

**STATE OF NEW HAMPSHIRE  
BEFORE THE  
PUBLIC UTILITIES COMMISSION**

**In the matter of**  
Public Service Company of  
New Hampshire  
Petition for Permanent Rate Increase

Docket No. DE 09-035

**DISTRIBUTION RATE CASE**

**DIRECT TESTIMONY OF**  
George R. McCluskey

Analyst, Electric Division

January 15, 2010

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GEORGE R. McCLUSKEY**

**I. INTRODUCTION**

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is George McCluskey, and my business address is the New Hampshire  
Public Utilities Commission ("Commission"), 21 South Fruit Street, Suite 10,  
Concord, NH 03301.

Q. WHAT IS YOUR POSITION WITH THE COMMISSION?

A. I am an Analyst within the Electric Division.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

A. A copy of my resume is included as Staff Exhibit-GRM 1.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. On June 30, 2009, Public Service Company of New Hampshire (PSNH or  
Company) filed proposed new tariff pages seeking an increase in distribution  
revenue requirements of \$51 million effective 8/1/2009, equivalent to a system

1 average rate of return (ROR) on rate base of 7.59%.<sup>1</sup> The proposed \$51 million  
2 increase would mean a 4.2% average increase on total bills and a 20.95% average  
3 increase on distribution bills. In fact, PSNH is proposing an across the board  
4 increase of 20.95% in distribution class revenue requirements. PSNH also seeks  
5 to alter its rate design, in part by increasing customer charges and distribution  
6 demand charges and decreasing distribution energy charges. In support of its rate  
7 design proposals, PSNH filed the direct testimony of Stephen Hall. It also filed a  
8 technical statement prepared by Charles Goodwin that describes the methodology  
9 used to develop the Company's embedded distribution cost of service study  
10 (COSS). The results of the COSS were submitted as exhibits to Mr. Goodwin's  
11 technical statement.

12 My testimony addresses three key issues. The first is the method used to classify  
13 costs in Mr. Goodwin's embedded COSS. The second is the development of the  
14 proposed class revenue requirements. The third issue is the appropriateness of the  
15 proposed rate design and delivery service tariff changes contained in Mr. Hall's  
16 testimony. This testimony is presented on behalf of the Staff of the Electric  
17 Division.

18 Q. HOW IS STAFF'S TESTIMONY ORGANIZED?

19 A. This introduction is followed by a brief description of the Company's filing as it  
20 relates to cost of service and rate design issues. The third section includes Staff's  
21 analysis of the embedded COSS including the proposed classification of certain

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<sup>1</sup> PSNH actually requested a ROR of 8.108%, equivalent to an increase of \$68.2 million inclusive of ice storm and reliability enhancement costs. PSNH proposed to collect the \$17 million difference through a step adjustment effective 7/1/10. On December 15, 2009, updated its request to increase distribution revenues to \$50.9 million effective 8/1/09 and \$67.6 million effective 7/1/10.

1 distribution-related plant to the customer-related category based on the minimum  
2 distribution system (MDS) method. This section also includes Staff's  
3 recommendations for class revenue requirements. The fourth section contains  
4 Staff's analysis of the proposed rate design changes and the fifth section contains  
5 an analysis of the proposed changes in the delivery service tariff.

6 **II. COMPANY FILING**

7 Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE COMPANY'S FILING AS  
8 IT RELATES TO COST OF SERVICE AND RATE DESIGN.

9 A. Pursuant to the Commission's filing requirements the Company included its  
10 embedded COSS for the twelve months ending December 31, 2008 and a  
11 supporting technical statement prepared by Charles Goodwin. According to Mr.  
12 Goodwin, the COSS provides a cost based determination of the amount of the  
13 distribution revenue requirement attributable to each rate class.

14 A key result of the COSS is that class rates of return during the test year varied  
15 significantly among rate classes. Specifically, the ROR for Primary General  
16 Service Rate GV was 18.97%, Large General Service Rate LG 13.65%, General  
17 Service Rate G 8.8%, and Residential Service Rate R 0.53%.<sup>2</sup> These returns  
18 compare with a system average ROR of 3.89%. Despite these significant  
19 differences, the Company is not proposing to re-allocate distribution revenue  
20 requirements among the classes in order to mitigate subsidization concerns.

21 Instead, the Company is proposing an across the board increase in distribution

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<sup>2</sup> See PSNH Petition, Volume III – Standard Filing Requirements and Workpapers, June 30, 2009, Pages 000051-52.

1 class revenue requirements. Accordingly, class rates of return will not move  
2 closer to the system average under the Company's proposal.

3 Q. WHY HAS THE COMPANY PROPOSED AN ACROSS THE BOARD  
4 INCREASE?

5 A. The Company states that its primary ratemaking goal is not to assign costs to  
6 those that cause them but to provide bill stability for customers so as to avoid  
7 controversy.

8 Q. STAFF INDICATED THAT THE COMPANY IS SEEKING AN INITIAL  
9 DISTRIBUTION REVENUE INCREASE THAT WOULD RAISE THE  
10 SYSTEM AVERAGE ROR TO 7.59%. WHAT EFFECT WOULD THIS  
11 INCREASE HAVE ON THE CLASS RATES OF RETURN REFERENCED  
12 ABOVE?

13 A. The Company has calculated that the class rates of return would increase to:  
14 26.48% for the Rate GV, 20.09% for Rate LG, 14.0% for Rate G and 3.29% for  
15 Rate R.<sup>3</sup>

16 Q. WHAT CONCERNS DOES STAFF HAVE WITH MR. GOODWIN'S COSS?

17 A. Staff has two key concerns. The first relates to the proposed classification of  
18 distribution-related plant in FERC Accounts 364 through 367 as customer-related  
19 using the MDS method. The theory behind MDS is that distribution plant (poles,  
20 lines, transformers) is designed not just to serve customers' demand for  
21 electricity, but also to connect customers to the distribution system regardless of  
22 their need to use electricity. In other words, it assumes that customers would pay  
23 to connect to the distribution system even if they have zero demand for electricity.

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<sup>3</sup> See PSNH Response to Staff 02-81 which is attached as Staff Exhibit-GRM 2.

1 Some experts have likened this to charging customers a fee to enter a grocery  
2 store to have an opportunity to shop.

3 Our second concern focuses on the contrast between the disparate rates of return  
4 earned by PSNH's rate classes and the proposed across the board increase in class  
5 distribution revenues.

6 Q. PLEASE DESCRIBE THE MDS METHOD.

7 A. As noted, the MDS method is based upon the assumption that the utility incurs  
8 certain costs solely for the purpose of connecting each customer in its service  
9 territory. Estimating these costs requires determining the average book cost for  
10 the minimum size pole, conductor, cable and any other components of equipment  
11 or service that is installed by the utility.

12 Q. BEFORE BEGINNING THE ANALYSIS OF THE COMPANY'S FILING,  
13 PLEASE SUMMARIZE STAFF'S RECOMMENDATIONS.

14 A. Staff recommends:

- 15 1. Rejecting the proposal to classify distribution plant based on the  
16 minimum distribution system method.
- 17 2. Classifying distribution plant as demand-related.
- 18 3. Using cost causation as the primary determinant of class revenue  
19 requirements.
- 20 4. Moving class rates of return closer to the system average in order to  
21 mitigate inter-class subsidies.
- 22 5. Increasing customer-charges by a smaller percentage than proposed  
23 and increasing demand charges by a larger percentage than proposed.
- 24 6. Modifying the proposed tariff provision regarding the rental of pole-  
25 mounted apparatus.
- 26 7. Modifying the proposed master metering provision so that it conforms  
27 to the Commission's rules
- 28 8. Approving as filed the proposal to eliminate for government units and  
29 civic groups the option to pay excess outdoor lighting costs over an  
30 extended period.
- 31 9. Approving as filed the proposed midnight outdoor lighting service  
32 option.

