THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 14-150

DIRECT TESTIMONY OF MICHAEL F. FARRELL, CPA

EXHIBIT NSTAR-MFF-1

REVENUE REQUIREMENTS ANALYSIS

IN SUPPORT OF
NSTAR GAS COMPANY

REQUEST FOR BASE REVENUE ADJUSTMENT

DECEMBER 17, 2014

DIRECT TESTIMONY OF
MICHAEL F. FARRELL
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DIRECT TESTIMONY OF
MICHAEL F. FARRELL, CPA

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Michael F. Farrell. My business address is One NSTAR Way, Westwood, MA 02090.

Q. Please describe your responsibilities in your current position.

A. I am employed by Northeast Utilities Services Company ("NUSCO") as Director, Revenue & Regulatory Accounting. In this position, I am responsible for accounting relating to all regulatory matters for the Northeast Utilities operating subsidiaries, including NSTAR Gas Company ("NSTAR Gas" or the "Company"), NSTAR Electric Company, Western Massachusetts Electric Company and other operating affiliates in Connecticut and New Hampshire. This responsibility includes the accounting processes for retail operating revenue, customer receivables and the rate-reconciling mechanisms for NSTAR Gas. In addition, I am responsible for overseeing annual financial reporting to the Massachusetts Department of Public Utilities (the "Department") for NSTAR Gas and its affiliates.

Q. Please describe your educational background and professional experience.

A. I graduated from Bentley University (formerly Bentley College) in Waltham, Massachusetts in 1987 with a Bachelor of Science degree in Accounting. I am a Certified Public Accountant ("CPA") in the Commonwealth of Massachusetts.

In 1987, I joined the independent accounting firm of Coopers & Lybrand, where I worked in the Public Utilities Practice as an Audit Manager until 1994, when I left to accept a position as Senior Financial Analyst for the New England Electric System ("NEES"). At NEES, I was responsible for the revenue requirements of Massachusetts Electric Company. I joined Boston Edison Company in 1996 as Financial Reporting Manager. Upon the formation of NSTAR in 1999, I was promoted to Assistant Controller & Director, Accounting. Following the merger of Northeast Utilities and NSTAR in 2012, I was named to my current position.

Q. Have you previously testified before the Department or any other regulatory commission?

A. Yes. I have previously testified before the Department in several proceedings. While employed at NEES, I testified before the Department in <u>Massachusetts Electric Company</u>, D.P.U. 95-40 (1995) on the revenue requirement analysis for Massachusetts Electric Company. For NSTAR, I have testified in a number of proceedings, but most recently, I submitted testimony in <u>NSTAR Electric Company</u>, D.P.U. 10-126, relating to NSTAR Electric's cost recovery associated with its Capital Projects Scheduling List, which is currently pending before the Department.

Also, I have submitted testimony in other regulatory proceedings, including Boston Edison Company, D.T.E. 97-63 (1997) (formation of a holding company); and NSTAR Electric Company, D.P.U. 10-125 (2014), NSTAR Electric Company, D.P.U. 11-91 (pending), NSTAR Electric Company, D.P.U. 12-113 (pending), and NSTAR Electric Company, D.P.U. 13-184 (pending) (pension-PBOP reconciliation factors).

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

A. The purpose of my testimony is to present the Company's revenue requirement analysis and to calculate the existing revenue deficiency based on a test year ending December 31, 2013, adjusted for known and measurable changes through the mid-point of the rate year, which is July 1, 2016. My testimony also discusses the background for certain revenue requirement adjustments associated with the merger-related rate order in BECO/COM Merger, D.T.E. 99-19 (1999) and the merger-related settlement agreement between NSTAR, Northeast Utilities, the Office of the Attorney General (the "Attorney General") and the Department of Energy Resources ("DOER") (hereinafter the "AG-DOER Settlement"), which was approved by the Department in NSTAR/Northeast Utilities Merger, D.P.U. 10-170 (2012).

Q. How have you developed the Company's revenue-requirement analysis discussed in this testimony?

A. My testimony is marked as Exhibit NSTAR-MFF-1 and the Company's revenue requirement analysis is marked as Exhibit NSTAR-MFF-2. Within Exhibit NSTAR-MFF-2, Schedules MFF-1 through MFF-33 present a summary Revenue Requirement Analysis (Schedule MFF-1) and Revenue Deficiency Summary (Schedule MFF-2), along with the supporting computations, including test year revenues, expenses, rate base and the Department's required rate case schedules (Schedule MFF-33, pages 1-9).

Q. Would you please provide a listing of the exhibits and supporting schedules that you are sponsoring through your testimony?

A. Table NSTAR-MFF-1 lists the exhibits and schedules that I am sponsoring in this case:

Table NSTAR-MFF-1

Exhibit/Schedule	**Description**
Exhibit NSTAR-MFF-1	Testimony of Michael F. Farrell
Exhibit NSTAR-MFF-2	Revenue Requirement Analysis
Exhibit NSTAR-MFF-3	Lead Lag Study
Exhibit NSTAR-MFF-4	Other Revenue Adjustments (including Property Tax Calculation)
Exhibit NSTAR-MFF-5	Workpapers
Exhibit NSTAR-MFF-6	Home Heating Protection Plan

Q. How is your testimony organized?

A. My testimony is organized into the following sections:

- Section I – INTRODUCTION.
- Section II – SUMMARY OF REVENUE REQUIRMENT ANALYSIS. This section provides an overview of the Company's revenue requirement analysis.
- Section III – REVENUE REQUIREMENT ANALYSIS. This section sets forth a comprehensive review of the Company's calculation of its test year revenue requirement, including a discussion of the normalizations and adjustments to test-year operating expenses.
- Section IV – COMPUTATION OF RATE BASE AND RATE OF RETURN. This section describes the various adjustments to the per-books December 31, 2013 account balances for purposes of computing the rate base used in the revenue requirement. In addition, this section describes the process used to develop the expected Plant, Depreciation Reserve and Amortization Reserve balances to support the Company's Post Test Year ("PTY") rate-base adjustment based on planned capital-project completions for Calendar Year ("CY") 2014. The verification of project expenditures for CY 2014 is discussed in the testimony of

Company Witness Leanne M. Landry. Associated tariff provisions are discussed by Company Witness Richard D. Chin.

- Section V – <u>TREATMENT OF HOME HEATING PROTECTION PLAN BUSINESS.</u> This section outlines the impact of the anticipated change in the Home Heating Protection Plan ("HHPP") business and provides support for the associated operating revenue and expense adjustments in the revenue requirement calculation as presented in Exhibit NSTAR-MFF-6 and Exhibit NSTAR-MFF-2, Schedule 20.

- Section VI – <u>OTHER REVENUE ADJUSTMENTS.</u> In addition to the distribution rate increase presented in Exhibit NSTAR-MFF-2 and described in more detail in my testimony, the Company is proposing adjustments to other revenue factors as presented in Exhibit NSTAR-MFF-4. The Normalizing Adjustments presented at Exhibit NSTAR-MFF-4, page 1, Lines 2 through 6 are described by Mr. Richard D. Chin in Exhibit NSTAR-RDC-4. Lines 8 through 14 of Exhibit NSTAR-MFF-4 represent other revenue adjustments and are explained in more detail in section VII of my testimony.

- Section VII – <u>LEAD LAG STUDY.</u> This section summarizes the required analysis of lead lag, which is presented in Exhibit NSTAR-MFF-3.

- Section VIII – <u>CONCLUSION</u>.

II. SUMMARY OF REVENUE REQUIREMENT ANALYSIS

Q. What is the test year period that NSTAR Gas used for its revenue requirement analysis?

A. The test year period used for the revenue requirement analysis is the 12-month period ended December 31, 2013.

Q. What is the "rate year" in this case?

A. The term "rate year" refers to the first 12 months during which the rates established in this proceeding will be in effect. Pursuant to the AG-DOER Merger Settlement approved by the Department in NU/NSTAR Merger, D.P.U. 10-170 (2012), new base distribution rates are allowed to go into effect as of January 1, 2016. Therefore, consistent with the provisions of the AG-DOER Merger Settlement, the Company's filing in this proceeding is designed to establish new base distribution rates for NSTAR Gas effective January 1, 2016. The rate year is the period January 1, 2016 through December 31, 2016. The midpoint of the rate year is July 1, 2016.

Q. Would you please summarize the NSTAR Gas cost of service and resulting revenue requirement?

A. Exhibit NSTAR-MFF-2, Schedule MFF-1 presents the Revenue Requirement Summary, computing a total cost of service of $184,323,743. For the rate year ending December 31, 2016, the calculated revenue deficiency is $33,905,651, based on adjusted test year revenues of $150,418,093. The Company's computation of the revenue deficiency reflects total rate base of $508,876,752 and assumes a weighted cost of capital of 8.00 percent as supported by the testimony of Company Witness Robert B. Hevert. Schedule MFF-6 identifies expense adjustments. Specifically, Column (A) of Schedule MFF-6, page 1 shows the per-books figures for operations and maintenance ("O&M") expense, and other operating expenses, with normalizing adjustments. Column (B) of Schedule MFF-6, page 1 itemizes the Company's proposed post-test year adjustments to test year books. Column (C) of Schedule MFF-6, page 1 shows the Rate Year Pro Forma amount included in the revenue requirement. Column (D) shows the sum total, including the proposed increase/decrease. Supporting exhibits are referenced in the last column.

Q. Does the NSTAR Gas cost of service include costs incurred by a centralized service company on behalf of NSTAR Gas?

A. Yes. In the test year, service company charges were billed to NSTAR Gas by NUSCO and NSTAR Electric & Gas Company ("NE&G").

Q. **Please explain the service company structure during the test year?**

A. Beginning with the effective date of the merger of Northeast Utilities and NSTAR, April 10, 2012 through December 31, 2013, NUSCO and NE&G operated as a single service company organization despite being separate legal entities. Effective January 1, 2014, NE&G was legally merged into NUSCO, with NUSCO as the surviving entity. NUSCO provides administrative, corporate and management services to NSTAR Gas and other operating subsidiaries of Northeast Utilities. The cost of service for NSTAR Gas reflects charges from NUSCO and NE&G in the test year ending December 31, 2013, and from NUSCO through the rate year. The service company charges are comprised of "direct charges," billed for costs incurred and work performed by service-company personnel directly related to the respective subsidiary, and "common costs," which are allocated among the respective subsidiaries receiving the service based on appropriate allocation factors and billing pools.

Q. How are service company costs reflected in the NSTAR Gas revenue-requirement calculation?

A. Service company charges to NSTAR Gas are recorded on the NSTAR Gas books and then incorporated into the appropriate expense categories included in the test year and rate year cost of service.

Q. Are charges billed to NSTAR Gas in conformance with a service agreement?

A. Yes. There were operating agreements in effect between NUSCO and NE&G and NSTAR Gas during 2013 and between NUSCO and NSTAR Gas in 2014. These agreements identify the services that are provided to NSTAR Gas and reference the billing methods that are applied to calculate the charges presented each month to NSTAR Gas.

Q. Does the financial information used to compute the revenue requirement tie to the NSTAR Gas Annual Return to the Department?

A. Yes, it does. The calendar year, per-book financial data relied on to develop Exhibit NSTAR-MFF-2 is consistent with the Company's 2013 Annual Return submitted to the Department on April 16, 2014.

Q. Which schedules show the Company's normalizing test year adjustments to Gas Operating Revenues?

A. Schedule MFF-5 shows (A) test year revenue per books; (B) normalizing adjustments; (C) total adjusted test year revenues; (D) reallocation adjustments to reflect cost items which will be collected through recovery mechanisms (which are further detailed in Exhibit NSTAR-MFF-4); and (F) adjustments to account for revenue collected through rate mechanisms other than distribution rates. Schedule MFF-5 shows adjusted rate year revenues of $150,418,093. Revenue adjustments are discussed in the testimony of Company Witness Richard D. Chin.

Q. Has the Company made any adjustments to test year Operating expenses?

A. Yes. The Company has adjusted test year O&M expenses to remove costs recovered through cost recovery mechanisms, normalize the booked test year amounts for ratemaking purposes and to account for known and measurable changes in O&M expense levels occurring after the end of the test year and through the midpoint of the rate year, or July 1, 2016. The normalizations and adjustments reflect a number of increases and decreases. Exhibit NSTAR-MFF-2, Schedule MFF-6 provides a summary of all adjustments made to Operating Expenses.

In addition, in this case, due to the length of time between the 2013 test year and the rate year in this proceeding, post-test year cost changes will become known and measurable to a greater extent than in other rate cases. Other known and measurable changes may be necessitated and warranted during the course of the proceeding due to the unique timing of this case. Each adjustment is discussed below in the order presented on Exhibit NSTAR-MFF-2, Schedule MFF-6.

Q. How has the Company computed rate base in the revenue requirement?

A. Yes. The proposed rate base in this case reflects plant in service through December 31, 2013. In addition, due to the use of a test year ending December 31, 2013, the Company will complete a full year of plant additions and retirements consistent with figures reported in the 2014 DPU Annual Return. This filing will be completed before the case proceeding gets fully underway. In order to provide a more accurate portrayal of the actual, going forward revenue requirement, the Company's rate-base computation includes projected plant additions, retirements and depreciation activity (including cost of removal) through December 31, 2014. The Company will be in a position to submit the necessary project documentation no later than April 15, 2015, so that there is an opportunity for review of all completed and documented projects. NSTAR Gas has computed the target level of PTY Rate Base balances at December 31, 2014, using:

- Actual plant and accumulated depreciation balances at October 31, 2014.
- Projected capital additions, retirements, depreciation expense and cost of removal for November and December of 2014.
- Projected accumulated deferred income tax balances at December 31, 2014 based on the expected book and tax amounts.

The associated property tax expense, depreciation and amortization expense are calculated based on the estimated December 31, 2014 balances.

