STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

NORTH SHORE GAS COMPANY	:	
	:	No. 09-____
Proposed General Increase	:	
In Rates For Gas Service	:	

Direct Testimony of

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On Behalf of
North Shore Gas Company

February 13, 2009

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I. INTRODUCTION AND BACKGROUND

A. Identification of Witness

Q. Please state your name and business address.

A. My name is Joylyn C. Hoffman Malueg. My business address is Integrys Energy Group, Inc. ("Integrys"), 700 North Adams Street, P.O. Box 19001, Green Bay, WI 54307-9001.

Q. Ms. Hoffman Malueg, by whom are you employed and in what capacity?

A. I am a Rate Case Consultant in the Regulatory Affairs Department of Integrys Business Support, LLC ("IBS"). Both North Shore Gas Company ("North Shore") and IBS are wholly-owned subsidiaries of Integrys. Integrys resulted from the February 21, 2007, merger between WPS Resources Corporation (now known as Integrys) and Peoples Energy Corporation ("PEC"). North Shore is a wholly-owned subsidiary of PEC, which in turn is a wholly-owned subsidiary of Integrys.

B. Purpose of Testimony

Q. What is the purpose of your direct testimony in this proceeding?

A. My direct testimony and its attachments describe and present North Shore's embedded cost of service study (the "ECOSS") for the 2010 future test year.

North Shore witness Valerie Grace's direct testimony and some of her exhibits (North Shore Exhibits ("Ex.") VG-1.0, VG-1.1, et seq.) will use the results of the ECOSS to discuss the proposed changes in the North Shore rate schedules through which it seeks to recover its base rate revenue requirement.

C. Summary of Conclusions

Q. Please summarize the fundamental conclusions to be drawn from the results of the ECOSS, as presented in your direct testimony.

A. The results of the ECOSS show the distribution of revenue responsibility by customer class necessary to achieve equalized rates of return on investment by customer class at North Shore's proposed revenue requirement.

Q. Please summarize the results of the ECOSS.

A. As stated by North Shore witness Sharon Moy in her direct testimony (North Shore Ex. SM-1.0), North Shore, overall, is showing a revenue deficiency (cost recovery shortfall) of $21,986,000, or 35.13%. The results of the ECOSS with respect to revenue deficiency at present rates by customer class based on the requested revenue requirement for North Shore are summarized below.

	Revenue Deficiency / (Surplus)	
North Shore Service Classification	$	%
S.C. 1 – Small Residential	16,660,179	34.27%
S.C. 2 – General Service	5,318,659	38.20%
S.C. 3 – Large Volume Demand	n/a – no customers	n/a – no customers
S.C. 5 – Standby Service	7,851	20.06%

Q. How should the Illinois Commerce Commission (the "Commission" or "ICC") reflect the results of your ECOSS in rate design?

A. In her direct testimony, Ms. Valerie Grace presents North Shore's requested rate design, based in part upon the results of my ECOSS.

D. Itemized Attachments to Direct Testimony

Q. Are you sponsoring any attachments to your direct testimony?

A. Yes. I am sponsoring, and have attached hereto, the following exhibits, which were prepared by me and/under my direction and supervision:

• North Shore Ex. JCHM–1.1	Embedded Class Cost of Service Study Summary
• North Shore Ex. JCHM–1.2	Functional Revenue Requirements–at Present Rates, Functional Rate Base–at Present Rates, and Unit Costs–at Present Rates with Summary and Detail by Customer Class
• North Shore Ex. JCHM–1.3	Detailed Cost of Service Study Allocation Results
• North Shore Ex. JCHM–1.4	Functionalized and Classified Rate Base and Expenses
• North Shore Ex. JCHM–1.5	Allocation Factors and Related Information
• North Shore Ex. JCHM–1.6	Embedded Class Cost of Service Study Summary with Proposed Rate Design Changes
• North Shore Ex. JCHM–1.7	Functional Revenue Requirements–Under Proposed Rate Design Transfers, Functional Rate Base–Under Proposed Rate Design Transfers, and Unit Costs–Under Proposed Rate Design Transfers with Summary and Detail by Customer Class
• North Shore Ex. JCHM–1.8	Detailed Cost of Service Study Allocation Results - Under Proposed Rate Design Transfers
• North Shore Ex. JCHM–1.9	Allocation Factors and Related Information – Under Proposed Rate Design Transfers

Q. Please briefly describe the exhibits attached to your direct testimony.

A. North Shore Ex. JCHM–1.1 presents the revenue requirement, rate base and rate of return summary results of North Shore's ECOSS at present rates.

North Shore Ex. JCHM–1.2 presents both summary information, as well as detailed information, on functionalized and classified revenue requirements, rate base and unit costs by customer class at present rates.

North Shore Ex. JCHM–1.3 presents the cost allocation details of the summary classified revenue requirements and rate base shown in North Shore Ex. JCHM–1.1. The cost allocation detail shown in North Shore Ex. JCHM–1.3 is provided at the Federal Energy Regulatory Commission ("FERC") primary account (the Uniform System of Accounts) level. (References to Accounts in my direct testimony are FERC accounts as adopted and modified by the Commission for Gas Utilities Operating in Illinois.)

North Shore Ex. JCHM–1.4 presents the functionalization and classification of the revenue requirements and rate base information that was utilized for allocation purposes within North Shore Ex. JCHM–1.3. The functionalization and classification detail shown in North Shore Ex. JCHM–1.4 is provided at the FERC primary account level.

North Shore Ex. JCHM–1.5 presents the external allocation factors used within the ECOSS, along with related information that is required to be filed with an ECOSS in accordance with the Commission's rules (Section 285.5110 of Title 83 of the Illinois Administrative ("Ill. Admin.") Code).

North Shore Ex. JCHM–1.6 presents the revenue requirement, rate base and rate of return summary results of North Shore's ECOSS under the Proposed Rate Design changes. Workpaper WPE-6.15, which is part of North Shore's materials being made available under 83 Ill. Admin. Code Section 285.150(b), shows a reconciliation of the information in North Shore Ex. JCHM–1.6 with Ms. Moy's information presented in Schedule C-1.

North Shore Ex. JCHM–1.7 presents both summary information, as well as detailed information, on functionalized and classified revenue requirements, rate base, and unit costs by customer class incorporating the proposed rate design customer transfers.

North Shore Ex. JCHM–1.8 presents the cost allocation details of the summary classified revenue requirements and rate base shown in North Shore Ex. JCHM–1.6. The cost allocation detail shown in North Shore Ex. JCHM–1.8 is provided at the FERC primary account level.

