

# STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC UTILITY CONTROL  
TEN FRANKLIN SQUARE  
NEW BRITAIN, CT 06051

DOCKET NO. 10-12-02 APPLICATION OF YANKEE GAS SERVICES COMPANY  
FOR AMENDED RATE SCHEDULES

June 29, 2011

By the following Commissioners:

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**DECISION**

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## **REVISED DRAFT DECISION**

### **I. INTRODUCTION**

#### **A. SUMMARY**

In this Decision, the Department of Public Utility Control allows Yankee Gas Services Company revenues of \$455,503,344 for Rate Year 1 and \$481,350,330 for Rate Year 2. The allowed Rate Year 1 revenue is a reduction of \$23,008,656 to Yankee Gas Services Company's proposed Rate Year 1 revenue requirement of \$478,512,000 and a reduction of \$534,874 to the Department adjusted revenue at present rates of \$456,038,218. The allowed Rate Year 2 revenue is a reduction of \$26,087,670 to Yankee's Rate Year 2 proposed revenue of \$507,438,000 and an increase of \$6,180,016 to the Department adjusted revenue at present rates of \$475,170,314. The Department allows Yankee a rate base in Rate Year 1 of \$699,064,877 and in Rate year 2 of \$753,640,703.

The revenue requirement adjustments as authorized herein will be sufficient to enable Yankee to operate successfully, maintain its financial integrity, attract capital, compensate its investors for the use of their money and the risks assumed, and maintain high quality service. New rates will become effective for usage on and after July 20, 2011.

The Department established an 8.83% allowed return on equity based on an 8.20% Discounted Cash Flow calculation and a 9.22% Capital Asset Pricing Model calculation. Using a 50%-50% weighting for these two methodologies provides for an 8.71% calculated the return on equity. Adding to this 8.71% a flotation cost adjustment of 12 basis points or 0.12% produces an allowed return on equity of 8.83% for rate making purposes. The allowed capital structure is set at 52.20% equity and 47.80% debt for ratemaking purposes. The cost of Yankee's long-term debt was established at 6.00%. The overall rate of return on rate base is set at 7.48% based on the above capital costs and percentages of debt and equity in the capital structure. For purposes of §16-19(g) of the General Statutes of Connecticut, the Department will monitor Yankee's monthly filed return on equity for overearnings based on the allowed return on equity of 8.83%.

The Department made various proforma adjustments to Yankee's sales forecast. The resulting adjusted billing determinants increased firm rate revenue at present rates by \$7,231,905 for Rate Year 1 and \$7,702,002 for Rate Year 2. The Department reduced depreciation by \$2.6 million in Rate Year 1 and \$2.8 million in Rate Year 2 based on the Department's adjustment to the extension of the life expectancy of the Company's mains, services and liquefied natural gas equipment. The Department also disallowed inflation adjustment for both Rate Years 1 and 2, due to Yankee's failure to meet its burden of proof in showing the appropriateness of these adjustments.

Regarding Yankee's payroll expenses, the Department determined Yankee's \$333,000 proposed payroll adjustment from "normal attrition" to be unsupported. The Department disallows Yankee's proposed payroll expense for escalation adjustments to

non-union base merit rate by \$1.382 million in Rate Year 1 and \$2.16 million in Rate Year 2. The Department disallows \$671,211 of the \$712,000 proposed additional payroll expense for 17.7 full-time equivalents for Customer Experience. Further, the pension expense was decreased by \$619,550 in Rate Year 1 and by \$618,650 in Rate Year 2 due to an increase in the actuarially return on plan asset assumption of 50 basis points from 8.25% to 8.75%. This increase in the actuarially return on plan asset assumption was based on recent historical returns. Post retirement benefits other than pensions which represent retiree health care costs were decreased by \$87,500 in Rate Year 1 and by \$87,400 in Rate Year 2 due to an increase in the actuarially return-on-plan asset assumption of 50 basis points. This increase in the actuarially return-on-plan asset assumption was based on recent historical returns.

Based on the evidence in the record and the likelihood that the NU/NSTAR merger will close by October 1, 2011, the Department imputes merger savings to Yankee in the amounts of \$1.561 million in Rate Year 1 and \$3.0 million in Rate Year 2.

Various major accounting issues in this proceeding include:

- Yankee's rate base was reduced by approximately \$1.5 million, which is essentially the total of deposits received from Northeast Housing for three projects;
- Yankee's increased Accumulated Deferred Income Taxes amounts will offset rate based by \$4 million in each rate year;
- the Department is allowing annual coal remediation expense of \$1.5 million as compared to the requested amounts of \$2.546 million and \$2.438 million for Rate Years 1 and 2, respectively, and carrying charges for deferred environmental remediation costs are calculated using 6% cost of long-term debt instead of the allowed Rate of Return, reducing the related amortization expenses by \$1.205 million in Rate Year 1 and \$1.097 million in Rate Year 2;
- the Department also removed from rate base Yankee's proposed environmental litigation costs of \$1.948 million and \$1.387 million in Rate Years 1 and 2, respectively;
- Yankee's total deferred hardship/MPP balances as of June 30, 2010 and December 31, 2010 were \$8,309,000 and \$6,911,000, respectively, and because Yankee failed to update these balances to reflect the amounts as of December 31, 2010, the beginning deferred balance of Rate Year 1 was overstated by \$1,398,000; therefore, the Department reduces Yankee's proposed rate base by \$707,000 in Rate Year 1 and \$853,000 in Rate Year 2; and
- the Department reduced the proposed uncollectible expense rate of 1.7381% to the allowed rate of 1.594%, which equals Yankee's uncollectible expenses reduction of \$681,177 and \$719,778 in Rate Year 1 and 2, respectively.

The Department finds that the Waterbury to Wallingford Distribution Line project is the best alternative to meet the Company's peak day requirements in the near future and therefore, Yankee will be allowed to include the capital cost of \$57.6 million in its rate base.

Finally, Yankee will be directed to spend approximately \$28.0 million during Rate Year 1, \$40 million during Rate Year 2 and no less than \$40.0 million over each

subsequent 12-month periods to replace cast iron mains, bare steel mains and bare steel services in accordance with any integrity management regulations or programs implemented by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration.

The Department's ratemaking responsibilities are provided in Conn. Gen. Stat. §16-19e. This section states, in salient part, that in the exercise of its powers, the Department shall establish the level and structure of rates to:

“. . . be sufficient, but no more than sufficient, to allow public service companies to cover their operating and capital costs, to attract needed capital and to maintain their financial integrity, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable.”

Although the Department slightly decreased Yankee's current revenues in Rate Year 1, the Department determines that the Company is still allowed sufficient funds to engage in significant capital improvements to its distribution system, processes and workforce. In this manner, the Department seeks to ensure that the Company is financially equipped to provide efficient and reliable service to meet the growing demands of customers. The Department finds that the level of rates established are just and reasonable and will allow the Company to achieve a fair rate of return given its investment profile. The Department determines that this Decision strikes the correct balance between serving the ratepayers and fulfilling its responsibility to the Company under Conn. Gen. Stat. §16-19e.

#### **B. BACKGROUND OF THE PROCEEDING**

By application dated January 7, 2011, pursuant to §§16-19 and 16-19e of the General Statutes of Connecticut (Conn. Gen. Stat.), §16-1-53a of the Regulations of Connecticut State Agencies (Conn. Agencies Regs.), and the Standard Filing Requirements (SFRs) of the Department of Public Utility Control (Department), Yankee Gas Services Company (Yankee or Company) filed a rate application (Application). Yankee stated that it has not earned its authorized return on equity (ROE) for the last nine quarters. It has implemented significant cost savings measures and continued to invest in its aging infrastructure. According to Yankee, the rate request is necessary to adequately fund, maintain and operate its distribution system in a manner that provides reliable gas service, provide an appropriate level of customer service, and provide a fair return to Yankee's investors. Application, p. 2.

Yankee's rate proposal consists of a two-year rate plan. Yankee requested a distribution increase of \$32.764 million (or 7.3% on a total bill basis) for the rate year commencing July 1, 2011 (Rate Year 1 or RY1) for a total revenue requirement of \$483.514 million. For the rate year commencing July 1, 2012 (Rate Year 2 or RY2), Yankee requested an additional distribution increase of \$13 million (or 2.8% on a total bill basis) for a total revenue requirement of \$515.176 million. The cumulative increase for both rate years is \$45.743 million. Application, p. 3; Schedules C-1.0A and B.

On March 25, 2010, Yankee filed an update to the SFR schedules reflecting all updates and corrections found through discovery and hearings. The SFR updates

resulted in a decrease to Yankee's original rate request. For RY1, the original rate request is decreased by \$4.470 million, to \$28.294 million, for revised total RY1 revenue requirement of \$477.687 million. The incremental rate request RY2 is decreased by \$2.875 million, to \$10.125 million, for a revised total RY2 revenue requirement of \$506.454 million. The updated cumulative requested rate increase for the two rate years is \$38.419, a decrease of \$7.324 million from the original rate request. Response to Interrogatory GA-2, p. 1, and Schedules C-1.0A and B.

On April 1, 2010, Yankee filed a second but final update to the SFR schedules. This update reflects the Internal Revenue Service (IRS) guidance on asset eligibility for bonus depreciation, which was not available at the time of the first update. This SFR update results in a requested increase of \$29.139 million for a second revised total RY1 revenue requirement of \$478.512. This is a decrease of \$3.625 million from the original filing. The incremental request for RY2 is now \$10.264 million, for a second revised total revenue requirement of \$507.438 million. The final cumulative rate request for the two rate years is \$39.403 million, a cumulative decrease of \$6.340 million from the original cumulative rate request of \$45.743. Response to Interrogatory GA-2SP02, p. 1, and Schedules C-1.0A and B.

The proposed rate increase is largely due to the construction of the Waterbury to Wallingford Distribution Line (WWL) projected capital expenditures of approximately \$62.5 million. The first phase of the WWL (construction of the pipe from Cheshire to Wallingford) was completed in November 2010. Phase 2 [construction of pipe to Waterbury and expansion of vaporization capacity of the Waterbury liquefied natural gas (LNG) plant] is scheduled to be completed in November 2011. Approval of the rate request as proposed would provide the revenues necessary to begin recovering the costs associated with the WWL. The rate request also includes incremental capital spending for the replacement of cast iron and bare steel infrastructure to comply with new regulatory standards to reduce the risk of hazardous gas leaks. Finally, the proposed rate request includes the ongoing and increasing expenses associated with the cost of doing business. Application, pp. 3 and 4.

### **C. CONDUCT OF THE PROCEEDING**

By Notice of Hearing dated February 9, 2010, the Department held a public hearing on this matter on March 8, 2011 at its offices, Ten Franklin Square, New Britain, CT. The hearing continued at the offices of the Department on March 9, 10, 14, 15, 16, 17, 21, 22, 23, 29, 30, April 1 and 6, 2011. The evidentiary record was closed on April 6, 2011 but was reopened on April 12, 2011 in response to a motion from the Office of Consumer Counsel (OCC). Specifically, it was reopened to allow discovery and hold a hearing on the potential impacts of the proposed Northeast Utilities and NSTAR merger on Yankee's operations and costs. By Notice of Hearing dated April 14, 2011, the Department held a public hearing on this matter at its offices on April 19, 2011.

Hearings for public comment only were held on March 8, 2011 at 6:30 p.m. in the Brass City Room, Waterbury, CT and March 15, 2011 at 6:30 p.m. at the New London Town Hall, New London, CT.

By letter dated April 14, 2011, the Department extended the schedule in the instant proceeding to 180 days by which it must issue a final Decision pursuant to Conn. Gen. Stat. §16-19(a).

#### **D. PARTIES AND INTERVENORS**

The Department recognized the following as Parties to this proceeding: Yankee Gas Services Company, 107 Selden Street, Berlin, CT, 06037 and the OCC, Ten Franklin Square, New Britain, CT, 06051. The Department granted Intervenor status to the Office of the Attorney General (AG); Environment Northeast; and Connecticut Industrial Energy Consumer (CIEC)

#### **E. PUBLIC COMMENT**

The Department conducted two public hearings for the purpose of receiving comments from the general public concerning the Application. Yankee's notice to customers regarding the public hearings was approved by the Department on January 18, 2011. Only one customer attended the evening public hearings and provided testimony in opposition to the Company's Application. The speaker understood the necessity for Yankee to upgrade portions of its infrastructure, but did not support the size of the proposed rate increase. The speaker questioned if there were other methods that Yankee could pursue to obtain the necessary funding and if the rates would be decreased once the infrastructure work was completed. Tr. 3/8/11, pp. 115-117.

The Department also received 41 letters and email correspondence regarding the Company's Application. Most customers who wrote to the Department were strongly opposed to the rate increase proposed by Yankee. In particular, customers expressed concern that existing rates were already a burden and any increases, given the current economy, were unjustified. Along with the correspondence from customers, the Department also received 10 letters from business organizations and charitable groups in Connecticut strongly praising Yankee's position as an outstanding corporate citizen. Further, these organizations acknowledged the current status of the state's economy and the effects a rate increase would have, but understood the basis for the Company's Application.

