation and rate design issues before the Indiana Utility Regulatory Commission and the Pennsylvania Public Service Commission.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. Exeter Associates, Inc. was retained by the Division of Public Utilities and Carriers ("Division") to review The Narragansett Electric Company's ("Narragansett" or "Company") proposed allocated class cost of service ("ACOS") study and base electric distribution rates as well as its rate design proposals.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

A. Based on my review of Narragansett's ACOS study and rate design proposals, I have reached the following conclusions and recommendations:

1. Narragansett's classification and allocation of distribution plant is consistent with the Commission's Final Order in Docket No. 4065 and reflects the principles of cost causation.
2. Narragansett's allocation of Customer Service and Information Expenses is inconsistent with the Commission's Final Order in Docket No. 4065 and the principles of cost causation.
3. I recommend that the Commission adopt the results of the Division's proposed allocated class cost of service study, which allocates Customer Service and Information Expenses on the basis of energy use at the meter.
4. Narragansett's proposed revenue spread is reasonable and acceptable to the Division.

5. If the Commission prefers a more mechanistic approach to determine the revenue spread, I recommend using the Division's proposed allocated class cost of service study to determine that revenue spread.
6. I recommend that the Commission reject Narragansett's proposal to increase the customer charges for the Residential Low Income (A-60) and Propulsion (X-01) classes.
7. I recommend that the Commission accept Narragansett's proposed changes to the methodology for calculating the reconciliation components of the Transmission Service Cost Adjustment Provision and the Energy Efficiency Program Provision.

II. Narragansett's Allocated Class Cost of Service Study

Q. WHAT IS THE PURPOSE OF AN ALLOCATED CLASS COST OF SERVICE STUDY?

A. An allocated class cost of service study is conducted to assist a utility or Commission in determining the level of costs properly recoverable from each of the various classes that the utility provides service to. The allocation of recoverable costs to each class of service should be based on cost causation principles to the greatest extent possible. ACOS studies estimate the return that each class provides on the rate base items that are assigned to it in the study. Classes that pay a rate of return above the system average are said to be paying more than their fair share of the utility's costs, which means that they subsidize other classes. Conversely, classes that pay below the system average return are said to be paying below their ACOS, and receiving subsidies from other classes. The rates of return implied by a given ACOS study are

determined by the assumptions within the study. Thus, it is critical to review the underlying assumptions of a given ACOS study before accepting its results.

Q. WHAT STEPS ARE INVOLVED IN COMPLETING AN ALLOCATED CLASS COST OF SERVICE STUDY?

A. ACOS studies allocate the cost of embedded plant as well as expenses to the customer classes served by the utility. Before the cost items are assigned to the classes, they must be "functionalized", which means assigned to a particular function. Typical functions include production, transmission, distribution, and customer. The next step is to classify each of the functionalized cost components as either customer-, energy-, or demand-related. Finally, the ACOS study uses an allocation factor to allocate each functionalized and classified cost to the customer classes.

If the cost of a particular asset, such as a substation outside of a factory, is directly assignable, the associated costs will be directly assigned to a particular customer or class of customers. If the asset being allocated is joint and common, the ACOS study typically uses an allocator based on class energy usage, peak demands, customer counts, or some combination thereof, to allocate those costs to the customer classes. A great deal of judgment is required to perform an ACOS study because the classification and allocation of some joint and common costs is not always straightforward. As such, it is critically important that the judgments that underlie the ACOS study be based on cost causation principles to the greatest extent possible.

Q. HAVE YOU REVIEWED NARRAGANSETT'S ALLOCATED CLASS COST OF SERVICE STUDY?

A. Yes, I reviewed Narragansett's ACOS study and issued multiple Data Requests regarding the study which the Company responded to. Narragansett Witness Howard S. Gorman presented the Company's ACOS study in Schedule HSG-1. Mr. Gorman

explained that he performed the functionalization, classification, and allocation steps in preparing the Company's ACOS study (Gorman Direct at 5). In the functionalization step, Mr. Gorman assigned each cost element one of the following four functions: sub-transmission; primary distribution; secondary distribution; and billing (which is equivalent to a customer function). Narragansett's ACOS study does not include any transmission or production functions because the utility has been vertically separated. During the classification step, Mr. Gorman classified each functionalized cost element as either demand-, energy-, or customer-related. In the third and final step, Mr. Gorman selected an allocator to assign each cost element among Narragansett's seven customer classes.

Q. HAS THE COMPANY MADE ANY REVISIONS TO THE ALLOCATED CLASS COST OF SERVICE STUDY IT ORIGINALLY FILED WITH THE COMMISSION IN APRIL 2012?

A. Yes. The Company made two revisions to the ACOS study it originally filed with the Commission related to the allocation of Customer Service and Information expenses. Narragansett provided a summary of its revised ACOS study ("revised ACOS study") to the parties on August 24, 2012 in its Supplemental Response to Division Data Request Set 21, Question 4(d) ("DIV-21-4(d)"). I have reviewed the results of both the Company's original filed ACOS study and its revised ACOS study.

Q. WHAT REVISIONS DID NARRAGANSETT MAKE TO ITS ORIGINAL FILED ALLOCATED CLASS COST OF SERVICE STUDY?

A. The Company made two revisions to the ACOS study it originally filed with the Commission in April 2012. Narragansett first redefined the customer classes that it identified as large in the "Customers-Large" allocator that was used within its ACOS

study. The Company originally defined the "Large Customer Classes" as the General C&I (G-02), 200 kW Demand (B/G-32), and 3,000 kW Demand (B/G-32) classes. In its revised ACOS study, the Company redefined Large Customer Classes to include only the 200 kW Demand and 3,000 kW Demand classes. This change shifted costs away from the General C&I classes and towards the 200 kW Demand and 3,000 kW Demand classes.

The second change Narragansett made to its original filed ACOS study was to allocate Demonstration and Selling Expenses (account 912) to all customer classes rather than just Large Customer Classes, as originally defined by the Company (i.e., the General C&I, 200 kW Demand, and 3,000 kW Demand classes).[1] This change tended to shift costs away from the General C&I and 200 kW Demand classes towards other customer classes with many customers, such as the Residential classes, because the Company's revised ACOS study allocated Demonstration and Selling Expenses on customer counts.[2]

Q. DID NARRAGANSETT ADJUST ITS PROPOSED BASE DISTRIBUTION REVENUE SPREAD AND RATES AFTER IT REVISED ITS ALLOCATED CLASS COST OF SERVICE STUDY?

A. No. Narragansett explained in its Supplemental Response to DIV-21-4(d) that "the Company believes its proposed rates still represent a reasonable allocation of revenue to each class based upon the guiding principles employed in the revenue allocation process. Therefore, the Company is not proposing any adjustments to the proposed rates included in Schedule JAL-3 based upon this revision to the ACOSS".

[1] See Narragansett's Supplemental Response to DIV-21-4(d).
[2] The 3,000 kW Demand class has only 14 customers so this class is allocated a trivially small portion of Demonstration and Selling Expenses in both of the Company's ACOS studies.

Q. HOW DO THE ESTIMATED CLASS RATES OF RETURN COMPARE ACROSS THE COMPANY'S TWO ALLOCATED CLASS COST OF SERVICE STUDIES?

A. Both of the Company's ACOS studies estimate that the utility currently receives a return of 4.35 percent. The estimated class rates of return differ across the two studies but ACOS studies have the same general properties when viewed across the customer classes. The Small C&I, General C&I, and 200 kW Demand classes pay an estimated return in excess of the system average while the Residential class pays a return below the system average but above zero. Both of Narragansett's ACOS studies estimate that the 3,000 kW Demand, Lighting, and Propulsion classes pay a negative return. Table 1 below presents the estimated class rates of return from both the Company's original filed and revised ACOS studies.