I will update rate base for the actual December 31, 2014 balances coincident with the submission of project documentation no later than April 15, 2015.

Q. Is the Company's PTY Rate Base adjustment consistent with the Department's accepted ratemaking practices?

A. Yes. As stated above, the Company plans to update rate base for actual plant balances as of December 31, 2014. Project documentation will be submitted in this proceeding with adequate time for review by the Department and the Attorney General. In addition, when the Company makes the filing to submit project documentation for CY2014 plant in service, the Company will also update the revenue amounts to match revenues with growth-related capital additions made in CY2014. This will address the Department's stated concern in Bay State Gas Company d/b/a Columbia of Massachusetts, D.P.U. 12-25, at 19-20 (2012).

Q. How did the Company determine the property tax expense related to the projected capital additions?

A. In order to estimate the expected property taxes associated with the net plant additions expected for CY 2014, I divided the actual fiscal year ("FY") 2014 property taxes billed to the Company, by the December 31, 2012 net plant balance to derive an average property tax rate. The December 31, 2012 plant balances are used in this computation because those balances are the basis for each municipality's assessment for FY 2014. I then applied the calculated aggregate tax rate to the projected December 31, 2014 net plant balance to determine the resulting property tax expense assessment for FY 2016. I will recalculate the estimated property tax expense based on the actual 2014 net plant balances when those balances are available.

Q. What is the "Revenue Requirement Factor," referenced in Exhibit NSTAR-MFF-2, Schedule MFF-4?

A. On Exhibit NSTAR-MFF-2, Schedule MFF-2, I have calculated the operating income shortfall that exists based on the test year ended December 31, 2013 financial information, as adjusted. The Revenue Requirement Factor calculates the revenue increase that is needed to recover the operating income shortfall, along with the associated federal income taxes, Massachusetts franchise taxes and uncollectibles expenses attributable to the increase. In other words, for NSTAR Gas to earn $1.00 of operating income, the Department must allow $1.7115 of revenue to be recovered through rates in order to account for the federal income taxes, Massachusetts state franchise taxes and uncollectibles expense that the Company will incur in relation to each $1.00 of operating income. Multiplying the Revenue Requirement Factor by the operating income shortfall listed on Line 25 of Exhibit NSTAR-MFF-2, Schedule MFF-2 yields the total revenue deficiency of $33,905,651.

Q. How is the HHPP business accounted for in the revenue requirement?

A. As explained in the testimony of Mr. William J. Akley, Northeast Utilities is currently engaged in a process to evaluate options for optimizing value for NSTAR Gas customers in relation to the HHPP business. The Company's expectation is that a change in operations will occur prior to the effective date of new distribution rates on January 1, 2016. To account for this change, the revenue requirement that I have computed for NSTAR Gas excludes both the operating revenues and certain variable costs associated with the HHPP business. However, as Mr. Akley discusses, some of the labor and labor-related costs formerly associated with the HHPP business will remain as an operating cost of NSTAR Gas, regardless of changes, due to critical need for qualified gas service technicians to perform distribution-related compliance work for NSTAR Gas.

Section VI of my testimony discusses the financial implications for the NSTAR Gas cost of service beginning January 1, 2016.

Q. Would you briefly describe the Company's proposal on exogenous cost recovery associated with property taxes?

A. Yes. Under Article II (5) of the AG-DOER Settlement Agreement, the Company is entitled to recover costs associated with exogenous factors if those costs are demonstrated to exceed a threshold in a single calendar year. Eligibility for exogenous cost recovery is allowed in accordance with the exogenous factors established by the Department in Boston Gas Company, D.P.U. 96-50 (Phase I) (1996). These factors include cost changes caused by regulatory, judicial or legislative decisions that uniquely affect the local gas distribution industry. The dollar threshold for qualification as an exogenous factor in any calendar year is determined by multiplying the total distribution revenues of that year by a factor of 0.003212. The AG-DOER Settlement Agreement specifically allows a petition for exogenous recovery of property taxes related to the change in valuation methodology affirmed by the Court in Boston Gas Company v. Board of Assessors of Boston, 458 Mass. 715 (2011), and established by the Appellate Tax Board by ruling issued on April 21, 2011 in Docket F275055, F275056.

Exhibit NSTAR-MFF-4, Schedule 3 presents the computation of the proposed recovery amount, which pertains to property tax charges in FY 2012, FY 2013 and FY 2014. Exogenous recovery under the AG-DOER Settlement Agreement terminates as of December 31, 2015. The aggregate property tax amount of $3,447,972 represents only that portion of the Company's annual property tax bills associated with the change in valuation methodology. As discussed in greater detail below, the Company is proposing to recover these costs through a new, temporary element of the Local Distribution Adjustment Clause ("LDAC") factor. Recovery through the LDAC will ensure that the Company recovers the computed amount and that any abatements successfully obtained by the Company are credited to customers.

Q. The Company's filing encompasses other rate-related proposals. Do these proposals affect the computation of the revenue requirement?

A. In this proceeding, the Company is proposing to implement a revenue-decoupling mechanism ("RDM") consistent with the Department's directives in Rate Structures to Promote the Efficient Deployment of Demand Resources, D.P.U. 07-50-A (2008). The RDM does not affect the computation of the revenue requirement or revenue deficiency in this case. The Company's proposed RDM and the future impact on customer rates is discussed in the testimony of Company Witnesses Charles R. Goodwin and Richard D. Chin.

In addition, NSTAR Gas filed its first annual Gas System Enhancement Plan ("GSEP") under G.L. c. 164, s. 145, on October 31, 2014, covering the 2015 GSEP construction year. In that filing, the Company requested that it collect the revenue requirement for the 2015 GSEP construction year in the GSEP factor effective May 1, 2016, rather than a GSEP factor effective May 1, 2015. This proposal is under consideration in NSTAR Gas Company, D.P.U. 14-135, and is also discussed in the testimony of Company Witness William J. Akley. However, recovery of costs associated with the 2015 GSEP does not affect the computation of the revenue requirement or revenue deficiency in this case.

Lastly, the testimony of Company Witness Eric H. Chung presents the total revenue requirement for Hopkinton LNG Corporation ("HOPCO"). As discussed in his testimony, the HOPCO cost of service would be recovered through the contract rate structure encompassed in the Gas Service Agreement proposed by NSTAR Gas and HOPCO for approval by the Department in D.P.U. 14-64. The Department's decision in that case remains pending before the Department. In computing the revenue requirement for NSTAR Gas, I have removed all costs associated with HOPCO's LNG services from the NSTAR Gas distribution revenue requirement. As a result, gas supply costs are fully excluded from base distribution rates for NSTAR Gas. As I explain in greater detail below, my computation of gas supply-related expenses to be recovered through the CGA includes fixed amount related to "heel gas," calculated consistent with the Department's precedent in National Grid, D.P.U. 10-55-B, at 53 (2010) and Bay State Gas Company, D.P.U. 12-25, at 112-117 (2012). Other than recovery of costs associated with heel gas, all other local production and storage costs are represented in the HOPCO cost of service.

Q. Are there any other testimonies that you have relied on to prepare the NSTAR Gas revenue requirement?

A. Yes. To compute the NSTAR Gas revenue requirement I have used the recommended cost of capital presented by Company Witness Robert B. Hevert. The cost of capital is based on the Company's year-ending December 31, 2013 actual capital structure, as adjusted for known and measurable adjustments to debt and equity balances, which I discuss further below. Employee payroll adjustments are discussed in the testimony of Company Witness Sasha Lazor, and employee benefits are discussed in the testimony of Company Witness, Bernard J. Peloquin. Lastly, the NSTAR Gas revenue requirement includes depreciation expense derived from the depreciation study prepared by Company Witness John J. Spanos.

III. REVENUE REQUIREMENT ANALYSIS

Q. What adjustments have you made to the Revenue Requirement calculation other than the Rate Base Adjustments discussed in Section IV of this testimony?

A. The Revenue Requirement includes adjustments to Operating Revenues, O&M Expense, Depreciation, Amortization and Other Taxes.

<u>A. Operating Revenues</u>

Q. Did you prepare the adjustments to per-book revenue to derive the adjusted operating revenue for the revenue requirement?

A. I did not. Exhibit NSTAR-MFF-2, Schedule MFF-5, Operating Revenue Summary, presents the per-book Operating Revenue and Annualized Distribution Revenue at current rates, which I used in developing the NSTAR Gas revenue requirement. Company Witness Richard D. Chin prepared the adjustments to per-book revenue and provided me with the total annualized revenue at current rates as shown on his Exhibit NSTAR-RDC-2, Schedule RDC-5.

<u>B. Adjustments to O&M Expense</u>

Q. What is the amount of per-book test year O&M Expense?

A. In the test year, NSTAR Gas incurred $71,453,078 in O&M expense exclusive of the costs related to gas supply, as shown on Exhibit NSTAR-MFF-2, Schedule MFF-6, Page 1, Column A, at line 42 and on Page 2, at Column J, at line 46.

Q. How is Exhibit NSTAR-MFF-2, Schedule MFF-6, Page 2 organized?

A. This exhibit summarizes all proposed post-test year adjustments to O&M expense and is organized using the following columns:

- Column C – <u>Total Test Year Expenses Per-Books</u> – Amounts here are obtained directly from pages 46-47 of the Company’s 2013 Annual Return to the Department.

- Columns D-I – <u>2013 O&M Expenses Removed</u> – These amounts are not recoverable through base rates and are removed from the base rate revenue requirement calculation.

- Column J – Adjusted Test Year Expenses – Equals Column C, minus the total of Columns D through I.
- Column K-X Pro Forma Adjustments – These columns illustrate the adjustments made to test year expenses by category. Column X shows the residual post-test year inflation adjustment for all categories of expense not otherwise adjusted.
- Sum – Rate Year Net Distribution O&M – Equals Column J, plus Columns K through X.

Q. What adjustments are you proposing in Schedule MFF-6 to the test year level of O&M expense?

A. In Schedule MFF-6, page 2, the per-books test-year O&M expense total is $331,994,673. A total net decrease of $258,738,790 to the test-year O&M total results from adjustments to: (1) remove non-recoverable items; (2) to remove items recovered through other rate mechanisms; and (3) items adjusted for known and measurable changes through the mid-point of the rate year, including inflation. Each of the adjustments listed on Exhibit NSTAR-MFF-2, Schedule MFF-6 is discussed in turn below.

1. Advertising Expenses

Q. What adjustment has the Company made for advertising expense?

A. Exhibit NSTAR-MFF-2, Schedule MFF-7 presents the Company's advertising activity for the test year with the exception of promotional materials related to its energy efficiency programs. All costs related to energy efficiency programs are recorded within specific expense accounts and recovered separately from customers. Therefore, I have not included those costs within this analysis.

As required by Department precedent, the Company first categorized its test year advertising expenses into four groupings designated by the Department. The Company then eliminated advertising expenses not recoverable in rates under Department precedent, such as certain types of image and promotional activities. In total, the Company deducted $72,827 from the total test year expense. Excluding advertising costs related to HHPP, the remaining test year pro forma expense is $82,464. A summary of the advertising invoices included in the pro forma test-year expense amount of $82,464 and proposed for inclusion in rates are included in Exhibit NSTAR-MFF-2, Schedule 7. Copies of the print advertisements associated with the costs remaining in rates are included in the work papers provided as Exhibit NSTAR-MFF-5, WP-7.

For illustrative purposes, the advertising costs related to the HHPP business are included in the test year expense shown in Exhibit NSTAR-MFF-2, Schedule MFF-7. However, this cost item is removed from the revenue requirement in Exhibit NSTAR-2, Schedule-MFF-6 with other adjustments made to address a change in the strategic direction of the HHPP business, as described in Section V of this testimony and as presented in Exhibit NSTAR-MFF-6.

2. Uncollectible Accounts

Q. Did NSTAR Gas adjust the test year Uncollectibles Expense for ratemaking purposes?

A. Yes. As shown on Exhibit NSTAR-MFF-2, Schedule MFF-8, NSTAR Gas computed its bad debt expense in accordance with the Department's practices and the method used and approved for Bay State Gas Company in Columbia Gas of Massachusetts, D.P.U. 13-75 (2014). Specifically, I totaled retail revenues and net write-offs for each of the past three years, including the test year, i.e., 2011, 2012 and 2013, as shown in Exhibit NSTAR-MFF-5, WP-8. The resulting ratio of actual customer account write-offs to retail revenues is 2.2914 percent and is noted in Exhibit NSTAR-MFF-2, Schedule MFF-8, Page 2, at line 20. The components of net write-offs are illustrated on Exhibit NSTAR-MFF-5, WP MFF-8, Page 2. Net write-offs are comprised of the actual customer accounts written off for non-payment plus customer balances forgiven through the Arrears Forgiveness Program minus recoveries related to previously written off account balances. This net write-off ratio is intended to represent the portion of the Company's billed retail revenues that it will ultimately be unable to collect from its customers.

Account 904 (Uncollectible Accounts) of $10,175,220 includes bad debt expense booked on an accrual basis during the test year. The accrual-based expense amount includes bad debt expense related to all retail revenues, including costs recovered through the CGAC of $4,536,928, as shown in Exhibit NSTAR-MFF-5, WP MFF-8, page 4, and removed from the Company's O&M amount as shown in Exhibit NSTAR-MFF-2, Schedule MFF-6, Page 2, Column D, leaving total non-CGAC bad-debt expense of $5,638,292 (Sch. MFF-6, Page 2, Col. J). The test-year level of non-CGAC bad-debt expense computed using the Department's three-year normalizing convention is $4,227,373. This difference between this amount and the test year, per books non-CGAC uncollectible expense of $5,638,292 is subtracted from the amount calculated for inclusion in base rates, resulting in a pro forma decrease of ($1,410,919) in bad-debt expense, as shown on Exhibit NSTAR-MFF-2, Schedule MFF-8.