North Shore Ex. JCHM–1.9 presents the external allocation factors used within the ECOSS as shown incorporating the proposed rate design customer transfers.

E. <u>Background and Experience</u>

Q. Please summarize your qualifications.

A. I am a 1999 graduate of the University of Wisconsin – Green Bay where I received a Bachelor of Science Degree in Mathematics with a Statistical emphasis. I received my Master of Business Administration degree from Cardinal Stritch University, Milwaukee, Wisconsin, in February 2006. I am currently working towards the professional designation of Certified Management Accountant through the Institute of Management Accountants. As of December 2008, I have completed three of the four professional examinations required to obtain the certification, and plan on testing for the fourth examination in April 2009.

Q. Please summarize your experience.

A. From 1999 to 2001, I worked for two separate companies performing retirement benefits analysis and valuation. In March 2001, I was hired by Wisconsin Public Service

Corporation ("WPSC") as a Revenue Requirements Forecaster in the Rates and Economic Evaluation Department. While working as a Revenue Requirements Forecaster, I was primarily responsible for revenue requirements and cost of service analyses pertaining to WPSC's wholesale jurisdiction. In October 2003, my job title changed to Rate Analyst within the Regulatory Affairs Department. My primary job responsibilities during that time related to revenue requirements analyses for WPSC's Michigan retail jurisdiction, as well as performing revenue requirement analyses and cost of service studies for WPSC's sister company, Upper Peninsula Power Company ("UPPCO"). In December 2006, I became a Rate Case Consultant within the Regulatory Affairs Department.

Q. What are your duties in your current position?

A. Currently, my primary job duties consist of performing cost of service study analyses for all regulated Integrys subsidiaries. I am also responsible for conducting the revenue requirement analyses for WPSC's Michigan retail electric and gas jurisdictions.

Q. Have you previously testified before any regulatory agency?

A. Yes, I have. I have filed testimony before the Michigan Public Service Commission ("MPSC") in Case Nos. U-14410, U-14745, U-15352, and U-15549. I have filed testimony before the Public Service Commission of Wisconsin ("PSCW") in Docket No. 6690-UR-119 and also before the Minnesota Public Utilities Commission ("MPUC") in Docket No. G007,011/GR-08-835. In addition, I have participated in the preparation of various accounting and filing exhibits for WPSC, UPPCO, Michigan Gas Utilities Corporation, and Minnesota Energy Resources Corporation for presentation to the PSCW, MPSC, MPUC and the FERC.

Q. Have you testified previously before the Commission?

A. No, I have not.

II. NORTH SHORE'S EMBEDDED COST OF SERVICE STUDY AND ALLOCATION OF REVENUE REQUIREMENT

A. Purpose of an Embedded Cost of Service Study ("ECOSS")

Q. What is the purpose of an ECOSS?

A. The purpose of an ECOSS is to identify the revenues, costs and profitability for each class of service, as required by 83 Ill. Admin. Code Section 285.5110. The results of the ECOSS provide the data necessary to design cost-based rates using an embedded cost methodology.

B. Principles of ECOSS Preparation

Q. How should an ECOSS be performed?

A. Cost causation is the fundamental principle applicable to all cost studies for purposes of allocating costs to customer classes. The most important theoretical principle underlying an ECOSS is that cost incurrence should follow historical embedded cost causation. The costs that customers become responsible to pay should be those costs that the particular customers caused the utility to incur because of the characteristics of the customers' usage of utility service. By performing an ECOSS in this manner, it can then be used in determining how costs should be recovered from customer classes through rate design.

C. **Procedures Used in Developing the ECOSS**

Q. Would you please explain the procedures used to develop the ECOSS shown in North Shore Exs. JCHM-1.1 through 1.9?

A. In general, preparing an ECOSS involves three major steps: (1) cost functionalization; (2) cost classification; and (3) cost allocation of all the costs of the utility's system to the customer classes.

The first step, cost functionalization, identifies and separates plant and expenses into specific categories based on their purpose and various characteristics of utility operation. Typically, these plant and expenses are functionalized by the Uniform System of Accounts. These accounts group plant and expenses into their various functions, which for North Shore includes Production, Storage, Transmission, Distribution, and Customer.

Step two, cost classification, further separates the functionalized plant and expenses into the categories based upon how they are incurred. These classifications consist of: (1) commodity related; (2) demand, or capacity related; and (3) customer related.

Customer related costs are incurred to extend service to and attach a customer to the distribution system, meter any gas usage and maintain the customer's account. Customer related costs are found to vary with the number and density of customers, regardless of the customers' gas consumption (except to some extent for bad debt costs in Account 904, which are discussed further below). Examples of costs classified to the customer classification include distribution services, meters, regulators and customer billing and accounting expenses.

Demand related costs are incurred to service the peak demand of the system. Examples of costs classified to the demand classification include transmission and distribution mains, and localized distribution facilities designed to meet customer maximum peak day demand.

Commodity related costs are those costs that vary with the throughput sold to, or transported for, customers. For example, costs that may be included in an ECOSS are commodity related costs such as compressor fuel and gas stored underground. However, when, as is the case with North Shore, a gas utility's cost of gas is not recovered through its base rates, very little of its remaining delivery service cost structure is commodity related.

The final step of preparing an ECOSS is allocation of each functionalized and classified cost element to the customer classes. Costs that are classified to the customer cost element are typically allocated to the rate classes using an allocation factor based upon customer counts and, in some instances, customer counts that are weighted to reflect, for example, differences in metering costs amongst rate classes. Costs that are classified to the demand cost element are typically allocated to the rate classes using an allocation factor based upon the rate classes' demand imposed upon the system during specific peak days. Costs that are classified to the commodity cost element are typically allocated to the rate classes using an allocation factor based upon the rate classes' energy usage, or throughput.

Q. Does the ECOSS allocate costs to customer classes as defined in present rates?

A. The ECOSS submitted for the 2010 future test year in this proceeding is based upon rates that are currently in effect, or present rates as they were referred to above> All values in

the ECOSS are allocated to each customer class as described in the far right-hand column of each page titled "Source or Allocation Factor." Direct assignment of values to the appropriate customer classes was conducted whenever possible, as recommended by the American Gas Association ("AGA") in their Fourth Edition of Gas Rate Fundamentals (1987), page 140.

Q. Please describe how you defined the customer classes in North Shore's ECOSS.

A. The customer classes that were utilized in the ECOSS follow the rate classes under which North Shore currently provides service in Illinois.

The classes (referred to in my direct testimony as "Service Classes" or "Rates" and referenced above as "S.C.") shown in the North Shore ECOSS consist of the following:

1. Service Classification 1: Small Residential Service,
2. Service Classification 2: General Service,
3. Service Classification 3: Large Volume Demand Service, and
4. Service Classification 5: Standby Service.