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**III. STAFF ANALYSIS OF EMBEDDED COSS**

1. Minimum Distribution System (MDS) Method

Q. STAFF SAID THAT A KEY PURPOSE OF ITS TESTIMONY IS TO ADDRESS COST CLASSIFICATION AND ALLOCATION ISSUES IN PSNH’S TECHNICAL STATEMENT ON COST OF SERVICE. PLEASE EXPLAIN CLASSIFICATION AND ALLOCATION.

A. Many of the costs that PSNH incurs in providing electric service to its customers are joint costs. Joint costs are the costs of shared facilities such as distribution substations and lines that serve multiple customers. In order to determine the cost to serve each class, these joint costs must be shared among the customer classes that use the facilities. The first step in this process is called functionalization. Distribution utility costs are booked into functional accounts such as substations and overhead and underground lines. Classification is the further division of these functional costs into categories bearing a relationship to a measurable cost-defining service characteristic. Electric utilities traditionally use the classification categories of customer, energy, and demand. Once the costs are classified, they can be allocated to customer classes. Allocation is the apportionment of joint costs among rate classes based on each class’s relative share of a measurable cost-defining service characteristic such as kilowatt-hours or peak demand in kilowatts. Costs classified as customer-related are allocated based on the number of customers, sometimes weighted by some cost information. Energy-related

1 costs are allocated on relative energy usage. Demand-related costs are allocated  
2 on relative demands.<sup>4</sup>

3 Q. HOW DID THE COMPANY CLASSIFY ITS DISTRIBUTION PLANT?

4 A. As noted, distribution plant is typically booked into functional accounts including  
5 substations, primary lines, line transformers, secondary lines, service drops, and  
6 meters. Meters and service drops were classified by the Company as customer-  
7 related together with approximately fifty percent of primary and secondary  
8 distribution lines on the ground that the costs of these assets are also driven by  
9 numbers of customers. The other parts of primary and secondary lines were  
10 classified as demand-related together with substations.

11 Q. WHAT IS THE COMPANY'S BASIS FOR ASSERTING THAT THERE IS A  
12 CUSTOMER-RELATED COMPONENT TO DISTRIBUTION PLANT COSTS?

13 A. The portion of primary and secondary lines classified as customer-related was  
14 determined based on the MDS method. This method, according to PSNH, was  
15 endorsed by the National Association of Regulatory Utility Commissioners  
16 ("NARUC") Electric Utility Cost Allocation Manual (NARUC Manual).

17 Q. DOES STAFF AGREE THAT THE NARUC MANUAL ENDORSES THE MDS  
18 METHOD?

19 A. No, we do not. Inclusion of a particular cost-of-service method in the NARUC  
20 Manual is not evidence that NARUC recommends the method or that an industry-  
21 wide consensus exists as to the appropriateness of the method. Indeed, the  
22 preface to the Manual specifically states that one of its objectives was that "[t]he

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<sup>4</sup> This explanation is based on testimony submitted in 2009 by Lowell E. Alt on behalf of the Rocky Mountain Power Company before the Utah Public Service Commission.

1 writing style should be non-judgmental; not advocating any one particular method  
2 but trying to include all currently used methods with pros and cons.” If that  
3 extract is not considered sufficiently clear as to the Manual’s purpose, the  
4 following should remove any doubt:

5 This manual only discusses the major costing methodologies. It recognizes  
6 that no single costing methodology will be superior to any other, and the  
7 choice of methodology will depend on the unique circumstances of each  
8 utility. Individual costing methodologies are complex and have inspired  
9 numerous debates on application, assumptions and data. NARUC Manual,  
10 page 22  
11

12 Thus, contrary to the Company’s assertion, the NARUC Manual does not endorse  
13 any particular costing methodology.

14 Q. THE NARUC MANUAL WAS PREPARED ALMOST TWO DECADES AGO.  
15 DOES IT CONTINUE TO SERVE A PURPOSE?

16 A. While it continues to serve the purpose of explaining costing methodologies, it  
17 does not reflect the more recent decisions that regulators have made about cost  
18 classification and allocation issues. In 2000, the NARUC Committee on Energy  
19 Resources and the Environment hired the Regulatory Assistance Project (RAP) to  
20 examine these and other issues. RAP’s paper, which is entitled: Charging for  
21 Distribution Utility Services: Issues in Rate Design, discusses among other things  
22 the classification of distribution-related costs and states at page 30:

23 There are a number of methods for differentiating between the customer  
24 and demand components of embedded distribution plant. The most  
25 common method used is the basic customer method, which classifies all  
26 poles, wires, and transformers as demand-related and meters, meter  
27 reading, and billing as customer-related. This general approach is used in  
28 more than thirty states.  
29

1 That is, this more current study not only recognizes the validity of the basic  
2 customer method but it also finds that it is used in a majority of states.

3 Q. WHAT METHODOLOGY IS TYPICALLY USED IN NEW HAMPSHIRE?

4 A. Other than PSNH, Staff is not aware of any New Hampshire electric, gas or water  
5 utility that uses the MDS method for classifying distribution plant. The  
6 predominant cost classification methodology is the basic customer method. As  
7 noted, this method classifies metering, meter-reading, billing, and service line  
8 costs as customer-related and distribution plant costs as demand-related.

9 Q. DID THE COMMISSION AUTHORIZE PSNH TO USE THE MDS METHOD  
10 TO CLASSIFY COSTS?

11 A. Not explicitly. Although the COSS filed by PSNH in Docket DE 06-028 was  
12 based on the MDS method, cost classification was not addressed in the  
13 Company's pre-filed testimony or in the testimony submitted by Staff. In  
14 addition, cost classification was not addressed in the settlement agreement filed  
15 by the parties and approved by the Commission. In short, the Commission has  
16 not previously considered the validity of the MDS method for classifying PSNH  
17 distribution plant. We note, however, that the Commission did authorize the New  
18 Hampshire Electric Cooperative in 1995 to use the zero intercept method to  
19 classify distribution plant. See Order No. 21,693, June 20, 1995, Docket 93-124.  
20 The zero intercept method is a variant of the MDS method.

21 Q. DOES STAFF BELIEVE THE MDS METHOD IS VALID?

22 A. No, we do not. The MDS is a fabricated system that bears no relation to the way  
23 costs are actually incurred by distribution companies to serve customers. A

1 customer will connect to a utility's distribution system only if it expects to use  
2 electricity, and the utility will incur distribution system costs only if that usage  
3 adds to the distribution system peak demand.

4 Q. DID STAFF OR THE COMPANY RE-CALCULATE THE CLASS RATES OF  
5 RETURN BASED ON THE ASSUMPTION THAT DISTRIBUTION PLANT IS  
6 A DEMAND-RELATED COST AND ALLOCATED TO CUSTOMERS  
7 BASED ON THE ALLOCATORS USED BY THE COMPANY?

8 A. Yes. As the table below shows, the resulting class rates of return are much more  
9 uniform than the rates of return that resulted from using the MDS method. Rate  
10 GV has the highest return at 11.73% whereas Rate LG at 6.36%, Rate G at 8.37%  
11 and Rate R at 6.52% are much closer to the system average ROR of 7.59%.<sup>5</sup>  
12 These data suggest that the MDS method results in proportionately more  
13 distribution plant being allocated to the residential class and proportionately less  
14 to the other classes compared to the basic customer method. In other words, the  
15 MDS method is the chief cause of the disparate class rates of return.

TABLE I  
Class Rates-of-Return

|                          | Rate R | Rate G | Rate GV | Rate LG | Rate B | Overall |
|--------------------------|--------|--------|---------|---------|--------|---------|
| MDS Method               | 3.29%  | 14.00% | 26.48%  | 20.09%  | 13.82% | 7.59%   |
| 16 Basic Customer Method | 6.52%  | 8.73%  | 11.73%  | 6.36%   | 2.08%  | 7.59%   |

17  
18 Q. IS THERE ANOTHER REASON FOR OPPOSING THE MDS METHOD?

19 A. Yes. As we have just seen, the MDS method is the principal cause of the  
20 disparate class rates of return that result from the COSS. Amazingly, however,

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<sup>5</sup> See PSNH Response to Staff 05-11 which is attached as Staff Exhibit-GRM 3.