Table 1
Narragansett Electric Company
Filed and Adjusted ACOS Studies - Estimated Rates of Return

Customer Class	Original Filed ACOS Rate of Return (%)	Revised ACOS Rate of Return (%)
Residential A-16 & A-60	3.65	3.37
Small C&I C-06	7.28	7.10
General C&I G-02	7.53	9.14
200 kW Demand B/G-32	7.57	7.09
3,000 kW Demand B/G-62	(5.05)	(5.07)
Lighting	(4.98)	(5.04)
Propulsion X-01	(2.04)	(2.04)
System Average Return	4.35%	4.35%

Source: Schedule HSG-1A, line 12 and Narragansett's Attachment DIV-21-4(d), line 12.

After making the two revisions, the estimated return for the General C&I class increased, the Propulsion return was unchanged, and the returns of every other customer class fell. The key differences between the Company's original filed and revised ACOS studies are the estimated returns that the General C&I and 200 kW

Demand classes pay. The Company's original filed study estimated that the General C&I class currently pays a 7.53 percent rate of return, while its revised ACOS estimates the return at 9.14 percent, which constitutes an increase of just over 1.6 percentage points. As I explained previously, both of the Company's revisions to its ACOS shifted costs away from the General C&I class.

The 200 kW Demand class pays a slightly lower return in the Company's revised ACOS study as compared to its original ACOS study (7.09 percent versus 7.57 percent). This means that the effect of redefining the Customers-Large allocator to exclude the G-02 class, which reduces the 200 kW Demand return, outweighed the effect of allocating Demonstration and Selling Expenses to all customer classes, which on its own would increase the return of this class.

The estimated Residential rate of return falls from 3.65 percent in the Company's original filed ACOS study to 3.37 percent in its revised ACOS study. The Company's revised ACOS study estimates that the Residential class is currently paying just over 77 percent of its cost of service. The estimated rate of return of the Small C&I class also fell slightly when Narragansett revised its ACOS study, falling from 7.28 percent to 7.10 percent. The 3,000 kW Demand, Lighting, and Propulsion classes are estimated to have a negative rate of return in both the original filed and the revised ACOS studies and the estimated rates of return for these classes are very similar. A negative return suggests that a given class is heavily subsidized.

Q. ARE YOU PROPOSING ANY CHANGES TO NARRAGANSETT'S ALLOCATED CLASS COST OF SERVICE STUDY AT THIS TIME?

A. Yes, I am. In the next section of my testimony I review key components of Narragansett's ACOS revised study, including how the Company estimated energy

and peak load, and the allocation of distribution plant and associated expenses, Customer Service Expenses, and Uncollectible Expenses. I assess whether the classifications and allocations in the Company's revised ACOS study are just and reasonable and determine if they conform with the Commission's final Decision and Order in Docket No. 4065 issued on April 29, 2010 ("Order 4065"). I propose an alternative ACOS study that changes the Company's treatment of Customer Service and Information expenses. The results of my proposed ACOS study are discussed in Section III of my testimony and presented in Schedule ELN-1.

II-A. Development of Energy Consumption and Peak Demands

Q. DID NARRAGANSETT USE A HISTORICAL TEST YEAR TO DETERMINE USAGE CHARACTERISTICS, SUCH AS LOADS AND COINCIDENT PEAK DEMANDS?

A. No, the load characteristics used in the ACOS study were based on "rate year" forecasts rather than a historical test year data. This is somewhat unusual and warrants further examination. The rate year data are based on estimated usage characteristics for the 12 month period ending January 31, 2012. Energy forecasts were produced by Narragansett Witness Dr. William Morrissey and the class peak demand forecasts were estimated by Mr. Gorman (Lloyd Direct at 6 and Schedule HSG-1F).

Q. HOW DID NARRAGANSETT ESTIMATE RATE YEAR DEMANDS?

A. Narragansett used the weighted average of class load factors from two periods to construct its rate year coincident and non-coincident peak demand forecasts. The periods used were the 12 months ending December 31, 2008 and the 12 months ending November 30, 2011 (see Schedule HSG-3Q). The weights were based on the number of cooling degree days ("CDDs") in each period. In response to DIV-10-6,

Narragansett explained that it assigned a weight of 67.5 percent to the 2008 load factors and a 32.5 percent to the 2011 load factors.[3] This weighting produces 836.7 CDDs, which is equal to the ten-year CDD normal.

In response to DIV-17-1, Narragansett explained that it excluded load data from the intervening years (2009 and 2010) because they had atypical CDD counts compared to the ten-year normal. Calendar year 2010 had 1,033 CDDs while calendar year 2009 had just 566 CDDs (see Narragansett's response to DIV-17-1(b)).

Q. DO YOU FIND NARRAGANSETT ESTIMATE COINCIDENT AND NON-COINCIDENT PEAK DEMANDS TO BE REASONABLE?

A. Yes. Given that Narragansett's rate year occurs in the future, class peak loads must be estimated. There are a number of ways to forecast loads, but based on my review, the Company's approach is reasonable and based on a desire to mimic normal weather.

II-B. Distribution Plant

Q. HOW DOES NARRAGANSETT ALLOCATE DISTRIBUTION PLANT WITHIN ITS ALLOCATED CLASS COST OF SERVICE STUDY?

A. Narragansett classifies distribution plant (accounts 360-374) as either demand- or customer-related. As is typical in ACOS studies, the costs associated with each distribution plant account (*e.g.*, line transformer maintenance) follows the allocation of the plant itself in most cases. All distribution plant (and associated costs) functionalized as sub-transmission or primary distribution was classified as demand-related. Distribution plant assigned to the secondary distribution function was

[3] This was true for all classes except the Lighting and Propulsion classes. Narragansett explained that the 2011 load factors were used for these classes because they are not as weather sensitive as the other classes (DIV 17-1(c)).

classified as either demand-related or customer-related. Finally, distribution plant and associated costs that were functionalized as billing was classified as customer-related (Gorman Direct at 14 and Schedule HSG-1F).

Land and land rights (account 360), Structures and Improvements (account 361) and Station Equipment (account 362) were functionalized as primary distribution, classified as demand-related, and allocated to the customer classes on the basis of non-coincident peak ("NCP") demands at primary (the "NCP_at_Pri" allocator in the ACOS model). These are standard allocations and they are reasonable because this plant was constructed to serve local peak demands.

Poles Towers and Fixtures (account 364), Overhead Conductors and Devices (account 365), Underground Conduit (account 366), and Underground Conductors and Devices (account 367) were functionalized as a combination of the sub-transmission, primary distribution, and secondary distribution functions (see Schedule HSG-ID at 1). The functionalizations of plant accounts 364-367 were the result of studies presented in Schedule HSG-3V. The costs associated with accounts 364-367 were classified as demand-related and allocated to the customer classes on the basis of NCP demands at the appropriate voltages. For example, all of the costs associated with accounts 364-367 that were functionalized as sub-transmission was classified as demand-related and allocated to the customer classes on the basis of NCP demands at 115 kV (before losses).

Line transformers were functionalized as secondary distribution and classified as demand-related. Line transformers were allocated to the customer classes with the "NCP_PriSec" allocator, which is equal to the average of average of the NCP primary and NCP at secondary allocators (see Schedule HSG-IF at 3 and Narragansett's

response to DIV-10-7).[4] This allocation is consistent with the Commission's decision in Order 4065 (Order 4065 at 157).