Q. Please explain the considerations relied upon in determining the cost allocation methodologies that are used to perform an ECOSS.

A. As stated above, in order to allocate costs within any cost of service study, the factors that cause the costs to be incurred must be identified and understood. Additionally, the cost analyst needs to develop data in a form that is compatible with and supportive of rate design proposals. The availability of data for use in developing alternative cost allocation factors is also a consideration. In evaluating any cost allocation methodology, appropriate consideration should be given to whether it provides a sound rationale or

theoretical basis, whether the results reflect cost causation and are representative of the costs of serving different types of customers, as well as the stability of the results over time.

D. <u>Allocation of Distribution Costs</u>

Q. How does North Shore allocate distribution costs to customers in the ECOSS?

A. In the case of distribution costs, North Shore has identified two significant cost causation relationships. Some distribution costs are incurred in order for customers simply to be connected to the distribution system. Other distribution costs are incurred due to the level of the demand of the customers.

Some gas distribution demand related costs are influenced by both the average customer usage and the customer's peak demand, such as Account 376, Gas Mains. These costs are allocated based upon a form of demand allocation method called the Average and Peak methodology.

Q. What is the Average and Peak methodology?

A. The Average and Peak methodology is a simplified version of the Average and Excess demand allocation methodology. The Average and Excess demand allocation methodology allocates demand related costs to the classes of service on the basis of system and class load factor characteristics. Specifically, the portion of utility facilities and related expenses required to service the average load is allocated on the basis of each class' average demand and is derived by multiplying the total demand related costs by the utility's system load factor. The remaining demand related costs are allocated to the classes based on each class' excess or unused demand, i.e., total class non-coincident demand minus average demand. The Average and Peak demand allocation methodology

often gives equivalent weight to peak demands and average demands. As is the case with the Average and Excess method, it has the effect of allocating a portion of the utility's capacity costs on a commodity-related basis.

Q. Why does North Shore choose to utilize the Average and Peak demand allocation methodology within its ECOSS?

A. In North Shore's last rate case filing, a variety of demand allocation methodologies were presented within the ECOSS, and North Shore proposed rates based upon a Coincident Peak demand allocation methodology. While there are sound arguments to utilize various demand allocation methodologies, including the Coincident Peak demand methodology, the Commission directed that the Average and Peak demand allocation methodology be used to allocate system distribution costs (please see ICC Docket Nos. 07-0241/07-0242/Cons., Order Feb. 5, 2008, p. 199). Therefore, in an effort to limit the scope of contested issues in this proceeding, North Shore has utilized the Average and Peak demand allocation methodology to allocate system distribution demand costs, as it was recently required to do by the Commission.

Q. What is the Coincident Peak methodology?

A. The Coincident Peak demand allocation methodology is premised on the notion that investment in capacity is determined by the peak load(s) of the utility. Under this methodology, demand related costs are allocated to each customer class in proportion to the demand coincident with the system peak of that customer class. The Coincident Peak demand allocation process might focus on a single system peak, such as the highest daily demand occurring during the test period. Alternatively, it might include the average of several cold days, either consecutive or occurring over a period of several years, or it

could be the expected contribution to the system peak under weather conditions for which the system was designed to serve, commonly referred to as a "design day."

Q. Does North Shore utilize the Coincident Peak Demand allocation methodology to allocate any distribution costs within its ECOSS?

A. No. North Shore does not allocate any costs in the ECOSS based upon the Coincident Peak demand allocation methodology. North Shore does show the Coincident Peak demand allocation methodology in North Shore Ex. JCHM–1.5, but that is only because it is utilized in the creation of the Average and Peak demand allocation methodology.

Q. Were there any special analyses conducted for purposes of allocating distribution plant investment?

A. Yes. Regarding North Shore's major plant accounts, customer weighting factors were developed to allocate the following plant accounts: Account 380: Services, Account 381: Meters, Account 382: Meter Installations, and Account 383: House Regulators. These weighting factors reflect any differences in the current unit costs that particular customer groups cause North Shore to incur. For example, a 3/4-inch plastic service line that could serve a residential customer costs less, on a per unit basis, than a 4-inch steel service line to serve a larger industrial customer. The use of weighting factors takes these unit cost differences into account when assigning costs to the various customer classes.

Q. Please continue with your description of how North Shore allocated distribution costs within its ECOSS.

A. Specifically, distribution costs were allocated to the customer classes within the ECOSS based on the following methods:

1. Accounts 374, Land and Land Rights, 375, Structures and Improvements, 376, Gas Distribution Mains, 378, Measuring & Regulation Equipment – General, and 379, Measuring & Regulation Equipment – Gate Station were allocated to all service classifications based on the Average and Peak demand allocator.

2. Account 380, Services, was allocated on a customer basis, using a weighting factor of Cost Per Customer for Services which was derived from actual plant investment as of the 12 months ending June 30, 2008.

3. Account 381.0, Meters, Account 382.0, Meter Connections & Installations, and Account 383, House Regulators, were allocated on a customer basis, using a weighting factor of Cost Per Meter & Regulator which was based on actual plant investment as of the 12 months ending June 30, 2008.

4. Account 381.2, Automated Meter Reading, and Account 382.2, Automated Meter Installations, were allocated on a customer basis, using a weighting factor of Average ERT per customer which was based on actual average number of ERT's as of the 12 months ending June 30, 2008. ("ERT" means encoder-receiver-transmitter, which are devices that are part of North Shore's automated meter reading system.)

5. Account 381.3, Demand Devices, and Account 382.3, Demand Device Installations, were allocated based upon the demand device counts forecasted in the future test year ending December 31, 2010.

6. Account 385, Industrial Metering & Regulating Station Equipment, was directly assigned to the customer class Rate 2 – General Service.

Q. How does the ECOSS allocate distribution-related Operation and Maintenance ("O&M") expenses?

A. In general, these expenses should be allocated in the same manner as how the distribution plant investment costs are allocated, as stated above. A gas utility's distribution-related O&M expenses generally are thought to support the utility's corresponding plant–in-service accounts. In order to allocate distribution O&M costs in a similar manner as the distribution plant investment, a translation was performed to convert the FERC O&M distribution Accounts 870 through 894 to FERC Plant Distribution Accounts 303, and 374 through 386. The translation workpaper can be found in Workpaper WPE-6.13,

which is part of North Shore's materials being made available under 83 Ill. Admin. Code Section 285.150(b), and a summary of the translation can be found in the table below.