1 the Company is opposed to basing the class revenue targets on the results of its  
2 COSS. Instead of recommending class revenue targets that would move class  
3 rates of return closer to the system average, the Company is proposing to lock in  
4 the disparate rates of return. The reader would be excused at this point for asking  
5 why a utility would vigorously advocate a particular costing methodology but just  
6 as vigorously oppose implementing the results. The answer is that the MDS  
7 method affects not only the class rates of return but also the costs classified as  
8 customer-related. In fact, it substantially increases the costs classified as  
9 customer-related; a result the Company utilizes to support its proposal to shift  
10 costs from kWh-related charges to customer charges. To sum up, the Company is  
11 asking the Commission to accept the results of the COSS as support for its *intra-*  
12 *class* rate design proposals, which incidentally benefit the Company financially,  
13 but ignore those results when it comes to formulating *inter-class* rate design  
14 proposals. Staff believes this position is untenable and should be rejected.

15 Q. IS IT STAFF'S OPINION THAT CLASS REVENUE TARGETS SHOULD  
16 REFLECT CLASS RATES OF RETURN CALCULATED USING THE BASIC  
17 CUSTOMER METHOD?

18 A. Yes, it is.

19  
20 2. Class Revenue Requirements

21 Q. IF THE COMMISSION AGREES WITH STAFF AND REJECTS THE MDS  
22 METHOD, WHAT CLASS REVENUE REQUIREMENTS SHOULD BE  
23 ADOPTED?

1 A. To be consistent with the principle of cost causation (i.e., assign costs to those  
2 who cause them), the class revenue requirements approved in this case should  
3 reflect the results of the COSS. That is, rate classes that produce higher than  
4 average returns should receive smaller than average increases in their revenue  
5 requirements while rate classes that produce lower than average returns should  
6 receive higher than average increases. Another way of saying this is that class  
7 rates of return should be moved closer to the system average.<sup>6</sup> In this proceeding,  
8 that would mean lower than average increases for rate classes GV and G and  
9 higher than average increases for rate classes LG and R.<sup>7</sup> However, because Rate  
10 GV is the only class with a ROR substantially different from the average, we  
11 recommend that the revenue requirement for that class be set such that the class  
12 ROR is within 1.5% points of the system average. The revenue requirements for  
13 all other classes should be increased by an equal percentage consistent with the  
14 above constraint.

15 Q. DOES MR. GOODWIN BELIEVE THAT STAFF'S APPROACH TO SETTING  
16 CLASS REVENUE TARGETS IS REASONABLE?

17 A. Not in this proceeding. However, in two cases before the Connecticut  
18 Department of Public Utility Control, he effectively took the same position. In  
19 testimony filed on behalf of Connecticut Light and Power Company in a 2007  
20 case, Mr. Goodwin stated that:

21 Both the Company and the Department have expressed a desire to better  
22 reflect the COSS results (both class ROR and rate design) in future rate  
23 proceedings. However, it is simply unrealistic to expect that distribution

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<sup>6</sup> Note that because Staff is not proposing to move to equal rates of return in one step, our recommendation combines the cost causation and rate stability goals.

<sup>7</sup> Staff believes the increase for Rate B should be subject to further review of the Company's COSS.

1 rates will conform to full cost-based rates in one step, while maintaining  
2 some level of rate continuity among and within rate classes. The process  
3 of moving closer to cost-based rates should start now in this proceeding,  
4 but it will likely take a series of rate adjustments over time before actual  
5 rate design will mirror full cost-based rates.  
6

7 He went on to say that:

8 The Company has addressed the challenge of rate design in this  
9 proceeding with three primary objectives in mind. The first is that, with  
10 class rates of return (“ROR”) so widely disparate, equalized class ROR  
11 cannot be achieved. Therefore, CL&P’s rate design proposal is looking to  
12 narrow, not eliminate, the disparity among class ROR.  
13

14 In testimony filed on behalf of Yankee Gas Services Company in a 2006 case, Mr.

15 Goodwin stated the following:

16 [T]otal firm and seasonal rates were designed in Phase 1 to recover  
17 \$194.844 million of Distribution revenues. This exhibit confirms that the  
18 proposed rate design recovers precisely the same level of revenue. The  
19 exhibit also shows in the far right-hand column the resulting overall class  
20 revenue increase or decrease in total Distribution revenue under Yankee’s  
21 proposal. Those rate classes that currently contribute lower than the  
22 system average ROR will realize increases in Distribution components,  
23 while those classes currently above the system average ROR will realize  
24 decreases under this proposal.  
25

26 Q. IF THE COMMISSION DISAGREES WITH STAFF AND DECIDES THAT IT  
27 IS APPROPRIATE TO USE THE MDS METHOD FOR COST  
28 CLASSIFICATION PURPOSES, WHAT APPROACH SHOULD BE USED TO  
29 ESTABLISH CLASS REVENUE REQUIREMENTS?

30 A. Again, to be consistent with the principle of cost causation, revenues must be  
31 reallocated from classes that have higher than average ROR to classes that have  
32 lower than average ROR. Since the MDS-based COSS indicates that all rate  
33 classes other than Rate R have higher than average ROR, those classes should be

1 awarded smaller revenue increases than the increase awarded to Rate R. In this  
 2 way, the ROR for each class will be moved closer to the system average ROR.

3 Q. WHAT ROR TARGETS DOES STAFF RECOMMEND?

4 A. The table below shows for each of the major rate classes the difference between  
 5 the proposed ROR and the system average. What is clear from this table is that  
 6 under the Company's proposal Rate R will continue to be heavily subsidized by  
 7 the other classes, particular Rates GV and LG. In order to mitigate this subsidy  
 8 and move in the direction of having each class pay its fair share of the cost of  
 9 service, we recommend the class revenue requirements for Rates G, GV, LG and  
 10 B be set such that the difference between the class ROR and the system average is  
 11 no greater than half the difference shown in the table. The resulting revenue  
 12 shortfall from rates G, GV, LG and B would be re-allocated to Rate R. Very  
 13 roughly, we estimate this would raise the ROR for Rate R to about 5.5%,  
 14 equivalent to a distribution revenue increase of 28% instead of the proposed 21%.  
 15 To continue the movement towards equalized class rates of return, Staff also  
 16 recommends that the proposed \$17 million step increase effective 7/1/10 be  
 17 collected based on the relative percentage increases in revenue requirements that  
 18 result from this phase of the proceeding.

TABLE 2  
 PSNH Proposed Class ROR

|                         | Rate R | Rate G | Rate GV | Rate LG | Rate B | System |
|-------------------------|--------|--------|---------|---------|--------|--------|
| PSNH Proposed           | 3.29%  | 14.00% | 26.48%  | 20.09%  | 13.81% | 7.59%  |
| 19 Difference vs System | -4.30% | 6.41%  | 18.89%  | 12.50%  | 6.22%  | 0.00%  |

20  
 21 **IV. RATE DESIGN**

1 Q. HAS STAFF REVIEWED PSNH'S PROPOSED RATE DESIGN IN THIS  
2 CASE?

3 A. Yes. Mr. Hall's approach to rate design is quite simple:

- 4 • Increase each class revenue requirement by the proposed system  
5 average increase.
- 6 • For each class, increase the customer and demand charges by specified  
7 amounts (i.e., 34% and 28% respectively) and adjust the energy-  
8 related (i.e., kWh-related) charges by an equal percentage such that the  
9 class revenue target is met.

10 Q. DOES STAFF SUPPORT THE PROPOSED RATE DESIGN?

11 A. No. For the reasons stated above, we recommended that class rates of return be  
12 moved closer to the system average resulting in class revenue requirements  
13 increasing by different percentages.

14 In addition, the classification of all primary and secondary distribution plant as  
15 demand-related per our recommendation results in fewer customer-related dollars  
16 to be collected through customer charges and more demand-related dollars to be  
17 collected through demand charges. For this reason, we recommend that  
18 customer-charges be increased by a smaller percentage than proposed and demand  
19 charges by a larger percentage while keeping the proposed increase in energy  
20 charges at roughly the same level.