Q. DID NARRAGANSETT PERFORM A MINIMUM SYSTEM STUDY TO ALLOCATE DISTRIBUTION PLANT?

A. No. Mr. Gorman explained that the Company did not perform a minimum system study, nor was it required to in Order 4065 (Gorman Direct at 15). Furthermore, Mr. Gorman testified that minimum system studies are not routinely performed in Rhode Island as part of ACOS studies. (*Id.*)

Q. WHAT IS A MINIMUM SYSTEM ANALYSIS?

A. A minimum system analysis relies on a hypothetical "minimum system" to estimate the customer-related portion of various distribution plant accounts. The first step in this analysis is to determine the minimum size of each component in each distribution plant account. For example, the smallest pole for plant account 364 or the smallest line transformer in account 368. The second step is to multiply the number of units in each plant account by the cost of the minimally-sized component (e.g., multiply the number of poles by the average cost of the smallest pole). This second step estimates the cost of the hypothetical minimum system. The third and final step is to compute the ratio of the cost of the hypothetical minimum system to the cost of the actual system for each account. This ratio is regarded as an estimate of the customer-related component of each plant account.

[4] Narragansett's response to DIV-10-7 clarifies that the Company's ACOS study allocates line transformers on the average of the NCP at primary and NCP at secondary allocators. Mr. Gorman's testimony incorrectly states that a special study was conducted to allocate line transformers.

Q. DOES THE MINIMUM SYSTEM APPROACH HAVE ANY SHORTCOMINGS?

A. The minimum system approach has several flaws, which I believe render it unusable. The minimum system approach fails to recognize that the distribution system is a complex interdependent network and ignores several factors that determine its design. For example, the minimum system approach completely disregards customer loads, customer density, and system topology (*e.g.*, the geographic location of transmission lines, substations, and customers). This gross oversimplification of the distribution network makes the minimum system's "customer component" estimates invalid.

Secondly, the minimum system itself has load-carrying capability. It is difficult, and in some cases impossible, to correct for the load carrying capability of the hypothetical minimum system. Failing to adjust for this load carrying capability improperly double counts for the load that can be carried by the minimum system and forces customer classes with low average demands and a large number of customers - such as the Residential class - to pay for portions of the distribution system twice; once in the customer-related portion and once in the demand-related portion.

It is only appropriate to classify costs that are *purely* customer-related on customer counts. For example, each customer requires one service drop so it is appropriate to allocate services on customer counts (as Narragansett does). There is no direct and constant relationship between the number of customers and the number of units of distribution plant that Narragansett has installed. Since localized demands are the most important determinants of the distribution system, it is appropriate to classify the costs associated with distribution plant accounts 364-368 as demand-related and allocate them to the customer classes on the basis of NCP demands, as the Company has done.

Q. HAS THIS COMMISSION RENDERED A DECISION ON THE USE OF THE MINIMUM SYSTEM APPROACH TO CLASSIFY NARRAGANSETT'S DISTRIBUTION PLANT?

A. Yes. This Commission rejected calls by interveners to require Narragansett to use the minimum system approach in the last Narragansett general rate case (Order 4065 at 142). The Commission determined that the minimum system approach "ignores the principles of cost causation in that it does not make any allowance for the different sizes of customers in terms of their loads and places these costs on customers who may not be responsible for them" (*Id.*).

Q. IS NARRAGANSETT'S TREATMENT OF DISTRIBUTION PLANT ACCOUNTS 364-368 REASONABLE?

A. Yes, in my judgment, the Company's decision to allocate the costs associated with distribution plant accounts 364-368 on NCP demands is based on the principles of cost causality. This allocation is reasonable because pole towers and fixtures, underground and overhead conduit, and line transformers are components of a distribution system that is sized to meet local peak demands (Gorman Direct at 14). Further, it is not possible to isolate the *purely* customer-related component of the distribution system with a minimum system methodology given the weaknesses I explained above. Finally, Narragansett's decision to not use a minimum system approach is consistent with the Commission's Order in Docket No. 4065 (issued in 2010) and its Order in Docket No. 1227 (issued in 1984).

II-C. Undeliverable Accounts Expenses

Q. HOW DID NARRAGANSETT ALLOCATE UNCOLLECTIBLE ACCOUNTS?

A. The Company allocated $4.3 million in "Uncollectible Accounts" (account 904) on the basis of total delivery revenue (see Schedule HSG-1F-5, page 3, line 78).

Q. IS NARRAGANSETT'S ALLOCATION OF UNCOLLECTIBLE ACCOUNTS CONSISTENT WITH ORDER 4065?

A. Yes. In Order 4065, the Commission reasoned that "all customers should be allocated a share of uncollectible expense and that such expense is a cost of doing business. It is unfair to saddle the members of a particular class with this expense when those members have no control of it and have not individually contributed toward it" (Order 4065 at 143). The Commission went on to conclude that uncollectible accounts should be allocated to the customer classes on revenues (*Id.*)

Q. DO YOU BELIEVE NARRAGANSETT'S ALLOCATION OF UNCOLLECTIBLE ACCOUNTS IS REASONABLE?

A. Yes. Based on the same logic that the Commission employed in Order 4065, I find that it is appropriate to allocate uncollectible accounts on the basis of delivery revenues as the Company has done. Uncollectible accounts are a cost of doing business and as such, it is just and reasonable to allocate these expenses on a general allocator, such as total revenue. Furthermore, this allocation is consistent with Narragansett's recovery of transmission-related uncollectible expense and Standard Offer Service commodity-related bad debt because those costs are also allocated to the classes with a general allocator.

II-D. Customer Service and Information Expenses

Q. HOW DID NARRAGANSETT ALLOCATE CUSTOMER SERVICE AND INFORMATION EXPENSES TO THE CUSTOMER CLASSES?

A. Mr. Gorman functionalized Customer Service and Information Expenses (accounts 907-912) as billing (see Schedule HSG-1D at 3). These expenses were then allocated to the customer classes based on account-specific studies. Customer Service Supervision (account 907) and Customer Assistance Expenses (account 908) were allocated with the "Acct908" allocator. According to the Company's response to DIV-21-5, account 907 involves the supervision of the activities contained in account 908.

Schedule HSG-3L shows that the "Acct908" allocator is based on the following expenses and the manner in which they are allocated to the customer classes: Commercial and Industrial Customers allocated to the classes with the Customers-Large customer count allocator; Community Relations allocated to all classes on the basis of customer counts; Construction/Contract management allocated with the Customers-Large allocator; IT Support Customer Assistance allocated to all customers on the basis of customer counts; and Load Research & Analysis allocated on NCPs at 115 kV voltage . Recall that in the Company's revised ACOS study, the Customers-Large allocator only includes the of the B/G-32 and B/G-62 classes. The Acct908 allocator is based on the sum these five cost components, with the majority of costs (86 percent) being allocated on customer counts.

Narragansett explained in Supplemental response to DIV-21-4(d) that the Commercial and Industrial Customer and Construction/Contract Management components of the composite Acct908 allocator primarily reflect the costs of "managing large commercial and industrial accounts for customers served under

B32/G32 (Demand 200 kW) and B62/G62 (Demand 3000 kW) and should be assigned to those classes." I believe that this revision was appropriate and consistent with the principles of cost causality.

The Company allocated Customer Service-Miscellaneous expenses (account 910) with a composite allocator ("Acct910") that was constructed in a similar fashion to the Acct908 allocator. The composite Acct910 allocator was based on the allocation of three expenses: Customer Service Retail Market which was allocated on energy sales at the meter; IS Development-Customer Service allocated on customer counts/bills (the two are mathematically equivalent); and IS Support-Customer Service allocated on customer counts/bills. Schedule HSG-3M demonstrates how the composite Acct910 allocator was constructed. The Acct910 allocator is unchanged across the Company's two ACOS studies.