## **II. DEPARTMENT ANALYSIS**

### **A. TEST YEAR/RATE YEARS**

In utility rate cases, the Department establishes rates prospectively upon the basis of a historical test year, adjusted for proforma purposes. In this case, Yankee determined that the test year period is the 12 months ended June 30, 2010. Since Yankee's proposal consists of a two-year rate plan, it has two rate years. RY1 is for the 12 months ended June 30, 2012 and RY2 is for the 12 months ended June 30, 2013. Application, p. 3.

**B. RATE BASE****1. Regulatory Deferred Assets****a. Deferred MGT Pipeline Litigation Costs**

On December 31, 2001, Yankee entered into a special contract to construct a 4.4 miles long 16-inch main and other facilities to interconnect with and provide firm transportation service to Meriden Gas Turbines LLC (MGT), an affiliate of the NRG Energy, Inc. (NRG). The special contract was approved by the Department in the Decision dated May 8, 2002 in Docket No. 02-01-20, Application of Yankee Gas Services Company for Approval of a Special Rate Contract. On October 9, 2002, due to severe financial difficulties at MGT and its parent, NRG, MGT directed Yankee to stop construction. Yankee already had purchased equipment and materials and constructed a substantial portion of the natural gas facilities (MGT Project). To protect itself and its customers from the risk that MGT would never reimburse the Company for its investment, Yankee drew down on a \$16 million letter of credit (LOC) provided by MGT. On November 12, 2002, MGT filed a lawsuit against Yankee alleging among other things, the breach of the special contract and an unauthorized draw down of the LOC. Yankee stated that it vigorously defended its decision to protect its customers by drawing down on the LOC. Response to Interrogatory GA-381.

In the instant proceeding, Yankee requested to recover approximately \$432,000 in rates. This amount represents the total deferred litigation costs from its attempts to recover costs associated with the MGT Project that was terminated prior to its completion. Michelson PFT, p. 17. The \$432,000 comprises the projected MGT expense of (\$184,000) and additional outside litigation costs of (\$273,000) less net settlement proceeds of (\$25,000). Yankee proposed to amortize the \$432,000 over four years, resulting in an annual amortization expense of \$108,000 ( $\$432,000 / 4$ ). Schedule WP C-3.32, p. 8; Tr. 03/09/11, p. 225. The proposed net deferred balances for the MGT litigation costs as of June 30, 2011, 2012 and 2013 are approximately \$258,000, \$183,000 and \$128,000, respectively. Schedule B-6.0.

In its latest updates, Yankee increased the additional outside litigation costs from approximately \$273,000 to \$432,000. According to the Company, its originally requested deferred MGT litigation costs were understated by approximately \$159,000. This was due to a November 2004 bill of \$79,500 that was incorrectly presented as a credit. Yankee stated that in 2004, it actually expensed invoiced MGT litigation costs of \$432,000. Response to AR-OCC-30, pp. 1-3. Thus, the deferred MGT litigation costs were increased to \$591,000. The revised annual amortization expense becomes \$148,000 ( $\$591,000 / 4$ ). Response to Interrogatory GA-2SP02, Schedule WP C-3.32, p. 8. Also, Yankee reported that the net deferred MGT pipeline litigation costs balances as of June 30, 2011, 2012 and 2013 are approximately \$353,000, \$264,000 and \$175,000, respectively. The deferred MGT litigation costs that Yankee currently included in proposed rate base are \$309,000 [ $(\$353,000 + \$264,000) / 2$ ] for RY1 and \$220,000 [ $(\$264,000 + \$175,000) / 2$ ] for RY2. Response to Interrogatory GA-2SP02, Schedule B-6.0.

As part of the settlement agreement reached with the OCC in the Decision dated June 29, 2007 in Docket No 06-12-02PH01, Application of Yankee Gas Services Company for a Rate Increase – Revenue Requirement (2006 Rate Case), Yankee requested permission to defer these costs until the legal matter with MGT is finalized. Tr. 03/09/11, pp. 225 and 226. On February 15, 2008, Yankee and NRG reached a settlement in which the former received approximately \$17.5 million to cover the related capital costs and expenses incurred during the construction of the ceased MGT Project. Response to Interrogatory GA-9, p. 22.

The OCC stated that the \$432,000 is comprised of \$184,000 in deferred costs incurred between April 2005 and June 2008 and of \$273,000 expenses charged between January 2004 and December 2004. These amounts were offset by a \$25,000 gain Yankee recorded as a result of a 2008 settlement with MGT. The OCC referenced item No. 7 from the settlement agreement between it and Yankee in the Decision dated December 8, 2004 in Docket No. 04-06-01, Application of Yankee Gas Service Company for a Rate Increase (2004 Rate Case). Specifically, the item stated that:

[t]he Company will be authorized to create a regulatory asset to defer for future recovery all outside legal expenses associated with the pending MGT lawsuit, and will credit the deferral with any recovery of legal costs as a result of settlement or litigation outcome.

OCC PFT, pp. 27-30; Brief, pp. 48-50

The OCC calculated that Yankee invested \$17,475,171 in the construction of the MGT plant and recorded this amount as construction work in progress (CWIP). Yankee received total proceeds of \$17.5 million from the MGT lawsuit settlement. The Company offset the balances recorded in CWIP and recorded approximately \$25,000 in gains. The OCC argued that Yankee has more than recovered its costs from the settlement of the MGT litigation. The OCC recommended that the Department deny Yankee's proposed recovery of the deferred asset pertaining to the MGT litigation. Id.

The Department reviewed the data provided in the instant docket and noted that Account 182 MG, Reg. Asset MGT Litigation, has a balance of \$184,363 as of June 30, 2010. The deferred amount essentially dated back to December 2007 when the balance in this account was \$181,650. See, Response to Interrogatory GA-60, p. 4. The Department is concerned as to why Yankee requested to recover outside litigation costs of \$432,000 that it confirmed were expensed in 2004 and not deferred. Yankee's proposal to include in the proposed rates amounts that were expensed in 2004 and no longer on the Company's books creates inequities. The amounts expensed in 2004 had already been reflected in the Company's operating income for that period. The Department cannot approve this proposal the same as it could not allow other expenditures/revenues that were recognized and expensed in 2004 in its evaluation of proposed rates in the instant proceeding. Therefore, the Department will disallow the \$432,000 litigation costs expensed in 2004.

Regarding the \$184,363 deferred balance in Account 182 MG, the Department notes that the MGT lawsuit was settled in 2008 as indicated above. The 2006 Rate Case settlement did not provide Yankee with any authority to defer the MGT litigation

costs. The 2004 Rate Case settlement did allow deferment of the MGT litigation costs. However, as the OCC pointed out, the 2004 Rate Case settlement agreement approved by the Department specifically directed the Company to credit the regulatory asset with any recovery of legal costs resulting from the outcome of the MGT lawsuit. Yankee asserted that the MGT lawsuit settlement agreement did not specifically address litigation costs. See, Response to AR-OCC-30, p. 1. The Department has the following concerns regarding these costs. First, the Department is troubled that Yankee expended outside legal resources in the MGT lawsuit and settled for amounts that did not specifically address recuperation of these legal costs. That decision puts a burden on the Company's ratepayers. The settlement in the MGT lawsuit made the Company whole for its capital investment in the pipeline. Given Yankee's assertion that the MGT lawsuit settlement did not address the recovery of legal costs, the obligation essentially was shifted to ratepayers to make the Company whole for legal costs in addition to the costs of maintaining the MGT pipeline. Second, the Company should have expensed the \$184,363 in Account 182 MG in 2008 following the settlement of the MGT lawsuit.

The Company testified that the \$17.5 million recovered from the MGT lawsuit was recouped in two phases. The first phase recovered \$16 million from a draw down LOC. The balance of the investment was recovered through a settlement payment from NRG to Yankee. Additionally, Yankee neither placed in service nor formally abandoned the MGT Project for tax purposes. Therefore, the Company treated the \$16 million LOC as a return of capital and the \$1.5 million as taxable in the year it was received. Furthermore, Yankee recognized a current tax liability for the \$1.5 million and established a deferred tax asset for the tax effect of the future deductions for when the property is either formally abandoned or placed in service. See, Late Filed Exhibit No. 36. The Department deduced from this testimony that Yankee had recovered more than its investment in the MGT Projects. Otherwise, it would not recognize as taxable income the additional \$1.5 million received in the final settlement of the MGT lawsuit. Based on the settlement from the 2004 Rate Case, the Company should have reduced the additional \$1.5 million recovered from the MGT lawsuit settlement for the related legal costs incurred. Also, there is no evidence provided in this proceeding to indicate that the income tax effect of the \$1.5 million current tax liability the Company recognized is used to reduced rate base. Therefore, the Department will disallow the Company's proposed deferred MGT litigation costs of approximately \$591,000 in rates. Consequently, rate base will be reduced by \$304,000 in RY1 and \$215,000 in RY2. Additionally, the Department will disallow the proposed annual amortization expense of \$148,000.

Yankee stated that "the Draft fails any standard for reasoned agency decision-making and is wholly at odds with the state's long-standing policy of encouraging resolutions of disputes by means of settlement." Written Exception, p. 43. Furthermore, Yankee stated that the exclusion of the \$432,000 in litigation costs expensed in year 2004 is punitive because Yankee was acting in the customers' best interest by pursuing the MGT lawsuit. The Company stated that the draft's description of the tax effect of the \$1.5 million gains it recognized from the MGT lawsuit settlement as a current tax liability "is not indicative of the fair value of the MGT facilities. *Id.* p. 44. Yankee stated that the disallowance of its proposed deferred MGT costs undermines the policy set forth in Conn. Gen. Stat. §16-19jj, which encourages the use of settlements as alternative dispute resolution mechanisms in contested cases and proceedings. *Id.*, pp. 44 and 45.

As stated in the draft Decision, the deferred balance as of June 30, 2010 of the regulatory asset recorded in the account that supposedly contains the MGT litigation costs was \$184,363. In this proceeding, Yankee is seeking recovery of a deferred regulatory asset of \$591,000. The \$432,000 expensed in 2004 and not deferred was already reflected in the Company's result of operations for that period. Yankee recouped \$17.5 million from the MGT lawsuit settlement. It recovered its capital investment of \$16 million and recognized gains of \$1.5 million. As stated above, the Company declares that it acted in the best interest of its customers. Also, customers' interest would be best acted upon if Yankee is not deferring gains for tax purposes and it reduces the excess litigation recovery of \$1.5 million by the deferred MGT litigation costs. The best way the Company can act in the customers' best interest is not to seek recovery of costs that were previously expensed and not deferred. Also, recognizing gains and deferring the related tax liability into some unknown future while seeking recovery of legal costs from the same transaction is not in best interest of customers. Finally, there is nothing in the draft that implies that the Department does not support settlement agreements as options for settling contested proceedings.

**b. Deferred C2 System Implementation Costs**

Yankee requested the recovery of approximately \$245,000 in rates for the O&M costs of implementing its customer service C2 System. These costs related to its share of Northeast Utilities' (NU) billing system that was placed in service in 2008. Michelson PFT, pp. 11, 16 and 17. Yankee provided 15 NU invoices dated February 13, 2008, March 24, 2008, March 25, 2008 and April 11, 2009 for these costs. Response to OCC-248, pp. 5-20. Yankee claimed that it deferred these costs based on the treatment the Department approved in Docket No. 07-07-01, Application of The Connecticut Light and Power Company to Amend Its Rate Schedules, and the related recovery subsequently approved in Docket No. 09-12-05, Application of The Connecticut Light and Power to Amend Its Rate Schedules (2009 CL&P Rate Case). Response to Interrogatory OCC-89, p. 2. The Company proposed to amortize the \$245,000 over four years, which resulted in an amortization expense of approximately \$61,000 ( $\$245,000 / 4$ ) for each rate year. Schedules WP C-3-32. The related net beginning and ending deferred balances included in rate base for RY1 were approximately \$146,000 and \$110,000, respectively. The net beginning and ending balances included in rate base for RY2 were approximately \$110,000 and \$73,000, respectively. Schedule B-6.0.

The OCC stated that the Company did not have the authority to defer the C2 System operations and maintenance (O&M) implementation costs incurred in 2008. The Company should not be allowed to arbitrarily defer costs between rate cases as they may be cost savings such as unanticipated tax refunds or gains that could go the other way. The OCC stated that the authority granted to The Connecticut Light and Power Company (CL&P) in Docket No. 07-07-01 did not apply to Yankee. In the CL&P proceeding, the projected implementation of the C2 System was to occur during the rate year and the allowed deferred costs were not past costs brought forward into rate year. The OCC recommended that the Department deny the recovery of the proposed deferred C2 System implementation costs as well as deny the related proposed amortization expense. Brief, pp. 44 and 45.