21 Q. WHAT PERCENTAGE INCREASES DOES STAFF RECOMMEND?

22 A. We recommend that the percentage increase in customer charges be no higher  
23 than the percentage increase in distribution revenue approved by the Commission.

1 For rate classes that have demand charges, the demand charges could be increased  
2 by a larger percentage provided the additional revenue to be generated by the  
3 higher charge is offset by a corresponding reduction in energy charges. For rate  
4 classes that do not have demand charges, the energy and customer charges would  
5 increase at the same percentage.

6 **V. DELIVERY SERVICE TARIFF CHANGES**

7 Q. IS PSNH PROPOSING ANY CHANGES TO ITS DELIVERY SERVICE  
8 TARIFF?

9 A. Beyond the intra and inter class changes described above, PSNH is proposing four  
10 tariff changes that relate to:

- 11 (i) Rental of pole mounted apparatus;
  - 12 (ii) Separate metering of multi-unit dwellings;
  - 13 (iii) Outdoor lighting payment arrangements for government units and  
14 civic groups;
  - 15 (iv) Midnight outdoor lighting service option.
- 16

17 1. Rental of Pole-Mounted Apparatus

18 Q. PLEASE SUMMARIZE THE PROPOSED TARIFF CHANGES THAT  
19 ADDRESS THE RENTAL OF POLE-MOUNTED APPARATUS.

20 A. PSNH is requesting that it be given the option to refuse to rent pole-mounted  
21 transformers to GV and LG customers “because it has no control over the  
22 maintenance of support structures or the area surrounding those structures.” In  
23 addition, PSNH is proposing to add language to its tariff that authorizes it to  
24 terminate existing apparatus rental agreements with GV and LG customers and  
25 remove pole-mounted transformers upon 90 days written notice to customers.  
26 PSNH states that it would only utilize the authority to terminate existing rental

1 agreement when a customer-owned structure supporting a PSNH owned pole-  
2 mounted transformer is deemed insufficient or threatened by trees or other  
3 hazards and the customer refuses to replace the support structure and/or remove  
4 the hazard.

5 Q. DOES STAFF SUPPORT THE PROPOSAL TO REFUSE TO RENT TO GV  
6 AND LG CUSTOMERS?

7 A. Not as written. The proposed tariff language gives PSNH the unfettered ability to  
8 refuse any rental request without specifying the reasons on which the refusal is  
9 based. At a minimum, any new provision must require PSNH to identify the  
10 alleged hazard and provide the customer an opportunity to remove it before the  
11 rental request is refused. Providing the customer the option to rent a pad-mounted  
12 transformer from PSNH does not address these weaknesses.

13 Q. REGARDING THE PROPOSAL TO TERMINATE EXISTING RENTAL  
14 AGREEMENTS FOR POLE-MOUNTED APPARATUS, HOW MANY SUCH  
15 AGREEMENTS DOES PSNH HAVE?

16 A. PSNH states that it currently has 1,199 agreements for pad-mounted and pole-  
17 mounted transformers for customers served under Rate GV and 62 rental  
18 agreements for pad-mounted and pole-mounted transformers for customers served  
19 under Rate LG. According to PSNH, information relating to the number of rental  
20 agreements for pole-mounted versus pad-mounted transformers “is not readily  
21 available.”

22 Q. WHAT DOES STAFF RECOMMEND?

1 A. Absent information on the number of customers that could potentially be  
2 impacted by this proposed tariff change, Staff is reluctant to recommend approval.  
3 In addition, the proposed tariff language does not require: (i) the Company to  
4 identify the alleged hazard and to request its removal prior to issuing a  
5 termination notice; or (ii) specify who is responsible for any un-recovered cost of  
6 the disconnected transformers. These problems should be rectified.

7 Q. HAVE THERE BEEN INSTANCES WHERE CUSTOMERS THAT RENT  
8 POLE-MOUNTED TRANSFORMERS HAVE REFUSED TO REMOVE A  
9 HAZARD?

10 A. PSNH states that is not aware of any instances over the last five years where a  
11 customer has refused to remove a hazard. This fact highlights the importance of  
12 requiring the Company to make a determined effort to have the hazard removed  
13 prior to issuing a termination notice.

14 2. Separate Metering of Multi-Unit Dwellings

15 Q. WHAT IS THE BASIS FOR THE PROPOSED TARIFF CHANGE?

16 A. PSNH contends that the proposed change in its tariff relating to master metering  
17 does not represent a change in policy. Rather, it is its attempt to clarify the policy  
18 it has utilized since the early 1980's. That policy is currently contained in PSNH's  
19 "Requirements for Electric Service Connections" and in its Delivery Service  
20 Tariff by reference and reads as follows:

21 "In accordance with State law and the rules of the New Hampshire Public  
22 Utilities Commission, master metering of electric service is prohibited in  
23 buildings with more than one dwelling unit: (a) which are constructed new  
24 after November 18, 1980; or (b) which undergo renovations after that date in  
25 which the cost of renovations exceeds 50 percent of the value of the building;  
26 or (c) which are converted to electric space and/or water heating after that

1 date. This separate metering shall register all electric energy used for the  
2 dwelling unit over which the occupant of the dwelling unit has direct control.  
3 Motels, hotels, dormitories, time share condominiums and assisted living  
4 facilities are excluded from this requirement."  
5

6 This language, according to PSNH, mirrors the language that was contained in the  
7 Commission's rule, N.H. Code Admin. Rules Puc 303.02, in effect prior to  
8 October 18, 2005. That rule has since been updated to the following:

- 9  
10 Puc 303.02 Master Metering.  
11 (a) A utility shall install master metering of electric service consistent with its  
12 tariffs if the installation is consistent with the International Energy  
13 Conservation Code 2000 as adopted in RSA 155-A:1,IV, except as set forth in  
14 (b) below.  
15 (b) No utility shall install master metering at a multi-tenant building  
16 containing any residences if the occupants of any unit receiving electric  
17 service through the master meter have temperature control over any portion of  
18 the electric space heating, electric air conditioning or electric water heating  
19 service for the unit.  
20 (c) Section (b) above shall not apply to hotels, motels, dormitories and time-  
21 sharing interests in condominiums as defined in RSA 356-B:3.  
22

23 This new language indicates that a utility shall install master metering consistent  
24 with its tariff which, for PSNH, is the language contained in its Requirements for  
25 Electric Service Connections. However, the current language contained in the  
26 Requirements for Electric Service Connections references the Commission's  
27 rules. Because PSNH contends that this amounts to a circular reference it  
28 proposes to add the following to its Delivery Service Tariff.

29 "Each dwelling unit of a new or renovated domestic structure with more than  
30 one dwelling unit will be metered separately and each meter will be billed as  
31 an individual Customer."  
32

33 Q. DOES STAFF ACCEPT THE ARGUMENT THAT THE LANGUAGE IN THE  
34 COMPANY'S REQUIREMENTS FOR ELECTRIC SERVICE CONNECTIONS  
35 IS CIRCULAR?

1 A. No. That document is clear that master metering must be installed in accordance  
2 with the rules of the Commission. Moreover, the current version of those rules  
3 prohibits master metering only in a limited number of circumstances. Those  
4 circumstances are when the occupants of any unit receiving electric service have:  
5 temperature control over any portion of the electric space heating; electric air  
6 conditioning; or electric water heating service. All other units can be supplied  
7 with electricity through a master meter. In contrast, the Company's proposed  
8 language would require all units in new or renovated domestic structures to be  
9 metered separately.

10 Q. WHAT DOES STAFF RECOMMEND?

11 A. Staff recommends that the master metering provision in the Company's tariff be  
12 modified to conform to the Commission's rules.

13 3. Payment of Excess Outdoor Lighting Costs

14 Q. HOW DOES STAFF RESPOND TO THE PROPOSAL TO ELIMINATE FOR  
15 GOVERNMENT UNITS AND CIVIC GROUPS THE OPTION TO PAY  
16 EXCESS COSTS OVER AN EXTENDED PERIOD?