Q. HOW DID THIS COMMISSION DIRECT NARRAGANSETT TO ALLOCATE CUSTOMER SERVICE AND INFORMATION EXPENSES IN ITS FINAL DECISION AND ORDER IN DOCKET NO. 4065?

A. The Commission directed Narragansett to allocate Customer Service and Information Expenses on energy sales at the meter (Order 4065 at 158).

Q. HOW DID NARRAGANSETT ALLOCATE DEMONSTRATION AND SELLING EXPENSES?

A. Narragansett original filed ACOS allocated Demonstration and Selling Expenses (account 912) to the so called Large Customer Classes with the Customers-Large allocator. However, in response to DIV-21-4(d), Narragansett indicated that this allocation was a mistake and that these expenses should allocated to all customer

classes on the basis of customer counts. The Company's revised ACOS study allocates Demonstration and Selling Expenses to all customer classes on the basis of customer counts (see Narragansett's Supplemental Response to DIV-21-4(d)).

Q. DO YOU FIND NARRAGANSETT'S ALLOCATION OF CUSTOMER SERVICE AND INFORMATION EXPENSES TO BE REASONABLE?

A. No. For reasons the Commission outlined in Order 4065, I believe Customer Service and Information expenses (accounts 907-912) should be allocated to the classes on the basis of class energy sales at the meter because these costs do not necessarily vary directly with the number of customers. Quoting from Order 4065,

> The Commission finds that because these [Customer Service and Information] costs are caused by the amount of service provided to a class rather than the number of customers, the appropriate method of allocation should be based on energy use at the meter. The Commission is convinced by Dr. Swan's testimony that the types of services reflected by the Company in these accounts…are not directly caused by the number of customers but by the amount of service that is provided to the various classes. (Order 4065 at 145.)

Given that the unit of service in Narragansett electric's service is a kWh, I find that it is appropriate to allocate these costs on energy sales at the meter. The same logic can be applied to Demonstration and Selling Expenses in account 913, which was not explicitly included as a line item in Narragansett's ACOS study in Docket No. 4065. Accordingly, I have recalculated the Company's ACOS study by allocating Customer Service and Information expenses to the customer classes based on energy sales at the meter. The next section presents the results of the Division's proposed ACOS study which includes my proposed changes to the Company's revised ACOS study.

III. Division's Proposed Allocated Class Cost of Service Study

Q. HAVE YOU CALCULATED THE DIVISION'S PROPOSED ALLOCATED COST OF SERVICE STUDY?

A. Yes. Schedule ELN-1 presents a summary of the results from the Division's proposed ACOS study. This ACOS study differs from both the Company's original filed and revised ACOS studies in its allocation of Customer Service and Information expenses (accounts 907-912). The class returns estimated by the Division's proposed study are presented in Table 2 below. I also included the class returns as estimated by both the Company's original filed ACOS study and its revised ACOS study.

Table 2
Comparison of ACOS Study Results – Percent (%)

Customer Class	Division Study	Narragansett Revised Study	Narragansett Original Filed Study
Residential A-16 & A-60	3.65%	3.37%	3.65%
Small C&I C-06	7.19	7.10	7.28
General C&I G-02	8.82	9.14	7.53
200 kW Demand B/G-32	6.57	7.09	7.57
3,000 kW Demand B/G-62	(6.17)	(5.07)	(5.05)
Lighting	(4.99)	(5.04)	(4.98)
Propulsion X-01	(2.32)	(2.04)	(2.04)
System Average Return	4.35%	4.35%	4.35%

Source: Schedule ELN-1 line 12; Narragansett's Supp. Response to DIV-21-4-d line 12; and Schedule HSG-IA line 12.

The Division's ACOS study adopts the narrower definition of Large Customer Classes and allocates Demonstration and Selling Expenses to all customer classes rather than just a subset of classes. However, as I explain below, the Division's proposed study allocates accounts 907 through 912 on the basis of class energy use rather than class customer counts.

The Division's ACOS study finds that the General C&I class is paying a higher return (8.82 percent) than the Company's original filed ACOS study estimate (7.53 percent) and a lower return than the Company's revised ACOS study (9.14

percent). The Division ACOS study also finds that the 200 kW Demand class is paying a lower return (6.57 percent) than the Company's original filed ACOS study (7.57 percent). However, the Division's estimated return for the 200 kW Demand class is closer to Narragansett's revised ACOS study estimate of 7.07 percent. The Division's estimate of the 3,000 kW Demand rate of return is negative 6.17, which is about one percentage point below the Company's estimates in both its original filed and revised ACOS studies. The Division's ACOS study estimates that the Residential class currently pays a 3.65 percent rate of return, which is 0.28 percentage points below the Company's revised ACOS study estimate and equal to the estimate in its original filed ACOS study. The Small C&I and Lighting classes are estimated to have similar returns across the three ACOS studies, while the Division study estimates that the Propulsion class is paying a lower return as compared to the Company's two ACOS studies.

Q. HOW DID YOU ALLOCATE CUSTOMER SERVICE-SUPERVISION AND CUSTOMER ASSISTANCE EXPENSES IN THE DIVISION'S ACOS STUDY?

A. Both the Customer Service-Supervision (account 907) and Customer Assistance Expenses (account 908) are allocated on a revised Acct908 allocator. As I explained previously, I agree with the Commission that these costs should be allocated on energy sales at the meter (Order 4065 at 145). I revised the Company's Acct908 allocator and used energy sales at the meter to allocate the costs that are used to calculate it. Given that two of the cost components Mr. Gorman used to calculate the Acct908 allocator are only caused by the B/G-32 and B/G-32 customer classes, I believe it is appropriate to assign those expenses to those classes, and not the classes

that do not cause or benefit from those activities. This treatment uses the Company's revised definition of Large Customer Classes. Accordingly, I adopted the Company's convention in its revised ACOS study to assign the Commercial and Industrial Customers and Construction/Contract Managers costs to the B/G-32 and B/G-62 customer classes when I constructed the Division's revised Acct908 allocator. However, rather than allocating those costs on the basis of class customer counts, I allocated the costs on the basis of energy sales at the meter to the B/G-32 and B/G-62 classes.

Q. HOW DOES THE DIVISION ALLOCATE CUSTOMER SERVICE-MISCELLANEOUS EXPENSES?

A. The Division's proposed ACOS study allocates Customer Service-Miscellaneous Expenses (account 910) based on a revised "Acct910" allocator. This revised Acct910 allocator assigns all of the cost components that the Company used in Schedule HSG-3M on energy. Therefore, the Acct910 allocator is equivalent to the energy sales at the meter allocator. This allocation is consistent with the Commission's directive in Docket No. 4065 (Order 4065 at 145).

Q. HOW DOES THE DIVISION ALLOCATE DEMONSTRATION AND SELLING EXPENSES?

A. The Division's proposed ACOS study allocates Demonstration and Selling Expenses (account 912) to all customer classes on the basis of energy sales at the meter. Allocating Demonstration and Selling Expenses to all customer classes is consistent with the Company's revised ACOS study, although the Company allocates these expenses on the basis of class customer counts.

Narragansett explained that these costs include "the costs of proposed customer outreach and education initiatives related to safety, storm preparedness, billing information and financial assistance, and benefits of natural gas" (Narragansett response to DIV-21-4-(d)). This proposed allocation is consistent with the Commission's Order 4065 because the Commission ruled that demonstrations and exhibits, along with other costs, are "not directly caused by the number of customers but by the amount of service that is provided to the various classes" (Order 4065 at 145).