The settlement agreement approved in the 2006 Rate Case did not allow Yankee to defer costs related to the implementation of the C2 System. Yankee cannot import directives from the 2009 CL&P Rate Case into Yankee's rate case. The Department has not authorized Yankee to defer costs related to the implementation of the C2 System. The Department disallows the net \$128,000  $[(\$146,000 + \$110,000) / 2]$  for RY1 and \$92,000  $[(\$110,000 + \$73,000) / 2]$  for RY2. Additionally, the Department disallows the \$61,000 in amortization expense related to the proposed deferred C2 System O&M implementation costs.

**c. Deferred Environmental Litigation Costs**

Yankee proposed to recover in rates \$3.738 million in environmental litigation costs. This amount includes approximately \$3.396 million for the deferred balance as of June 30, 2010 and approximately \$342,000 projected for the proforma period ending June 30, 2011. The Company proposed to amortize the total deferred balance of \$3.738 million over four years, resulting in an annual amortization expense of \$935,000  $[(\$3.738 \text{ million}) / 4]$ . For RY1, Yankee is proposing an additional recovery of approximate \$104,000, which resulted in a proposed total amortization expense of \$1.039  $(\$0.935 + \$0.104)$  million. For rate base, Yankee reported net balances of \$2.234 million, \$1.673 million and \$1.110 million for periods ending June 30 in 2011, 2012 and 2013, respectively. Schedules B-6.0 and WP C-3.32, p. 6.

In its latest updated schedules, Yankee revised deferred environmental litigation costs of approximately \$3.730 million as of June 30, 2011 and a proposed annual amortization expense of \$933,000  $[(\$3.730 \text{ million}) / 4]$ . For RY1, the proposed updated amortization expense would be \$1.037  $(\$0.933 + \$0.104)$  million. For rate base, Yankee reported revised net balances of \$2.228 million, \$1.668 million and \$1.106 million for periods ending June 30 in 2011, 2012 and 2013, respectively. Response to Interrogatory GA-2 SP02 Schedules B-6.0 and WP C-3.32, p. 6.

The deferred litigation costs were incurred for legal actions against the former owners/operators of the manufactured gas plant (MGP) sites. The environmental remediation costs would be offset by proceeds recovered from any successful litigation. The Company stated that these costs were deferred as a result of the Decision dated May 5, 2005 in Docket No. 04-12-17, Application of Yankee Gas Services Company for an Accounting Ruling to Defer Manufactured Gas Plant Environmental Remediation Investigation Costs (MGP Decision). Michelson PFT, p. 5.

The OCC argued that UGI Utils., Inc., (UGI) is the former owner/operator for these sites and that the Company is pursuing recovery of the cost of remediation from it. Further, in Order No. 5 in the MGP Decision the Department allowed Yankee to defer the outside counsel and environmental consultant costs associated with recovering environmental remediation from UGI. That same Order directed the Company to use the actual ownership percent of 88.5% when allocating UGI MGP invoices. The 88.5% is based on the ownership of the 13 prior UGI sites between Yankee and CL&P, with Yankee owning 11.5 sites and CL&P owning 1.5 sites. OCC PFT, pp. 21-23. The outstanding litigations regarding the recovery of environmental remediation costs against UGI remain unresolved. *Id.*, p. 24. The OCC recommended that the Company should continue to defer these litigation costs until the ultimate outcome of the litigation

is known. Then, litigation costs could be recovered in the periods when the resulting benefits are incorporated into rates. The deferrals should be excluded from rate base because the ultimate outcome of the litigation also benefits the Company's shareholders. The Company should not be allowed to earn a ROR on the deferred litigation costs. If the environmental litigations are concluded at the time of the Company's next rate case, the Department should carefully examine the related deferred costs to ensure they are allocated to Yankee in accordance with Order No. 5 in the MGP Decision. The OCC recommended that rate base be reduced by \$1,954,000 in RY1 and by \$1,392,000 in RY2 and the amortization expense be reduced by \$1,039,000 in RY1 and by \$935,000 in RY2. OCC PFT, pp. 21-26 and Schedules B and C.

In its Reply Brief filed on May 2, 2011, Yankee argued that on April 13, 2011 the United States Court of Appeals for the Second Circuit issued its summary order upholding the May 22, 2009 ruling by the District Court. The District Court ruled that UGI is not responsible for remediation of 12 of the 13 MGP sites at issue in the suit. Yankee Gas Servs. Co. v. UGI Slip Copy, 2011 WL 1395260, (Summary Order not selected for publication in the Federal Reporter), C.A.2 (N.Y.), April 13, 2011 (No. 10-1570-cv). Neither Yankee nor CL&P plan to appeal the Second Circuit's order to the United States Supreme Court. Therefore, the UGI litigation for the 12 sites has come to a close. Reply Brief, p. 17.

The Department concludes that the UGI litigation is resolved and will allow Yankee to recover the deferred litigation costs in rates. However, Yankee should not earn a profit on environmental litigation costs. Therefore, the Department will disallow the unamortized deferred environmental litigation cost balances included in the calculation of the proposed rate base for RY1 and RY2. As discussed below in Section II.B.1.d. Deferred Environmental Remediation Costs, Yankee will be allowed to accrue carrying charges on the unamortized balance, net of the related accumulated deferred income taxes (ADITs), using the Department approved cost of debt of 6% so that it does not bear any cost for its remediation expenses. Consequently, the proposed rate base will be reduced by \$1.948 million  $[(\$2.228M + \$1.668M) / 2]$  in RY1 and \$1.387 million  $[(\$1.668M + \$1.106M) / 2]$  in RY2. The Department will direct Yankee to file an exhibit showing the annual deferred environmental litigation cost balances along with the related accrued carrying charges.

Yankee stated that the Department allowed carrying charges on the unamortized deferred balances of environmental litigation costs to accrue at the approved cost of debt of 6%. However, the draft Decision did not provide for the recovery of the accrued carrying charges. Written Exceptions, p. 60.

The Department agrees that the revenue requirements allowed in the draft Decision do not provide for the recovery of the accrued carrying charges. Similarly, the Department did not reduce rate base by the deferred tax effect of the deferred balances of the environmental litigation costs. The Department's intention in the draft Decision was for the Company to accrue and defer carrying charges. Nevertheless, the Department will allow carrying charges on the net deferred balances of \$1.948 million and \$1.387 million in RY1 and RY2, respectively. Therefore, the Department

determines the allowed carrying charges of \$116,880 ( $\$1.948\text{M} \times 6\%$ ) and \$83,220 ( $\$1.387\text{M} \times 6\%$ ) in RY1 and RY2, respectively.

**d. Deferred Environmental Remediation Costs**

Yankee proposed to recover in rates approximately \$5.364 million for the deferred balance associated with coal tar environmental remediation costs as of June 30, 2011. This amount included the deferred balance as of June 30, 2010 of approximately \$5.760 million, plus the projected deferred balance of \$1.820 million for the proforma period ending June 30, 2011, less the currently allowed amortization expense of \$2.216 million. The Company proposed an annual amortization expense of \$1.341 ( $\$5.364 / 4$ ) million based on a four-year amortization period. For ongoing annual environmental remediation expenses, Yankee proposed \$2.546 million and \$2.438 million for RY1 and RY2, respectively. Thus, the Company proposed total annual environmental expenses of \$3.887 million ( $\$1.341 + \$2.546$ ) and \$3.779 million ( $\$1.341 + \$2.438$ ) for RY1 and RY2, respectively. For rate base, Yankee reported a net balance of \$3.182 million for the period ending June 30, 2011 and zero for each of the periods ending June 30 in 2012 and 2013. Schedules B-6.0 and WP C-3.32, p. 5.

Yankee argued that the proposed additional annual \$1.6 million of environmental remediation costs over the currently allowed annual amortization expense of \$2.216 million is due to projected annual environmental remediation costs of approximately \$2.5 million. It is partially offset by the recovery of a smaller prior period deferred balance being amortized. The unamortized balances for the proposed deferred assets in its Application, including coal tar remediation costs, reflect carrying charges calculated at its cost of capital. The Company argued that because the requested recovery periods for the deferred assets are greater than one year, it funds the carrying charges of these deferred assets at its cost of capital. Michelson PFT, pp. 5, 6, 11-13. Yankee argued that its remediation of the MGP sites complies with Federal and Connecticut Department of Environmental Protection (CTDEP) regulations and that ongoing remediation will continue for 10 to 15 years. The sequence, timing and magnitude of remediation activities of the sites depend on, among other things, their size, degree of contamination, land ownership, and enforcement by regulators. The Company described the five general phases for a typical sequence of environmental remediation activities, which include two investigations, remedial action development, remedial action implementation and long term monitoring phases. The Company is not subject to any CTDEP's directives to formally remediate any of these sites. Yankee stated that its remediation activities are voluntary and it has an "open dialogue" with CTDEP. Hoyack PFT, p. 11.

To comply with Order No. 10 in the 2006 Rate Case Decision, Yankee removed the unamortized balance of \$5.364 million associated with this deferred environmental remediation asset from rate base. In compliance with Order No. 9 from the same Decision, the Company performed a study of the various environmental recovery mechanisms approved in other jurisdictions and included the results of the study as Exhibit JLM-2. Other jurisdictions generally allow both the recovery of environmental remediation costs associated with MGP sites and the applicable carrying charges on outstanding balances. The Company argued that the unamortized deferred environmental remediation costs removed from rate base, pursuant to Order No 10 from

the 2006 Rate Case Decision, reflects carrying charges at the projected cost of capital of 8.15%. Yankee stated that it will monitor federal tax law for changes permitting tax-exempt financing of environmental remediation costs in the future. Michelson PFT, pp. 11-13; Exhibit JLM-2.

The OCC argued that the projected deferred environmental remediation cost that Yankee proposed to recover is not sufficiently supported and the requested annual amortization expense is overstated. Further, Exhibit WJH-2 provided by the Company did not support remediation cost estimates because it only shows that remediation costs for each site could range from \$1,250,000 to above \$10 million. The exhibit portrays cost variations by phases and not by sites. According to the OCC, the \$532,038 spent during the test year does not support the Company's request to spend approximately \$2 million in each of the subsequent three years. The responses provided by Yankee only shows the amount spent during the test year. They do not support environmental remediation expenditures requested by the Company for the proforma and proposed rate years. OCC PFT, pp. 30-35.

The OCC argued that the rate base for RY1 should be reduced by \$1,591,000. The OCC calculated a deferred balance as of June 30, 2011 of \$4,144,000 for the environment remediation costs and proposed amortization expense of \$1.036 (\$4.144 / 4) million for the deferred balance. For the annual ongoing environmental remediation expense, the OCC recommended \$600,000 beginning in the proforma period. The OCC proposed a total environmental expense of \$1.636 (\$1.036 + \$0.600) million in each of the proposed rate years. OCC PFT, pp.30-35 and Schedule C-15; Brief, pp. 63-65. The OCC recommended that the proposed total remediation expenses be reduced by \$2.251 (\$3.887 - \$1.636) million and \$2.143 (\$3.779 - \$1.636) million in RY1 and RY2, respectively.

The Company included approximately \$1,591,000 (\$3.182M / 2) in the proposed rate base for RY1. The total beginning balance for deferred asset of \$13.66 million that the Company used to calculate the rate base for RY1 included \$3.182 million of deferred coal tar remediation costs. See, Response to GA-2SP02 Schedules B-1.0 A and B-6.0. The Department finds this inappropriate and will reduce rate base in RY1 by \$1,591,000.

Deferred assets not in rate base are creating additional cost for ratepayers. These assets are increased by including capitalized carrying charges calculated on the Company's allowed ROR. The allowed carrying charges should be calculated on the net deferred balances that reflect the impact of the related ADIT. This is how other regulatory items included in rate base are treated. To do otherwise, causes ratepayers to fund the deferred balances and accrued carrying charges without benefit of the deferred taxes. The Department will not allow Yankee to continue accruing carrying charges at its allowed ROR. Yankee should not earn a profit on its remediation expenditures. Yankee will be allowed to accrue carrying charges on the unamortized balance, net of the related ADITs, using its currently allowed cost of debt, which is 6% so that it does not bear any cost for its remediation expenses. See, Section II.G. Cost of Capital. The Department will direct Yankee to file an exhibit showing the annual deferred coal tar remediation cost balances along with the related accrued carrying charges.