17 A. Excess costs under Rate OL are defined as any costs incurred in connection with  
18 new installations, extensions and replacements which exceed the costs of a  
19 standard outdoor lighting fixture located on existing poles with overhead wiring.  
20 Based on the Company's statement that government units and civic groups have  
21 not availed themselves of this provision over the past ten years, Staff recommends  
22 that the proposal be approved.

23 4. Midnight Outdoor Lighting Service Option

1 Q. WHAT IS THE MIDNIGHT OUTDOOR LIGHTING SERVICE OPTION?

2 A. The midnight option employs a time clock photocell to turn the outdoor light on  
3 or off at specified times whereas the all-night option is limited to turning the light  
4 on at dusk and off at dawn using a simple light sensitive photocell.

5 Q. DOES STAFF SUPPORT THIS PROPOSAL?

6 A. Yes.

7 Q. DOES STAFF ALSO SUPPORT THE PROPOSED RATES FOR THE  
8 MIDNIGHT OPTION?

9 A. Staff supports the proposed rate design, which includes separate charges to  
10 recover the cost of distribution service and the incremental costs to purchase and  
11 install the additional equipment.

12 Q. DOES THAT COMPLETE STAFF'S TESTIMONY?

13 A. Yes.

14

**GEORGE R. McCLUSKEY**

**NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION**  
Analyst

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George McCluskey is a ratemaking specialist with over 30 years experience in utility economics. Since rejoining the New Hampshire Public Utilities Commission (“NHPUC”) in 2005, he has worked on default service and standby rate issues in the electric sector and cost allocation issues in the gas sector. While at La Capra Associates, a Boston-based consulting firm specializing in electric industry restructuring, wholesale and retail power procurement, market price and risk analysis, and power systems models and planning methods, he provided strategic advice to numerous clients on a variety of issues. Prior to joining La Capra Associates, Mr. McCluskey directed the electric utility restructuring division of the NHPUC and before that was manager of least cost planning in the economics division, directing and supervising the review and implementation of electric and gas utility least cost plans and demand-side management programs. He has testified as an expert witness in numerous electric and gas cases before state and federal regulatory agencies.

**ACCOMPLISHMENTS**

Recent project experience includes:

- Staff of the New Hampshire Public Utilities Commission** – Expert testimony before NHPUC regarding distribute energy resources in a case involving Unutil Energy Systems.
- Staff of the New Hampshire Public Utilities Commission** – Expert testimony before NHPUC regarding lead/lag studies and rate design in a base rate case involving EnergyNorth Natural Gas.
- Staff of the New Hampshire Public Utilities Commission** – Expert testimony before Maine Public Utilities Commission regarding interstate allocation of natural gas capacity costs in case involving Northern Utilities.
- Staff of the Arkansas Public Service Commission** – Analysis and case support regarding Entergy Arkansas Inc.’s application to transfer ownership and control

of its transmission assets to a Transco. Also analyzed Entergy Arkansas Inc.'s stranded generation cost claims.

**Massachusetts Technology Collaborative** – Evaluated proposals by renewable resource developers to sell Renewable Energy Credits to MTC in response to 2003 RFP.

**Pennsylvania Office of the Consumer Advocate** – Analysis and case support regarding horizontal and vertical market power related issues in the PECO/Unicom merger proceeding. Also advised on cost-of-service, cost allocation and rate design issues in FERC base rate case for interstate natural gas pipeline company.

**Staff of the New Hampshire Public Utilities Commission** – Expert testimony before the NHPUC regarding stranded cost issues in Restructuring Settlement Agreement submitted by Public Service Company of New Hampshire and various settling parties. Testimony presented an analysis of PSNH's stranded costs and made recommendations regarding the recoverability of such costs.

**Town of Waterford, CT** – Advisory and expert witness services in litigation to determine property tax assessment for nuclear power plant.

**Washington Electric Cooperative, VT** – Prepared report on external obsolescence in rural distribution systems in property tax case.

**New Hampshire Public Utilities Commission** - Expert testimony on behalf of the NHPUC before the Federal Energy Regulatory Commission regarding the Order 888 calculation of wholesale stranded costs for utilities receiving partial requirements power supply service.

**Ohio Consumer Council** - Expert testimony regarding the transition cost recovery requests submitted by the American Electric Power Co., including a critique of the discounted cash flow and revenues lost approaches to generation asset valuation.

## **EXPERIENCE**

### **New Hampshire Public Utilities Commission (2005 to Present)**

Analyst, Electric Division

### **La Capra Associates (1999 to 2005)**

Senior Consultant

### **New Hampshire Public Utilities Commission (1987 – 1999)**

Director, Electric Utilities Restructuring Division

Manager, Lease Cost Planning

Utility Analyst, Economics Department

**Electricity Council, London, England (1977-1984)**

Pricing Specialist, Commercial Department

Information Officer, Secretary's Office

**EDUCATION:**

**Ph.D. candidate in Theoretical Plasma Physics, University of Sussex Space Physics Laboratory.**

Withdrew in 1977 to accept position with the Electricity Council.

**B.S., University of Sussex, England, 1975.**

Theoretical Physics

**Public Service Company of New  
Hampshire  
Docket No. DE 09-035**

**Data Request STAFF-02**

**Dated: 08/28/2009  
Q-STAFF-081  
Page 1 of 3**

**Witness: Charles R. Goodwin  
Request from: New Hampshire Public Utilities Commission Staff**

**Question:**

Assuming the Commission approves the proposed rates and charges – contained in Electric Delivery Service Tariff NHPUC – No. 7 – what effect would these new charges have on the rate class rates of return and the overall rate of return shown in Exhibit 3, pages 1 & 2?

**Response:**

Please see the pages 2 and 3 of this response for the overall rate of return and the rates of return by each rate class with the proposed new charges contained in Electric Delivery Service Tariff NHPUC - No. 7. These pages replicate pages 1 & 2 of Exhibit 3, but with proposed revenue shown on lines 21, 24 and corresponding Income Tax effect on line 35.

Exhibit GRM-2  
Page 2 of 3

Public Service Company of New Hampshire  
Cost of Service Study  
Proforma - Twelve Months Ending December 31, 2008  
(All Amounts in \$000)