I believe that energy sales at the meter is an appropriate allocator for Demonstration and Selling expenses because customer outreach and educational initiatives often take the form of public relations campaigns which are broadcast on television, radio, and in print (billboards, street signs, etc.). These costs are not directly driven by the number of customers in any particular customer class. Therefore, I find it appropriate to allocate these costs on energy sales at the meter, which I have done in the Division's proposed ACOS study.

Q. PLEASE SUMMARIZE THE DIVISION'S PROPOSED CHANGES TO NARRAGANSETT'S REVISED ALLOCATED CLASS COST OF SERVICE STUDY.

A. The changes I made to the Company's ACOS study are as follows:

1. Allocate Customer Service-Supervision (account 907) expenses on a revised Acct908 allocator. The revised Acct908 allocator adopts the Company's convention of assigning some costs to Large Customer Classes (B/G-32 and B/G-62) alone, and allocates all composite costs on the basis of energy sales at the meter.
2. Allocate Customer Assistance Expenses (account 908) on the Revised

Acct908 allocator described above.

3. Allocate Customer Service-Miscellaneous Expenses (account 910) on the Revised Acct910 allocator, which is equivalent to the energy sales at the meter allocator.
4. Allocate Demonstration and Selling Expenses (account 912) to all classes on the basis of energy sales at the meter.

The results of the Division's proposed ACOS study are presented in Schedule ELN-1.

IV. Base Rate Revenue Spread and Rate Design

Q. HAVE YOU REVIEWED NARRAGANSETT'S PROPOSED BASE RATE REVENUE SPREAD AND RATE DESIGN?

A. Yes, I have. I discuss both in turn below.

IV-A. Base Rate Distribution Revenue Spread

Q. HAVE YOU REVIEWED NARRAGANSETT'S PROPOSED BASE DISTRIBUTION RATE REVENUE SPREAD?

A. Yes, I have. Narragansett Witness Jeanne A. Lloyd presented the Company's proposed distribution base rate revenue spread in Schedule JAL-1. Ms. Lloyd used the Company's original filed ACOS study to develop its proposed revenue spread. As a first step, Ms. Lloyd presented the full cost of service revenue requirements, where each customer class pays the Company's proposed return of 7.85 percent (see line 9 of Schedule JAL-1). Next, Ms. Lloyd allocated the $6.7 million cost of the Low Income Residential (Rate A-60) subsidy to all of Narragansett's customer classes (see lines 27-34 of Schedule JAL-1). Ms. Lloyd's proposed recovery of the A-60 Residential subsidy costs is consistent with Order 4065 (Order 4065 at 158).

Ms. Lloyd then imposed a constraint that no customer class face an increase in excess of twice the Company's proposed system average increase of 13.2 percent, which amounts to a 26.3 percent cap on distribution base rate increases. This constraint limited the increases of the 3,000 kW Demand (B/G-62), Lighting (S-10/S-14), and Propulsion (X-01) classes to 26.3 percent.

Q. WHAT IS THE COMPANY'S PROPOSED REVENUE SPREAD?

A. The Company's proposed base distribution rate revenue spread and associated percentage increases are presented in Table 3. Ms. Lloyd proposed to increase the revenue responsibility of the Residential classes by 15.5 percent and the Small G&I classes by 8.6 percent. The Company proposed to increase the revenue responsibilities of General C&I and 200 kW Demand classes by 7.9 percent, while the 3,000 kW Demand, Lighting, and Propulsion classes are capped at twice the Company's proposed system average increase of 13.2 percent.

Table 3
Narragansett's Proposed Revenue Spread
at its Proposed Rate of Return

Customer Class	Revenue Requirement ($ 000)	Percent Increase (%)
Residential A-16 & A-60	$138,601	15.5%
Small C&I C-06	26,387	8.6
General C&I G-02	40,129	7.9
200 kW Demand B/G-32	37,180	7.9
3,000 kW Demand B/G-62	6,503	26.3
Lighting	12,900	26.3
Propulsion X-01	609	26.3
Total	$262,310	13.2%

Source: Schedule JAL-1, lines 45 and 53.

The Company maintains that the revenue spread in Table 3 is still reasonable despite its revisions to the original filed ACOS study (Narragansett's Supplemental Response to DIV-21-4(d)).

Q. DO YOU BELIEVE THAT NARRAGANSETT'S PROPOSED DISTRIBUTION BASE RATE REVENUE SPREAD IS REASONABLE GIVEN THAT THE COMPANY HAS REVISED ITS ALLOCATED CLASS COST OF SERVICE STUDY?

A. Yes, I do. I am sympathetic to the Company's argument that its proposed distribution base rate revenue spread is still reasonable because the Company's proposed revenue spread makes significant advances toward cost of service rates while protecting any individual class from an excessive rate increase. It also has several desirable properties because the Small C&I, General C&I, and 200 kW Demand classes face percentage increases that fall within a similar range. Additionally, the Residential class is facing a higher percentage increase than the Small C&I, General C&I, and 200 kW Demand classes because the Division and Company ACOS studies estimate that the Residential class currently pays a lower return then these classes. Finally, I support Ms. Lloyd's proposal to protect any individual class from an excessive increase by capping the 3,000 kW Demand, Lighting, and Propulsion classes at twice the Company's proposed system average increase. Accordingly, I find the Company's proposed revenue spread acceptable.

Q. THE COMPANY'S PROPOSED REVENUE SPREAD IS BASED ON AN ALLOCATED CLASS COST OF SERVICE STUDY THAT HAS SINCE BEEN REVISED. WHY IS IT STILL REASONABLE?

A. While it is true that the ACOS study the Company used to determine its proposed revenue spread has changed, it is important to recognize that the methodology the

Company employed involved a significant amount of cost shifting and as such, does not strictly adhere to the cost-based rates calculated by its original filed ACOS study. The Company's proposed revenue spread involved shifting over $11.9 million of the proposed $31.4 million revenue increase across the customer classes. These revenue shifts, which amounted to over a third of the proposed increase, resulted from funding the Residential Low Income subsidy ($6.7 million in shifts) and preventing the 3,000 kW Demand, Lighting, and Propulsion classes from an excessive increase ($5.2 million in shifts). Therefore, the method Narragansett used to determine its revenue spread involved subjective judgments and constituted a departure from full cost of service rates as estimated by its original filed ACOS study. Furthermore, all ACOS studies produce *estimates* of the class rates of return, and should be viewed accordingly.

If the Commission prefers a more mechanistic approach to determining the revenue spread, then I propose it direct the Company to use the Division's proposed ACOS study to determine full cost of service rates and then allocate the costs of the Residential Low Income program to all of the customer classes on the basis of class revenue requirements.[5] Next, the Commission should examine the implied increases for the 3,000 kW Demand, Lighting, and Propulsion classes. This approach is similar to the Company's proposed methodology outlined in Schedule JAL-1.

If the percentage increases for the 3,000 kW Demand, Lighting, and Propulsion classes are excessive, I propose imposing additional constraints on the percentage increases for some or all of these classes and allocating the resulting revenue shortfall to the remaining classes (i.e., the Residential, Small C&I, General C&I, and 200 kW Demand classes) based on their respective revenue requirements.

[5] See Schedule JAL-1, lines 29-31, for a numerical example of this step.

Q. HOW DO YOU PROPOSE TO DETERMINE THE REVENUE SPREAD IF THIS COMMISSION APPROVES A LOWER INCREASE THAN THE COMPANY IS REQUESTING?