The Department considers the proposed ongoing coal tar remediation costs unsustainable given the level of expenditures that Yankee proposed in other areas of its Application. The total debit to Account 182 TR, Coal Tar Remediation, from 2008 to 2010 was approximately \$1.3 million. These amounts were spent on earlier phases of the environmental remediation activity. Yankee's proposed annual coal tar remediation costs for RY1 and RY2 almost doubles these amounts during those three years. The Department will allow Yankee to recover in rates an annual ongoing remediation cost of \$1.5 million. The Department finds this amount to be reasonable and would allow the Company to improve remediation at these sites. The Department notes that the deferred coal tar remediation balance as of December 31, 2010 is approximately \$5,085,065. See, Response to OCC-16 SP01, p. 20. Therefore, the Department determined that the deferred balance as of the end of proforma period or beginning of RY1 is approximately \$4,727,000 [ $\$5.085\text{M} + (\$1.5\text{M} - \$2.216\text{M}) / 2$ ]. The Department will allowed annual amortization expense of \$1.182 million ( $\$4.727\text{M} / 4$ ). The Department allows a total coal remediation expense of \$2.682 million ( $\$1.5\text{M} + \$1.182\text{M}$ ) in each rate year. The Department disallows coal tar amortization expenses of \$1.205 million ( $\$3.887\text{M} - \$2.682\text{M}$ ) in RY1 and \$1.097 million ( $\$3.779\text{M} - \$2.682\text{M}$ ) in RY2.

In its Written Exceptions, Yankee indicated that the allowed annual ongoing MGP sites remediation expense of \$1.5 million is insufficient for the Company to remediate the MGP sites within a reasonable timeframe. The Company requested that the Department explicitly authorized the deferment of MGP remediation costs incurred that are in excess of the amounts allowed in rates. Written Exceptions, p. 42. Additionally, Yankee stated that the Department allowed carrying charges to accrue at 6% on the unamortized deferred balances of environmental remediation costs. However, the draft Decision did not provide for the recovery of the accrued carrying charges. Written Exceptions, p. 60.

The Department applauds the Company's plan to remediate its MGP sites within a reasonable timeframe. The will explicitly allow the Company to defer the MGP site remediation costs incurred above the \$1.5 million allowed in rates. The prudence of such excess costs incurred will be evaluated in the Company's subsequent rate proceedings.

The Department agrees that the revenue requirements allowed in the draft Decision do not provide for the recovery of the accrued carrying charges. Similarly, the Department did not reduce rate base by the deferred tax effect of the deferred balances of environmental remediation costs. The Department's intention in the draft Decision was for the Company to accrue and defer carrying charges. Nevertheless, the Department will allow carrying charges on the net deferred balances in this proceeding. Based on the deferred balance of \$4.727 million as of beginning of RY1, the Department calculated the net deferred environmental remediation costs as depicted in the table below.

**Calculation of the Net Deferred Environmental Remediation Costs**

	Adjustments	Balance at 06/30/2011	Adjustments	Balance at 06/30/2012	Adjustments	Balance at 06/30/2013
Costs (000)	\$4,727	\$4,727	(\$1,182)	\$3,545	(\$1,182)	\$2,364
ADITs (000)	(\$1,901)	(\$1,901)	\$ 473	(\$1,429)	\$ 470	(\$ 959)
Net (000)	\$2,826	\$2,826	(\$ 709)	\$2,116	(\$ 712)	\$1,404

Based on the net unamortized balances in the table above, the Department calculated the average net deferred environmental remediation costs of \$2.471 [(2.826M + 2.116M) / 2 ] million and \$1.760 [(\$2.116M + \$1.404M) / 2 ] million for RY1 and RY2, respectively. Therefore, the Department determines that the allowed carrying charges for RY1 and RY2, respectively, are \$148,257 (\$2.471M x 6%) and \$105,625 (\$1.760M x 6%).

**e. Deferred Medicare Tax Asset**

Yankee initially requested that it be allowed to recover approximately \$2.590 million for a deferred Medicare tax asset. The Company established this amount of deferred Medicare tax asset as of June 30, 2010 to reflect the loss of the tax benefit associated with the Medicare subsidy. The Company claimed the actual deferred tax asset it needs to recover is approximately \$1.554 million. However, the revenue associated with the recovery of the deferred Medicare tax asset will result in additional income tax. Therefore, Yankee grossed-up \$1.554 million using 1.6632 [1 / (1 - 0.39875)], which represents a revenue conversion factor based on a composite income tax rate of 39.875%. This resulted in the initially proposed deferred Medicare tax asset of \$2.590 (\$1.554 x 1.6632) million. Yankee proposed to amortize the \$2.590 million over four years, resulting in an annual amortization expense of \$648,000. Michelson PFT, pp. 17, 18, 33 and 34; Schedules WP C-3.32 A, p. 10 and WP C-3.32 B, p. 10. For rate base, the Company originally calculated net deferred Medicare tax balances of approximately \$1.548 million, \$1.159 million and \$769,000 as of June 30 in 2011, 2012 and 2013, respectively. Schedule B-6.0.

On March 23, 2010, the Federal government passed the Patient Protection and Affordable Care Act (HR 3590) and on March 30, 2010, it passed the Health Care and Education Reconciliation Act (collectively with HR 3590, the Acts). The Acts eliminated the existing tax deduction for certain retiree healthcare costs (Tax Subsidy). Due to the Acts, Yankee will no longer be able to deduct the Tax Subsidy in its calculation of income tax expense. Prior to the Acts, the tax deduction reduced customers' income tax obligations and Yankee expected the Tax Subsidy to continue to reduce income tax expense. The benefit of the Tax Subsidy was passed on to customers in rates established in Docket No. 06-12-02PH01 (2006 Rate Case). Michelson PFT, pp. 17, 18, 33 and 34;

Yankee initially recorded the benefits of the Tax Subsidy as an actuarial adjustment to its SFAS 106 liability. On an annual basis, it reduced income tax expenses by the value of the subsidies earned but not yet received, which will be used to fund portion of its SFAS 106 obligation. Generally accepted accounting principles (GAAP) requires that Yankee recognize the adverse financial impact of the Acts by writing off this deferred tax asset. Pursuant to Accounting Standards Codification (ASC)

740-10-25-47 (formerly SFAS 109), the effective date for the elimination of the Tax Subsidy is the date the Acts were enacted. To establish the deferred Medicare tax asset, Yankee debited its balance sheet and recognized a one-time credit on its income statement in the test year. On August 18, 2010, Yankee requested deferral treatment from the Department related to the loss of the tax benefits associated with Medicare Part D benefits. Yankee established this deferred asset as a result of the government's treatment of previously allowed Medicare Subsidy tax benefits, which has been retroactively discontinued. Yankee proposed to treat this \$2.6 million cost as a regulatory asset similar to the treatment approved by the Department in the Decision dated July 28, 2010 in Docket No. 09-12-05, Application of The Connecticut Light and Power Company to Amend Its Rates Schedules - Reconsideration (CL&P Reconsideration). Michelson PFT, pp. 17, 18, 33 and 34; Response to Interrogatory GA-235, pp. 1-8.

Yankee provided exhibits showing that, as of the effective date of March 31, 2010, the Company and Northeast Utilities Service Company (NUSCO) wrote down the Medicare subsidy related asset by crediting FERC Account 19000, Accumulated Deferred Income Taxes for \$1,108,808 and \$4,194,638, respectively. Response to Interrogatory GA-235, pp. 2 and 3. Yankee was allocated approximately 10.62% of NUSCO's ADIT write-down or approximately \$445,000 ( $\$4,194,638 \times 10.62\%$ ). Therefore, Yankee's total ADIT write-down was approximately \$1.554 ( $\$1.109 + \$0.445$ ) million. Yankee's and NUSCO's allocated ADIT write-downs were grossed up by each company's gross revenue conversion factors (GRCFs) to derive the total deferred asset of \$2.589 million the Company proposed to recover in rates resulting from the loss of the Medicare Subsidy tax benefit. Response to Interrogatory OCC-35, p. 2.

In its latest revised schedules, Yankee increased the proposed deferred Medicare tax asset to approximately \$3.792 million. Specifically, Yankee projected additional deferred Medicare tax asset of \$1.202 million for the 12-month proforma period. The \$1.202 million was derived by grossing up the total additional deferred Medicare tax asset of \$683,000 by 1.76 GRCF. Yankee calculated an amortization of \$948,000 based on a proposed four-year amortization period. Response to Interrogatory GA-2 SP02, Schedule WPC-3.32, pp. 10 and 10a. Regarding rate base, Yankee calculated revised net deferred Medicare tax balances of approximately \$2.267 million, \$1.698 million and \$1.127 as of June 30 in 2011, 2012 and 2013, respectively. Response to Interrogatory GA-2 SP02, Schedule B-6.0. Thus, the proposed deferred Medicare Tax assets included in rate base in RY1 and RY2 are \$1.983 [ $(\$2.267 + \$1.698) / 2$ ] million and \$1.413 [ $(\$1.698 + \$1.127) / 2$ ] million, respectively.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 (2003 MMA) created the Tax Subsidy by providing tax free subsidies in addition to fully deducting payments made by employers for health and prescription drug benefits they provided for retirees. Under the 2003 MMA, an employer can receive a 28% tax tax-free subsidy for the costs of prescription drug coverage up to \$1,330 per retiree per year. The Tax Subsidy does not reduce the employer's deductions of the costs of prescription coverage provided and is not subject to income tax. Pursuant to the Acts and beginning in 2013, income tax deduction of the costs of retirees' prescription coverage will be reduced to the extent an employer is reimbursed for the Tax Subsidy.

Pursuant to SFAS 109, deferred assets are recorded and recognized currently for the tax effect of future deductions. In other words, deferred tax assets are recorded for temporary timing differences between current book and tax recognitions that would provide future tax deductions or benefits. Pursuant to FAS 106, the tax effects of the earned Tax Subsidy were used to fund portions of the post-retirement obligations. The table below provides a hypothetical illustration of how the Acts will change the recording of the deferred Medicare tax asset subsequent to 2012 assuming that all post-retirement costs are only related to retirees' prescription drug benefits.

**FAS 109: 2003 MMA Compared to the Acts**

	<b>Current Law</b>	<b>New Law</b>
Post-Retirement Obligation	\$100,000	\$100,000
Less Subsidy @ 28%	\$ 0	\$ 28,000
Deductions	\$100,000	\$ 72,000
Composite Income Tax Rate of 39.875%	39.875%	39.875%
Deferred Tax Asset	\$ 39,875	\$ 28,710

The difference between the deferred tax asset amounts under the old and new laws represents the amount by which the FAS 109 ADIT needs to be reduced. Based on the hypothetical assumption described above, the write-down amount is \$11,165 (\$39,875 - \$28,710). In the instant proceeding, the 2010 write-downs of the Medicare tax assets by Yankee and NUSCO were done pursuant to GAAP to recognize the fact that recorded FAS 109 ADITs were overstated. The deferred taxes deducted in the calculations of the provisions for income only reflected the tax effect of the subsidy already earned and not the tax effect of amounts that will be earned in the future.

According to paragraph 125 of FAS 109, the effects of regulation set forth in SFAS 71 require the recognitions of FAS 109 assets or liabilities "for the tax consequences of temporary timing differences because a regulator cannot relieve a regulated enterprise for a liability or asset that was not created by rate actions of the regulator." See, Response to Interrogatory GA-49, p. FAS109-31. In other words, pursuant to SFAS 71, GAAP requires recognition of an asset or a liability if a FAS 109 liability or asset is recognized. Id. To the extent the assumptions for recognitions of FAS 109 assets are no longer valid, GAAP accounting requires a necessary write-down of the assets. This means the original entries to record and recognizing the now impaired deferred asset amounts should be reversed.

Yankee stated that the disallowance of its proposal to recover a Medicare tax deferred tax asset would make the amounts "stranded." The Company stated that its proposal is an extremely complicated topic that it believes was not properly reflected or understood in the draft Decision. Yankee wants to be made whole for tax benefits that it already passed on to customers that now cannot be realized through future deductions due to a change in federal tax law enacted in 2010. Written Exceptions, p. 19. The Company also provided exhibits illustrating both the build-up and turn around of the tax asset with and without the enactment of the Acts. Written Exceptions Appendix A; Exhibits 1 and 2.

Yankee stated its proposal has merit because some jurisdictions allowed the recovery of Medicare deferred tax assets in rates. For instance, other public utility commissions decisions or orders cited by the Company included Docket No. 10-70, Petition of Western Massachusetts Electric Company, pursuant to G.L. c. 164, §94 and 220 C.M.R. §§5.00 et seq. for Approval of a General Increase in Electric Distribution Rates and a Revenue Decoupling Mechanism, dated January 31, 2011 (MA DPU Decision.); Docket No. 09-1153, In the Matter of the Application By Northern States Power Company D/B/A Xcel Energy For An Increase In Natural Gas Rates In Minnesota, dated October 15, 2010 (MN PUC Decision) and Case No. PAC-E-10-04, Order No. 32028, In The Matter Of The Application Of Pacificorp dba Rocky Mountain Power For Approval Of An Accounting Order Recording Certain Post-Retirement Prescription Drug Costs As A Regulatory Asset, dated July 1, 2010 (ID PUC Decision). Therefore, Yankee requested that the Department similarly allows it to recover the “stranded Medicare deferred tax asset.” Written Exceptions, pp. 19-21.