O&M Distribution Account	Translated to:	Distribution Plant Account
Account 870: Supervisory & Engineering Account 871: Load Dispatch Account 880: Other Account 881: Rents Account 885: Supervisory & Engineering		Accounts 303, and 374-386 on the basis of Distribution Plant Investment in Accounts 303, and 374-386 for the future test year 2010
Account 874: Mains & Services Expense		Accounts 376 and 380, on the basis of Distribution Plant Investment in Accounts 376 and 380, which are Mains and Services
Account 877: Measuring & Regulating Expense-Gate Station		Account 379, Measuring & Regulation Equipment-Gate Station
Account 878: Meter & House Regulators Account 879: Customer Installations Account 893: Meter & House Regulators		Accounts 381.0, 381.2, 381.3, 383 and 385, on the basis of Distribution Plant Investment in Accounts 381.0, 381.2, 381.3, 383 and 385 which are all Metering and Regulator related
Account 886: Structures & Improvements		Account 375: Structures & Improvements
Account 889: Measuring & Regulating Expense-General		Account 378: Measuring & Regulation Equipment – General
Account 892: Services		Account 380: Services

E. Allocation of Transmission Costs

Q. How did North Shore allocate transmission costs to each of the customer classes in the ECOSS?

A. North Shore first classifies transmission costs to the demand classification, and then utilizes the Average and Peak demand allocation methodology to allocate transmission costs within its ECOSS to the customer classes. This classification to demand is consistent with the AGA's assignment of transmission costs, as stated in their 1987 text titled Gas Rate Fundamentals, 4th edition. The Average and Peak demand allocation

methodology was used in an effort to limit the scope of contested issues in this rate case proceeding.

F. Allocation of Production Costs

Q. How does North Shore allocate production costs to customer classes within the ECOSS?

A. In the North Shore ECOSS, production costs are classified to demand and allocated to the customer classes based upon the Unbundled Coincident Peak allocation methodology. This classification to demand is consistent with the AGA's assignment of production costs, as stated in their 1987 text titled Gas Rate Fundamentals, 4th edition. The production costs in North Shore's ECOSS relate to manufactured gas production plants, and these types of costs have historically, since 1995, been allocated to the customer classes on the basis of the Unbundled Coincident Peak demand allocation methodology.

G. Allocation of Storage Costs

Q. How does North Shore allocate storage costs to the customer classes within the ECOSS?

A. North Shore first classifies storage costs within the appropriate categories of Commodity or Demand. The only item that is classified to Commodity is the rate base related item of Gas Stored Underground in Account 164. This item was then allocated to the customer classes based upon Unbundled Commodity Standby Volume. The stored gas in Account 164 is related to Top Gas from leased storage fields. Using the Unbundled Commodity Standby Volume allocation methodology to allocate this cost is consistent with the manner in which this stored gas is utilized to serve both sales and unbundled transportation customers.

Q. Please describe the method used to allocate North Shore's investment in its underground storage plant that is classified to demand in FERC Plant Accounts 350 - 357.

A. Within the FERC Plant Account Series 350-357 Underground Storage, North Shore only has investment within Account 352.3, which represents cushion gas at Manlove Field. This account was allocated to the customer classes based upon the Storage allocator, which is a weighted combination of Unbundled Coincident Peak demand and incremental seasonal sales corresponding to the winter withdrawal period for the storage facility. These two system load characteristics are representative of the functions that I understand the underground storage facility was designed to provide, namely, peak day deliverability and incremental capacity on North Shore's system. These functions support the unbundled day-to-day incremental demand during the winter period; generally beginning with the first or second week of December and continuing through the first or second week of March.

H. <u>Allocation of Customer Costs</u>

Q. How does North Shore allocate customer costs to each of the customer classes within the ECOSS?

A. The customer costs in O&M Accounts 900 through 905, with the exception of Uncollectible Expense in Account 904, are allocated based on average customer counts by customer class. Uncollectible Expense in Account 904 is allocated to the customer classes on the basis of a Bad Debt allocation methodology. The Bad Debt allocation methodology was calculated by taking the average historical bad debt net write-offs per customer by customer class as of the 12 months ending June 30, 2008 and applying that average to the customer counts by customer class for the future test year ending

December 31, 2010. Customer costs in O&M Accounts 907 through 910 were allocated to the customer classes based on average customer counts by customer class.

I. Allocation of Administrative and General Expenses

Q. How does North Shore allocate Administrative and General ("A&G") expenses to each customer class in the ECOSS?

A. A&G expenses are first functionalized using: (1) a Labor function, as to Accounts 925 and 926; (2) a General – O&M function, as to Accounts 920-923, and 927-931, and (3) a Plant function, as to Accounts 924 and 932. This functionalization is in accordance with the Commission's findings in North Shore's last two rate cases.

The Labor function was then classified to the Commodity, Demand, and Customer classifications based upon Salaries and Wages, which can be found in North Shore Ex. JCHM–1.5, Page 3, lines 6–11. The Salaries and Wages allocation methodology is based upon the functional breakdown of Labor related O&M, including cross-charged labor, by FERC primary account. The Labor relating to Production, Storage, and Distribution-Demand is classified to Demand. The Labor relating to Distribution-Customer, Customer Accounting, Customer Service, and Customer Sales is classified to Customer. There is no Commodity-related Labor to classify.

The General – O&M function was classified to the Commodity, Demand, and Customer classifications based upon Total O&M, not including A&G, as shown on North Shore Ex. JCHM–1.4, Page 5, line 35. Total O&M, not including A&G, as shown on North Shore Ex. JCHM–1.4, Page 5, line 34 is derived from the total of lines 4, 7, 26 and 32 on North Shore Ex. JCHM–1.4.

The Plant function was classified to the Commodity, Demand, and Customer classifications based upon Gross Plant, not including General or Intangible Plant amounts, as shown on North Shore Ex. JCHM–1.4, Page 1, line 32. Total Gross Plant, not including General or Intangible Plant amounts, as shown on North Shore Ex. JCHM-1.4, Page 1, line 31 is derived from the total of lines 2, 5, 8, and 28 on North Shore Ex. JCHM–1.4.

Once these three functions of A&G were classified and summed, the total Commodity classification was allocated to the customer classes on the basis of the Sales allocator. The Demand function was broken down further among the Distribution that is related to Demand and the Distribution that is related to Customer. This Demand and Customer breakdown was arrived at by taking the ratio of Demand and Customer classified Distribution O&M to Total Distribution O&M, as found on North Shore Ex. JCHM–1.4, Page 5, line 26 (i.e. [E26] / [C26] and [F26] / [C26]). The Distribution-Demand classification was then allocated to the customer classes based on the Distribution Demand O&M allocation methodology, and the Distribution-Customer classification was then allocated to the customer classes based on the Distribution Customer O&M allocation methodology. The Distribution Demand O&M and Distribution Customer O&M allocation methodologies can be found on North Shore Ex. JCHM–1.3, Page 2, line 18 and 30, respectively. Lastly, the Customer classification was allocated to the customer classes based upon the Customer O&M allocation methodology, which can be found on North Shore Ex. JCHM–1.3, Page 2, line 44.