3. <u>Computer Services</u>

Q. What adjustment has the Company made for Computer Services?

A. The post test-year adjustment made on Exhibit NSTAR-MFF-2, Schedule MFF-9 shows a post-test year increase of $133,508. Historically, NSTAR utilized the services of IBM to manage and operate many of its computer applications. As part of the merger-related integration effort, Northeast Utilities conducted a comprehensive assessment of its combined information technology ("IT") organization. That assessment showed that the NSTAR and Northeast Utilities legacy IT departments maintained two very different technology approaches and platforms, neither of which was sustainable or sufficient to meet emerging customer expectations and business requirements.

As a result of this review, Northeast Utilities made changes to its IT organization. The in-house IT team was restructured to focus on management, oversight, and strategic "change the business" work, while day-to-day "service the business" work was shifted to third-party IT service providers who specialize in this work. Much of this functional split was already implemented by NSTAR prior to the merger, which involved the partnership with IBM. Therefore, the cost savings associated with IT labor reductions pertained primarily to Connecticut operations. At the same time, the structure of services changed for NSTAR Gas shifting from IBM to other external providers. This shift is shown in Exhibit NSTAR-MFF-5, WP MFF-9.

As shown in Exhibit NSTAR-MFF-5, WP MFF-9, the test year expense for NSTAR Gas was comprised of three elements: the IT Service providers; software and maintenance contracts and labor and labor-related costs for internal personnel. These costs totaled $2,851,215 as of December 31, 2013. By comparison, the test-year pro forma expense is comprised of four elements: a significantly reduced IBM contract cost; increased software and hardware maintenance costs (consistent with annual inflation and new systems); reduced labor and labor-related costs; and, contract costs associated with the new IT suppliers that are now managing day-to-day work streams for Northeast Utilities. These costs total $2,984,723 as of July 1, 2016. The net increase to the cost of service, $133,508, is consistent with the increase in costs between 2013 and 2016, regardless of work structure.

4. Dues and Memberships

Q. What adjustment has the Company made for Dues/Company Memberships?

A. The post test-year adjustment made on Exhibit NSTAR-MFF-2, Schedule MFF-10, shows an adjustment decreasing test year expense of $97,886 by ($14,012). The deduction primarily represents the removal of any charges for dues/company memberships not geographically located in the NSTAR Gas service territory.

5. Employee Benefits Costs

Q. What adjustment has the Company made for Employee Benefit Costs?

A. The post test-year adjustment made on Exhibit NSTAR-MFF-2, Schedule MFF-11 is an increase of $1,695,034. The employee benefit offerings for NSTAR Gas employees, and NUSCO employees serving NSTAR Gas, are discussed in the testimony of Company Witness Bernard J. Peloquin. Exhibit NSTAR-MFF-2, at Schedule MFF-11 summarizes the pro forma adjustments related to employee benefit costs. Although increases in certain employee benefits are expected through July 1, 2016, the increases are significantly mitigated by merger-related integration efforts that reduced the base-cost level of employee benefits for all Northeast Utilities' employees. These integration-related efforts are discussed by Mr. Peloquin in his testimony.

There are four categories of adjustments included with Employee benefits: (1) Medical, Dental and Vision; (2) 401K Savings Plan; (3) Disability; and (4) Pension/PBOP Amortization.

<u>Medical, Dental and Vision</u> – Northeast Utilities is self-insured for its healthcare benefits for active employees. Therefore, benefits costs cannot be determined with certainty for any future period. In order to determine a reasonable estimate of the rate year healthcare benefits costs, it was necessary to apply an appropriate benefit expense rate per employee to a representative number of employees. In order to complete that analysis, I obtained the 2015 medical, dental and vision "working rates" from our Human Resources Department. The working rates are provided to the Company by its external benefits consultants and represent the per employee expected claims levels for the following year. The working rates are utilized to determine the amount of contributions required by employees. I applied the per employee rates to the actual staffing levels and benefits plan participation as of October 2014. Therefore, in this estimate, I have accounted for the fluctuation in staffing levels and the inflation in employee benefits costs.

<u>401K Savings Plan</u> – The Company's 401K Savings Plan expense represents the company-match contributions to a defined contribution retirement plan. In order to determine the expense amount for the rate year, I multiplied the test year expense amount of $1,743,130 by the Payroll Percentage Adjustment of 9.161

percent on Exhibit MFF-2, Schedule MFF-13, page 2. This is based on the assumption that the increase in savings plan contributions will be consistent with the overall increase in salaries and wages.

Disability – During the test year, the Company's disability expense was a credit of $282,992. The test year expense represents the net of insurance premiums incurred and an accounting adjustment to adjust the Company's liability balance to the actuarially determined amount as of the end of the test year. The pro forma adjustment removes the actuarial adjustment and replaces it with the actual amount of claims paid for the self-insured portion of the Company's disability plan. The test year claims combined with the insurance premiums paid in the test year represent the test year pro forma disability expense

Pension/PBOP Amortization – At the time of the merger of BEC Energy (parent of Boston Edison Company) and Commonwealth Energy System (parent of Commonwealth Gas Company, now NSTAR Gas), there were unrecognized gains and losses related to the pension and PBOP plans of COM/Energy. The amortization of these gains and losses will be complete in 2015, before the start of the rate year in this proceeding. Therefore, this expense amount has been removed.

Q. Have you adjusted any other categories of benefits costs?

A. No. The remaining benefit costs (including non-qualified pension, life insurance, and medical reimbursement) are stated at the actual test year expense amount.

Q. Did you make an adjustment to reflect the capitalization of benefits and for benefits collected through cost recovery mechanisms?

A. Yes. Based on the capitalization rate from the test year, I have assumed a consistent level of capitalization within the rate year. In addition, I have removed all benefits related to employees performing gas supply functions which are recovered through the CGAC including those benefits related to the provision of service by HOPCO, which are presented in the HOPCO revenue requirement presented by Mr. Chung.

6. Insurance Expense and Injuries & Damages

Q. What adjustment have you made for Insurance Expense and Injuries & Damages deductibles?

A. The post test-year adjustment made on Exhibit NSTAR-MFF-2, Schedule MFF-12 shows a decrease of ($404,295). The decrease is detailed in Exhibit NSTAR-MFF-2, Schedule MFF-12, pages 2-3. This decrease in expense is the net effect of (1) an increase in corporate property and liability insurance premiums; and (2) the difference between the five-year average of self-insured claims paid and the actuarially determined expense booked during the test year.

Q. Please describe the NSTAR Gas Corporate Insurance for property and liability coverage.

A. Property and liability coverage includes a number of categories of insurance that provide protection from property loss, general liability and other damages that NSTAR Gas may incur in the conduct of its business. NUSCO manages the Northeast Utilities corporate insurance program through which NSTAR Gas secures insurance coverage. The corporate insurance program includes both premium-based and self-insured coverage, in order to obtain the most cost-effective loss protection.

Q. How does NUSCO manage its liability insurance costs?

A. All insurance programs and policies are evaluated annually with the aid of insurance brokers in order to secure the best available coverage at the best available rate. In order to balance the risk mitigation that insurance provides and the level of premium costs, an appropriate level of self-insurance deductible is negotiated with insurance carriers. Higher deductible levels result in lower insurance premiums while also resulting in a higher retention of risk of loss. It is the balance between the two that the Company must manage.

Q. How is the pro forma adjustment related to insurance calculated?

A. In order to determine the appropriate level of insurance expense to be included in the revenue requirement, I obtained the most recent insurance policies entered into by NUSCO. I was then provided the portion the premium of each policy which applied to NSTAR Gas. The resulting premiums form the basis of the insurance expense included in the revenue requirement of NSTAR Gas. The prepayment of these costs is recorded and amortized over the appropriate fiscal period. Exhibit NSTAR-MFF-5, WP MFF-12 provides cost detail on these expenses. This analysis resulted in an increase of ($319,736) to the test year actual expense amount on the Company's books, as reflected in Exhibit-NSTAR-MFF-2, Schedule MFF-12, line 20. Based on the coverage periods, the actual premium amounts for certain policies will be known and measurable by the time the record closes in this case, the Company plans to update this amount to the actual cost level.

Q. How is the pro forma adjustment for injuries and damages calculated?

A. On the Company's books of account, the expenses related to the self-insured portion of general liability, automobile liability and worker's compensation are recorded based on actuarially determined liability amounts. In order to normalize these expenses, I obtained a listing of the actual claims paid in these categories for each of the years in the 5-year period ended with the 2013 test year. I then calculated the average annual claims payment amount of that 5-year period. This resulted in a reduction of ($724,032) to the test year actual expense amount on the Company's books, as reflected in Exhibit-NSTAR-MFF-2, Schedule MFF-12, line 24.

7. Payroll Expense

Q. Have you made a post-test year adjustment for payroll expense?

A. Yes. As shown on Exhibit NSTAR-MFF-2, Schedule MFF-13, the post-test year adjustment associated with payroll expense is an increase of $3,079,307. This adjustment accounts for known and measurable compensation increases for union and non-union employees through July 1, 2016.

Q. How was the payroll O&M expense determined for the Company's revenue requirement?

A. I first examined the test-year payroll amounts to determine whether those amounts would continue to be the same in the rate year, or whether any known and measurable changes would occur. I determined that changes would occur for both union and non-union payroll. Therefore, I made the necessary adjustments to account for these changes.

Q. Why are these adjustments necessary?

A. The adjustments are necessary in order to determine the level of O&M Payroll that the Company will experience during the rate year. The adjustments apply the actual percentage payroll rate increases for 2014 and expected increases for 2015 and 2016, separately by union and non-union categories, to actual payroll amounts charged to O&M during the test year. The 2015 payroll increase will be granted to employees April 1, 2015, and will be validated during this case.

Q. What is the basis used to make an adjustment to the payroll-union test year expense?

A. As discussed in the testimony of Company Witness Sasha Lazor, NSTAR Gas has two separate collective bargaining agreements covering its union employees. Mr. Lazor describes the impact of future union wages based on existing union agreements and recommends the known and measurable changes that are included in my analysis to compute the payroll-union adjustment.

Q. What process did you use to develop the payroll-union adjustment?

A. First, the test year payroll costs charged to O&M accounts of the Company were determined. These payroll charges include both straight time and overtime costs. Both straight time and overtime payroll O&M costs are utilized to determine the expected higher future level of payroll costs. These calculations were completed for each union based on the respective contract increase and effective date. The total union increase included in the revenue requirement is $755,269 for Local 369, and $1,356,637 for Local 12004, per Exhibit NSTAR-MFF-2, Schedule MFF-13, It should be noted that the current contract for Local 369 is set to expire as of June 1, 2015. As such, for purposes of calculating the revenue requirement, based on the testimony of Mr. Lazor I have included an increase for Local 369 effective June 2, 2015 and June 2, 2016, at a rate commensurate with past contract rates (2.5 percent). However, since it is expected that a new collective bargaining agreement will be reached while the record in this case is open, I intend to update this schedule based on the actual agreement reached when it is complete.

Q. What adjustment was made for non-union payroll?

A. The non-union payroll adjustment is $786,735 for NSTAR Gas employees (including former employees of NSTAR Electric & Gas) and $180,666 for NUSCO employees, representing actual wage increases in 2014 and planned increases in 2015 and 2016. The merit increase percentages for 2015 and 2016 are based on the recommendation provided by Mr. Lazor in Section III.B of his testimony. Details on the calculation are provided at Exhibit NSTAR-MFF-2, Schedule 13.

Q. Does your testimony present the requisite documentation for the inclusion of employee compensation and benefit cost, and any adjustments thereto?

A. Non-union wage increases took effect for 2014 on April 1, 2014, and will take effect on April 1, 2015, during this case. As a result, those changes are or will be known and measurable without the management commitment letter required by the Department.

For wage increases planned for 2016, the Company has prepared and submitted the testimony of Mr. Sasha Lazor, Director, Compensation for NUSCO. Mr. Lazor's testimony discusses the Company's plan for producing the documentation required by the Department to support the Company's employee benefit and compensation expense levels and post-test year adjustments. I have used the information and documentation provided by Mr. Lazor to determine whether, and to what extent, adjustments to test-year costs are appropriate.

Q. Please summarize the Company's payroll adjustments.

A. As detailed on Exhibit NSTAR-MFF-2, Schedule MFF-13, the payroll adjustments increase the test-year payroll for known and measurable increases that occurred in 2014; that will occur during this case in 2015, and that are planned for 2016. The adjustment increases test year O&M payroll by $3,079,307; including an increase of $2,111,906 for union payroll and $967,401 for non-union payroll.

8. Variable Compensation

Q. Have you adjusted payroll expense for incentive compensation?

A. Yes. As shown on Exhibit NSTAR-MFF-2, Schedule MFF-14, the post-test year adjustment associated with variable-compensation expense is an decrease of ($960,337).

As described in the testimony of Company Witness Sasha Lazor, the Company's incentive compensation plan represents the variable portion of the wages and salaries paid to non-union employees serving NSTAR Gas. Incentive compensation is paid to employees in March for performance in the prior fiscal year ending December 31st based on Company and individual performance criteria and compensation guidelines. Incentive compensation is included in the revenue requirement at the "target" payment amount for the incentive compensation plan. In the test year, the Company paid out incentive compensation at greater than the target level. Therefore, the Company has removed the test year amount of $3,144,373 from the revenue requirement. Total target-level variable-compensation expense based on the existing 2014 accrual for the 2014 headcount is $2,073,498. This amount is then escalated to the mid point of the rate year by multiplying the 2014 actual amount by 5.331 percent and adding the resulting $110,538 to the 2014 actual target amount. This results in total target-level rate year variable compensation expense of $2,184,036, resulting in a net reduction to the cost of service of ($960,337). As the 2014 payroll and variable compensation amounts are expected to be known and measurable by the time the record closes in this case, the Company plans to update this computation based on actual variable compensation expense.