The Department reconsidered its position in the Draft and agreed herein to allow the recovery of the proposed deferred asset related to the Medicare tax subsidy. As a result, Yankee will be allowed to recover in rates its proposed deferred Medicare tax asset of \$3.792 million. The Department concludes that the 2010 Acts will indeed create stranded costs for 28% of the Company’s FAS 106 costs related to the costs of prescription drugs for its retirees. Specifically, for income tax purposes, the related amounts will no longer be deductible tax free after 2013. However, the Department concludes that the turn around period for the lost tax asset is significantly in excess of the four year amortization period proposed by the Company. The Company’s own Written Exceptions Appendix Exhibit 1 indicated that it will take 13 years for the pre-2010 for the potential lost tax asset amounts to turn around without the enactment of the Acts. The Department will use seven years as the amortization period for the deferred Medicare tax asset. This amortization period will allow the Company to recovery the deferred amounts within reasonable period. Thus, the Department determines annual amortization expense of \$542,000 (\$3.792 M / 7) for RY1 and RY2. Furthermore, the Department calculated the net deferred Medicare tax subsidy amounts as depicted in the table below.

#### Calculation of the Net Deferred Medicare Tax Asset Amounts

	Adjustments	Balance at 06/30/2011	Adjustments	Balance at 06/30/2012	Adjustments	Balance at 06/30/2013
Costs (000)	\$3,792	\$3,792	(\$542)	\$3,250	(\$542)	\$2,709
ADITs (000)	(\$1,525)	(\$1,525)	\$217	(\$1,309)	\$215	(\$1,093)
Net (000)	\$2,267	\$2,267	(\$325)	\$1,942	(\$326)	\$1,615

The ADITs are calculated using the income tax composite rates in the Company’s SFR Schedule B-6.0. The Department used the net unamortized balances in the table above to calculate average net deferred Medicare tax subsidy of \$2.104 [(\$2.267M + \$1.942M) / 2] million and \$1.778 [(\$1.942M + \$1.615M) / 2 ] million for RY1 and RY2, respectively. Consequently, the Department will increase proposed rate base by \$121,000 (\$2.104M - \$1.983M) and \$365,000 (\$1.778M - \$1.413M) in RY1 and RY2, respectively.

**f. Accumulated Deferred Income Taxes**

Yankee originally reported non-FAS 109 ADITs of approximately \$141,148,000, \$151,997,000, \$160,676,000 and \$163,828,000 for the 12-month periods ending June 30 in 2010, 2011, 2012 and 2013, respectively. The utility plant related ADITs included in these totals were approximately \$139,954,000, \$150,803,000, \$159,768,000 and \$162,635,000 for periods ending June 30 in 2010, 2011, 2012 and 2013, respectively. Schedule B-7.0. Subsequently, the Company reported revised ADITs of approximately \$140,009,000, \$174,901,000, \$199,705,000 and \$218,348,000 for the 12-month periods ending June 30 in 2010, 2011, 2012 and 2013, respectively. Late Filed Exhibit No. 35, p. 15.

In its latest updates to the SFR schedules, Yankee reported ADITs of approximately \$140,009,000, \$168,596,000, \$190,031,000 and \$209,361,000 for the 12-month periods ending June 30 in 2010, 2011, 2012 and 2013, respectively. The revised plant related ADITs included in these totals were approximately \$138,815,000, \$167,420,000, \$195,602,602 and \$208,190,000 for periods ending June 30 in 2010, 2011, 2012 and 2013, respectively. Response to Interrogatory GA-2SP02, Schedule B-7.0. Also, in its latest updates, the Company reported estimated plant additions of approximately \$76,037,000, \$123,449,000, \$82,549,000 and \$87,384,000 for calendar years 2010, 2011, 2012 and 2013, respectively. For these post 2009 assets and the historical pre-2010 plant assets, the Company deferred income taxes for the timing differences between tax and book depreciations. For calendar years 2010, 2011, 2012 and 2013, the calculated deferred income taxes were approximately \$17,315,000, \$34,290,000, \$15,485,000 and \$2,788,000, respectively. Response to Interrogatory GA-2SP02, Depreciation Calculations, p. 2. For the 2010 plant additions, approximately 60% were pre-September 9, 2010 acquisitions qualifying for 50% bonus tax depreciation and the remaining 40% post-September 8, 2010 acquisitions qualify for 100% bonus tax depreciation. Tr. 03/30/11, pp. 2415 and 2416; Late Filed Exhibit No. 24, p. 1. Yankee stated that plant related deferred tax liabilities are recorded in Account 282 and those related to regulatory assets in Account 283. Late Filed Exhibit No. 16; Tr. 03/30/11, p. 2395.

The Department reviewed all exhibits provided to support Yankee's calculations of plant related ADITs including the 17-page "Depreciation Calculations" that the Company attached to its latest updates to the SFR schedules. The Department is concerned with several iterations of non-FAS 109 ADITs' calculations that Yankee provided in this proceeding. The Department recognizes the impact Federal bonus depreciation would have on the Company's proposed rate base for RY1 and RY2. The Company failed to specifically address how the IRS Revenue Procedure 2011-26 significantly changed its assumptions for the calculations of bonus tax depreciations for 2010 to 2013. It is unclear whether the Company's latest iteration in its calculations of plant related ADITs is warranted. Yankee will be directed to file copies of Form 4562, Depreciation and Amortization, and all related schedules supporting the calculations of the plant asset tax depreciations deducted after the Company files its 2010 Federal income tax return with the IRS. Annually thereafter, the Company will file the same form and information for 2011 and 2012. The filings will include exhibits comparing the total plant tax depreciations reported in each year's tax return to the final estimated final

tax depreciations reported on page 2 of the 17-page "Depreciation Calculations" attached to its final update to the SFR schedules.

Finally, the Department finds that the Company's proposal to reduce non-FAS 109 ADITs by the tax effect of net operating loss (NOL) is unsupported. Tax basis NOL has no effect on rate base. The timing differences due to tax and book depreciations was distorted mostly by Yankee's proposal to reduce the plant related ADITs by NOL. The NOL was generated mostly due to the bonus tax depreciations. Federal bonus tax depreciations resulted in the higher than normal deferred income taxes. Most of Yankee's reduction to plant related ADITs by the tax impact of the NOL negates the tax effect of the timing differences between tax and book depreciation. The Department's calculation of the plant related ADITs as of June 30 in 2011, 2012 and 2013 is depicted in the table below.

In its written exceptions, Yankee stated that because the Department disallowed its proposal to reduce ADITs by the tax effect of NOL, it means that customers would receive credit for the full bonus depreciation. Yankee cannot receive credit for the full bonus depreciation deductions not yet taken. The Department's position violates basic notions of fairness and the tax normalization rules set forth in Internal Revenue Code (IRC) § 168(i)(9)(B)(ii). Taxpayers that violate the normalization rules face the penalty of loss of accelerated depreciation deductions for all public utility property and such a loss would needlessly increase rate base to the detriment of customers. Written Exceptions, p. 25.

The Department finds that the Company's request to reduce plant related ADIT by NOL is what actually violates the normalization rules under IRC Section 168 pertaining to utility plant assets. The NOL generated due to the full effect of the bonus depreciation deductions does not create inconsistencies nor differences between the allowable deductions under sections 167 and 168 to warrant the adjustments required by IRC § 168(i)(9)(A).<sup>1</sup> Also, the Company failed to explain how reducing plant related ADITs by the NOL that was similarly generated by utility plant asset book/tax depreciation timing differences, created inconsistent estimates and projections under the tax normalization accounting. There is no record to indicate that different depreciation methods or periods were used for regulatory/book purposes and for calculating depreciation expenses. Yankee neglected to cite clause (iii) of IRC § 168(i)(9)(B), which indicates that the regulatory authority or the Secretary of the Treasury Department may by regulation prescribe procedures and adjustments for inconsistencies that are not due to clause (ii). Given the fact that the NOL was not the result of inconsistencies or differences between depreciation methods or periods for

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<sup>1</sup> Normalization rules  
(A) In general

In order to use a normalization method of accounting with respect to any utility property for purposes of subsection (f)(2)-  
(i) the taxpayer must, in computing its tax expense for purposes of establishing its cost of service for ratemaking purposes and reflecting operating results in its regulated books of account, use a method of depreciation with respect to such property that is the same as, and a depreciation period for such property that is no shorter than, the method and period used to compute its depreciation expense for such purposes; and  
(ii) if the amount allowable as a deduction under this section with respect to such property differs from the amount that would be allowed as a deduction under section 167 using the method (including the period, first and last convention, and salvage value) used to compute a regulated tax expense under clause (i), the taxpayer must make adjustments to a reserve to reflect the deferral of taxes resulting from such difference.

regulatory/book and for calculations of depreciation expense purposes, the Department concludes that the adjustment to the plant related ADIT was improper.

**Calculations of Plant Related ADITs as of June 30, 2011, 2012 and 2013.**

	Items		Amount (\$000)
A	2009 Plant Related ADITs *		135,242
B	2010 Plant Additions Deferred Income Tax		17,315
C	Plant Related ADITs as of December 31, 2010	C = A + B	152,557
D	2011 Plant Additions Deferred Income Tax		34,290
E	50% of 2011 Plant Additions Deferred Income Tax	E = D / 2	17,145
F	Plant Related ADITs as of June 30, 2011	F = C + E	169,702
G	Plant Related ADITs as of December 31, 2011	G = C + D	186,847
H	2012 Plant Additions Deferred Income Tax		15,485
I	50% of 2012 Plant Additions Deferred Income Tax	I = H / 2	7,743
J	Add NOL Generated/Used		6,741
K	Plant Related ADITs as of June 30, 2012	K = G + I + J	201,331
L	Plant Related ADITs as of December 31, 2012	L = G + H + J	209,073
M	2013 Plant Additions Deferred Income Tax		2,788
N	50% of 2013 Plant Additions Deferred Income Tax	N = M / 2	1,394
O	Plant Related ADITs as of June 30, 2013	O = L + N	210,467

\*Response to Interrogatory OCC-104, p. 2.

The ADIT balances as of June 30 in 2011, 2012 and 2013 as calculated above are \$169,702,000, \$201,331,000 and \$210,467,000, respectively. The average plant ADITs for the calculations of rate base are \$185.516 million [(\$169.702M + \$201.331M) / 2] for RY1 and \$205.899 million [(\$201.331M + \$210.467M) / 2] for RY2. The Company's reported average plant ADITs for the calculations of rate base are \$181.511 million [(\$167.420M + \$195.603M) / 2] for RY1 and \$201.896 million [(\$195.603M + \$208.190M) / 2] for RY2. The Department determines that plant ADITs included in the calculations of average rate base are understated by \$4.005 million (\$185.516M - \$181.511M) in RY1 and by \$4.003 million (\$205.899M - \$201.896M) in RY2. Consequently, the Department will reduce rate base by \$4.005 million in RY1 and by \$4.003 million in RY2.

In addition, as discussed below in Section II.C. Depreciation, the Department is reducing depreciation expense by \$2,569,789 in RY1 and by \$3,563,789 in RY2. These adjustments increase deferred income taxes by \$899,426 (\$2,569,789 x 35%) in RY1 and by \$1,247,326 (\$3,563,789 x 35%) in RY2. These increases in deferred income taxes increase deferred income taxes in rate base; by \$449,713 (\$899,426 x .5) and \$1,523,089 (\$1,247,326 x .5 + \$899,426) in RY1 and RY2, respectively.

**g. Retired Propane Facilities**

Yankee indicated that as of June 30, 2010 the retired propane facilities account had a deferred balance of approximately \$4.484 million. Yankee adjusted this amount by \$0.433 million for the proceeds from sale of propane, and by \$0.115 million for the projected amortization expense for the 12-month proforma period July 1, 2010 through June 30, 2011. Thus, the total deferred balance as of June 30, 2011 is approximately

\$3.936 (\$4.484 - \$0.433 - \$0.115) million. Yankee proposed to amortize this amount over 10 years, which resulted in a proposed annual amortization expense of approximately \$394,000. Schedule WP C-3-32, p. 13. This amount represents the unrecovered amount related to the propane facilities that were retired due to obsolescence. Michelson PFT, pp. 16 and 17. For rate base, Yankee originally reported that the net deferred balances for the retired propane facilities as of June 30, 2011, 2012 and 2013 are approximately \$2,353,000, \$2,101,000 and \$1,848,000, respectively. Schedule B-6.0. The Company testified that it is in the process of selling these facilities and, based on the competitive bidding it receives, the proceeds from the sales would significantly reduce the proposed deferred balance to be recovered in rates. Michelson PFT, p. 18 and 19; Responses to Interrogatories GA-270 and GA-383.