J. **Allocation of General Plant**

Q. How is General Plant investment classified and allocated to the customer classes within North Shore's ECOSS?

A. General Plant investment is classified to Commodity, Demand, and Customer classifications on the basis of Gross Plant, not including General or Intangible Plant amounts, as shown on North Shore Ex. JCHM–1.4, Page 1, line 32. Then the Commodity portion of General Plant was allocated to the customer classes using the Sales allocation methodology, and the Customer portion of General Plant was allocated to the customer classes using the Customer allocation methodology.

The amount classified to Demand was further broken down into detailed functions of Production, Underground Storage, Local Storage, Transmission, and Distribution. This detailed breakdown was based on the ratio of each corresponding amount of Plant-in-Service to Total Plant-in-Service, not including Intangible or General Plant. For example, to calculate the ratio for the Demand portion of General Plant – Production, the Production Plant-in-Service of $6,921,601 (North Shore Ex. JCHM–1.4, Page 1, cell [E2]) was divided by Total Plant-in-Service of $223,878,545, not including Intangible or General Plant (North Shore Ex. JCHM–1.4, Page 1, cell [E31]). This calculated ratio of 3.0916% was then multiplied against the amount classified to Total Demand-General Plant of $9,636,582 (North Shore Ex. JCHM–1.4, Page 1, cell [E34]) to arrive at General Plant – Production Demand of $297,932 (North Shore Ex. JCHM–1.3, Page 6, cell [B34]). The calculations were also performed to arrive at the Underground Storage, Local Storage, Transmission, and Distribution Demand related portions of General Plant.

K. Unique Allocations

Q. Please describe the remaining components of the North Shore ECOSS that have unique allocators and why these unique allocators are appropriate.

A. The remaining components of North Shore's ECOSS which have unique allocators are as follows:

1. Income Taxes and Taxes other than Income Taxes ("TOTI") associated with Unauthorized Insurance Tax, Invested Capital Tax-Other, Federal Excise Tax, State Franchise Tax, and Property Tax were allocated to the customer classes using a Rate Base allocator, which is shown on North Shore Ex. JCHM–1.1, line 36. The Rate Base allocator was utilized because these items follow cost-causation theory from various Rate Base investments.

2. Miscellaneous Revenues in Account 487, Forfeited Discounts, was allocated to the customer classes using a Delayed Payment allocator, which was based upon forecasted delayed payment charges, by customer class, for the future test year 2010. The Delayed Payment allocator was utilized because it has a direct causation relationship with forfeited discounts.

3. Miscellaneous Revenues in Account 495 pertaining to the Municipal Utility Tax, was allocated to the customer classes using a Municipal Utility Tax allocator, which was based upon forecasted municipal utility taxes, by customer class, for the future test year 2010. The Municipal Utility Tax allocator was utilized because it has a direct causation relationship with Municipal Utility Tax revenues.

4. TOTI relating to Payroll Taxes and Other Taxes were allocated to the customer classes based upon a Salaries and Wages allocator, which can be found in North Shore Ex. JCHM–1.5, page 3, line 29. The Salaries and Wages allocator was utilized because these TOTI items are payroll related and therefore follow cost-causation theory.

5. Rate Base related item Customer Deposits was allocated to the customer classes using a Customer Deposits allocator, which was based upon the average of actual Customer Deposits for the 12 months ending June 30, 2008. The Customer Deposits allocator was utilized because the historical basis of this allocator is proficient for allocating forecasted Customer Deposit amounts.

6. Rate Base related item Budget Plan Balances was allocated to the customer classes using a Budget Plan allocator, which was based upon the average of budget plan debit balances for the 12 months ending June 30, 2008. The Budget Plan allocator was utilized because the historical basis of this allocator is proficient for allocating forecasted amounts Budget Plan balance amounts.

Q. Are there any other unique allocations used with the North Shore ECOSS that merit explanation?

A. Yes. I would like to explain the methods used to classify the rate base components of Cash Working Capital, Materials & Supplies ("M&S"), Accumulated Deferred Taxes, Net Retirement Benefits, and Reserve for Injuries and Damages and why these allocations are appropriate. The classification methodologies used for these rate base components are in accordance with the Commission's findings in North Shore's last rate case.

Cash Working Capital is classified to Commodity, Demand, and Customer classifications based upon Total O&M, not including A&G, as shown on North Shore Ex. JCHM–1.4, Page 5, line 35. Total O&M, not including A&G, was utilized as the classification methodology because Cash Working Capital provides support for O&M utility functions. Once classified, the Commodity and Customer portions are then allocated to the customer classes based upon the Sales and Customer allocation methodologies, respectively. The portion classified to Demand was further broken down into detailed functions of Production, Underground Storage, Local Storage, Transmission, and Distribution. This detailed breakdown was based on the ratio of each corresponding amount of O&M to Total O&M, not including A&G. The calculation of the ratios follows the same calculation performed for General Plant as I describe earlier in my testimony, except the O&M amounts shown on North Shore Ex. JCHM–1.4, Page 5 were utilized rather than the Plant-in-Service amounts. Once further classified into the functions of Production, Underground Storage, Local Storage, Transmission, and Distribution, the amounts were allocated to the customer classes based upon the

Unbundled Coincident Peak, Storage, Unbundled Coincident Peak, Average and Peak, and Average and Peak allocation methodologies, respectively.

M&S is classified to Commodity, Demand, and Customer classifications based upon Distribution Plant, not including Intangible Plant amounts, as shown on North Shore Ex. JCHM–1.4, Page 1, line 29. M&S is classified according to Distribution Plant, not including Intangible Plant amounts because M&S are used to support Plant-in-Service functions, and Distribution comprises the majority of Plant-in-Service. Once classified, the Commodity, Demand, and Customer portions are then allocated to the customer classes based upon the Sales, Average and Peak, and Customer allocation methodologies, respectively.