A. The Division does not support the Company's proposed increase and it is recommending a lower revenue requirement for Narragansett. If the Commission approves a lower revenue increase than the $31.4 million that Narragansett has proposed, it would be reasonable to scale back the Company's proposed revenue spread proportionately in a manner that collects the approved revenue requirement. It would also be reasonable to rerun the Division's proposed cost of service study at the lower total revenue requirement and employ the method I described above.

This would involve calculating full cost of service rates at the lower revenue requirement based on the Divisions proposed ACOS study. Next, the Company could allocate the costs of the Low Income Residential subsidy to all customer classes on the basis of class revenue requirements as estimated by the Division's ACOS study. As a final step, I recommend that the Commission review the implied increases for the 3,000 kW Demand, Lighting, and Propulsion classes and consider moderating excessive increases by reallocating a portion of the increases to the remaining customer classes on the basis of class revenue requirements.

I believe that it is appropriate to make some progress towards cost of service rates while moderating severe increases, but this process involves examining both the relative and absolute increases for each customer class. Ensuring moderate rate increases need not involve capping the percentage increases of each customer class at twice the system average if the system average increase is relatively low. For example, if the approved system average increase is five percent, an increase in

excess of twice the system average (e.g., 10.5 percent) does not necessarily constitute an excessive increase.

Q. HOW DOES NARRAGANSETT PROPOSE TO INCREASE SUBSTATION RATE M-1?

A. Narragansett proposed to increase the Substation Power Delivery and Reliability Service rate (M-1) by the system average increase of 13.2 percent (Lloyd Direct at 22). The Substation rate applies to generators and the current tariff consists of a single fixed monthly customer charge. Narragansett is proposing to increase this fixed monthly customer charge by an amount equal to the system average increase.

Q. DO YOU SUPPORT NARRAGANSETT'S PROPOSAL FOR THE SUBSTATION CLASS?

Yes. I believe it is reasonable to increase the Substation class' revenue responsibility by the system average increase because M-1 customers are merchant generators and only receive deliveries for station use.

IV-B. Base Distribution Rate Design

Q. HAVE YOU REVIEWED NARRAGANSETT'S PROPOSED BASE RATE CHARGES?

A. Yes, I have. Ms. Lloyd presents the Company's proposed customer, demand, and energy charges in Schedule JAL-3. For the most part, Narragansett established the demand and customer charges and then calculated the energy charges necessary to recover the balance of the proposed revenue requirement from each class. I focus on the Company's proposed customer charges.

Q. WHAT ARE NARRAGANSETT'S PROPOSED CUSTOMER CHARGES?

A. Narragansett proposed to increase the customer charges of all classes except the 3,000 kW Demand class, which will not face a customer charge increase. Table 4 summarizes Narragansett's proposed customer charge increases.

Table 4
Summary of Narragansett's Proposed Monthly Customer Charges for Base Distribution Rates

Rate Class	Current ($)	Proposed ($)	Proposed increase ($)	Proposed Increase (%)
Residential A-16	$3.75	$5.00	$1.25	33%
Low Income Residential A-60	$0.00	$1.00	$1.00	-
Small C&I C-06				
◦metered	•$8.00	•$10.00	•$2.00	•25%
◦unmetered	•$5.00	•$ 6.00	•$1.00	•20%
General C&I G-02	$125.00	$135.00	$10.00	8%
200 kW Demand B/G-32	$725.00	$825.00	$100.00	14%
3,000 kW Demand B/G-62	$17,000.00	$17,000.00	no change	0%
Propulsion X-1	$16,500.00	$21,000.00	$4,500	27%
Substation M-1	$3,640.42	$4,119.41	$478.99	13.2%

Source: Current RIPUC Tariff No. 2095 and Proposed RIPUC Tariff No. 2095 from Schedule JAL-7.

Narragansett is proposing a $1.25 increase in the Residential (A-16) class' customer charge, which is currently $3.75 per month. While this is in excess of the $1.00 increase that the Commission limited the Residential class to in Order 4065 (see Order 4065 at 159), it leaves the Residential class with a $5.00 customer charge which is a reasonable level. The Company is also proposing to add a $1.00 customer component to the Low Income Residential rate. This class is already subsidized and its rate components are not based on the class' cost of service. Moreover, this proposed charge would most adversely affect the smallest, and presumably the poorest, customers in this group. I see no compelling reason to add a customer charge to the Low Income Residential rate.

The increases for the Small C&I charges are $2.00 per month for metered customers and a $1.00 per month for unmetered customers. The proposed customer charge for metered Small C&I customers is $10.00 per month, which is roughly in line with the estimated $11.39 customer component for this class that is presented in Schedule HSG-1C.[6] The proposed customer charge for unmetered Small C&I customers is $6.00, which I find acceptable for the same reason. General C&I customers are facing an eight percent increase in their monthly customer charge, from $125 per month to $135 per month. This increase is reasonable because it is below the system average increase and consistent with the sum of the $57.79 estimated customer component and the 10 kW demand component (10 kW x $8.98=$89.80) as computed in Schedule HSG-1C. Narragansett proposed a $825 monthly customer charge for the 200 kW Demand class (B/G-32), which constitutes an increase of $100 per month, or 13.8 percent. I find this a reasonable increase because the proposed customer charge is in line with the system average increase and it is below the Company's estimated customer and demand components for this class. Schedule HSG-1C suggests that the cost of serving a B/G-32 customer and its first 200 kW of demand are $136.16+ 200 kW x $6.63 = $1,462.13 per month.

The 3,000 kW Demand class (B/G-62) customer charge is not facing a customer charge increase. This is reasonable because the class currently pays a $17,000 customer charge, which is well in excess of the class' $2,646.78 estimated monthly customer component. The Propulsion class is facing a $4,500 increase, which translates to just over 27 percent, in its monthly customer charge. Ms. Lloyd reasoned that the Propulsion customer charge increase was in line with the class' base rate increase and that the proposed rate will be "consistent with the historical design

[6] Aside from the 200 kW Demand class, the estimated customer components implied by the Division's ACOS study are similar to the Company's estimates presented in Schedule HSG-1C.

of the rates for this class, which are intended to promote stability and predictability of costs" (Lloyd Direct at 21). This increase is excessive because according to Schedule HSG-1C, the monthly customer component for the Propulsion class is $1,474.20. Thus, the current Propulsion customer charge of $16,500 is over eleven times higher the Company's estimate of the class' customer component. Therefore, I see no basis for raising the Propulsion class' customer charge any further.

Q. IS NARRAGANSETT PROPOSING OTHER RATE DESIGN CHANGES?

A. Yes. Narragansett has proposed changing the availability of the 3,000 kW Demand rate (B/G-62) from mandatory for all customers with a maximum annual demand above 3,000 kW to optional for any customer with a maximum annual demand in excess of 5,000 kW (Lloyd Direct, at 18). Ms. Lloyd explained that smaller B/G-62 customers with demands in the 3,000-5,000 kW range are better off taking service under B/G-32. Lloyd reasoned that because the B/G-62 class was paying substantially below its cost of service, moving the class closer to its cost of service would be relatively more costly for smaller customers in the class. This is definitely true given the $17,000 monthly customer charge that B/G-62 customers currently face.