9. <u>Postage</u>

Q. Please explain the proposed adjustment to test year postage expense?

A. I am proposing an increase of $47,626, detailed in Exhibit NSTAR-MFF-2, Schedule MFF-15. The postage expense increase is based on changes announced by the Governor of the U.S. Postage Service. On January 26, 2014, the first class stamp increased from $0.46 to $0.49, or 6.52 percent. Therefore, I have increased the test year postage expense by the 6.52 percent postage rate increase in 2014.

Q. Are there any other adjustments to the test year postage expense?

A. No, there are no additional adjustments proposed at this time

10. Rate-Case Expense

Q. Is the Company proposing to recover its rate-case expenses in this proceeding?

A. Yes. The Company is proposing to recover rate-case expenses totaling $2,061,881 based on a nine-year amortization period, as shown on Exhibit NSTAR-MFF-2, Schedule MFF-16 and the accompanying workpaper. Also as shown on Exhibit NSTAR-MFF-2, Schedule MFF-16, the annual expense amount included in the revenue requirement is $229,098.

Q. How did the Company derive its estimate of rate-case expense for this proceeding?

A. Rate-case expense is discussed in the testimony of Company Witness Eric H. Chung. As he states in this testimony, the Company developed the estimate set forth at Exhibit NSTAR-MFF-2, Schedule MFF-16, based on discussions with its outside consultants and an evaluation of the costs incurred in prior regulatory proceedings. The Company will update and confirm the actual expenses incurred as the proceeding progresses, as is consistent with Department precedent. The Company recognizes that, because of the extended duration of the proceeding, costs to conduct the proceeding will likely differ from the estimated amount. The Company will work to control rate-case expense as circumstances occur by closely monitoring the costs of its outside consultants. NSTAR Gas will review each invoice for accuracy and reasonableness and maintain a spreadsheet identifying when each invoice is approved for payment and charged to the appropriate account on its general ledger.

Q. What is the basis for the proposed nine-year recovery period?

A. The average period between the last four rate cases is 9.17 years as calculated in Exhibit NSTAR-MFF-2, Schedule MFF-16. This amount is rounded to the nearest full year amount, or nine years.

11. Regulatory Assessments

Q. Has NSTAR Gas made an adjustment for regulatory assessments?

A. Yes. As shown on Exhibit NSTAR-MFF-2, Schedule MFF-17, the post-test year adjustment associated with regulatory assessments is an increase of $13,232. The invoices supporting the pro forma expense level are included in Exhibit NSTAR-MFF-5, at WP MFF-17. As the 2015 regulatory assessments are expected to be known and measurable by the time the record closes in this case, the Company plans to update this amount to the actual cost level.

12. Leases Expense

Q. What is the adjustment made to increase test-year lease expense?

A. As shown on Exhibit NSTAR-MFF-2, Schedule MFF-18, the post-test year adjustment associated with lease expense is an increase of $45,664. The computation of the pro forma expense level is shown in Exhibit NSTAR-MFF-2,, Schedule MFF-18, page 2. This adjustment pertains to the Prudential Center office lease and the lease for the Hyde Park Service Center and accounts for known and measurable changes in rent expense through July 1, 2016.

<u>Prudential Center Lease</u> – NUSCO houses certain executive, legal and corporate relations personnel within office space in the Prudential Center in Boston. The lease at the Prudential Center runs through November 2017 with an annual rental cost of $1,463,532, plus applicable operating costs and real estate taxes. Based on the 2014 operating costs and real estate taxes, the total most recently known occupancy cost is $1,695,153. The allocated portion to NSTAR Gas is $214,708.

<u>Hyde Park Service Center</u> – this is a shared facility with NSTAR Electric with a lease arrangement through July 15, 2018. The annual lease cost for the facility is $338,688 plus applicable real estate taxes. Based on the most recently known real estate tax bills, the total annual cost is $401,115. Based on square footage occupancy of the facility, 55 percent of the lease arrangement cost is allocated to NSTAR Gas, or $220,613.

The total expense related to these two leases is $435,322, which necessitates a pro forma adjustment of $45,664.

13. Inflation Adjustment

Q. Has NSTAR Gas calculated an inflation adjustment?

A. Yes. As shown on Exhibit NSTAR-MFF-2, Schedule MFF-19, the post-test year adjustment associated with the residual inflation adjustment is an increase of $1,238,312. The computation of the pro forma expense level is shown in Exhibit NSTAR-MFF-5, at WP MFF-19. Consistent with Department precedent, NSTAR Gas has calculated an inflation allowance to recognize the expected changes in cost that will occur between the end of the test year and the midpoint of the rate year. Under Department precedent, the adjustment applies only to those expenses that are not adjusted separately (i.e., “residual O&M expense”).

Q. Please describe the adjustment for inflation.

A. The inflation adjustment shown on Exhibit NSTAR-MFF-5, WP MFF-19 is $1,238,312, computed in relation to residual O&M expenses as shown on the same. The inflation allowance is based on the projected inflation rate of 7.801 percent from the midpoint of the test year to the midpoint of the rate year. In order to determine the level of test year residual O&M expense, I reduced test year O&M expense by expenses that have been adjusted separately. The inflation rate was separately calculated, as measured by the projected growth in the Gross Domestic Product Implicit Price Deflator (GDPIPD) from the mid-point of the test year to the mid-point of the rate year. See, Exhibit NSTAR-MFF-5, WP MFF-19.

C. Depreciation

Q. Did NSTAR Gas prepare a depreciation study for this case?

A. Yes. Mr. Spanos prepared a detailed depreciation study for this general rate case. The results of that study are incorporated into the proposed depreciation expense. Please see the direct testimony from Company Witness John J. Spanos for support of the updated depreciation rates.

Q. What level of depreciation is NSTAR Gas proposing for its revenue requirement?

A. NSTAR Gas has calculated a pro forma depreciation expense of $27,019,305 at Exhibit NSTAR-MFF-2, Schedule MFF-21. This is a decrease from the test year amount of ($747,792).

Q. Please describe in more detail the calculation of depreciation expense?

A. I have applied the depreciation rates per the most recent depreciation study to the projected December 31, 2014 account balances of depreciable plant to determine depreciation expense for each utility plant account. Exhibit NSTAR-MFF-5, WP MFF-28 provides a listing of the depreciable plant balances by account as of December 31, 2013 and as projected through December 31, 2014. In Exhibit NSTAR-MFF-5, WP 21, I have applied the depreciation accrual rates as presented in Exhibit JJS-2 at VI.4 to the projected year end balances at December 31, 2014 as calculated in Exhibit NSTAR-MFF-5, WP MFF-28. The calculated depreciation expense is the sum of the depreciation expense for each utility plant account. This total of $27,019,305 is shown on Exhibit NSTAR-MFF-5, WP-MFF-21.

Q. Will depreciation expense be updated based on the final known 2014 plant balances?

A. Yes. Concurrent with the rate base updates mentioned earlier, I will recalculate the depreciation expense adjustment based on the actual December 31, 2014 plant balances once they are final. Therefore, the final depreciation adjustment in this case will not rely on any forecasted plant in-service balances.

D. Amortization of Deferred Assets

Q. Have you adjusted the test year amortization expense?

A. Yes. Exhibit NSTAR-MFF-2, Schedule MFF-6, Line 48, shows a net increase to amortization expense of $2,104,505. The detail supporting this adjustment is provided at Exhibit NSTAR-MFF-2, Schedule MFF-22 and accompanying workpapers in Exhibit NSTAR-MFF-5, WP MFF22.

Q. Please provide a summary of the information contained in Exhibit NSTAR-MFF-2, Schedule MFF-22.

A. Exhibit NSTAR-MFF-2, Schedule MFF-22, identifies five amortization items. The items subject to amortization are (1) Goodwill Amortization; (2) Hardship Receivables; (3) ASC 740; (4) Merger Costs to Achieve; and (5) Deferred Repairs Study Costs.

1. Goodwill Regulatory Asset

Q. What is the goodwill regulatory asset amortization?

A. The annual pro forma goodwill amortization is $2,898,000, as shown at Exhibit NSTAR-MFF-2 Schedule MFF-22, Line 16 and accompanying workpaper in Exhibit NSTAR-MFF-5, WP MFF-22, page 4. The amortization of merger-related goodwill was approved by the Department in BEC/COM Merger, D.T.E. 99-19 (1999). In that case, the Department approved the 40-year amortization and recovery of a merger-related acquisition premium with the annual amortization estimated at $20.6 million annually on a tax-effected, NSTAR-wide basis. D.T.E. 99-19, at 6-7, 46-47, 56-62, 81-86.

Q. Could you please provide more detail on the origination of the goodwill regulatory asset balance.

A. Yes. The goodwill regulatory asset balance arose from the 1999 merger transaction between BEC Energy (the parent company of Boston Edison Company) and Commonwealth Energy System ("Com Energy", the parent company of NSTAR Gas Company, formerly known as Commonwealth Gas Company). Goodwill represents the difference between the consideration that BEC Energy paid for Com Energy ($938,452,988) and the common equity balance as of the date of the merger (including contingencies as of the date of the merger, $448,429,450). The Department approved the amortization and recovery from customers of the goodwill balance because the savings as a result of the merger were found to be significantly greater than the costs incurred to achieve the merger, including the acquisition premium. The actual goodwill balance determined as of the merger-closing date of $490,023,538 was allocated to the operating companies of NSTAR.

Q. How was the goodwill balance allocated to the operating companies?

A. In 1999, the Company allocated the goodwill balance among the operating affiliates consistent with the expected realization of savings and based on the relative size of the companies' operations. In order to determine the allocation, the Company calculated an allocator based on the combination of net utility plant and distribution O&M expenses. The resulting allocator for NSTAR Gas was 14.14 percent. Of the $490 million goodwill amount, approximately $69.3 million was allocated to NSTAR Gas.

Q. How was the amortization period determined?

A. The amortization period is based on the accounting standards in effect at the time of the merger. At that time, entities were required to amortize goodwill over the estimated economic period of the goodwill balance, not to exceed 40 years. In D.T.E. 99-19, the Company proposed, and the Department approved, a straight line 40-year amortization period. This reflects the fact that the customer savings are realized over an extended period of time.

Q. How is the tax impact of the amortization treated for purposes of the revenue requirement?

A. The goodwill amortization is not deductible for federal or Massachusetts income tax purposes. Therefore, the revenue requirement related to the goodwill amortization must contain a gross-up to ensure that the Company is able to collect the income tax liability as a result of the billed revenue. By doing this, the revenue requirement calculation reflects the appropriate tax treatment of the goodwill amortization.

2. <u>Amortization of Hardship Accounts Arrearage Balances</u>

Q. What is the amortization of hardship receivables?

A. In addition to the normal level of accounts receivable charge-offs, I have included an amount for the recovery of uncollectible amounts associated with "hardship protected accounts." Hardship protected accounts are residential accounts that are protected from shut-off by the utility for non-payment under 220 C.M.R. §§ 25.03, 25.05. To qualify for protected status from service termination, customers must be elderly or demonstrate that they have a financial hardship and meet certain other requirements, such as suffering from a serious illness or residing with a child under twelve months of age (220 C.M.R. § 25.03(1); 220 C.M.R. § 25.03(3); 220 C.M.R. § 25.05(3)). All qualified accounts are protected from shut-off for non-payment year round, except for heating customers with a financial hardship. These heating accounts are protected from shut-off for non-payment only during the winter moratorium period, November 15th through March 15th (220 C.M.R. §§ 25.03(1)(a)3, 25.03(1)(b).

Pursuant to Department regulations, an account qualifies for protected status where the customer has a financial hardship, and: (1) a person residing in the household is seriously ill; (2) a child under the age of twelve months resides in the household; (3) the customer takes heating service between the period November 15th and March 15th; or (4) all adults residing in the household are age 65 or older and a minor child resides in the household (220 C.M.R. § 25.03). An account also qualifies for protected status where all residents of the household are age 65 or older (220 C.M.R. § 25.05). Customers who meet the income eligibility requirements for the Federal Low-Income Home Energy Assistance Program ("LIHEAP") are deemed to have a financial hardship (220 C.M.R. § 25.01(2)).

Because these accounts cannot be disconnected, the accounts remain "active" and continue to receive service despite slow or non-payment of amounts due. As the accounts stay active, they do not become part of the write-off calculation to be included for recovery from customers. The Company's total "active protected" hardship accounts receivable balance outstanding over 360 days is $2,882,049 as of October 31, 2014, as shown in Exhibit NSTAR-MFF-5, Schedule MFF-22, at page 2. The Company is proposing to amortize the balance of $2,882,049 of "active protected" receivables over a five-year period. The resulting annual amortization expense of $576,410 is shown on Exhibit NSTAR-MFF-5, WP MFF-22, at page 1.

Q. Could you provide additional detail on the Company's proposed amortization of "hardship receivables"?

A. Yes. If an active hardship protected customer's account balance is in arrears, the Company is prohibited from initiating the procedures it would normally follow to collect the balance and, if necessary, to terminate service to the customer. As a result of the Department's requirements and practices in relation to this customer group, the active hardship protected customer accounts receivable balances in arrears have grown significantly. The table below provides a breakdown of the $5.2 million of active hardship protected balances as of October 31, 2014:

Table MFF-1

Active Hardship Account Receivable		
Age of Accounts	# of Accounts	$ Balance
0 to 30 days	3,211	$ 92,594
30 to 60 days	182	$ 91,856
61 to 90 days	94	$ 85,229
91 to 120 days	84	$ 89,653
121 to 150 days	92	$ 128,478
151 to 180 days	169	$ 195,423
181 to 240 days	418	$ 674,012
240 to 360 days	605	$ 978,733
361 to 720 days	645	$ 1,260,677
721 days to 1080 days	221	$ 484,175
Over 1080 days	378	$ 1,137,197
Total	6,099	$ 5,218,028

Q. Is this request consistent with Department precedent?

A. Yes. In Western Massachusetts Electric Company, D.P.U. 10-70 (2011), the Department approved the company's request to amortize arrearage balances for active hardship accounts over 120 days. D.P.U. 10-70, at 214-216. However, in that decision, the Department stated that it was appropriate for WMECO to amortize outstanding balances over 360 days (versus 120 days) over a five-year amortization period. Id. at 216. In addition, the Department directed that any payments made by customers toward balances that WMECO has amortized would be credited to WMECO's Residential Assistance Adjustment Clause. Id.