Table 1A

| LINE REFERENCE     | Account IN/OUT    | Description                       | Allocator  | TOTAL RETAIL | Rate R Total | PL/SH     | QR      | CWH    | LCS/ COPE | Rate G Total | PL/SH    | QR     | CWH   | LCS/ COPE |
|--------------------|-------------------|-----------------------------------|------------|--------------|--------------|-----------|---------|--------|-----------|--------------|----------|--------|-------|-----------|
|                    | A                 | B                                 | C          | D            | E            | F         | G       | H      | I         | J            | K        | L      | M     | N         |
| SUMMARY OF RESULTS |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 7                  | RB_PLT            | Net Plant                         |            | 888,876      | 589,764      | 571,860   | 11,569  | 132    | 6,204     | 166,454      | 165,991  | 237    | 8     | 218       |
| 8                  |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 9                  |                   | DEDUCT:                           |            |              |              |           |         |        |           |              |          |        |       |           |
| 11                 | RB_DED            | Total Rate Base Deduction         |            | (167,295)    | (110,227)    | (106,820) | (2,208) | (29)   | (1,170)   | (32,432)     | (32,339) | (48)   | (1)   | (43)      |
| 12                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 13                 |                   | ADD:                              |            |              |              |           |         |        |           |              |          |        |       |           |
| 15                 | RB_ADD            | Total Rate Base Addition          |            | 55,537       | 37,090       | 35,671    | 931     | 17     | 471       | 10,440       | 10,395   | 24     | 1     | 20        |
| 16                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 17                 | RB                | TOTAL RATE BASE                   |            | 777,118      | 516,627      | 500,711   | 10,291  | 120    | 5,505     | 144,462      | 144,047  | 213    | 7     | 195       |
| 18                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 19                 |                   | OPERATING REVENUES                |            |              |              |           |         |        |           |              |          |        |       |           |
| 20                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 21                 | 440-447           | Sales Revenue                     | ASALES_REV | 294,560      | 163,123      | 157,942   | 4,647   | 125    | 409       | 70,670       | 70,467   | 168    | 2     | 34        |
| 22                 | 440-447UN         | Unbilled Sale Revenue             | AUN_REV    | (1,248)      | (717)        | (659)     | (51)    | (1)    | (6)       | (315)        | (313)    | (1)    | -     | (1)       |
| 23                 | 440-447Resale     | Sales Revenue/Resale Customers    | A360       | 4,957        | 2,201        | 2,011     | 120     | -      | 69        | 1,146        | 1,143    | 1      | 0     | 2         |
| 24                 | 447DistCR         | Dist. Credit Sp. Pricing Cust.    | ASALES_REV | 480          | 266          | 257       | 8       | 0      | 1         | 115          | 115      | 0      | 0     | 0         |
| 25                 | REV_OTH_ELEC      | Total Other Revenue               |            | 12,009       | 6,762        | 6,743     | 12      | 0      | 6         | 1,650        | 1,648    | 1      | 0     | 1         |
| 26                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 27                 | REV               | Total Revenue                     |            | 310,758      | 171,634      | 166,295   | 4,735   | 124    | 480       | 73,267       | 73,059   | 170    | 3     | 35        |
| 28                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 29                 |                   | OPERATING EXPENSES                |            |              |              |           |         |        |           |              |          |        |       |           |
| 30                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 31                 | EXP_O&M           | Total O&M Expense                 |            | 152,454      | 101,173      | 97,230    | 2,613   | 52     | 1,278     | 28,953       | 28,819   | 72     | 2     | 60        |
| 32                 | EXP_DEP           | Total Depreciation Expense        |            | 38,679       | 26,033       | 25,241    | 515     | 8      | 269       | 7,081        | 7,058    | 12     | 0     | 10        |
| 33                 | EXP_AMORT         | Total Amortization Expense        |            | 6,285        | 4,252        | 4,013     | 158     | 4      | 78        | 1,190        | 1,182    | 5      | 0     | 4         |
| 34                 | EXP_TAX_OTI       | Total Taxes Other than Income Tax |            | 30,207       | 20,133       | 19,460    | 437     | 6      | 229       | 5,645        | 5,626    | 10     | 0     | 9         |
| 35                 | 4_CUR_TAX         | Total Current Adjusted Taxes      |            | (11,063)     | (20,163)     | (19,314)  | (105)   | 15     | (760)     | 3,399        | 3,408    | 17     | (0)   | (26)      |
| 36                 | 411NUPER          | NUSCO Permanent Difference        | RB_PLT_D_O | (222)        | (147)        | (143)     | (3)     | (0)    | (1)       | (41)         | (41)     | (0)    | (0)   | (0)       |
| 37                 | Post_Tax_Adj_DIT  | Provision for Deferred Income Tax |            | 35,178       | 23,340       | 22,632    | 458     | 5      | 246       | 6,588        | 6,569    | 9      | 0     | 9         |
| 38                 | Post_Tax_Adj_ITC  | Investment Tax Credit Adjustment  |            | (132)        | (88)         | (85)      | (2)     | (0)    | (1)       | (25)         | (25)     | (0)    | (0)   | (0)       |
| 39                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 40                 | OPERATING_EXPENSE | Operating Expense                 |            | 251,366      | 154,534      | 149,033   | 4,072   | 91     | 1,338     | 52,789       | 52,596   | 125    | 2     | 65        |
| 41                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 42                 | NET_RETURN        | OPERATING INCOME                  |            | 59,392       | 17,101       | 17,262    | 664     | 34     | (858)     | 20,478       | 20,463   | 45     | 0     | (30)      |
| 43                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 44                 | 426               | Donations, net of tax             | NET_RETURN | 293          | 84           | 85        | 3       | 0      | (4)       | 101          | 101      | 0      | 0     | (0)       |
| 45                 | 431               | Return on Customer Deposit        | NET_RETURN | 131          | 38           | 38        | 1       | 0      | (2)       | 45           | 45       | 0      | 0     | (0)       |
| 46                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 47                 | OP_INC_ADJ        | Adj. to the Operating Income      |            | 424          | 122          | 123       | 5       | 0      | (6)       | 146          | 146      | 0      | 0     | (0)       |
| 48                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 49                 | Adj_OP_INC        | Adjusted Operating Income         |            | 58,968       | 16,979       | 17,138    | 659     | 33     | (852)     | 20,332       | 20,317   | 45     | 0     | (30)      |
| 50                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |
| 51                 |                   | RATE OF RETURN                    |            | 7.59%        | 3.29%        | 3.42%     | 6.40%   | 27.97% | -15.48%   | 14.07%       | 14.10%   | 20.98% | 2.96% | -15.15%   |
| 52                 |                   |                                   |            |              |              |           |         |        |           |              |          |        |       |           |

Docket No. 09-035  
Data Request STAFF-02  
Dated 08/28/09  
C-STAFF-081  
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Exhibit GRM-2  
Page 3 of 3

Public Service Company of New Hampshire  
Cost of Service Study  
Proforma - Twelve Months Ending December 31, 2008  
(All Amounts in \$000)