Q. HOW DOES NARRAGANSETT ADJUST FOR CUSTOMER MIGRATIONS FROM THE B/G-62 CLASS TO THE B/G-32 CLASS?

A. Ms. Lloyd noted in her testimony that customer migration from class B/G-62 to class B/G-32 will result in lost revenue and that the Company adjusted B/G-32 rates to account for that (Lloyd Direct at 20). Narragansett explained in response to DIV-21-3 that it estimates the utility will lose $598,692 from this migration. The Company determined this figure by first performing bill comparisons based on the Company's

proposed revenue allocation and initial rate design prior to any migration. Narragansett then identified the B/G-62 customers that would be better off switching to the B/G-32 class and calculated the lost revenue associated with that migration. The Company increased the customer charge of the B/G-32 class until the revenue from that class was increased by the amount of the expected lost B/G-62 revenue. Narragansett then performed another bill comparison and determined whether additional B/G-62 customers would migrate to B/G-32 based on the revised B/G-32 customer charge. This iterative process continued until the B/G-32 customer charge reached a level that did not induce any additional customer migration from B/G-62 to B/G-32 (Narragansett's Response to DIV-21-3).

This process estimated that Narragansett would lose $598,692 in revenue from customer migrations from B/G-62 to B/G-32 (see Schedule JAL-4, page 5, line 38). This lost revenue ultimately "traveled with" the migrating customers and is borne by all customers in the B/G-32 class. The additional $598,692 in revenues to be collected from B/G-32 only constitutes a 1.6 percent increase in total proposed revenues for this class (which are $37.2 million). Thus, migration from B/G-62 to B/G-32 will make the migrating customers better off but that is only because the costs of that migration are shared amongst the existing B/G-32 customers. While this arrangement is detrimental to existing B/G-32 customers, the cost shifting is relatively minor.

It is important to note that the revenue proofs for the B/G-32 and B/G-62 classes that Ms. Lloyd presents in Schedule JAL-4 (pages 4 and 5) are based on pre-migration billing determinants. The Company presents the revenue determinants based on estimated post-migration billing determinants on pages 13 and 14 of Schedule JAL-4. The pre-migration revenue proofs suggest that the Company

presented for B/G-32 and B/G-62 suggest that the Company will collect a total of $44,287,929 from these classes; $37,778,854 from B/G-32 and $6,509,075 from B/G-62 (see Schedule JAL-4, pages 4 and 5). This total is $604,272 in excess of the $43,683,637 that was allocated to this class by Ms. Lloyd in Schedule JAL-1, which suggests that the Company will over-collect from these classes, B/G-32 in particular.

However, if estimated post-migration billing determinants are used for B/G-32 and B/G-62, the Company will not over collect from these classes. If the Company accurately predicted loads and customer migration patterns, $39,238,206 will be collected from B/G-32 and $4,436,332 will be collected from B/G-62 (see Schedule JAL-4, page 14, lines 4 and 5). Therefore, Narragansett will not over collect distribution base rates if the customers migrate from B/G-62 to B/G-32 in the same manner that the Company has predicted.

V. Rate Design Outside of Base Distribution Rates

Q. DID NARRAGANSETT PROPOSE ANY CHANGES TO RATES AND CHARGES COLLECTED OUTSIDE OF BASE DISTRIBUTION RATES?

A. Yes. Ms. Lloyd proposed changes to the following charges that are collected outside of base rates: Transmission Service Cost Adjustment Provision, Energy Efficiency Program Provision; and the Standard Offer Adjustment Provision (Lloyd Direct at 27). The Company's proposed adjustment to the Standard Offer Adjustment Provision will be addressed in the Direct testimony of Division Witness David Effron.

Q. WHAT CHANGE IS NARRAGANSETT PROPOSING TO ITS TRANSMISSION SERIVCE RATES?

A. The Company proposed to change the methodology used to calculate the Transmission Service Cost Adjustment Provision ("TSCAP") which is contained in tariff sheet RIPUC No. 2080. The TSCAP is currently allocated to Narragansett's customer classes on the basis of class contribution to the New England Power Company's ("NEP") monthly coincident peak (Lloyd Direct at 26). The Company currently forecasts each class' contribution to the monthly peak based on load data from the prior year and uses these forecasts to establish class-specific TSCAP factors (*Id.*). During the year, the revenue collected through the TSCAP, which is based on forecasted loads and transmission expenses, will differ from the actual transmission expenses incurred by the company. Ms. Lloyd explained in response to DIV-17-5 that after the actual transmission expenses are realized, the over- or under-collection of transmission expenses is reconciled through a uniform per-kWh TSCAP factor during the reconciliation period.

The Company is proposing to change this methodology in two ways. First, rather than using loads from the prior year to forecast class contributions to the monthly NEP peak, Narragansett will apply the weighted average load factors from 2008 and 2011 (see Schedule HSG-3Q) to a normalized sales forecast for the upcoming year (Lloyd Direct at 26). Second, the Company is proposing to change how it reconciles actual transmission expenses with the transmission charges it collects from ratepayers. Rather than reconciling the transmission expense through a uniform charge that does not vary across the customer classes, the Company proposes to develop class-specific reconciliation factors (Lloyd Direct at 26 and DIV-17-5). The class-specific TSCAP reconciliation factors strike me as a much more equitable way to reconcile the difference between actual and projected transmission expenses. The uniform reconciliation methodology Narragansett currently uses can be quite

divorced from actual cost causation if the forecasted class coincident peaks differ greatly from the actual peaks. Narragansett's proposed class-specific TSCAP reconciliation factor is an improvement over the current methodology and I recommend that the Commission adopt this proposal. I also recommend the Commission direct Narragansett to change the wording of its TSCAP Tariff (RIPUC No. 2080) to reflect that the TSCAP charges are allocated to the customer classes on the basis of each classes' contribution to the *monthly* NEP peak demands because the current and proposed tariffs do not make that clear.

Q. HOW DOES NARRAGANSETT PROPOSE TO CHANGE ITS ENERGY EFFICIENCY PROGRAM PROVISION?

A. Narragansett has proposed to recover uncollectible expenses associated with its Energy Efficiency Program ("EEP") provision (Lloyd at 27). The EEP (Tariff No. RIPUC 2042) is a uniform per-kWh charge that collects the projected costs of the Company's EEP plan and this charge does not currently include any uncollectible expenses. The Company is proposing to remove the uncollectible expense associated with EEP from distribution base rates and increase the EEP charge by its approved uncollectible percentage (Lloyd at 27-28). I believe that recovering EEP uncollectible expenses from ratepayers through a uniform per-kWh charge on energy sales is reasonable but leave the matter of whether it is appropriate to remove the expense from base rate rates to the Division witness providing testimony on revenue requirements.

VI. <u>Conclusions</u>

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENTATIONS.

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

1. Narragansett's classification and allocation of distribution plant is consistent with the Commission's Final Order in Docket No. 4065 and reflects the principles of cost causation.
2. Narragansett's allocation of Customer Service and Information Expenses is inconsistent with the Commission's Final Order in Docket No. 4065 and the principles of cost causation.
3. I recommend that the Commission adopt the results of the Division's proposed allocated class cost of service study, which allocates Customer Service and Information Expenses on the basis of energy use at the meter.
4. Narragansett's proposed revenue spread is reasonable and acceptable to the Division.
5. If the Commission prefers a more mechanistic approach to determine the revenue spread, I recommend using the Division's proposed allocated class cost of service study to determine that revenue spread.
6. I recommend that the Commission reject Narragansett's proposal to increase the customer charges for the Residential Low Income (A-60) and Propulsion (X-01) classes.
7. I recommend that the Commission accept Narragansett's proposed changes to the methodology for calculating the reconciliation components of the Transmission Service Cost Adjustment Provision and the Energy Efficiency Program Provision.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes it does.

EMMA L. NICHOLSON

Dr. Nicholson is a senior economist at Exeter Associates, Inc. At Exeter, Dr. Nicholson's work includes modeling the economic impacts of proposed pricing mechanisms, market rule changes, and new infrastructure in electric power systems. She also specializes in cost allocation for electric utility rate proceedings, the operation and design of energy markets, evaluating alternative energy supply options for large retail customers, conducting econometric forecasts of energy requirements and peak demand, and preparing statistical analyses of energy market data.