In Fitchburg Gas and Electric Light Company, D.P.U. 13-90, at 158-160, 163-167 (2014), the Department affirmed the treatment of allowing a five-year amortization of arrearage balances for active hardship over 360 days.

Q. Is the Company currently able to collect arrearages related to active hardship protected customer accounts?

A. No. Arrearages are recoverable only to a very limited extent. NSTAR Gas currently has a Residential Assistance Adjustment Factor ("RAAF"), which is a recovery mechanism for arrearage forgiveness that is provided to customers who participate in the Company's NUSTART program. A customer must enroll and stay in the NUSTART Program for his/her unpaid balance to qualify for recovery in the RAAF. A limited number of the Company's customers who qualify for protected status participate in the NUSTART Program, but the majority of active hardship-protected customers do not participate or are unable to remain in the program for various reasons, including failure to meet the minimum required payments. As a result, arrearages related to active hardship protected accounts continue to grow and the Company has no mechanism to recover them.

3. ASC 740 Regulatory Asset

Q. Please describe the amortization related to the ASC 740 Regulatory Asset.

A. Accounting Standards Codification 740 (ASC 740, formerly Statement of Financial Accounting Standards No. 109) requires that a company record accumulated deferred income taxes (ADIT) on its balance sheet based on the actual book tax temporary differences as of the balance sheet date. ASC 740 requires the ADIT balances to be calculated based on the actual statutory tax rates in effect.

On July 26, 2014, legislation was passed in Massachusetts which repealed the utility corporation designation for Massachusetts utilities. Prior to this legislation, companies that qualified for this designation were taxed at a rate of 6.5 percent of the taxable income. As a result of the repeal, effective January 1, 2014, utilities are now taxed at a rate of 8.0 percent, consistent with other corporations in Massachusetts.

The increase in the tax rate created an ADIT deficiency on the Company's books. Due to the tax rate increase, the Company was required to record an additional $2,920,280 ADIT liability. After grossing this amount up for the tax effect of the revenue requirement, the Company has recorded a regulatory asset of $4,883,411 on the books (Exhibit NSTAR-MFF-5, WP MFF-22, page 3). I am proposing to amortize this regulatory asset over five years with a resulting amortization expense of $976,682.

4. Amortization of Merger-Related Costs to Achieve

Q. What is the amortization of merger-related costs to achieve?

A. The annual pro forma amortization for merger-related costs to achieve is $484,755, as shown on Exhibit NSTAR-MFF-2, at Schedule MFF-22 and Exhibit NSTAR-MFF-5, WP MFF-22, page 3. The amortization of merger-related costs is associated with the merger of Northeast Utilities and NSTAR in 2012, which was approved by the Department in NSTAR/Northeast Utilities, D.P.U. 10-170 (2012). In that case, the Department approved the AG-DOER Settlement Agreement. Article II (14) allowed for amortization of merger-related transaction and integration costs for ratemaking purposes over a 10-year period following the approval of the AG-DOER Settlement Agreement. Article II (15) provides that, subject to Department review and approval, transaction costs and reasonable integration costs associated with the NSTAR-Northeast Utilities merger may be proposed for recovery in a future distribution rate proceeding to the extent that merger-related savings are demonstrated to equal or exceed those costs. The Company's showing that merger-related savings directly attributable to NSTAR Gas have exceeded the merger-related costs allocated to NSTAR Gas is discussed in the testimony of Company Witness Eric H. Chung.

5. Deferred Repairs Study Costs

Q. Would you please describe the amortization of deferred repairs study costs?

A. Yes. As I will discuss later in my testimony, Northeast Utilities is currently conducting an in-depth evaluation of the incremental tax deduction it will realize from the adoption of new IRS Tangible Property Regulations. In order to complete this evaluation, NUSCO contracted with an external consultant to perform an in depth study to determine the benefit on an enterprise-wide basis for all of the Northeast Utilities operating subsidiaries. The cost of the study allocated to NSTAR Gas is approximately $100,000. Since the economic benefits of the incremental deduction will result in a reduced cost of service for NSTAR Gas customers, I am proposing to recover the costs through an annual amortization of $20,000 per year over a five-year period. The study will be completed in Q2 2015 and the Company will submit documentation of the final cost to the record for this proceeding.

E. Property Sales

Q. Have you reduced the proposed revenue requirement to account for the amortization of a gain on the sale of property?

A. Yes. Exhibit NSTAR-MFF-2, Schedule MFF-6, Line 49 shows a deduction to the revenue requirement of ($184,834). The detail on the calculation is provided at Exhibit NSTAR-MFF-2, Schedule MFF-23. There are two components of the gains on sale of property adjustment. The first component relates to gains on the sale of two parcels of property, which resulted in a total gain of $232,150. The second component relates to the gain the Company realized in 2008 from the sale of its leased appliance business to an unaffiliated third party of $692,021. I am proposing that the aggregate gains of $924,171 be amortized over a 5 year period for an annual reduction to the revenue requirement of $184,834.

Q. Would you please describe the two property transactions?

A. The first transaction was the sale on October 1, 2008 of land adjacent to the Company's Westwood office building. The parcel, which was jointly owned with NSTAR Electric, resulted in proceeds of $278,233 to NSTAR Gas. After subtracting the book value of the land and costs incurred related to the sale transaction, the Company realized a gain of $229,650.

The second transaction was the sale of an un-buildable strip of land on LaCombe Street in Marlborough. The sale on December 27, 2013 resulted in proceeds of

$2,500. As this strip of property had no identifiable basis, I am proposing that the entire proceeds amount be amortized for the benefit of customers.

Q. Would you please describe the sale of the Company's leased appliance business?

A. In May 2008, NSTAR Gas sold its leased appliance business to an unaffiliated third party. Prior to the sale of this line of business the Company, NSTAR Gas, leased conversion burners and water heaters to its customers. The revenues and expenses related to this business were included in operating revenues and expenses for revenue requirement purposes. Therefore, I am now reducing my revenue requirements calculation in order to ensure that customers realize the gain from the sale of this business. The gross proceeds from the sale were $1,750,000. After removing the asset balances from the books ($994,410) and reflecting the costs related to the sale transaction ($63,568), the net gain on the sale was $692,022.

F. Taxes Other Than Income Taxes

Q. Please summarize your adjustments to Taxes Other Than Income Taxes?

A. As shown on Exhibit NSTAR-MFF-2, Schedule MFF-6, at Lines 53-60, the Company is proposing to increase Taxes Other Than Income Tax by $3,277,546.

1. Property Tax Expense

Q. Has the Company adjusted the test-year expense for property taxes?

A. Yes. The Company has adjusted test-year property taxes as shown on Exhibit

NSTAR-MFF-2, Schedule MFF-24 by $2,831,755.

Q. How did you determine this adjustment?

A. The pro forma property taxes in this case is computed based on the expected level of property taxes in the rate year 2016, consistent with the methodology approved by the Department in other rate cases. To prepare this analysis, I first obtained the most recent final municipal property tax bills for fiscal year 2014. The fiscal year 2014 property tax bills cover the period July 1, 2013 to June 30, 2014. The assessments related to these bills relate to the Company's net plant balances as of December 31, 2012. The adjustment I am proposing in this case is to reflect property taxes for fiscal year 2016, since that is the final full fiscal year prior to the mid-point of the 2016 rate year.

Q. Please explain how you estimated the FY 2016 property tax bill.

A. As explained above, the FY 2014 property tax bills are based on assessments made by municipalities on December 31, 2012 net plant balances. Thus, in order to determine the FY 2016 tax bills, I first determined the projected December 31, 2014 net plant balances by relying on the projected plant and accumulated depreciation balances as presented on Exhibit NSTAR-MFF-2, Schedule MFF-28 and MFF-29, respectively.

Since the actual property tax rates that will be in place in FY 2016 are not yet known with certainty, I have utilized the FY 2014 property tax rates for purposes of this adjustment. To calculate that rate, I referred to the listing of the latest property tax bills by city and town. Exhibit NSTAR-MFF-5, WP MFF-24, provides a summary of the latest property tax bills received by the Company from each city and town within our service territory. I divided the total FY 2014 property tax bills of $13,659,016 (Exh. NSTAR-MFF-5, WP MFF-24, Col. H) by the total actual December 31, 2012 Total Assessment value of $546,506,959 (Exh. NSTAR-MFF-5, WP MFF-24, Col. D) for a property tax rate of 2.499 percent. I then multiplied this property tax rate by the projected December 31, 2014 net plant balance to determine the expected FY 2016 property tax expense. Once the actual December 31, 2014 plant balances are known, I will recalculate this adjustment to reflect the appropriate balances.

Q. Does this total Property Tax expense include taxes on non-utility plant?

A. No, I have excluded the property taxes related to non-utility property from both the test year and the adjusted rate year property tax expense

<u>2. Massachusetts Corporate Excise Tax</u>

Q. Please describe the adjustment related to Massachusetts Corporate Excise Taxes.

A. As noted previously in my testimony, effective January 1, 2014, Massachusetts eliminated the utility corporation income tax election. Entities that elected the utility corporation designation were not subject to the net worth component of the Massachusetts corporate excise tax. With the elimination of the utility corporation designation, the Company will be subject to this tax beginning with its 2014 Massachusetts income tax return. Based on 2013 data, the Company has estimated that this will cost NSTAR Gas $221,028 and is illustrated on Exhibit NSTAR-MFF-2, Schedule MFF-25. An actual calculation of the 2014 corporate excise tax liability will be performed as part of the completion of its 2014 state tax return. At that time, the Company will update its filing to reflect the actual liability.

3. Payroll Taxes

Q. Please describe the adjustment for payroll taxes.

A. The adjustment for payroll taxes is an aggregate increase of $224,763, as shown on Exhibit NSTAR-MFF-2, Schedule MFF-26. This adjustment calculates the change in Federal Insurance Contribution Act ("FICA") payroll tax related the various labor and incentive compensation adjustments detailed in the O&M adjustments. Exhibit NSTAR-MFF-5, WP MFF-26 presents the specific computation of this adjustment.

G. Federal and State Income Tax

Q. Have you provided the Department with a description of adjustments to per-book operating results relative to Income Taxes?

A. Yes, I have. Exhibit NSTAR-MFF-2, Schedule MFF-33, page 8 shows the computation of Massachusetts State Franchise Taxes and Federal Income Taxes calculated using the rate base and rate of return methodology according to

Department standard. The Federal tax rate is 35 percent and the Massachusetts tax rate is 8.0 percent. The Massachusetts tax rate increased to 8.0 percent for utilities effective January 1, 2014.

Q. Have you made any adjustments to return on rate base in order to calculate the taxable income base?

A. I have adjusted Exhibit NSTAR-MFF-2, Schedule MFF-33, page 8 for interest expense and ITC amortization, and non-deductible depreciation.

Q. Once the taxable income base was calculated, how did you determine income tax expense?

A. To determine taxable income, I applied a tax gross-up factor of 1.672241 to the taxable income base. The taxable income amount is then multiplied by the Massachusetts franchise tax and Federal income tax rates to determine income tax expense at the statutory rate. To this total I subtracted amortization of ITC with the result being income tax expense.

H. Department Schedules

Q. Have you provided the nine schedules required by the Department?

A. Yes. The Department’s schedules are included as Exhibit NSTAR-MFF-2, Schedule MFF-33.

IV. COMPUTATION OF RATE BASE AND RATE OF RETURN

Q. Please describe how you determined the Company's rate of return for ratemaking purposes.

A. Exhibit NSTAR-MFF-2, Schedule MFF-31, page 1 presents the NSTAR Gas test year-end capital structure and costs of common stock equity and long-term debt, as adjusted. Exhibit NSTAR-MFF-2, Schedule 31, page 2 presents the details of the Company's test year end outstanding long-term debt balances. In addition to the year-end balances, I have adjusted the balance for a $100 million long term debt issuance that the Company expects to complete before September 1, 2015.

I have adjusted the test year end capital structure by reflecting the projected 2014 common equity activity, including net income, dividends and a capital contribution of $55 million anticipated to be made on or before December 31, 2014. The Company will update the 2014 common equity activity when the actual numbers are known after the accounting books are closed for the year.

It is important to note that the Company's actual capital structure as of December 31, 2013 includes capitalization associated with the unamortized balance of goodwill. Under Department precedent (for non-merger affected capital structures), the actual common equity balance as of December 31, 2013 would be $238.2 million, if the unamortized balance of goodwill was removed. This would result in a common equity ratio of 53.15 percent at test year end.. However, for NSTAR Gas it is not appropriate to remove the goodwill from the computation of the actual capital structure because the Company has a regulatory asset recorded on its books for the recovery of the acquisition premium generated by the BEC Energy-Commonwealth Energy System merger, as I discussed above in my testimony. Actual capitalization is required to support the regulatory asset. Therefore, the Company is executing a financing plan to adjust its capitalization to make it appropriate for ratemaking purposes, <u>including</u> goodwill capitalization.