Table 1A

| Account<br>IN/OUT    | Description                       | LINE<br>REFERENCE | Allocator  | TOTAL<br>RETAIL | Rate<br>GV | Rate<br>LG | Rate<br>B | Rate<br>OL | Rate<br>EOL |
|----------------------|-----------------------------------|-------------------|------------|-----------------|------------|------------|-----------|------------|-------------|
| A                    | B                                 |                   | C          | D               | O          | P          | Q         | R          | S           |
|                      | SUMMARY OF RESULTS                |                   |            |                 |            |            |           |            |             |
| 7 RB_PLT             | Net Plant                         | Pg. 9, Ln 7       |            | 888,876         | 62,414     | 33,371     | 3,887     | 16,100     | 16,866      |
|                      | DEDUCT:                           |                   |            |                 |            |            |           |            |             |
| 11 RB_DED            | Total Rate Base Deduction         | Pg. 9, Ln 20      |            | (167,295)       | (11,239)   | (6,021)    | (680)     | (3,506)    | (3,188)     |
|                      | ADD:                              |                   |            |                 |            |            |           |            |             |
| 15 RB_ADD            | Total Rate Base Addition          | Pg. 9, Ln 45      |            | 55,537          | 3,716      | 2,054      | 211       | 998        | 1,028       |
| 17 RB                | TOTAL RATE BASE                   | Pg. 9, Ln 47      |            | 777,118         | 54,890     | 29,403     | 3,418     | 13,592     | 14,725      |
|                      | OPERATING REVENUES                |                   |            |                 |            |            |           |            |             |
| 21 440-447           | Sales Revenue                     |                   | ASALES_REV | 294,560         | 34,164     | 16,629     | 1,470     | 4,716      | 3,787       |
| 22 440-447UN         | Unbilled Sale Revenue             | Pg. 11, Ln 9      | AUN_REV    | (1,248)         | (105)      | (87)       | (12)      | (12)       | -           |
| 23 440-447Resale     | Sales Revenue/Resale Customers    | Pg. 11, Ln 10     | A360       | 4,957           | 937        | 575        | 71        | 14         | 13          |
| 24 447DistCR         | Dist. Credit Sp. Pricing Cust.    |                   | ASALES_REV | 480             | 56         | 27         | 2         | 8          | 6           |
| 25 REV_OTH_ELEC      | Total Other Revenue               | Pg. 11, Ln 38     |            | 12,009          | 2,819      | 631        | 26        | 57         | 63          |
| 27 REV               | Total Revenue                     | Pg. 11, Ln 40     |            | 310,758         | 37,871     | 17,774     | 1,558     | 4,784      | 3,869       |
|                      | OPERATING EXPENSES                |                   |            |                 |            |            |           |            |             |
| 31 EXP_O&M           | Total O&M Expense                 | Pg. 17, Ln 22     |            | 152,454         | 10,631     | 6,113      | 564       | 2,254      | 2,766       |
| 32 EXP_DEP           | Total Depreciation Expense        | Pg. 19, Ln 41     |            | 38,679          | 2,337      | 1,233      | 141       | 1,104      | 751         |
| 33 EXP_AMORT         | Total Amortization Expense        | Pg. 19, Ln 45     |            | 6,265           | 398        | 230        | 21        | 70         | 104         |
| 34 EXP_TAX_OTI       | Total Taxes Other than Income Tax | Pg. 21, Ln 28     |            | 30,207          | 2,027      | 1,081      | 123       | 618        | 579         |
| 35 4_CUR_TAX         | Total Current Adjusted Taxes      |                   |            | (11,063)        | 5,391      | 1,860      | 82        | (686)      | (945)       |
| 36 411NUPER          | NUSCO Permanent Difference        |                   | RB_PLT_D_O | (222)           | (15)       | (8)        | (1)       | (5)        | (4)         |
| 37 Post_Tax_Adj_DIT  | Provision for Deferred Income Tax | Pg. 25, Ln 18     |            | 35,178          | 2,470      | 1,321      | 154       | 637        | 668         |
| 38 Post_Tax_Adj_ITC  | Investment Tax Credit Adjustment  | Pg. 25, Ln 20     |            | (132)           | (9)        | (5)        | (1)       | (3)        | (3)         |
| 39                   | Provision for Deferred Income Tax |                   |            |                 |            |            |           |            |             |
| 40 OPERATING_EXPENSE | Operating Expense                 | Lns 31 thru 38    |            | 251,366         | 23,231     | 11,824     | 1,082     | 3,989      | 3,917       |
| 42 NET_RETURN        | OPERATING INCOME                  | Ln. 27 - Ln 40    |            | 59,392          | 14,641     | 5,950      | 476       | 794        | (48)        |
| 44 426               | Donations, net of tax             |                   | NET_RETURN | 293             | 72         | 29         | 2         | 4          | (0)         |
| 45 431               | Return on Customer Deposit        |                   | NET_RETURN | 131             | 32         | 13         | 1         | 2          | (0)         |
| 47 OP_INC_ADJ        | Adj. to the Operating income      | Ln 44 + Ln 45     |            | 424             | 105        | 42         | 3         | 6          | (0)         |
| 49 Adj_OP_INC        | Adjusted Operating Income         | Ln 42 - Ln 47     | Formula    | 58,968          | 14,536     | 5,908      | 472       | 789        | (47)        |
| 51                   | RATE OF RETURN                    | Ln 49/Ln 17       |            | 7.59%           | 26.48%     | 20.09%     | 13.82%    | 5.80%      | -0.32%      |

Docket No. 08-035  
Data Request: STAFF-02  
Dated 08/28/09  
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**Public Service Company of New  
Hampshire  
Docket No. DE 09-035**

**Data Request STAFF-05**

**Dated: 11/25/2009  
Q-STAFF-011  
Page 1 of 3**

**Witness: Charles R. Goodwin  
Request from: New Hampshire Public Utilities Commission Staff**

**Question:**

Reference response to Staff 2-81. Please re-calculate the class rates-of-return based on the following changes:

- (i) all primary and secondary distribution system costs classified as demand-related; and
- (ii) such demand-related costs allocated to classes using appropriate NCP allocators.

**Response:**

The Company firmly believes that the requested COSS scenario is an inappropriate and unrealistic hypothetical. Using only the NCP allocator for these major distribution system costs suggests there is only a demand driven cost element and that the existence of customers on the system has no impact on the cost of providing service via these assets. Regardless of the customer demand on the system, the Company would be required to make an investment in poles, wires, transformers and the like in order to provide service to its customer base. It is in recognition of this customer-related responsibility that utility cost-of-service-studies classify these types of distribution assets as both customer and demand related. PSNH is unaware of any utility or jurisdiction that does not recognize this dual classification in COSS.

In terms of responding to this extreme hypothetical, this run provides the class rates of return using the Staff 2-81 COSS, and revising the allocation for distribution system costs (i.e., Accounts 364, 365, 366 and 367, as well as related expense items for these accounts).

Exhibit GRM-3  
Page 2 of 3

Public Service Company of New Hampshire  
Cost of Service Study  
Proforma - Twelve Months Ending December 31, 2008  
(All Amounts in \$000)

Docket No. DE 09-035  
Data Request STAFF-05  
Dated: 12/11/2009  
Q-STAFF-011  
Page 2 of 3

Table 1A

| Account IN/OUT       | Description                       | Allocator  | TOTAL RETAIL | Rate R Total | PL/SH    | QR      | CWH    | LCS/ COPE | Rate G Total | PL/SH    | QR     | CWH    | LCS/ COPE |
|----------------------|-----------------------------------|------------|--------------|--------------|----------|---------|--------|-----------|--------------|----------|--------|--------|-----------|
| A                    | B                                 | C          | D            | E            | F        | G       | H      | I         | J            | K        | L      | M      | N         |
|                      | SUMMARY OF RESULTS                |            |              |              |          |         |        |           |              |          |        |        |           |
| 7 RB_PLT             | Net Plant                         |            | 888,876      | 502,592      | 476,198  | 16,951  | 132    | 9,311     | 205,639      | 205,029  | 300    | 12     | 297       |
|                      | DEDUCT:                           |            |              |              |          |         |        |           |              |          |        |        |           |
| 11 RB_DED            | Total Rate Base Deduction         |            | (167,295)    | (93,215)     | (88,312) | (3,157) | (29)   | (1,717)   | (40,126)     | (40,007) | (59)   | (2)    | (57)      |
|                      | ADD:                              |            |              |              |          |         |        |           |              |          |        |        |           |
| 15 RB_ADD            | Total Rate Base Addition          |            | 55,537       | 31,985       | 30,232   | 1,142   | 17     | 593       | 12,774       | 12,724   | 27     | 1      | 23        |
| 17 RB                | TOTAL RATE BASE                   |            | 777,118      | 441,362      | 418,118  | 14,937  | 120    | 8,188     | 178,287      | 177,746  | 268    | 11     | 263       |
|                      | OPERATING REVENUES                |            |              |              |          |         |        |           |              |          |        |        |           |
| 21 440-447           | Sales Revenue                     | ASALES_REV | 294,560      | 163,123      | 157,942  | 4,647   | 125    | 409       | 70,670       | 70,467   | 168    | 2      | 34        |
| 22 440-447UN         | Unbilled Sale Revenue             | AUN_REV    | (1,248)      | (717)        | (659)    | (51)    | (1)    | (6)       | (315)        | (313)    | (1)    | -      | (1)       |
| 23 440-447Resale     | Sales Revenue/Resale Customers    | A360       | 4,957        | 2,201        | 2,011    | 120     | -      | 69        | 1,146        | 1,143    | 1      | 0      | 2         |
| 24 447DistCR         | Dist. Credit Sp. Pricing Cust.    | ASALES_REV | 480          | 266          | 257      | 8       | 0      | 1         | 115          | 115      | 0      | 0      | 0         |
| 25 REV_OTH_ELEC      | Total Other Revenue               |            | 12,009       | 6,206        | 6,178    | 18      | 0      | 10        | 1,912        | 1,909    | 1      | 0      | 1         |
| 27 REV               | Total Revenue                     |            | 310,758      | 171,078      | 165,730  | 4,741   | 124    | 483       | 73,529       | 73,321   | 170    | 3      | 35        |
|                      | OPERATING EXPENSES                |            |              |              |          |         |        |           |              |          |        |        |           |
| 31 EXP_O&M           | Total O&M Expense                 |            | 152,454      | 87,842       | 83,342   | 2,966   | 52     | 1,482     | 35,116       | 34,973   | 76     | 2      | 65        |
| 32 EXP_DEP           | Total Depreciation Expense        |            | 38,679       | 21,711       | 20,551   | 748     | 8      | 404       | 9,045        | 9,016    | 15     | 1      | 14        |
| 33 EXP_AMORT         | Total Amortization Expense        |            | 6,265        | 3,850        | 3,600    | 164     | 4      | 82        | 1,377        | 1,369    | 5      | 0      | 4         |
| 34 EXP_TAX_OTI       | Total Taxes Other than Income Tax |            | 30,207       | 17,107       | 16,179   | 599     | 6      | 323       | 7,016        | 6,992    | 12     | 0      | 11        |
| 35 4_CUR_TAX         | Total Current Adjusted Taxes      |            | (11,063)     | (8,097)      | (6,386)  | (651)   | 15     | (1,075)   | (2,104)      | (2,080)  | 10     | (1)    | (34)      |
| 36 411NUPER          | NUSCO Permanent Difference        | RB_PLT_D_O | (222)        | (124)        | (117)    | (4)     | (0)    | (2)       | (52)         | (52)     | (0)    | (0)    | (0)       |
| 37 Post_Tax_Adj_DIT  | Provision for Deferred Income Tax |            | 35,178       | 19,890       | 18,846   | 671     | 5      | 368       | 8,138        | 8,114    | 12     | 0      | 12        |
| 38 Post_Tax_Adj_JTC  | Investment Tax Credit Adjustment  |            | (132)        | (74)         | (70)     | (2)     | (0)    | (1)       | (31)         | (31)     | (0)    | (0)    | (0)       |
| 40 OPERATING_EXPENSE | Operating Expense                 |            | 251,366      | 142,105      | 135,944  | 4,491   | 91     | 1,580     | 58,506       | 58,303   | 130    | 3      | 71        |
| 42 NET_RETURN        | OPERATING INCOME                  |            | 59,392       | 28,973       | 29,786   | 250     | 34     | (1,097)   | 15,022       | 15,018   | 40     | (0)    | (36)      |
| 44 426               | Donations, net of tax             | NET_RETURN | 293          | 143          | 147      | 1       | 0      | (5)       | 74           | 74       | 0      | (0)    | (0)       |
| 45 431               | Return on Customer Deposit        | NET_RETURN | 131          | 64           | 66       | 1       | 0      | (2)       | 33           | 33       | 0      | (0)    | (0)       |
| 47 OP_INC_ADJ        | Adj. to the Operating income      |            | 424          | 207          | 213      | 2       | 0      | (8)       | 107          | 107      | 0      | (0)    | (0)       |
| 49 Adj_OP_INC        | Adjusted Operating Income         | Formula    | 58,968       | 28,766       | 29,573   | 249     | 33     | (1,089)   | 14,915       | 14,911   | 40     | (0)    | (36)      |
| 51                   | RATE OF RETURN                    |            | 7.59%        | 6.52%        | 7.07%    | 1.66%   | 27.97% | -13.30%   | 8.37%        | 8.39%    | 14.86% | -1.05% | -13.52%   |