Yankee revised the deferred balance related to the retired propane facilities to approximately \$418,000 and requested an amortization period of four years. Therefore, the Company proposed an annual amortization expense of approximately \$105,000 (\$418,000 / 4). Response to Interrogatory GA-2SP02, Schedule WP C-3.32, p. 13. For rate base, Yankee revised net deferred balances for the retired propane facilities as of June 30, 2011, 2012 and 2013 are approximately \$250,000, \$187,000 and \$124,000, respectively. Response to Interrogatory GA-2SP02, Schedule B-6.0.

The OCC argued that in a letter dated January 11, 2011, the Department found Yankee in compliance with Order Nos. 2 through 6 of the Interim Decision in Docket No. 09-09-21, Application of Yankee Gas Services Company for Approval to Sell Propane Equipment and Real Property. For the proposed sales of the propane facilities, the Department approved the selected bidders as well as Yankee's proposed accounting treatment. However, the Department deferred approval of Yankee's proposed ratemaking treatment regarding the sale of the propane plants to the instant proceeding. OCC PFT, pp. 16-20.

The OCC acknowledged that Yankee reduced the proposed deferred balance for the retired propane facilities as of June 2011 from approximately \$3.936 million to \$418,000. Nonetheless, the OCC recommended that the rate base in RY1 be reduced by \$2.227 million and in RY2 by \$1.975 million. Also, the OCC recommended that the amortization expenses for each of the proposed rate years be reduced by \$394,000. Id.; Brief, pp. 103-108.

The Department rejects the OCC's recommendation to reduce rate base more than the amount included in the Company's final updated schedules. Yankee reduced the amounts related to the retired propane plants to be afforded deferred regulatory treatment. No information was provided that suggests that Yankee would garner proceeds from the impending sales of the propane plants in excess of the \$4.106 million deferred balance amount. See, Late Filed Exhibit No. 34.

The Department finds that the proceeds from the sales of the propane plants would more than offset the related deferred balance as of the beginning of RY1. First, the Department determined that the amortization expense of approximately \$115,000 proposed for the proforma period is significantly less than the \$394,000 originally proposed as the ongoing amortization expense for the rate years. The amount of amortization expense for the proforma period is inconsistent with the originally proposed

amortization period of 10 years. The Department determined that the deferred propane plant assets at the beginning of the proforma period is approximately \$4.051 million, which is the June 30, 2010 \$4.484 million retired propane facilities deferred balance minus the \$0.433 million proceeds from sale of propane. Using the Company's originally proposed 10-year amortization period, the estimated deferred balance at the end of the proforma period or the beginning of RY1 is approximately \$3.646 million [ $\$4.051\text{M} - (\$4.051\text{M} / 10)$ ]. The difference between this forecasted deferred balance and the estimated cash proceeds is approximately \$460,000 or \$0.460 ( $\$4.106\text{M} - \$3.646\text{M}$ ). Therefore, the Department concluded that the proceeds from the pending sales of the retired propane facilities would reduce the related deferred regulatory asset below zero. Consequently, the Department will disallow rate treatment for the proposed \$418,000 of deferred regulatory assets related to the retired propane plants. As a result, rate base will be reduced by \$219,000 [ $(\$250,000 + \$187,000)/2$ ] in RY1 and \$156,000 [ $(\$187,000 + \$124,000) / 2$ ] in RY2. Additionally, the Department disallows the proposed \$105,000 amortization expense for the retired propane asset in each of the proposed rate years.

Yankee stated in its written exceptions that the Department incorrectly reduces the total deferred retired propane balance of \$4.365 million to \$3.646 million as of the beginning of RY1. The Company stated that the Department incorrectly assumed that it will amortize the book balance over a 10-year period beginning in the proforma year. Yankee declared that it has been deferring the recovery of the unrecovered balance since March 2009 and it initially requested to amortize the unrecovered balance over 10 years. The estimated total sales and inventory proceeds for all propane facilities prior to the Shelton and Vernon equipment sales of \$4.538 million do not fully recover the balance. Therefore, Yankee sought the recovery of approximately \$364,418 over a four-year period, which resulting in an annual amortization expense of \$91,000 ( $\$364,000 / 4$ ). WrittenExceptions, pp. 21-23.

The Department's evaluation of the unamortized deferred balance of the retired propane facilities amount for regulatory treatment was not solely based on the Company's originally proposed 10-year amortization assumption. As indicated above, the Company projected an unamortized balance of approximately \$3.936 million as of the beginning of RY1. This amount is less than \$4.106 million of the total proceeds from the successful bidders of the pending sales the propane facilities' assets. The Department notes that the deferred balance in Account 186PS as of December 31, 2010 was \$4,144,118. See, Response to Interrogatory OCC-16SP01, p. 24. This deferred balance amount does not support the Company's position that it deferred recovery of the unrecovered retired facilities balance since March 2009. Without attributing any additional amortization expense for this deferred amount for the six-month period, January 2011 through June 2011, the Department determines the total net propane asset to be recovered as follows.

### Calculation of Net Propane Asset

A	Gross Plant Asset*	\$2,635,843
B	Deferred Propane Asset**	\$4,144,118
C	Less Accumulated Depreciation*	(\$2,635,843)
D	Less Inventory Proceeds*	(\$ 432,880)
E	Net Propane Asset (E = A + B + C + D)	\$3,839,320

\*See, Late Filed Exhibit No. 34, p. 2

\*\*See Response to Interrogatory OCC-16SP01, p. 24

If the deferred balance calculated above is reduced by the Company's own estimated amortization expense of \$115,000 for the first six months of 2011, the net unamortized propane asset would be approximately \$3.724 (\$3.839M - \$0.115M) million. This amount is also less than total proceeds of \$4.106 million from the successful bidders of the pending sales the propane facilities. As this calculation shows, the Company failed to update the deferred balance in Account 186PS to reflect the amount as of December 31, 2010. Therefore, the proposed deferred net propane asset amount is overstated.

#### h. Hardship/MPP Deferred Balances

As part of the deferred assets in rate base, Yankee reported net deferred hardship/matching payment program (MPP) balances of approximately \$4.827 million, \$3.581 million and \$2.329 million for periods ending June 30 in 2011, 2012 and 2013, respectively. Schedule B-6.0. Thus, the averages of the net deferred hardship/MPP balances included as rate base for RY1 is approximately \$4.204 million  $[(\$4.827 + \$3.581) / 2]$  and \$2.955 million  $[(\$3.581 + \$2.329) / 2]$  for RY2.

The OCC recommended that the Department allow a net deferred hardship rate base of \$3.497 million in RY1 and \$2.102 million in RY2. This results in rate base reductions of approximately \$707,000 in RY1 and \$853,000 in RY2. OCC PFT, p. 80; OCC Exhibit L&A-1, Schedule C-9.

The average deferred hardship/MPP balances included in rates are a derivative of the beginning and ending balances for the applicable periods. As discussed in more detail in Section II.D.6, Hardship/MPP Expenses, the Department agrees with the OCC that the total deferred hardship balance as of the beginning of RY1 was overstated because Yankee failed to update the deferred hardship balances to reflect the amounts as of December 31, 2010. Accordingly, the Department will reduce the proposed rate base by \$707,000 in RY1 and \$853,000 in RY2.

## 2. Long-Term Non-Customer Deposit

Yankee stated that in 2008, \$1.503 million was removed from customer deposit Account 235YG, Customer Deposits – Yankee Gas, and included in the new Account 253YA, Long Term Non-Customer Deposit, to properly account for these funds over a long-term period versus short-term. Yankee claimed that this amount was not included as an offset to rate base. The Company testified that the deposit balance in Account

253YA consists of long-term deposits taken from Northeast Housing to protect the Company's capital investments in three projects. The total balance included a December 2005 \$500,000 deposit for Dolphin Garden's; a June 2006 \$400,000 deposit for Nautilus Park; and a November 2007 \$603,000 deposit for Sub Base Hickory Drive. These deposits represent security payments by a third party who is not a customer and from a builder who is not obligated to guarantee that customers would be connecting onto the Company's distribution system. Response to Interrogatory OCC-297.

The OCC stated that the deposit amount provides Yankee a cost free source of capital and there is no compelling reason for not offsetting rate base by the \$1.503 million in Account 253YA. OCC PFT, p. 20; Brief, p. 51.

The Department finds that simply segregating deposits into short-term and long-term is not a compelling reason to exclude them as offsets to rate base. Yankee's capital investments in these projects are recoverable in rates as part of net utility plant assets in the instant proceeding. The Department does not subscribe to the Company's position to include costs of capital projects in rate base and exclude the related security payments or deposits as offsets to rate base. To the extent that the costs of uncompleted capital projects are included in valuation of utility plants, any unreturned customer deposits, LOC, or other payments should serve as offsets to rate base. Consequently, the Department will use the \$1.503 million balance in Account 253YA as an offset to rate base in the instant rate proceeding.

### **3. Rate Base Additions Greater than \$100,000**

Yankee proposed to add 59 projects to rate base that have capital expenditures greater than \$100,000. All of these projects were designated as either new business or expansion projects. Many of these projects are related to housing developments in Yankee's service territory. For each project in their respective Hurdle Rate calculations, the estimated number of customers, Yankee provided anticipated sales, size, length and type of pipes installed. The Company also provided the contracts between it and the builders for each project, which lists specific conditions and terms. Most of the contracts included language requiring that the contractor have a specific amount of units or a committed volume of sales by a specified date. Further, most of these contracts included a penalty or recapture clause that would allow Yankee to recover a specified dollar amount for each unit that was not installed by a given date. Yankee stated that it includes this provision to ensure that the project's sales recover the Company's capital investment in the project. The Company testified that it had not collected any recapture payments from the 14 contractors whose projects did not meet the conditions of the contract. A recapture payment reduces Yankee's capital cost associated with a project that is included in the Hurdle Rate calculation. Yankee indicated that the recapture payment in the contract would act as a contribution-in-aid-of-construction. This would bring the Hurdle Rate back to zero over the 15 years of the analysis. Responses to Interrogatories GA-263SP01 and GA-437; Tr. 3/21/11, pp. 1810-1812.

In its written exceptions, the Company stated that:

Yankee's forbearance is well-founded as many of these contractors are once again building homes and adding load to Yankee's System. In recent times, the activity on several of these projects has increased, foreclosed properties are being bought and projects are being resurrected by new builders.

Written Exceptions, pp. 23 and 24.

The Company further stated that "[i]f Yankee is forced to take legal action and enforce its remedies under the contracts, instead of engaging in cooperative relationships with developers, then no one benefits." Yankee also referred to Late Filed Exhibit No. 112 as supporting evidence for its above cited statement. Written Exceptions, pp. 23 and 24. However, Late Filed Exhibit No. 112 is not specific. It is a general statement and does not indicate when the additional sales will be added to Yankee's system from these projects, to meet the necessary sales to compensate for Yankee's investment in each of the projects. As stated above, the Company admitted it had contracts with these builders that required a specific number of units and corresponding sales must be in service by specific dates. The testimony provided specifically indicates the conditions of the contracts were not met. Therefore, the Department maintains its current practice as stated herein.

The Department finds that Yankee has made its own judgment regarding whether the contracts should or should not be enforced. Yankee also included all of the costs of these projects in the instant rate case for recovery. Further, the Company is fully aware that when the sales forecast for a specific project or groups of projects are not met the remaining ratepayers pay for the costs associated with the plant installed through their distribution rates. This is an unfair burden for the ratepayers to bear especially when Yankee has a contract with the owners of the projects to collect the recapture payments if the conditions of the contract are not met.

Yankee could not determine whether the sales associated with each of the projects were included in the Company's sales forecast; it is impossible to identify individual loads in the forecast model. Tr. 3/21/11, pp. 2008 and 2009.

The Department analyzed the responses to Interrogatories GA-263SP01 and GA-437 and determined that Yankee did not collect a total of \$1,630,816 in recapture payments from the 14 contractors. The amount was calculated by multiplying the number of units not completed in each project that were scheduled to be completed by a specific date times the penalty per unit. Since Yankee did not make any attempt to recover the recapture penalties from the 14 contractors, the Department disallows the capital investment allowed in rate base of \$1,630,816 associated with the recapture payments for RY1 and RY 2.

Because the Department is unable to identify whether the sales associated with each project is included in the Company's sales forecast, the Department will assume the lower of the two numbers is included in the sales forecast for RY1 and RY2.

Therefore, no reduction in sales is required in either rate year as a result of the disallowance cited above.

#### **4. Proposed Capital Additions**

For Accounts 37400-38700, Yankee proposed a test year rate base of \$903,494,000, capital additions of \$76,613,000 and retirements of \$3,609,000. Most of the increase occurred in Account 376 Mains, is \$47,128,000 and Account 380, Services, \$14,268,000. Schedule B-2.1. Yankee proposed to add \$108,084,000 in capital additions and \$6,704,000 in retirements during RY1 and \$76,460,000 in capital additions and \$7,217,000 in retirements during RY2. Schedule B-2.1.