The first component of the financing plan will be executed by year end December 31, 2014 and will involve a capital contribution of $55 million by Northeast Utilities to NSTAR Gas. This capital contribution, in addition to forecasted net income and dividend activity will result in an actual common equity ratio of 62.41 percent as of December 31, 2014. In 2015, the Company plans to issue up to $100 million of long-term debt, which will reduce the common equity ratio to 52.94 percent, including the goodwill-related capitalization. The Company will be submitting a petition for approval of long-term financing for NSTAR Gas in January 2015, and subject to that approval, will issue $100 million of long-term debt during 2015. Therefore, my computation of the return on rate base for new rates effective January 1, 2016 reflects the actual capital structure that will be in place prior to the beginning of the rate year.

Q. Have you prepared a summary of the Company's rate base computation?

A. Yes. Exhibit NSTAR-MFF-2, Schedule MFF-27 provides a summary of the rate-base computation starting with December 31, 2013 per-books balances of

$476,645,146 and indicating the adjustments that result in the Company's rate base computation of $508,876,752.

Q. How has the Company calculated its rate base for the revenue requirement?

A. I have presented the calculations supporting rate base on Exhibit NSTAR-MFF-2, Schedule MFF-27. Column B identifies the December 31, 2013 balances for Utility Plant in Service, Reserve for Depreciation and Amortization, Reserve for Deferred Income Taxes (ADIT), Customer Deposits, Customer Advances, Materials & Suppliesand the cash working capital allowance. In addition, since the accumulated deferred income taxes related to ASC 740 are included within the ADIT balance, I have included the ASC 740 regulatory asset in rate base to eliminate the impact of this non-cash item from rate base. These specific components are consistent with Department precedent for inclusion in rate base. Column C reflects the total of the pro forma adjustments made to the per-books balances to develop the requested PTY rate base amount of $508,876,752, as listed in Column D.

Q. Please describe the adjustments for PTY Rate Base in Exhibit NSTAR-MFF-2, Schedule 27.

A. There are two categories of adjustments in Exhibit NSTAR-MFF-2, Schedule 27. The adjustments for Utility Plant (Line 17), Depreciation & Amortization (Line 18) and Deferred Taxes (Line 22) are the adjustments described in the Revenue Requirement Section of my testimony and reflect the projected net capital additions and depreciation expense for CY2014 in these accounts. The adjustments for Cash Working Capital (Line 31) and ASC 740 are calculated in the same manner as they would have been using the December 31, 2013 rate base calculation.

Q. Please describe the adjustments to rate base necessary to reflect the CY2014 projected balances.

A. <u>Plant-in-Service</u> - Exhibit NSTAR-MFF-2, Schedule MFF-28 provides a rollforward from the actual December 31, 2013 plant balances to the projected balances as of December 31, 2014. Column B illustrates actual plant balances as of December 31, 2013. Column C illustrates the adjustments identified by Ernst & Young as part of their rate base audit. Column D illustrates the sum of columns B and C, or the adjusted December 31, 2013 balances. Column E illustrates the projected net plant additions and retirements during 2014. The sum of Columns D and E results in the projected December 31, 2014 plant balances. As mentioned previously, I will update plant-in-service for the actual December 31, 2014 balances coincident with the submission of project documentation no later than April 15, 2015.

<u>Depreciation Reserve</u> - Exhibit NSTAR-MFF-2, Schedule MFF-29 provides a rollforward from the actual December 31, 2013 depreciation reserve balances to the projected balances as of December 31, 2014. Column B illustrates the actual balances per the Company’s books as of December 31, 2013. Column C

illustrates the adjustments identified by Ernst & Young as part of their rate base audit. Column D illustrates the sum of columns B and C, or the adjusted December 31, 2013 balances. Column E illustrates the projected net changes to the reserve balances from depreciation expense, asset retirements and cost of removal spending during 2014. The sum of columns D and E results in the projected December 31, 2014 depreciation reserve balances. I will update the depreciation rserve for the actual December 31, 2014 balances coincident with the submission of project documentation no later than April 15, 2015.

Accumulated Deferred Income Taxes (ADIT) – Exhibit NSTAR-MFF-2, Schedule 30 illustrates the rollforward from the actual ADIT balance at December 31, 2013 to the projected balances as of December 31, 2014. Column B provides the actual ADIT balances which are includable in rate base as of December 31, 2013. Column C illustrates the pro forma adjustment as a result of the adoption of the IRS Tangible Property Regulations which were finalized in September 2013. The Company is currently evaluating the incremental income tax deduction it will realize from the adoption of the final regulations upon the filing of its 2014 Federal income tax return. As of the date of this filing, the Company is estimating a $4 million benefit upon adoption. The purpose of this adjustment to ADIT is to ensure that customers realize the full economic benefit of this new regulation. Column D illustrates the sum of Columns B and C, or the adjusted December 31, 2013 balances. Column E illustrates the projected 2014 activity as a result of the expected book and tax activity during the year. The sum of columns D and E provides in the projected December 31, 2014 ADIT balances. I will update ADIT for the actual December 31, 2014 balances coincident with the submission of project documentation no later than April 15, 2015.

Q. Can you provide details on how the projected balances on Exhibit NSTAR-MFF-2, Schedule MFF-28 through Schedule MFF-30 are calculated?

A. Yes. The December 31, 2013 account balances reflect the actual test year end balances. The projected balances as of December 31, 2014 were developed based on the actual plant and accumulated depreciation balances as of October 31, 2014 rolled forward to December 31, 2014 based on the Company’s internal projection of activity. The ADIT balances were estimated in consultation with the Company’s Tax Department based on the projected construction and depreciation activity. As previously noted, these balances will be updated with the actual account balances after the close of the Company’s accounting books for 2014.

Q. Please describe the second category of adjustments in Exhibit NSTAR-MFF-2, Schedule MFF-27.

A. The remaining adjustments are related to Materials and Supplies (Line 29), Customer Deposits (Line 23), Customer Advances (Line 24), Materials & Supplies (Line 29), ASC 740 Regulatory Asset (Line 30) and Cash Working Capital (Line 31). As noted earlier the ASC 740 regulatory asset balance is included in the calculation to offset the rate base impact of the related ADIT balance. The Cash Working Capital adjustment is detailed on Exhibit NSTAR-MFF-2, Schedule MFF-32 and reflects the results of the Lead Lag study described in Section VII of this testimony. The Materials and Supplies balance reflects the 13 month average balance, as presented in Exhibit NSTAR-MFF-5, WP MFF-27. The remaining amounts reflect the balances on the Company's books as of December 31, 2013.

Q. Should the Department be concerned that the projected capital additions may not be the same as actual completions through December 31, 2014?

A. No. The Company is proposing to establish rates on the basis of <u>actual</u> plant in service, accumulated depreciation and ADIT as of December 31, 2014, consistent with the Department accepted ratemaking practice. The Company will submit project documentation and final, actual computations in this proceeding no later than April 15, 2015 so that the Department and Attorney General will have adequate time to perform their review.

V. TREATMENT OF THE HHPP BUSINESS

Q. Please provide a brief description of the reason for an "HHPP Adjustment" in this case.

A. As described in the testimony of Company Witness William J. Akley, Northeast Utilities is currently engaged in a process to evaluate the options for optimizing the value of the HHPP business historically operated by NSTAR Gas for customers. Northeast Utilities expects to have completed any change associated with the business formation of the HHPP business before rates become effective on January 1, 2016 (and before the Department issues its final decision in this case on November 1, 2015). Because the revenues and certain variable costs associated with the HHPP business will be eliminated through this change, NSTAR Gas has not included those revenues or costs in the revenue requirement for this case. However, there are labor and labor-related costs associated with NSTAR Gas personnel who were devoting a relatively small proportion of their straight time labor to the HHPP business in the test year that will now be fully utilized to perform distribution work. These labor and labor-related costs will remain in the NSTAR Gas cost of service.

Q. What are the ratemaking implications associated with changing the business strategy of the HHPP business?

A. The costs incurred by the Company to provide services to customers receiving HHPP services were incurred in the test year and are recorded on the NSTAR Gas books of account, as are the revenues collected from participating customers. With a modification of this arrangement, the Company will cease to receive the revenue stream from participating customers and some of the operating costs associated with the HHPP operations would be eliminated, while other costs would remain necessary for NSTAR Gas to conduct distribution operations.

Q. Do you have an exhibit that demonstrates the impact of the HHPP business on the Revenue Requirement?

A. Yes. Exhibit NSTAR-MFF-6 quantifies the 2013 direct and indirect costs related to the HHPP portion of the NSTAR Gas operations. Specifically, this exhibit analyzes the impact to the revenue requirement, using per-book financial information for direct labor related expenses and other direct costs such as materials, advertising, and invoice costs, as well as other allocated expenses related to these operations.

Q. Would you please explain how you have organized the detailed analysis set forth in Exhibit NSTAR-MFF-6?

A. Yes. Exhibit NSTAR-MFF-6 provides a summary of costs attributable to HHPP as follows:

Lines 18 and 19 identify $912,540 and $530,873 of direct straight time and overtimer labor, respectively associated with HHPP activities for 2013. Lines 22 through 25 identify $2,208,704 of labor related overheads. Lines 27 through 30 identify 1,187,624 of other direct expenses such as advertising, invoice, and material costs. Lines 35 through 38 identify $740,032 in indirect costs for supervision, non-productive time, and transportation expenses, and, finally, lines 40 through 44 identify other indirect support area costs totaling $218,624, such as the customer interaction center, billing, and dispatch. In total, the costs associated with the HHPP business in 2013 were $4,354,984.

Q. What is the impact of the HHPP business on the Company's operating revenues?

A. As shown in Exhibit NSTAR-MFF-2 at Schedule MFF-5, the HHPP business generates annual revenues of $6,362,533, which would be eliminated along with a change in the business strategy.

Q. What is the overall impact on the cost of service associated with a modification of the HHPP business?

A. To properly reflect that the treatment of HHPP costs as of January 1, 2016, I have reduced the revenue requirement by $1,816,586, as detailed in Exhibit NSTAR-MFF-2, Schedule MFF-20, page 2. First, I have removed $530,873 of labor-related overtime costs associated with HHPP in 2013 as well as associated payroll taxes of $46,027. In addition, I have removed other direct expenses such as advertising expense of $269,911, invoice costs of $11,644, and procurement costs of $906,069 which represents the material items purchased to service the plan-holders equipment.

There is also a possibility that the Company will realize a gain in relation to the change in strategic direction for the HHPP business. Any gain or loss associated with a modified business structure would be amortized into the new base distribution rates that will be effective January 1, 2016.

Q. Can you provide a list and a brief description of the schedules that include the adjustments for HHPP business?

A. Yes, the following Exhibits and Schedules include adjustments for the HHPP business:

- Exhibit NSTAR-RDC-2, Schedule RDC-5 reflects the adjustment of HHPP Revenue of $6,362,533.
- Exhibit NSTAR-MFF-6, reflects the removal of all expense items outlined above that are included in Exhibit NSTAR-MFF-2, Schedule MFF-20, totaling $1,816,586.
- Exhibit NSTAR-WJA-2 presents similar cost information as I have provided in Exhibit NSTAR-MFF-6, along with a detailed account of all employee hours charged to the HHPP business in 2013.

VI. OTHER REVENUE ADJUSTMENTS

Q. Is the Company proposing revenue adjustments other than the distribution revenue increase described above?

A. Yes. Exhibit NSTAR-MFF-4 provides a summary of test year operating revenues and includes two types of adjustments. The first type of adjustment presented in Exhibit NSTAR-MFF-4 at lines 2 through 6 are normalizing adjustments described fully by Mr. Richard D. Chin in Exhibit NSTAR-RDC-1. The second type of adjustment presented in Exhibit NSTAR-MFF-4 at lines 8 through 14 represent other revenue changes proposed by the Company for costs that are not reflected in the Company's distribution cost of service, as they are more appropriately reflected in other rates and tariffs. In total, including the distribution rate increase related to the deficiency presented in Exhibit NSTAR-MFF-2 of $33,905,651, the Company is proposing other revenue increases which result in a total increase of $45,898,904, as identified on Exhibit NSTAR-MFF-4 and described in more detail below.

A. Distribution Revenue Deficiency

Q. Please describe the adjustment the Company is proposing on Exhibit NSTAR-MFF-4, Line 9, Column B.

A. The amount presented on Exhibit NSTAR-MFF-4, Page 1, Col. B, Line 9 of $33,905,651 represents the proposed deficiency as presented in Exhibit NSTAR-MFF-2 and described above.

B. Pension and Post-retirement Benefits Other than Pension

Q. Please describe the adjustment the Company is proposing on Exhibit NSTAR-MFF-4, Line 9, Column F relating to Pension and Post-retirement Benefits Other than Pension ("PBOP").

A. Exhibit NSTAR-MFF-4, Column F, Line 9 presents $4,818,000 of Pension and PBOP costs that are currently embedded in the Company's base distribution rates. The Company is proposing to adjust the recovery of these costs so that the costs are no longer recovered through base distribution rates but are instead recovered through the Company's Pension Adjustment Factor ("PAF"), consistent with recovery of the balance of the Company's Pension and PBOP expenses. To accomplish this, the Company has removed all Pension and PBOP expenses from its distribution cost of service as presented in Exhibit NSTAR-MFF-2.

Q. Why is the Company proposing to move the collection of all of it's Pension and PBOP costs to the PAF?

A. The Company's Pension Adjustment Mechanism ("PAM"), was approved by the Department in D.T.E. 03-47-A, and established separate, fully reconcilable, annual adjustment factors for NSTAR Electric and NSTAR Gas to recover the portion of the Company's Pension/PBOP not collected in base rates. The PAM was implemented because the Department found that the amounts required to be booked by the Company for pension and PBOP expense pursuant to SFAS 87 and SFAS 106 were based on complex calculations that tended to exhibit a level of volatility that was not easily reconciled with pension/PBOP amounts traditionally included in base rates. The PAM is an improved ratemaking approach that allows for the recovery of pension and PBOP expense in an objective, standardized manner in which customers pay no more and no less than the amounts incurred by the Company to meet its pension and PBOP obligations. Since the inception of the PAM, the Company has excluded the amount of Pension and PBOP expenses recovered in the Company's base rates of $4,818,000 from the collection as allowed in the Company's PAF. The removal of Pension and PBOP expenses from base rates is being fully consistent with the Department's findings in D.T.E. 03-47-A.