Public Service Company of New Hampshire  
 Cost of Service Study  
 Proforma - Twelve Months Ending December 31, 2008  
 (All Amounts in \$000)

Docket No. DE 09-035  
 Data Request STAFF-05  
 Dated: 12/11/2009  
 Q-STAFF-011  
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Table 1A

| 1  | Account           | Description                       | Allocator  | TOTAL     | Rate     | Rate     | Rate    | Rate    | Rate    |
|----|-------------------|-----------------------------------|------------|-----------|----------|----------|---------|---------|---------|
| 2  | IN/OUT            |                                   |            | RETAIL    | GV       | LG       | B       | OL      | EOL     |
| 3  | A                 | B                                 | C          | D         | O        | P        | Q       | R       | S       |
| 5  |                   | SUMMARY OF RESULTS                |            |           |          |          |         |         |         |
| 7  | RB_PLT            | Net Plant                         |            | 888,876   | 96,902   | 54,802   | 6,538   | 12,384  | 10,018  |
| 9  |                   | DEDUCT:                           |            |           |          |          |         |         |         |
| 11 | RB_DED            | Total Rate Base Deduction         |            | (167,295) | (17,948) | (10,190) | (1,196) | (2,778) | (1,842) |
| 13 |                   | ADD:                              |            |           |          |          |         |         |         |
| 15 | RB_ADD            | Total Rate Base Addition          |            | 55,537    | 5,715    | 3,296    | 365     | 779     | 622     |
| 17 | RB                | TOTAL RATE BASE                   |            | 777,118   | 84,670   | 47,908   | 5,707   | 10,386  | 8,798   |
| 19 |                   | OPERATING REVENUES                |            |           |          |          |         |         |         |
| 21 | 440-447           | Sales Revenue                     | ASALES_REV | 294,560   | 34,164   | 16,629   | 1,470   | 4,716   | 3,787   |
| 22 | 440-447UN         | Unbilled Sale Revenue             | AUN_REV    | (1,248)   | (105)    | (87)     | (12)    | (12)    | -       |
| 23 | 440-447Resale     | Sales Revenue/Resale Customers    | A360       | 4,957     | 937      | 575      | 71      | 14      | 13      |
| 24 | 447DistCR         | Dist. Credit Sp. Pricing Cust.    | ASALES_REV | 480       | 56       | 27       | 2       | 8       | 6       |
| 25 | REV_OTH_ELEC      | Total Other Revenue               |            | 12,009    | 3,034    | 764      | 43      | 33      | 18      |
| 27 | REV               | Total Revenue                     |            | 310,758   | 38,086   | 17,907   | 1,575   | 4,759   | 3,824   |
| 29 |                   | OPERATING EXPENSES                |            |           |          |          |         |         |         |
| 31 | EXP_O&M           | Total O&M Expense                 |            | 152,454   | 15,816   | 9,334    | 963     | 1,680   | 1,703   |
| 32 | EXP_DEP           | Total Depreciation Expense        |            | 38,679    | 4,038    | 2,290    | 272     | 917     | 406     |
| 33 | EXP_AMORT         | Total Amortization Expense        |            | 6,265     | 554      | 327      | 32      | 53      | 72      |
| 34 | EXP_TAX_OTI       | Total Taxes Other than Income Tax |            | 30,207    | 3,219    | 1,822    | 214     | 489     | 340     |
| 35 | 4_CUR_TAX         | Total Current Adjusted Taxes      |            | (11,063)  | 657      | (1,082)  | (282)   | (168)   | 13      |
| 36 | 411NUPER          | NUSCO Permanent Difference        | RB_PLT_D_O | (222)     | (24)     | (14)     | (2)     | (4)     | (2)     |
| 37 | Post_Tax_Adj_DIT  | Provision for Deferred Income Tax |            | 35,178    | 3,835    | 2,169    | 259     | 490     | 396     |
| 38 | Post_Tax_Adj_JTC  | Investment Tax Credit Adjustment  |            | (132)     | (15)     | (8)      | (1)     | (2)     | (1)     |
| 39 |                   | Provision for Deferred Income Tax |            |           |          |          |         |         |         |
| 40 | OPERATING_EXPENSE | Operating Expense                 |            | 251,366   | 28,080   | 14,837   | 1,455   | 3,454   | 2,927   |
| 42 | NET_RETURN        | OPERATING INCOME                  |            | 59,392    | 10,005   | 3,070    | 119     | 1,305   | 897     |
| 44 | 426               | Donations, net of tax             | NET_RETURN | 293       | 49       | 15       | 1       | 6       | 4       |
| 45 | 431               | Return on Customer Deposit        | NET_RETURN | 131       | 22       | 7        | 0       | 3       | 2       |
| 47 | OP_INC_ADJ        | Adj. to the Operating income      |            | 424       | 71       | 22       | 1       | 9       | 6       |
| 49 | Adj_OP_INC        | Adjusted Operating Income         | Formula    | 58,968    | 9,934    | 3,048    | 119     | 1,296   | 891     |
| 51 |                   | RATE OF RETURN                    |            | 7.59%     | 11.73%   | 6.36%    | 2.08%   | 12.47%  | 10.12%  |