The Department notes that the Company numbered the same accounts differently in Schedule B-2.1 and in the Depreciation Study. Schedule B-2.1 used a three digit coding for the accounts, while the Depreciation Study used a five digit coding for the same accounts. For example, the Company cited the Mains account as 376 in Schedule B-2.1 and then lists the Mains account as 37600 in the Depreciation Study. The Company will be directed to use the same numbering system for the same account titles in both the Depreciation Study and other schedules. The Department discusses specific accounts below.

##### **a. Account 376 - Mains**

For Account 376 Mains, Yankee originally proposed capital additions of \$72,733,000 for RY1. This account is divided into several categories: \$32,400,000 for the WWL main, \$9,762,000 for new business, \$10,094,000 for municipal and state highway relocations, \$15,884,000 for the planned Bare Steel Cast Iron Replacement Program and \$2,986,000 for system integrity improvements, \$1,150,000 for corrosion and \$457,000 for emergency main repair. In RY2, Yankee proposed to invest \$41,068,000 in Account 376 Mains in the following categories: new business \$8,463,000, \$21,059,000 Bare Steel and Cast Iron Replacement Program; \$6,839,000 municipal and state highway relocations, \$2,983,000 system integrity, \$1,167,000 corrosion and \$557,000 for emergency main replacement. Schedule B-2.1; Response to Interrogatory GA-390. Yankee provided historical plant additions for emergency replacements of \$305,300 for 2008 and \$590,100 for 2009. Response to Late Field Exhibit No. 17.

The Department accepts Yankee's proposed new business capital additions of \$9,762,000 for RY1 and \$8,463,000 for RY2. However, the Department finds that the capital additions associated with municipal and state highway relocation projects during RY1 and R2 are excessive. The Department is aware that most recent municipal and state highway projects are the result of previous block grants from the Federal government. However, the Federal stimulus spending is ending and the municipal and state governments have significant spending limitations. Therefore, it is reasonable for the Department to assume that spending for highway projects will significantly decrease from the dollars spent in 2009 and 2010 and reduce the number of main relocations. Further, most of the replacements related to municipal and state relocations are cast iron and bare steel pipe. Therefore, any relocation project that involves cast iron and bare steel pipe would otherwise qualify under the increased spending for this program,

as discussed in Section II.S.4. Distribution Integrity Management Program. The Department reviewed the amount Yankee expended over the prior three years and finds that \$5,566,000 of capital spending in RY1 and also in RY2 meets the Company's capital investment requirements. The Department calculated the \$5,566,000 by averaging the capital additions over the three prior years  $[(\$1,100,000 + \$3,700,000 + \$11,900,000) / 3]$  related to municipal and state highway relocations between 2007 and 2009. Therefore, the Department disallows \$4,528,000  $(\$10,094,000 - \$5,566,000)$  from RY1 and \$1,273,000  $(\$6,839,000 - \$5,566,000)$  from RY2 from Account 376 Mains. The impact on rate base for RY1 is \$2,264,000  $(1/2 \times \$4,528,000)$  and for RY2 \$5,164,500  $(1/2 \times 1,273,000) + \$4,528,000$ .

The Company revised its projected capital additions related to the WWL in the revised SFRs submitted in response to Interrogatory GA-2-SP02, Bulk. Yankee reduced the capital additions related to the WWL in Account 376 Mains. The capital additions for the proforma period changed from \$47,128,000 to \$46,231,000, RY1 capital additions changed from \$72,733,000 to \$70,052,000 and RY2 capital additions remained at \$41,068,000. Based on the Company's revised costs associated with the WWL, the total rate base for Account 376 Mains as of June 30, 2011 was reduced from \$549,514,000 to \$548,617,000; a difference of \$879,000. The total rate base as of June 30, 2012 was reduced from \$620,491,000 to \$616,913,000; a difference of \$3,578,000, and as of June 30, 2013 from \$659,669,000 to \$656,091,000; a difference of \$3,578,000. Response to Interrogatory GA-2-SP02, Bulk Schedule B-2.1.

Yankee stated in its written exceptions that the draft Decision ignored the Company's response to Interrogatory GA-426 and that the Department only used the data for projects greater than \$1 million. Yankee stated that if the Department used an average of the last three years of data, it should have used the data in the above cited response, which would result in an average capital expenditure of \$10.9 million. Further, Yankee stated that its original proposed capital expenditures of \$10.094 million in RY1 and \$6.0839 million in RY2 are appropriate and therefore should be approved. Written Exceptions, pp. 14 and 15. However, Yankee failed to indicate that historically it has been taking credit for specific state and municipal relocations under the Company's currently approved \$15 million cast iron replacement program. Tr. 3/21/11, pp. 1639-1643. Therefore, the actual capital expenditures included in the response to Interrogatory GA-426 regarding state and municipal highway relocations are included in the planned replacements under the Aging Infrastructure category within that exhibit. As a result, the only other data available in the record of the instant proceeding is Yankee's response to Interrogatory OCC-14. Therefore, the Department used the data from the response to Interrogatory OCC-14 as a basis to calculate the approved capital expenditures for the state and municipal highway relocations for RY1 and RY2.

The Department finds that the change in costs associated with the WWL do not affect the disallowance cited above. The impact of the reduction in rate base associated with the WWI only affects the depreciation accrual expense, which is discussed in Section II.C. Depreciation.

**b. Account 380 - Services**

For Account 380 Services, the test year actual plant-in-service balance was \$215,927,000. Yankee proposed to invest an additional \$17,779,000 and retire \$1,461,000 of services resulting in a total plant-in-service of \$243,799,000 for RY1. In RY2, Yankee proposed a capital investment of \$20,471,000 and retirements of \$2,921,000 resulting in a total plant-in-service of \$261,349,000. Schedule B-2.1; Response to Interrogatory GA-390.

The Department accepts Yankee's proposed RY1 capital additions of \$17,779,000 and RY2 expenditure of \$20,471,000 for Account 380 Services.

**c. Account 381 - Meters**

For Account 381 Meters, Yankee stated that the test year balance for meters and related devices was \$70,881,000. Yankee proposed capital additions of \$5,749,000 and retirements of \$516,000 for the proforma period. During the first half of the proforma period ending December 31, 2010, Yankee's actual capital additions equaled \$2,410,000. Schedule B-2.1; Responses to Interrogatories OCC-15 and GA-377.

The Company proposed a total plant-in-service as of June 30, 2011 of \$76,114,000. During RY1, Yankee proposed capital additions of \$6,500,000 and retirements of \$958,000 resulting in a total plant-in-service balance of \$81,656,000 at the end of RY1. During RY2, Yankee proposed capital additions of \$6,250,000 and retirements of \$1,031,000 for meters and meter related devices that resulted in a total plant-in-service balance of \$86,875,000 at the end of RY2. The meters and metering device purchased for each of the above cited years are divided into four categories: Mercury Pulse Accumulators (MPAs), Encoder Receiver Transformers (ERTs), new gas service along with the replacement of aging meters, and meter pressure corrector replacements along with meter testing equipment. Schedule B-2.1; Responses to Interrogatories OCC-15 and GA-377.

Regarding the MPA units, Yankee proposed to include capital additions of \$1,927,000 associated with replacing obsolete Metscan units with MPA units for large customer billing accounts during the proforma period. The Company also proposed to include \$2,400,000 for MPA units in RY1 and again in RY2. Response to Interrogatory GA-377. Both the Metscan and MPAs units sit on top of the existing meter and collect consumption data on an hourly basis. Yankee testified that it needed to purchase the MPAs to replace the Company's inventory of Metscan units because the manufacture will no longer support the technology associated with the Metscan system. Yankee indicated that it developed a replacement cycle to exchange all the Metscan units with MPAs. The Company made reference to the Decision dated April 1, 2009, in Docket No. 06-10-02PH02, Application of Yankee Gas Services Company for a Rate Increase – Rate Design (2009 Rate Design Decision), to clarify questions related to the proposed MPA replacement program. Tr. 3/22/11, pp. 2025 - 2027. That Decision stated that the MPA units use a phone line technology to report data similar to the Metscan system. In that Decision, Yankee testified that it needed to replace 5,390 existing Metscan units with MPAs at a cost of \$730 per unit. 2009 Rate Design Decision, p. 31. The Company

did not provide any additional information regarding the MPA units in the instant proceeding.

As no other unit cost information was available, the Department used the information from the 2009 Rate Design Decision to approximate the costs associated with replacing the Metscan units with the MPAs. Based on the Company's testimony in that Decision, Yankee should incur a total cost of \$3,934,700 (5,390 MPA units times a cost of \$730 per unit) to replace all the Metscan units with MPA units.

In its written exceptions, Yankee stated that the \$730 is the actual cost of a MPA unit and is not the total installed cost of the unit. The written exceptions stated that "[t]he Company included in Docket No. 06-12-02PH02 the projected cost of this replacement to be approximately \$6.4 million, which is based on the replacement of 6,400 units with a total unit and replacement cost of \$1,000/ unit. See Docket No. 06-12-02PH02, Yankee Response to LFE-61-SP-02-Bulk." Yankee stated that denying recovery of the Company's pro-forma capital expenditures without any finding of imprudence is unfair to the Company and its investors. Written Exceptions, pp. 15-18. Yankee included information in its written exceptions regarding the total cost of \$6.4 million associated with the MPA replacement program, the estimated installed cost of \$1,000 per unit and an actual installed cost of \$1,300 per unit. None of this information is included in the record of this proceeding. This information may be in the record of the above cited docket, but the Company did not take Administrative Notice of that document in the instant proceeding and therefore cannot use that information in the instant proceeding. The Department requested that the Company explain the capital additions included in Account 381 – Meters. Response to Interrogatory GA-377. Within that response, the Company itemized the capital additions for the proforma year, RY1 and RY2 into their respective individual annual capital additions.

The Department cross-examined the Company witnesses regarding its response to Interrogatory GA-377 to determine why Yankee needed to make those capital additions and for what the capital additions were to be used. The Company responded to the Department's request for information about the MPA replacement program and also referred the Department to the 2009 Rate Design Decision. Tr. 3/22/11, pp. 2025 - 2027. The record in the instant proceeding does not include the MPA cost per unit it only includes the annual costs cited above. Since no other information was available on the record in the instant proceeding, the Department used the information cited in the 2009 Rate Design Decision to approximate the costs associated with replacing the Metscan units with the MPAs. It was discovered that the total costs of the MPA replacement program in the instant proceeding did not correspond to the information included in the prior Decision. Therefore, the Department used the information from the 2009 Rate Design Decision. It is the Company's responsibility to ensure the record in the proceeding supports its proposals.

The Department finds that Yankee over-estimated the total capital additions and the rate base necessary to complete the MPA replacement program by \$2,792,300 (\$6,727,000 - \$3,934,700). The Department will allocate the approved cost for the MPA Replacement Program of \$3,934,700 equally between the proforma period, RY1 and RY2. Therefore, the Department will allow \$1,311,567 ( $\$3,934,700 / 3$  years) per year. The Department disallows a total of \$615,433 ( $\$1,927,000 - \$1,311,567$ ) from the

proforma period, \$1,088,567 (\$2,400,000 - \$1,311,433) from RY1 and also for RY2 from Account 381 Meters for the replacement of the Metscan units with MPAs.

Regarding ERTs, Yankee proposed capital additions of \$1,298,000 for ERTs during the proforma period, \$1,100,000 for RY1 and \$1,100,000 for RY2. Yankee was asked during the hearings, whether it had signed contracts for a specific number of ERTs to be installed during the proforma period, RY1 and RY2. The Company's witness referred the Department to the 2009 Rate Design Decision. ERTs sit on top of the meter for small residential and commercial customers and report data to Yankee on a monthly basis. The battery in the ERT has a life expectancy of about 20 years. As the ERTs age and the batteries usefulness decreases, the Company removes these units and sends them back to the manufacture to "refurbish the battery." This replacement program is an on-going program and ERTS are removed and reinstalled on a rotating basis. Schedule B-2.1; Tr. 3/22/11, pp. 2025-2027. The Department accepts the Company's proposed capital additions for ERTs for the proforma period, RY1 and RY2 because the replacement program is an on going project. Further, the ERTs battery has a limited life expectancy and must be placed as that battery loses its charge.

In summary, the Department will disallow a total of \$615,433 from the proforma period, \$1,088,567 from RY1 and \$1,088,567 from RY2 for Account 381 Meters. The impact on rate base for RY1 is \$544,284 ( $1/2 \times \$1,088,567$ ) and for RY2 is \$544,284 ( $1/2 \times \$1,088,567$ ). Therefore, the impact on rate base for Account 381 Meters for RY1 is \$1,159,717 ( $1/2 \times \$1,088,567 + \$615,433$ ) and for RY2, is \$2,248,284 ( $1/2 \times \$1,088,567 + \$1,088,567 + \$615,433$ ).