Accumulated Deferred Taxes is classified to Commodity, Demand, and Customer classifications based upon Depreciated Reserve, not including General or Intangible Plant amounts, as shown on North Shore Ex. JCHM–1.4, Page 2, line 43. Accumulated Deferred Taxes are allocated according to Depreciation Reserve, not including General or Intangible Plant amounts because Accumulated Deferred Taxes follow the same type of cost-causation theory as Accumulated Depreciation Reserve. Once classified, the Commodity and Customer portions are then allocated to the customer classes based upon the Sales and Customer allocation methodologies, respectively. The portion classified to Demand was further broken down into detailed functions of Production, Underground Storage, Local Storage, Transmission, and Distribution. This detailed breakdown was based on the ratio of each corresponding amount of Depreciation Reserve to Total Depreciation Reserve, not including General. The calculation of the ratios follows the same calculation performed for General Plant as I describe earlier in my testimony,

except that the Depreciation Reserve amounts shown on North Shore Ex. JCHM–1.4, Page 2 were utilized rather than Plant-in-Service amounts. Once further classified into the functions of Production, Underground Storage, Local Storage, Transmission, and Distribution, the amounts were allocated to the customer classes based upon the Unbundled Coincident Peak, Storage, Unbundled Coincident Peak, Average and Peak, and Average and Peak allocation methodologies, respectively.

Both Net Retirement Benefits and Reserve for Injuries and Damages are classified to Commodity, Demand and Customer classifications based upon Total O&M, not including A&G, as shown on North Shore Ex. JCHM–1.4, Page 5, line 35. The rate base components were classified according to Total O&M, not including A&G, because they are a function of various O&M accounts. Once classified, the Commodity and Customer portions are then allocated to the customer classes based upon the Sales and Customer allocation methodologies, respectively. The Demand classified portion was further broken down into detailed functions of Production, Underground Storage, Local Storage, Transmission and Distribution. This detailed breakdown was based on the ratio of each corresponding amount of O&M to Total O&M, not including A&G. The calculation of the ratios follows the same calculation performed for General Plant as I describe earlier in my testimony, except the O&M amounts shown on North Shore Ex. JCHM–1.4, Page 5 were utilized rather than Plant-in-Service amounts. Once classified as Production, Underground Storage, Local Storage, Transmission, and Distribution, the amounts were allocated to the customer classes based upon the Unbundled Coincident Peak, Storage, Unbundled Coincident Peak, Average and Peak, and Average and Peak allocation methodologies, respectively.

L. North Shore's ECOSS

Q. What is the source of the cost data analyzed in North Shore's ECOSS?

A. All cost of service data have been extracted from North Shore's revenue requirement and rate base contained in the instant filing. Where more detailed information was required to perform various subsidiary analyses related to certain plant and expense elements, the data were either taken directly from North Shore's various software systems or derived from the historical books and records of North Shore.

Q. Did you make any changes to the classes of service included in the ECOSS you prepared compared to the cost study submitted in North Shore's last general rate case proceeding?

A. Yes, I made one change. In the ECOSS submitted in this proceeding, there is a presentational difference showing Rate 1 – Residential no longer split between Heating and Non-Heating customers. Bifurcation of customer class Rate 1 between Heating and Non-Heating was not approved by the Commission in North Shore's last rate case. Therefore, Rate 1 is shown as stated in North Shore's current schedule of rates filed with the Commission.

Q. Please describe North Shore Ex. JCHM–1.1.

A. North Shore Ex. JCHM–1.1 consists of one page and shows the summarized results of North Shore's ECOSS for the 2010 future test year under present rates. Line 38 of North Shore Ex. JCHM–1.1 shows the rate of return resulting from operations. Line 50 shows the revenue deficiency by customer class based on the required rate of return on common equity of 12.0%, which is North Shore's requested return on common equity in this proceeding and is supported by the testimony of North Shore witness Mr. Paul Moul (North Shore Ex. PRM-1.0). Lastly, line 54 of North Shore Ex. JCHM–1.1 shows the

revenue requirements under present rates. I also note that the internal allocation methodology of rate base is created on North Shore Ex. JCHM–1.1; the Rate Base allocator is used throughout other sections of the ECOSS.

Q. Please describe North Shore Ex. JCHM–1.2.

A. North Shore Ex. JCHM–1.2 consists of seven pages. Pages one and two provide a summary of revenue requirements and rate base, respectively, shown by functional and classification breakdown. Page three of North Shore Ex. JCHM–1.2 shows the unit costs by customer class for the 2010 future test year, which was calculated by taking the revenue requirement under present rates on page one and dividing by the appropriate denominator shown in Lines 39-44 of North Shore Ex. JCHM–1.2, Page 3. Pages 4 - 7 of North Shore Ex. JCHM–1.2 provide the detail behind the creation of the summaries shown on pages one and two.

Q. Please describe North Shore Ex. JCHM–1.3.

A. North Shore Ex. JCHM–1.3 consists of nine pages and contains the detailed allocation of all investment and expenses to the customer classes of North Shore. This exhibit provides the detail behind the figures shown in the summary presented as North Shore Ex. JCHM–1.1. All of the investment and expenses were allocated to the customer classes using the allocation methodologies listed in the far right column labeled "Source or Allocation Factor".

Page 1 contains the Operating Revenues for North Shore by customer class based on the rates authorized in North Shore's last general rate case proceeding in ICC Docket No. 07-0241.

Page 2 contains the allocation of Total O&M Expenses, both Labor and Non-Labor related, to North Shore's customer classes. Page 2 also contains the creation of the internal allocation methodologies Distribution-Demand O&M, Distribution-Customer O&M, and Customer O&M, which are used to allocate Distribution and Customer classifications of A&G expense, respectively.

Page 3 contains the allocation of Depreciation and Amortization expenses to North Shore's customer classes.

Page 4 contains the allocation of TOTI expense to North Shore's customer classes.

Page 5 contains the allocation of Other Income and Adjustments, for both Before Income Taxes as well as After Income Taxes, for North Shore. In the 2010 future test year, there were no Other Income and Adjustments.

Page 6 contains the allocation of investment in Plant in Service to North Shore's customer classes.

Page 7 contains the allocation of Accumulated Reserve for Depreciation and Amortization to North Shore's customer classes.

Page 8 contains the allocation of Construction Work in Progress to North Shore's customer classes.

Page 9 contains the allocation of Other Rate Base Components to North Shore's customer classes.

Q. Please describe North Shore Ex. JCHM–1.4.

A. North Shore Ex. JCHM–1.4 consists of five pages and contains the functionalization and classification detail of the ECOSS. This exhibit provides the detail behind the figures shown in the cost allocation to customer classes presented as North Shore Ex. JCHM-1.3.

Page 1 contains the functionalization and classification of investment in Plant in Service. These figures were utilized in the costs allocation to customer classes shown on page 6 of North Shore Ex. JCHM–1.3. Page 1 also contains the creation of the classificational allocation methodology for Gross Plant, not including Intangible or General Plant amounts, and Distribution Plant, not including Intangible amounts, which were used throughout other sections of the ECOSS.