Education:

B.A. Economics and Political Science, University of Maryland College Park, May 2001

M.A. Economics, Georgetown University, December 2004

Ph.D. Economics, Georgetown University, August 2008.
Dissertation: "Essays on Restructured Electricity Markets."

Previous Employment:

2008-2009	Senior Consultant, Energy Practice Bates White, LLC. Washington, D.C.
2004-2006	Industry Economist (three summer internships) Federal Energy Regulatory Commission Washington, D.C.
2001-2003	Research Assistant Exeter Associates, Inc. Columbia, Maryland

Professional Work Experience:

Dr. Nicholson's work at Exeter Associates, Inc. is primarily related to energy market analysis, econometric forecasting, evaluation of alternative energy supply options, and power supply acquisition. Dr. Nicholson performs class cost allocation studies through the use of utility cost of service models in support of testimony provided in rate case proceedings. Dr. Nicholson has supported the Indiana Office of Utility Consumer Counselor in settlement negotiations and helped them evaluate the rate impacts of various class revenue spreads.

Dr. Nicholson was a key member of the modeling team that prepared the Long Term Electricity Report for the State of Maryland, which Exeter prepared for the State's Power Plant Research Program. Dr. Nicholson developed key inputs to the Study and reviewed the outputs of the

production cost model. Dr. Nicholson also led a study of the effects of wind generation on wholesale electricity prices in ERCOT in a study funded by the Department of Energy's National Renewable Energy Laboratory.

With Bates White, she examined NYMEX trade data to support the testimony of a Bates White expert testifying on behalf of the Federal Energy Regulatory Commission's (FERC) Office of Enforcement. Dr. Nicholson also created 20-year forecasts of electric generation capacity, hourly load and fuel costs for a load flow model used to estimate the economic and environmental impacts of a proposed 1,200 MW DC transmission line in New York.

Dr. Nicholson worked at the Federal Energy Regulatory Commission in the summers of 2004, 2005, and 2006. She interned at the Office of Administrative Litigation in 2004 and 2005 where she participated as a member of FERC staff in crafting a position about a proposed natural gas interconnection in south Louisiana. She also investigated the merits of a proposed transmission adder and examined the implications of PJM's Three-Pivotal Supplier Test. Dr. Nicholson worked in the Office of Energy Markets and Rates, Central Division, in 2006 where she investigated a complaint about a retroactive price change in the Midwest ISO. She also examined the effects of a proposed Midwest ISO rule change that would charge virtual bidders for uplift.

Dr. Nicholson began her professional career as a Research Assistant at Exeter Associates, where she developed the econometric models used to generate a ten-year forecast of electricity consumption and peak demand in the state of Maryland. She built various econometric and Excel-based models to estimate the financial impacts of proposed rate changes associated with various utility rate case proceedings.

Expert Testimony:

Before the Pennsylvania Public Utility Commission, Docket No. R-2010-2172665, September 2010, on behalf of the Pennsylvania Office of Consumer Advocate on cost allocation and rate design issues.

Before the Indiana Utility Regulatory Commission, Cause No. 43839, June 2010, on behalf of the Indiana Office of Utility Consumer Counselor on proper cost allocation methods.

Before the Indiana Utility Regulatory Commission, Cause No. 44075, April 2012, on behalf of the Indiana Office of Utility Consumer Counselor on proper cost allocation and rate design methods.

Publications and Consulting Reports:

"Towards Equilibrium Offers in Unit Commitment Auctions with Nonconvex Costs," with Ramteen Sioshansi. *Journal of Regulatory Economics*, Vol. 40. No. 1, August 2011.

"The Relationship between Wind Generation and Balancing Energy Market Prices in ERCOT: 2007-2009, with Jennifer Rogers and K. Porter. National Renewable Energy Laboratory, November 2010.

"Abandon all Hope? FERC's Evolving Standards for Identifying Comparable Firms and Estimating the Rate of Return," with Jonathan Lesser, *The Energy Law Journal*. Vol 30:105; pp. 105-132, April 2009.

"Forecasted Electric Energy Consumption and Peak Demands for Maryland." Exeter Associates, Inc., 2002. (Prepared for the Maryland Department of Natural Resources, Power Plant Research Program.)

Participation in Conferences, Seminars, and Workshops:

2006 and 2007 Midwestern Economic Association Meetings, presenter and discussant.

Peer reviewer for the *Journal of Environmental Economics and Management*. (2009 through present.)

Narragansett Electric Company
Division Proposed Allocated Class Cost of Service Study
Future Rate Year 2014

Line	Account	Balance	Residential	Small C&I	General C&I	200 kW Demand	3000 kW Demand	Lighting	Propulsion
1	Distribution	230,876	119,523	24,198	37,085	34,384	5,050	10,158	479
2	Other Revenue	8,147	3,547	1,317	1,591	933	477	268	15
3	**Total Revenue**	239,023	123,070	25,514	38,676	35,317	5,527	10,426	494
4									
5	Operating expenses	207,816	109,238	20,502	29,371	28,797	7,069	12,293	546
6	**Income before tax**	31,207	13,831	5,012	9,305	6,520	(1,542)	(1,867)	(52)
7	Income tax expense	6,213	2,754	998	1,853	1,298	(307)	(372)	(10)
8	Net income	24,994	11,078	4,014	7,452	5,222	(1,235)	(1,496)	(42)
9									
10	Rate Base	575,087	303,429	55,863	84,460	79,525	20,006	30,000	1,804
11									
12	Return on Rate Base	4.35%	3.65%	7.19%	8.82%	6.57%	(6.17%)	(4.99%)	(2.3%)
13	*Relative Return*	*1.00*	*0.84*	*1.65*	*2.03*	*1.51*	*(1.42)*	*(1.15)*	*(0.53)*
14									
15	**Distribution revenue requirement**								
16	Distribution charge revenue	262,310	138,778	25,242	36,899	36,480	8,825	15,354	731
17	Additional M01 revenue	16	8	2	2	2	1	1	0
18	Forfeited discounts	1,474	0	611	465	27	318	53	0
19	Other revenue	6,673	3,547	706	1,125	906	159	215	15
20	**Revenue Requirement**	270,473	142,334	26,560	38,492	37,415	9,302	15,624	745
21									
22	Operating expenses	121,957	64,594	11,919	16,382	16,805	4,190	7,778	289
23	Uncollectibles expense	4,736	2,492	465	674	655	163	274	13
24	Depreciation expense	45,768	23,852	4,547	6,900	6,370	1,569	2,390	141
25	General tax / Other	35,780	18,561	3,585	5,397	4,979	1,216	1,936	107
26	GRT	0	0	0	0	0	0	0	0
27		208,241	109,499	20,515	29,352	28,810	7,137	12,377	550
28	Pre-tax income	62,232	32,835	6,045	9,140	8,606	2,165	3,246	195
29	Income taxes	17,072	9,008	1,658	2,507	2,361	594	891	54
30	Net income	45,160	23,827	4,387	6,632	6,245	1,571	2,356	142
31									
32	Return on Rate Base	7.8527%	7.85%	7.85%	7.85%	7.85%	7.85%	7.85%	7.85%
33	Revenue increase (decrease)	31,450	19,264	1,046	(184)	2,099	3,775	5,198	252
34	Revenue increase (decrease) %	13.16%	15.65%	4.10%	(0.47%)	5.94%	68.31%	49.85%	50.93%
35									