C. Arrearage Forgiveness Program

Q. Please explain the Company's proposal regarding the collection Arrearage Forgiveness program Costs on Exhibit NSTAR-MFF-4, Line 10, Column G.

A. As described in Exhibit NSTAR-RDC-4 at 38, the Company is proposing to eliminate the Arrearage Forgiveness Program ("AFP") cost-evaluation formula and to recover all incremental expenses directly associated with the AFP. Elimination of the formula means that the Company would seek to recover 100% of the forgiven amounts to enrolled customers, which is consistent with the operation of arrearage management programs ("AMP"s) for other gas distribution companies as well as the AMP for WMECO, an NU operating company. For test year 2013, the Company filed for cost recovery of $627,574 in AFP costs using the cost evaluation formula. Elimination of the formula would produce an additional $60,947 in recoverable costs as shown in Schedule MFF-2 of Exhibit NSTAR-MFF-4.

D. Property Tax Exogenous Cost Recovery

Q. Please explain the Company's proposal regarding the collection of property-tax amounts as an exogenous cost associated with the FY 2012, FY 2013 and FY 2014 tax periods.

A. As I mentioned above, Article II (5) of the AG-DOER Settlement Agreement provides that the Company is entitled to recover costs associated with exogenous factors if those costs are demonstrated to exceed a threshold in a single calendar year. Eligibility for exogenous cost recovery is allowed in accordance with the exogenous factors established by the Department in Boston Gas Company, D.P.U. 96-50 (Phase I) (1996). These factors include cost changes caused by regulatory, judicial or legislative decisions that uniquely affect the local gas distribution industry. The dollar threshold for qualification as an exogenous factor in any calendar year is determined by multiplying the total distribution revenues of that year by a factor of 0.003212. In addition, the AG-DOER Settlement Agreement specifically allows a petition for exogenous recovery of property taxes related to the change in valuation methodology affirmed by the Court in Boston Gas Company v. Board of Assessors of Boston, 458 Mass. 715 (2011), and established by the Appellate Tax Board by ruling issued on April 21, 2011 in Docket F275055, F275056 (the "Tax Ruling").

Since the AG-DOER Settlement was executed and approved, two municipalities have increased their assessments to NSTAR Gas by changing their valuation methodology to assess the Company's assets above net book values.. These municipalities are Westboro and Worcester. Although the change in valuation has come from only a limited number of municipalities, the change in expense is significant. Exhibit NSTAR-MFF-5 presents the computation of the proposed recovery amount, which pertains to property tax charges in FY 2012, FY 2013 and FY 2014. Exogenous recovery under the AG-DOER Settlement Agreement terminates as of December 31, 2015; therefore, recovery would not extend to tax periods beyond that date. The Company is proposing to recover these costs through a new, temporary element of the LDAC. Recovery would be limited to the increment of property tax attributable to a change in the valuation methodology used by a municipality to calculate the property tax applicable to the Company’s distribution facilities in the respective municipality. The Property Tax Adjustment Factor ("PTAF") shall be applied to firm sales and firm transportation throughput of the Company subject to the jurisdiction of the Department.

Q. Could you briefly explain the basis of the change in valuation?

A. Historically, property tax valuations for utility-owned distribution property were based on the net book value of the plant in service as of the valuation date. The Tax Ruling stated that municipalities could assess above net book value in the existence of special circumstances. In 2011, the Supreme Judicial Court (SJC”) affirmed the Tax Ruling, finding that the Appellate Tax Board had the discretion to establish the methodology.

Q. Is the Company taking any action to challenge the change in valuation methodology established by the Appellate Tax Board?

A. Yes. The actual methodology approved by the Tax Ruling was technically only applicable to the City of Boston's valuation of Boston Gas Company facilities. In the absence of special circumstances, utility valuations should still be at net book value on a municipality-by-municipality basis. However, local cities and towns recognize that the change in valuation has the potential to create significant new tax revenues for local municipalities, and therefore, the Company is starting to experience attempts to increase valuations across a number of cities and towns.

Because the change in valuation methodology creates such a significant cost change in relation to property tax on utility property, the Company has commenced efforts to vigorously challenge the change in valuation through the abatement process. As an initial step in this process, the Company filed for abatements with the municipalities that levied the assessment. In the event that the municipalities reject the abatements, which has occurred, the Company has appealed the decisions to the Appellate Tax Board (ATB). If the ATB appeal proves unsuccessful, the Company would then file an appeal with the Massachusetts Court of Appeals. By nature, this process is a lengthy, resource-draining engagement; however, the costs are warranted by the fact that the change in valuation methodology would be a permanent change, producing potential cost increases in the tens of millions of dollars for NSTAR Gas in the final result.

Thus, the Company has taken a proactive approach designed to mitigate that impact.

Q. Is the Company proposing to recover the costs associated with pursuing these tax abatements?

A. Yes. If the Company is successful in changing the valuation basis for assets within a municipality adopting the new valuation, the Company may recover payments previously made in compliance with the new valuation. Even if the Company does not receive a rebate, the principle of challenging these valuations presents a strong disincentives for municipalities to attempt to adopt the new valuation, which will avoid tax increases. Therefore, similar to the treatment of the costs incurred by local distribution companies in pursuing claims against insurance companies or third-parties regarding environmental remediation claims as approved by the Department in D.P.U. 89-161, the Company proposes to recover from customers one-half of the reasonable costs it incurred in the prior calendar year in pursuing tax abatements associated with the increased valuation methodology.

Q. Is the Company planning to offset these costs in any way?

A. Yes. In the event that the Company is successful in securing a property-tax abatement as a result of its challenges to municipalities’ use of the changed valuation methodology, the Company will credit one-half of the amount of the abatement, less the remaining one-half of related costs which shall be retained by the Company, to customers through the LDAC. This treatment of both the costs and the recovery under the abatement provides an incentive for the Company to continue to vigorously pursue tax abatements to ultimately benefit customers.

Q. Why is the Company proposing to recover these costs and credit customers, where appropriate, through the LDAC?

A. Utilizing the LDAC will enable customers to receive the benefit of a successful tax abatement petition without having to wait until the next base-rate case filed by the Company. Additionally, given that pursuing tax abatements is a lengthy and complex process, recovery of costs through the LDAC provides a basis for the Company to continue to vigorously pursue such abatements, while still providing the Department with oversight over the costs being recovered from customers.

Q. What is the proposed revenue adjustment associated with the recovery of this expense?

A. As presented in Exhibit NSTAR-MFF-4, Column J, Line 11, the Company is proposing revenue adjustment of $689,594 to the LDAF to recover the total incremental property tax associated with this adjustment of $3,447,972, amortized over 5 years, as presented on Exhibit NSTAR-MFF-4, Schedule 3.

E. Gas Acquisition Costs

Q. Please explain the Company's proposal regarding the collection Gas Acquisition Costs on Exhibit NSTAR-MFF-4, Line 12, Column L.

A. Currently, in accordance with Company's settlement agreement in D.T.E. 96-23, the Company recovers a fixed amount of gas supply planning and acquisition costs of $717,123 in the CGAC. Test year level gas supply planning and acquisition costs of $903,051 are itemized in Exhibit MFF-4, Schedule 4 and have been removed from the Company's distribution revenue requirement presented in Exhibit NSTAR-MFF-2. This amount has been adjusted consistent with Department precedent to a rate year level of $1,108,479 for recovery in the CGAC. The difference between the amount currently included in the CGAC for gas acquisition costs of $717,123 and the amount proposed for recovery in this case of $1,108,479 is $391,356 as presented on Exhibit NSTAR-MFF-4, Line 12, Column L.

Q. Please describe the adjustments the Company is proposing relating to Gas Acquisition Costs.

A. The Company is proposing certain adjustments as presented in Exhibit NSTAR-MFF-4, Schedule 4 relating to post test year known and measurable adjustments to expenses. The labor and payroll tax adjustments presented in Column D and E, respectively, are calculated consistent with the Company's expense adjustments calculated in Exhibit MFF-2, Schedule 13 and Schedule 26. The Employee Benefits adjustment presented in Exhibit NSTAR-MFF-4, Schedule 4, Column F is also calculated consistent with the methodology presented in Exhbiit NSTAR-MFF-2, Schedule 11, and as described above. However, in addition, the Company has removed from this amount the amount of Pension and PBOP costs in order so that those costs will be recovered exclusively through the PAM for expense related pension and PBOP costs. The Company has also included a representative level of costs related to integrated resource planning ("IRP") of \$173,373 as presented in Column G. These costs will be incurred by the Company on a biannual basis in compliance with the Department's two-year resource planning requirement under G.L. c. 164, § 69*I*.

To date in 2014, the Company has incurred total costs of \$346,746 relating to the preparation and litigation of it's IRP as part of D.P.U. 14-63. Because these costs will only be incurred every two years, the Company has included ½ of this amount, or \$173,373 as presented in Exhibit NSTAR-MFF-4, Schedule 4, Column G. The Company will update this expense with actual costs incurred in accordance with other updates described in this testimony. These adjustments combined result in a total adjusted costs of \$1,108,479 of gas acquisition related costs to be included for recovery in the CGAC.

F. Hopkinton LNG Costs

Q. Please explain what adjustments the Company is proposing relating to the recovery of Hopkinton LNG Costs.

A. As described in the testimony of Mr. Eric H. Chung, he is presenting the revenue-requirement analysis for services provided to NSTAR Gas by Hopkinton LNG Corp. ("HOPCO"). HOPCO is a wholly-owned subsidiary of Northeast Utilities that owns liquefied natural gas ("LNG") facilities located in Hopkinton and Acushnet, Massachusetts (together, the "HOPCO facilities"). NSTAR Gas and

HOPCO recently entered into a 30-year Gas Services Agreement ("GSA"), which was submitted for the Department's review and approval in NSTAR Gas Company, D.P.U. 14-64 (currently pending). The proposed GSA would establish a contract rate for LNG services provided by HOPCO to NSTAR Gas based on the HOPCO cost of service. Mr. Chung presents this cost of service as Exhibit NSTAR-EHC-7 and serves as the basis of the revenue adjustment I have included in Exhibit NSTAR-MFF-4 relating to HOPCO.

Q. Please explain what adjustments the Company is proposing relating to the recovery of Hopkinton LNG Costs.

A. Currently, prior to the implementation of any new or proposed changes as contemplated in the proposed GSA, HOPCO charges NSTAR Gas both an Operating and Demand charge for its services. NSTAR Gas recovers those costs through a combination of CGAC recovery and base distribution rates. As described by Mr. Chung in his testimony, he has developed a cost of service for HOPCO following the Department's traditional ratemaking practices and in accordance with Exhibit B of the GSA, and consistent with explanations and demonstrations made to the Department in D.P.U. 14-64. This means that, as presented, recovery of HOPCO related costs will be moved entirely to the CGAC (rather than a combination of base distribution rates and CGAC recovery). The total HOPCO-related Demand Charge as calculated by Mr. Chung is $7,737,837 (see Exh. NSTAR-EHC-7, Schedule 1).

However, under the current cost recovery construct, a fixed amount of $2,038,000 of HOPCO related demand charges is currently included for recovery in the Company's CGAC. Therefore, in order to determine the impact to customers of implementing the GSA, it is appropriate to show only the costs incremental to the amount already included in the CGAC relating to HOPCO. As such, Exhibit NSTAR-MFF-4 presents HOPCO related costs of $2,952,114 (Exh. NSTAR-MFF-4, page 1, Col. L, Line 9) which represents the amount of costs included in NSTAR Gas' base rates as of D.T.E. 05-85, and $2,747,724 (Exh. NSTAR-MFF-4, Page 1, Line 13) which represents difference between (1) the total HOPCO related Demand Charge of $7,737,837 less (2) $2,038,000 currently recovered in the CGAC and (3) the $2,952,114 currently included in NSTAR Gas' base distribution rates. In this way, Exhibit NSTAR-MFF-4 presents the incremental revenue required to be required in the CGAC in order to recover the Demand Charge calculated in Exhibit NSTAR-EHC-7 through the CGAC, in accordance with the Department's traditional ratemaking practices and in accordance with Exhibit B of the GSA, and consistent with demonstrations made to the Department in D.P.U. 14-64.

G. Production and Storage (Heel Gas)

Q. Please describe the amount relating to Production and Storage (Heel Gas) presented on Exhibit NSTAR-MFF-4, Column L, Line 14.

A. Under Department precedent, "heel gas" represents the cost of the minimum quantity of liquefied natural gas ("LNG") that must be maintained within holding tanks and other facilities in order to maintain proper operating pressure and temperature within the LNG facility. This particular volume of LNG is not used to meet customer demand. Bay State Gas Company d/b/a Columbia Gas of Massachusetts, D.P.U. 12-25, at 116-117 (2012). Without a sufficient volume of heel gas, the storage tanks and other LNG facilities are unable to deliver adequate throughput from the LNG facilities into the adjoining pipeline system. Thus, the Department has found that, although the actual gas molecules constituting the "heel" may vary over the lifespan of the holding tank or other facility in which the heel gas is stored, the same volume of gas must be maintained in order to ensure proper operation of the facilities, thus making the total composition of the heel gas in question essentially unchanged over time. Id. at 118-119. Therefore, the Department considers heel gas to be a proper long-term investment that should be included in rate base. Id. at 119.