Page 2 contains the functionalization and classification of Accumulated Reserve for Depreciation and Amortization. These figures were utilized in the costs allocation to customer classes shown on page 7 of North Shore Ex. JCHM–1.3. Page 2 also contains the creation of the classificational allocation methodology for Depreciation Reserve, not including Intangible or General Plant amounts, which is used throughout other sections of the ECOSS.

Page 3 contains the functionalization and classification of Construction Work in Progress. These figures were utilized in the costs allocation to customer classes shown on page 8 of North Shore Ex. JCHM–1.3.

Page 4 contains the functionalization and classification of Depreciation and Amortization Expense. These figures were utilized in the costs allocation to customer classes shown on page 3 of North Shore Ex. JCHM–1.3.

Page 5 contains the functionalization and classification of Total O&M Expense, including both Labor and Non-Labor. These figures were utilized in the cost allocation

to customer classes shown on page 2 of North Shore Ex. JCHM–1.3. Page 5 also includes the creation of the classificational allocation methodology titled Total O&M, not including A&G amounts, which is used in other sections of the ECOSS.

Q. Please describe North Shore Ex. JCHM–1.5.

A. North Shore Ex. JCHM–1.5 contains a summary of most of the allocation methodologies used within the ECOSS exhibits shown in North Shore Ex. JCHM–1.1 through 1.4. North Shore Ex. JCHM–1.5 consists of 10 pages.

Page 1 shows the development of the following allocation factors:

1. The Average Customer allocation factor, which is based on simple 12 month average of customer counts for all customer classes,

2. The Services allocation factor for Account 380, which is based on average customer counts and utilizes a Cost Per Customer for Services weighting factor,

3. The Meters & House Regulators allocation factor for Account 381.0 and 383, which is based on average customer counts and utilizes a Cost Per Customer for Meters & Regulators weighting factor,

4. The Automated Meter Devices allocation factor for Account 381.2 and 382.2, which is based on average customer counts and utilizes an Average Count of Encoder/Receiver Transmitters weighting factor,

5. The Bad Debt allocation factor for Account 904, which is based on average customer counts and utilizes an Average Cost per Customer – Bad Debt weighting factor,

6. The Demand Gas Measurement Devices allocation factor for Account 381.3 and 382.3, which is based on the demand device counts forecasted in the future test year ending December 31, 2010,

7. The Municipal Utility Tax allocation factor which is based on the total forecasted municipal utility taxes, by customer class, for the future test year 2010,

8. The Delayed Payment Charges allocation factor for Account 487, which is based on the total forecasted delayed payment charges, by customer class, for the future test year 2010.

Page 2 shows the development of the following allocation factors:

1. The Budget Plan Debit Balances allocation factor, which is based on the 12 month average of budget plan debit balances for the 12 months ending June 30, 2008,

2. The Customer Deposits allocation factor, which is based upon the 12 month average of actual Customer Deposits for the 12 months ending June 30, 2008,

3. Sales, or Commodity, allocation factor, which is the annual total of forecasted sales of all customers, including transportation sales, for the future test year 2010,

4. The Coincident Peak Demand allocation for class coincident demand for each of the customer classes,

5. The Unbundled Coincident Peak Demand allocation, which consists of the class coincident demand for each customer class multiplied against the customer classes' selected standby percentage ("SSP"),

6. The Weighted Peak and Seasonal Volumes Excess Winter over Summer Demand allocation, or Storage allocator, which consists of a combination of the utility's unbundled coincident peak and incremental seasonal sales corresponding to the winter withdrawal period for storage facilities,

7. The Average and Peak Demand allocation, which consists of a combination of the utility's average sales and coincident peak demand, calculated in accordance with Commission Staff's methodology as presented in North Shore's last rate case.

Page 3 shows the development of the following allocation factors:

1. The Unbundled Commodity Standby Volumes allocation, which consists of the annual sales volume for each customer class multiplied against the customer classes' SSP,

2. The Salaries and Wages functional allocation factor, and

3. The Salaries and Wages customer class allocation factor.

Pages 4 through 10 consists a list of all of the externally generated allocation factors in the ECOSS and also provides a full narrative description of the derivation of all the externally generated allocation factors, as required by the 83 Ill. Admin. Code Section 285.5110.

Q. Can you please explain the significance of the far right column labeled "Source or Allocation Factor" on each of the pages of North Shore Ex. JCHM–1.5?

A. The far right column labeled "Source or Allocation Factor" represents the name that was given to each of the specific allocators created within North Shore Ex. JCHM–1.5. Each of these names shown in the "Source or Allocation Factor" column is what is used throughout the ECOSS for North Shore when referencing the allocation methodology that was used to allocate costs to the customer classes.

Q. Can you please describe North Shore Ex. JCHM–1.6?

A. North Shore Ex. JCHM–1.6 shows the summarized results of North Shore's ECOSS for the 2010 future test year under the proposed changes in rate design as proffered by North Shore witness Ms. Valerie Grace. North Shore Ex. JCHM–1.6 consists of one page. Line 38 of North Shore Ex. JCHM–1.6 shows the Rate of Return resulting from operations. Line 50 shows the revenue deficiency by customer class based on the required rate of return on common equity of 12.0%, which is North Shore's requested return on common equity in this general rate case proceeding and is supported by the testimony of North Shore witness Mr. Paul Moul (North Shore Ex. PRM-1.0). Line 54 of North Shore Ex. JCHM–1.6 shows the revenue requirements taking into consideration the customer transfers between Service Classes that would occur under proposed rate design and the proposed Other Revenues in Accounts 487-495 that would be received under the proposed rate design. Lines 56-64 present the proposed revenue requirement required as proffered by Ms. Grace.

Q. Specifically, what changes can be seen between North Shore Ex. JCHM–1.1 and North Shore Ex. JCHM–1.6?

A. Based upon the proposed rate design of Ms. Grace, there are shifts in customers between Rate 2 and Rate 3, and also between Rate 5 and Rate 2. As a result, the tariff revenues presented on North Shore Ex. JCHM–1.6, line 2, and the revenue requirement presented in North Shore Ex. JCHM–1.6 for Rate 2, Rate 3, and Rate 5 account for these customer transfers and differ from what is shown in North Shore Ex. JCHM–1.1 under present rates. The revenues and revenue requirement presented in North Shore Ex. JCHM–1.6 for Rate 5 is presented as zero, due to Ms. Grace's rate design proposal to eliminate Rate 5, which differs from what is shown in North Shore Ex. JCHM–1.1 under present rates.

The Other Revenues in Accounts 487-495 have been updated to include increased revenues arising from proposed increases in certain miscellaneous charges as discussed in Ms. Grace's direct testimony. The increase in Other Revenues in Accounts 487-495 lowers the amount that would need to be recovered via base rates in tariff revenue. Accordingly, an adjustment was made to account for the reduction to tariff revenues (see line 3 of North Shore Ex. JCHM-1.6).

Q. Please describe North Shore Ex. JCHM–1.7.

A. North Shore Ex. JCHM–1.7 consists of seven pages. Page one provides a summary of the revenue requirement reflecting the customer transfers between Service Classes that would occur under the proposed rate design (see North Shore Ex. JCHM-1.6, line 54). This summary is shown by functional and classification breakdown. Page two provides a summary of rate base shown by functional and classification breakdown. Page three shows the unit costs by customer class for the 2010 future test year, which was calculated by taking the revenue requirements on page one and dividing by the appropriate

denominator shown in Lines 39-44 of North Shore Ex. JCHM–1.7, Page 3. Pages 4 - 7 provide the detail behind the creation of the summaries shown on pages one and two.

Q. Please describe North Shore Ex. JCHM–1.8.

A. North Shore Ex. JCHM–1.8 consists of nine pages and contains the detailed allocation of all investment and expenses to the customer classes of North Shore taking into account the customer transfers among Service Classes due to rate design proposals. This exhibit provides the detail behind the figures shown in the summary presented as North Shore Ex. JCHM–1.6. All of the investment and expenses were allocated to the customer classes using the allocation methodologies listed in the far right column labeled "Source or Allocation Factor".

Page 1 contains the Operating Revenues for North Shore by customer class based on the rates authorized in North Shore's last general rate case proceeding, but taking into account the customer transfers among Service Classes that would occur under the proposed rate design. Lines 4 – 12 also reflect the proposed Other Revenues that would be recovered via the proposed rate design.

Page 2 contains the allocation of Total O&M Expenses, both Labor and Non-Labor related, to North Shore's customer classes taking into account the customer transfers among Service Classes that would occur under the proposed rate design. Page 2 also contains the creation of the internal allocation methodologies Distribution-Demand O&M, Distribution-Customer O&M, and Customer O&M, which are used to allocate Distribution and Customer classifications of A&G expense, respectively.

Page 3 contains the allocation of Depreciation and Amortization expenses to North Shore's customer classes taking into account the customer transfers among Service Classes that would occur under the proposed rate design.

Page 4 contains the allocation of TOTI expense to North Shore's customer classes taking into account the customer transfers among Service Classes that would occur under the proposed rate design.

Page 5 contains the allocation of Other Income and Adjustments, for both Before Income Taxes as well as After Income Taxes, for North Shore. In the 2010 future test year, there were no Other Income and Adjustments.

Page 6 contains the allocation of investment in Plant in Service to North Shore's customer classes taking into account the customer transfers among Service Classes that would occur under the proposed rate design.

Page 7 contains the allocation of Accumulated Reserve for Depreciation and Amortization to North Shore's customer classes taking into account the customer transfers among Service Classes that would occur under the proposed rate design.

Page 8 contains the allocation of Construction Work in Progress to North Shore's customer classes taking into account the customer transfers among Service Classes that would occur under the proposed rate design.

Page 9 contains the allocation of Other Rate Base Components to North Shore's customer classes taking into account the customer transfers among Service Classes that would occur under the proposed rate design.

Q. Please describe North Shore Ex. JCHM–1.9.

A. North Shore Ex. JCHM–1.9, which consists of three pages, contains a summary of most of the allocation methodologies used within the ECOSS exhibits shown in North Shore Ex. JCHM–1.6 through 1.8.

Q. Are the allocation methodologies presented in North Shore Ex. JCHM–1.9 the same methodologies presented in North Shore Ex. JCHM–1.5?

A. Yes, they are. The only difference between North Shore Ex. JCHM–1.9 and North Shore Ex. JCHM–1.5 is that the allocation methodologies presented in North Shore Ex. JCHM–1.9 take into consideration the customer transfers that would occur given the proposed rate design.

M. <u>Results of North Shore's ECOSS</u>

Q. Based on the ECOSS filed by North Shore, do you have any comments with respect to the ECOSS results at present rates?

A. Yes. Referring to North Shore Ex. JCHM– 1.1, the following results at present rates from the ECOSS are indicated on Line 38:

1. The average system rate of return is 1.84%.
2. The small residential service class (Rate 1) exhibits the lowest rate of return of 0.77%,
3. The general service class (Rate 2) exhibits a rate of return of 4.30%.
4. The standby service class (Rate 5) exhibits the highest rate of return of all the customer classes at 5.67%.

Q. Why have you not addressed Rates 3, 4, and 6?

A. Rate 4 does not appear in the ECOSS because this customer has customer-specific charges that are negotiated pursuant to special anti-bypass contracts. Therefore, this customer's rates are not affected and are not shown within the ECOSS analyses. Revenues received from this service class were treated as a credit to the remaining service classes in the ECOSS, as shown in North Shore Ex. JCHM – 1.3, Page 1.

With respect to Rate 6, no customers are presently receiving service under Rate 6, and, therefore, Rate 6 is not shown within the ECOSS analyses. Finally, there are no customers presently receiving service under service class Rate 3, but given the rate design proposals by Ms. Grace it is believed that there will be customers served under Rate 3 in the future. As a result, Rate 3 was included within the ECOSS analyses. Rate 3 shows as zero in the ECOSS under present rates (North Shore Ex. JCHM–1.1), but does provide results in the ECOSS under proposed rate design changes (North Shore Ex. JCHM–1.6).

Q. Please discuss the results of the ECOSS at proposed rates, as shown in North Shore Ex. JCHM–1.6.

A. Referring to North Shore Ex. JCHM–1.6, the following proposed revenue requirement recovery results from the ECOSS are indicated on Line 57:

1. The average system rate of return is 9.18%.
2. The small residential service class (Rate 1) exhibits the lowest rate a rate of return of 9.18%,
3. The general service class (Rate 2) exhibits a rate of return of 9.18%.
4. The large volume demand service (Rate 3) exhibits a rate of return of 9.18%.
5. The standby service class (Rate 5) has been combined with Rate 2.

Q. In your opinion, does the ECOSS provide a reasonable basis for establishing rates in this case?

A. Yes. The ECOSS for North Shore is a reasonable estimate of revenue requirements by customer class, given the total revenue requirement, and supports the rates requested in this case, as explained further by Ms. Grace.

Q. Does this complete your direct testimony?

A. Yes.