Under the Company's proposed GSA, Hopkinton LNG Corp. owns the storage, vaporization and liquefaction facilities. As a result, HOPCO requires use of the heel gas to safely and reliably operate its facilities and to provide LNG services to

NSTAR Gas under the contract. As the Department has noted, although the actual gas molecules constituting the "heel" may vary over the lifespan of the holding tank or other facility in which the heel gas is stored, the same volume of gas must be maintained in order to ensure proper operation of the facilities, thus making the total composition of the heel gas in question essentially unchanged over time. Therefore, all else being equal, the long-term investment costs associated with "heel gas" at the HOPCO facilities would be an element of HOPCO's rate base, charged through to NSTAR Gas customers as part of the Demand Charge. Under the GSA, and consistent with the Department's ratemaking treatment for local production and storage costs that are not used for system pressure, the Demand Charge is fixed in the CGA factor, unless and until a rate change is approved by the Department in accordance with the GSA.

Under Department precedent, the NSTAR Gas long-term cost of heel gas would be included in the rate base at the time of a base-rate proceeding. See, e.g., D.P.U. 12-25, at 118-119; Bay State Gas Company d/b/a Columbia of Massachusetts, D.P.U. 13-75, at 89, fn.67 (2014); Boston Gas Company and Colonial Gas Company each d/b/a National Grid, D.P.U. 10-55, at 622 (Boston Gas, Schedule 4, Rate Base) and 633 (Colonial Gas, Schedule 4, Rate Base).

However, as with all other costs associated with the HOPCO facilities, the costs incurred by NSTAR Gas will be recovered through the CGA from sales customers and capacity-eligible transportation customers, rather than from distribution customers. Accordingly, NSTAR Gas is including the fixed amount of revenue requirement associated with the heel gas required for the HOPCO facilities in the CGA, in addition to the Demand Charge and Operating Charge applicable under the GSA.

This amount of $333,518 is calculated on Exhibit NSTAR-MFF-4, Schedule 5.

VIII. LEAD LAG STUDY

Q. You mentioned earlier in your testimony that you prepared a lead lag study. Is that correct?

A. Yes. I prepared a lead lag study (the "Lead/Lag Study") to update the net lag days associated with Purchased Gas working capital collected through the CGA and to establish the net lag days to be used for Other Operating Expense working capital that will be included in base rates. The Lead/Lag Study is summarized and included in the Revenue Requirement Analysis as Exhibit NSTAR-MFF-2, Schedule MFF-32. Exhibit NSTAR-MFF-3 contains the Lead Lag Study .

Q. What is cash working capital?

A. Cash working capital is the amount of money that is needed by NSTAR Gas to fund operations in the time period between when expenditures are incurred to provide service to customer and when payment is actually received from customers.

Q. What are the components of cash working capital?

A. The cash working capital allowance is divided into two components – (1) Gas Purchased Working Capital, and (2) Other O&M Working Capital to accommodate the assignment of recovery of the Purchased Gas component through the CGA and the Other O&M component through base rates. Each component uses revenue lag days and expense lead days to determine the cash working capital requirement.

Q. Please define the terms "revenue lag days" and "expense lead days."

A. Revenue lag is the time, measured in days, between delivery of a service to NSTAR Gas customers and the receipt by NSTAR Gas of the payment for such service. Similarly, expense lead is the time, again measured in days, between the performance of a service on behalf of NSTAR Gas by a vendor and payment of such service by NSTAR Gas. Since base rates are based on revenue and expenses booked on an accrual basis, the revenue lag results in a need for capital while the expense lead offsets this need to the extent the Company is typically not required to reimburse its vendors until after a service is provided.

Q. Please describe the Lead/Lag Study (Exhibit NSTAR-MFF-3) and its findings.

A. The Lead/Lag Study consists of 10 schedules. Schedule WC-1 summarizes the overall results of the study. Schedule WC-2 (pages 1 through 10) calculates the revenue lag. Schedule WC-3 calculates the lead related to purchased gas costs.

Schedule WC-4 through WC-10 calculate the lead related to various categories of operating expenses The Lead/Lag Study produced a Purchased Gas net lag of 0.75 days days or 0.21% percent (0.75/365), and 31.77 days or 8.70 percent (31.77/365) for Other O&M expense.

A. Revenue Lag Days

Q. How is the revenue lag computed?

A. The revenue lag consists of a “meter reading or service lag,” “collection lag” and a “billing lag.” The sum of the days associated with these three lag components is the total revenue lag experienced by NSTAR Gas. See Exh. NSTAR-MFF-3, Schedule WC -2, Page 1 of 10.

Q. What lag does the Lead/Lag Study reveal for the component "service or meter reading lag?"

A. The Lead/Lag Study reveals 15.21 days. This lag was obtained by dividing the number of billing days in the test year by 12 months and then in half to arrive at the midpoint of the monthly service periods.

Q. How was the “collection lag” calculated and what was the result?

A. The “collection lag” for utility service totaled 26.75 days. This lag reflects the time delay between the mailing of customer bills and the receipt of the billed revenues from customers. The 26.75 days lag was arrived at by a thorough examination of utility service accounts receivable balances for sales and transportation accounts using the accounts receivable turnover method. A combination of daily balances and end of month balances were utilized as the most accurate measure of customer accounts receivable. Exhibit NSTAR-MFF-3, Schedule WC-2, Pages 2 through 8, detail daily balances as provided in reports generated from the Customer billing system for the majority of the accounts receivable accounts (CIS balances). Schedule WC-2, Page 10, Line 16 further adjusts for balances of accounts not tracked on a daily basis (Special Ledger Accounts). End of month balances are utilized for these accounts to calculate average daily balances for these accounts. This same page also summarizes the month end reserve balances for uncollectible accouns. Exhibit MFF-3, WC-2, page 1 shows the net sum of the average CIS balances, Special Ledger Accounts and Reserve for Uncollecitbel accounts of $31,515,191. Exhibit MFF-3, WC-2, page 9 calculated the average daily revenue amount by dividing total revenue by 365 days ($1,178,026). The resulting Collection Lag is derived by dividing the Average daily accounts receivable balance by the average daily revenue amount to arrive at the Collection lag of 26.75 days.

Q. How did you arrive at the 1.00 day "billing lag"?

A. Most of the Company's customers are billed the evening after the meters are read. Therefore, I have included a 1.00 day billing lag. I have not made an exception for large customers which may require additional time to process

Q. Is the total revenue lag computed from these separate lag calculations?

A. Yes. The total revenue lag of 42.96 days is computed by adding the number of days associated with each of the three revenue lag components. See, Exh. NSTAR-MFF-3, Schedule WC–2, Page 1 of 10. This total number of lag days represents the amount of time between the recorded delivery of service to customers and the receipt of the related revenues from customers.

B. Purchased Gas Lead Days

Q. What expense is Purchased Gas Cash Working Capital intended to address?

A. Purchased Gas Cash Working Capital provides cash working capital for expenses paid by NSTAR Gas on behalf of customers to gas suppliers, pipeline transportation providers and supplemental gas providers.

Q. How is Purchased Gas Cash Working Capital recovered as a cost component in the Company's tariff?

A. As noted earlier, Purchased Gas Cash Working Capital is recovered as a separate cost component in the NSTAR Gas CGAC tariff. As such, the Purchased Gas Cash Working Capital allowance has been removed from the total cash working capital included in distribution rate base as shown on Exhibit NSTAR-MFF-2, Schedule MFF-32. However, at the time of the Company's next CGA filing, the cash working capital component of the CGA will be appropriately updated for the results of the Lead/Lag Study presented in this proceeding.

Q. How has the number of days related to the Purchased Gas Cash Working Capital changed since the last Lead/Lag Study?

A. The Purchased Gas net lag days reflected in the November 2014 CGA, which were based on a net lag days of 16. As shown in the table below, the revised study produced a net lag day for Purchased Gas of 0.75 days, a reduction of 15.25 days.

TABLE 1

Component	2013 Proposed
Revenue Lag:	42.96
Purchased Gas Lead	42.21
Purchased Gas –Net	0.75

Q. How was the Purchased Gas net lag days calculated?

A. I based the Purchased Gas net lag days upon data for the 12-months ended December 31, 2013. The Revenue Lag days were calculated as described earlier in this testimony.

Q. How were the weighted Purchase gas lead days determined?

A. To determine the expense lead associated with purchased gas, all supplier invoices were identified that were paid during the test year. The number of days was calculated for each invoice from the midpoint of the related service period to the date the invoice was paid. The days were dollar weighted, totaled and averaged to arrive at an overall weighted average purchase gas expense lead. See Exhibit NSTAR-MFF-3, Schedule WC–3.

C. Other O&M & Taxes Cash Working Capital

Q. Please explain Other O&M Cash Working Capital?

A. The Other O&M Cash Working Capital component is composed of O&M expense, payroll taxes and property taxes. These are types of expenses that NSTAR Gas pays to underwrite the activities conducted in service to customers before it receives payment from customers for those services. It is appropriate for NSTAR Gas to recover its carrying cost for this service.

Q. Did your Lead/Lag Study recalculate Other O&M Expense lag days for this proceeding?

A. Yes. The Other O&M & Tax Expense lead days are based upon test year data, adjusted for known and measurable changes. As reflected on Exhibit NSTAR-MFF-3, Schedule WC-4, the revenue lag and expense lead days resulting from the Lead/Lag Study have been applied to adjusted test year O&M & Tax amounts to determine the Company's cash working capital requirements to be included in rate base.

Q. Is the term "lead days" in this Lead/Lag Study the same as that defined for Purchased Gas?

A. Yes, it is. Lead days are the number of days between the average delivery date goods and services are purchased by NSTAR Gas or rendered by a vendor and the payment made by NSTAR Gas for those goods and services.

Q. Are the lead periods in the Lead Lag Study the same as those calculated for the purpose of determining the lead in the Purchased Gas Working Capital analysis?

A. No. Because the lead period is determined as between NSTAR Gas and the various vendors of goods and services, individual analyses must be undertaken.

Q. In determining the expense lead period, how were the weighted lead days in payment of O&M costs determined?

A. First, total O&M expense excluding gas costs were disaggregated into 10 major cost categories, as shown on Exhibit NSTAR-MFF-3, Schedule WC–4. Payments were reviewed and the lead days were calculated for each category. Depending on the volume and dollar amount of the payments, some categories' lead days were calculated using all payments and some were calculated using a sampling of the payments. Once the lead days for each category were determined, the lead days were summarized and dollar weighted to arrive at Other O&M expense lead days. See, Exhibit NSTAR-MFF-3, Schedule WC –4.

Q. Briefly describe the lead days calculated for each category.

A. The payroll lead is shown on Exhibit NSTAR-MFF-3, Schedule WC–5. NSTAR Gas has two individual pay groups: monthly and weekly. The monthly group is paid on the first business day each month while the weekly group is paid each Wednesday for the previous weeks' work (based on a work week of Sunday-Saturday). This results in an overall weighted lead of 6.59 days.

Q. Please explain the negative days associated with corporate insurance and the lead days calculated for regulatory commission expenses?

A. Corporate insurance premiums are paid in advance, generally on an annual basis depending on the coverage period of the individual policy. Payments made during the test year were reviewed and a negative 183.89 days was calculated reflecting the prepayment of these costs. <u>See,</u> Exhibit NSTAR-MFF-3, Schedule WC-7.

Regulatory Commission expenses are paid when invoiced during the year. In 2013, two such payments were made as illustrated on Exhibit MFF-3.,Schedule WC-6. Based on the timing of the payments, a lead of 129.52 days was calculated.

Q. How was the lead related to Service Company Billing determined?

A. The lead related to Service Company billing was based on the actual payments made to NSTAR Electric & Gas Company during 2013. The resulting lead of 13.69 days is shown on Exhibit MFF-3, Schedule WC-8.

Q. How was the lead related to other O&M expenses which were not individually studied determined?

A. I obtained a complete list of vendor payments made by NSTAR Gas during the test year directly from the Company's Accounts Payable system. I randomly selected 40 vendor payments and calculated the amount of time between the timing of the service provided as compared to when the payment for the service was actually made. This calculation resulted in an average lead of 36.23 days as shown on Exhibit MFF-3, WC-9.

Q. Would you briefly describe the lead days associated with Other Taxes?

A. Yes. Exhibit NSTAR-MFF-3, Schedule WC-10 summarizes the results of the analysis of lead days for property tax, FICA & Medicare and Federal Unemployment and State Unemployment tax expenses. The (9.22) property tax lead days were calculated based on a query of the tax payments made in 2013. The FICA & Medicare, Federal Unemployement taxes, and State Unemployment Taxes leads of 7.85 days, 7.87 days, and (25.33) days, respectively, were calculated based on the 2013 payments made to the government for these payroll related taxes.

Q. How is the total O&M & Taxes Lag determined?

A. The lead in payment for the cost of goods and services purchased of 11.19 days is subtracted from the lag in receipt of customer revenue of 42.96 days to produce the total O&M Lag of 31.77 days. See, Exhibit NSTAR-MFF-3, Schedule WC-1.

Q. Would you summarize the Company's proposal regarding Cash Working Capital?

A. Yes. The Purchased Gas Cash Working Capital component is not included in the cost of service and will be recovered in accordance with the NSTAR Gas CGA tariff. The O&M Cash Working Capital component is 31.77 days or 8.70 percent. For purpose of my revenue requirement analysis, the cash working capital component proposed for inclusion in the distribution rate base is $7,699,297, which represents the cash working capital allowance calculated for Other O&M Expense and taxes. See, Exhibit NSTAR-MFF-2, Schedule MFF-32.

Q. Does the Lead/Lag Study produce results within the Department's 45-day convention?

A. Yes. The Lead/Lag Study produced lower results than the Department's 45-day convention, which ensures savings for customers.

VIII. CONCLUSION

Q. Do you plan to continue to monitor and update items noted within this testimony?

A. Yes. Within this testimony, several adjustments were made based on estimates of O&M expenses and capital additions through December 31, 2014. These cost categories will be monitored and updated throughout this proceeding.

Q. Does this conclude your testimony?

A. Yes, subject to reserving my right to respond to additional issues raised in discovery or at hearings.