**d. Account 382 - Meter Installations**

For Account 382 Meter Installations, Yankee proposed a test year actual balance of \$38,560,000 as of June 30, 2010 and capital additions of \$2,675,000 in the proforma period. While Yankee had projected to spend \$1,356,000 during the first half of the proforma period for its meter installations it, actually spent \$1,047,000 resulting in a difference of \$309,000 ( $\$1,356,000 - \$1,047,000$ ). Yankee testified that the variance between the budgeted and actual capital additions is the result of the decline in new customer services and new business requests. Response to Interrogatory OCC-15. The Company proposed capital additions for meter installations of \$3,251,000 for RY1 and \$3,748,000 for RY2. Yankee provided historical capital additions for these installations for the period of 2006 through 2010. The capital additions for 2007 included an unexplained negative capital adjustment of \$1,879,237 and a positive retirement of \$460,170. The remaining four years of the period had positive capital additions ranging from a low of \$1,100,239 in 2006 to a high of \$2,704,971 during 2007. During the same period Yankee had negative retirements ranging between \$106,825 and \$165,306. The four-year average of capital additions for Account 382 is \$2,015,955 [ $(\$1,100,239 + \$2,704,971 + \$2,050,154 + \$2,208,454) / 4$  years] Schedule B-2.1; Responses to Interrogatories OCC-15 and GA-435, p. 3.

The Company did not update its capital additions for the proforma period after December 31, 2010 for the remaining months of that year. Therefore, since no other data was presented in the instant proceeding, the Department would assume that the

capital additions for the second half of the proforma period will be similar to those, which occurred during the first half of the year. The proforma period capital additions will be calculated by doubling the actual expenditures that occurred in the first half of that year. Therefore, the capital additions for the proforma period will be equal to \$2,094,000 (\$1,047,000 x 2). As a result, the Department will disallow \$581,000 for the proforma period, which is the difference between Yankee's proposed capital additions of \$2,675,000 and the Department's approved capital additions \$2,094,000.

In its written exceptions, Yankee stated that the draft Decision incorrectly assumes that the spending for the entire pro-forma year is double the first half of that year's actual expenditures. The Company stated its actual capital expenditures for the pro-forma year were \$2,675,000 and the Draft Decision makes no finding of imprudence, but denies the recovery of the \$2,675,000 in rates. The Company stated that disallowance of the pro-forma year capital expenditures without a finding of imprudence is unfair to the Company and its investors. Written Exceptions, pp. 15 - 18. The Department notes that the \$2,675,000 of capital expenditures was the exact amount submitted in the Company's proposed rate case filing dated January 7, 2011. Therefore, by default cannot be actual expenditures but an estimate of the proforma year capital additions. Schedule B-2.1. The Department's disallowance is not related to imprudence, but related to a lack of information supporting the expenditures for the second half of the pro-forma year. Therefore, since no other information was available on the record relating to expenditures during the second half of the pro-forma year, the Department found it reasonable to assume that the actual expenditures during the second half of the pro-forma year should be similar to the first half of the pro-forma year.

Regarding RY1 and RY2, the Department finds that using historical averages to set capital additions is reasonable and eliminates the variability associated with differences between annual budgeted and actual capital additions. Since the capital additions for 2007 included an unexplained negative expenditure, the Department eliminated that data from the calculation of the historical average for the period. As a result, the Department used the remaining data in the response to Interrogatory GA-435 to calculate a four-year average of capital additions equal to \$2,015,879 [(\$1,100,239 + \$2,704,971 + \$2,050,154 + \$2,208,154) / 4 years]. The four-year average differs from the proforma period capital additions by \$78,121 (\$2,094,000 - \$2,015,879) or less than 5%. Therefore, it is reasonable to use the proforma capital additions for both RY1 and RY2. Using the Department's approved proforma capital additions cited above, results in capital additions of \$2,094,000 for RY1 and RY2. As a result, the Department will disallow \$1,157,000 (\$3,251,000 - \$2,094,000) from the proposed RY1 and \$1,654,000 (\$3,748,000 - \$2,094,000) from the proposed RY2 capital additions. Therefore, the impact on rate base for Account 382 for RY1 is equal to \$1,159,500 (1/2 x \$1,157,000 + \$581,000) and for RY2 is \$3,638,000 (1/2 x \$1,654,000 + \$1,157,000 + \$1,654,000).

## **5. Accounts 389-398 – General Plant**

For Accounts 389-398 General Plant, Yankee proposed an actual test year plant-in-service of \$47,406,000. The Company proposed to include \$10,092,000 for capital additions for the proforma period. Response to Interrogatory GA-265; Schedule B-2.1, p. 2. Yankee provided an exhibit that showed its actual capital additions of \$2,257,000 for the first half of the proforma period, which was up to December 31, 2010. The

record does not include any actual expenses for the second half of the proforma year. Response to Interrogatory OCC-15, p. 2. Yankee testified that its actual capital additions were less than the Company's projected additions as a result of timing issues relating to the implementation of uncompleted projects. Yankee anticipated the uncompleted projects would be finished later in 2011. Tr. 3/22/11, pp. 2052 and 2053.

The Department notes that as of the date of the written exceptions June 14, 2001, Yankee indicated that a "majority of them are all ready completed as planned." Written Exceptions, p. 19. The exceptions state that "[t]his results in a disallowance of \$7,092,000 invested capital which has been spent." Further, Yankee's written exceptions cite the transcript dated March 22, 2011, pp. 2052-2053 as support that "it expected to complete all pro forma projects by the end of the pro forma period." Written Exceptions, pp. 17 and 18. However, a review of the transcript cited above and the response to Interrogatory OCC-15 dated January 4, 2011, shows there were significant variances between the Company's projected capital additions and the actual additions as of December 31, 2010 for Accounts 389 – 398. In addition, the testimony during the March 22, 2011 hearing stated "that the projects will be completed . . . a little later in 2011." Tr. 3/22/11, pp. 2052 and 2053. However, a number of the projects included in the response to Interrogatory OCC-15, dated January 4, 2011, stated they would be in-service in early 2011. It appears that by the completion of the March 22, 2011 hearing, Yankee had not completed a majority of the projects as it had stated in its written exceptions.

Yankee included in the proforma period a capital expenditure of \$757,000 for a new LNG storage building at the Eagle Street site in Account 390 Structures and Improvements. Response to Interrogatory GA-265. Further, Yankee testified the capital cost associated with the LNG storage building of \$757,000 occurred between July 1, 2010 and December 31, 2010. Response to Interrogatory GPS-007. Yankee testified it needed the new LNG storage building for additional storage space because the Company outgrew its existing Eagle Street building. By constructing the storage building at the above cited location, the Company's staff could perform services that were previously provided by outside vendors such as snowplowing the entire property. Yankee stated it purchased a snowplow so that its staff could plow the Eagle Street facility instead of contracting an outside vendor to perform snowplowing for the site. Further, the Company testified it needed to store the snowplow and truck in the storage building to keep them in operating condition. The Company's witness then cited numerous other smaller items it needed to store in the building. Most of the equipment and items were originally stored in the original building at the front of the Eagle Street property. Tr. 3/22/11, pp. 2036-2038.

After further consideration of the facts on the record, the Department finds sufficient evidence to support the inclusion of the LNG storage in plant-in-service. Historically, the Company has had sufficient storage and apparently requires a larger facility to house specific equipment at the Eagle Street site.

**a. Account 390 - Structures and Improvements**

Yankee proposed a plant-in-service associated with Account 390 Structures and Improvements, of \$25,436,000, as of June 30, 2011. Yankee proposed capital

additions for RY1 of \$2,736,000 and \$2,163,000 for RY2. Schedule B-2.1. The Company provided its historical capital additions for Account 390 for each year during the period of 2003 to 2008. The actual capital additions ranged from \$456,000 in 2005 to \$3,056,000 in 2004. Response to Interrogatory GA-266.

The Department finds that the capital additions for this account vary annually during the period cited above. Therefore, it is reasonable to use a historical average to determine the RY1 and RY2 capital additions. Using the six years of data from the response to Interrogatory GA-266, the Department calculated a historical average of \$1,411,333 [(\$1,539,000 + \$3,056,000 + \$456,000 + \$1,003,000 + \$612,000 + \$1,802,000) / 6 years]. Therefore, the Department will disallow \$1,324,667 from RY1, which is the difference between Yankee's proposed capital expenditure of \$2,736,000 and the average historical capital expenditure of \$1,411,333. The Department will apply the same methodology for RY2 resulting in a disallowance of \$751,667. Therefore, the impact on rate base for Account 390 RY1 is equal to \$662,333 (1/2 x \$1,324,667) and for RY2 is \$1,700,500 (1/2 x \$751,667 + \$1,324,667).

#### **b. Account 394 - Tools, Shop and Garage Equipment**

For Account 394 Tools, Shop and Garage Equipment, Yankee proposed capital additions of \$1,173,000 for RY1 and \$1,169,000 for RY2. Schedule B-2.1. The Company provided its historical capital additions for this account for each year between 2003 and 2008. The actual capital additions ranged from a low of \$65,000 during 2005 to a high of \$950,000 during 2003. Response to Interrogatory GA-266.

The Department finds the capital additions vary annually during the period cited above. Therefore, it is reasonable to use a historical average to calculate the capital additions for RY1 and RY2. The Department calculated a historical average over six years of \$354,000 [(\$950,000 + \$121,000 + \$65,000 + \$280,000 + \$159,000 + \$550,000) / 6 years] using the data included in the response to Interrogatory GA-266. The Department will apply the above cited average to RY1 and RY2. As a result, the Department will disallow \$819,000, which is the difference between Yankee's proposed RY1 capital expenditure of \$1,173,000 and the average historical capital additions of \$354,000. The Department will apply the same methodology for RY2 resulting in a disallowance of \$815,000. Therefore, the impact on rate base for Account 394 for RY1 is \$409,500 (1/2 x \$819,000) and for RY2 is \$1,226,500 (1/2 x \$815,000 + \$819,000).

### **6. Cash Working Capital**

#### **a. Introduction**

It is a customary regulatory practice to allow an adjustment to rate base in recognition of the timing difference between when revenues are received and when expenses are paid out. For larger utilities, the Department typically prefers that a lead/lag study be conducted to determine the appropriate cash working capital allowance rather than using some rule of thumb approach or the utility's balance sheet result. In this proceeding, Yankee conducted such a lead/lag study and requests that the results of that study be used for determining its RY1 and RY2 rate bases.

Schedule H-1.4 contained the results of and supporting calculations for the Company's lead/lag study. In conducting its study, Yankee used a statistical sample of retail customers and calculated a weighted average of the time between the bill date and the payment date plus one-half the time between the current bill date and the previous bill date for the sample. WP H- 1.4a, p. 1. Yankee believes that this method is appropriate, tested over time, and the best method to apply in this case. Tr. 3/9/11, p. 524. Using this method, the Company calculated a revenue lag of 42.37 days for the period July 1, 2009 through June 30, 2010. WP H- 1.4a, p. 1; Tr. 3/9/11, pp. 146 and 147. The Company also specifically studied and calculated the expense lead for payroll, payroll deductions, gas purchases, other O&M, eight different categories of taxes, long-term debt and common equity. Based on these calculations and assumptions made regarding the expense lead for other expense categories such as depreciation, pension and deferred taxes, the Company calculated a cash working capital requirement of \$6,117,000 based on a net lag of 4.66 days for RY1 and a requirement \$6,467,000 based on a net lag of 4.65 days for RY2. Response to Interrogatory GA-2, SP-2, Schedule B-1.0. The Department reviewed Yankee's cash working capital request for both RY1 and RY2 and finds them acceptable except as discussed below.

**b. Non-Cash Items**

Throughout this proceeding, the OCC argued that non-cash expenses should not be part of the lead/lag study because they do not involve an outlay of cash and are excluded by some regulatory jurisdictions in the determination of cash working capital allowance. Schultz/Ramas/Dady PFT, pp. 36-38; Tr. 3/9/11, pp. 350-352; Tr. 3/16/11, pp.1215-1219; OCC Brief, pp. 55-58. The OCC also argued that inclusion of non-cash expenses such as depreciation in the cash working capital allowance over compensates a company, even when such expenses reduce rate base. This is because only half of the annual expense serves as an offset to average rate base. If 100% of the expense is added back to rate base as part of a cash working capital allowance, ratepayers will be carrying more than the beginning of the year balance for the asset. The OCC provided an example where a \$100,000 asset is depreciated over 10 years creating an annual depreciation expense of \$10,000. In year 1 of the OCC's hypothetical, the average rate base is \$95,000 and the cash working capital allowance for depreciation is \$10,000, which means ratepayers are carrying \$105,000 of rate base for this item. OCC Brief, pp. 57 and 58; Schultz/Ramas/Dady PFT, pp. 39 and 40. In reviewing these assertions by the OCC, the Department first considered whether ratemaking treatment creates a carrying cost for Yankee relative to the non-cash expenses. When these expenses reduce rate base, the Company is deprived of the return that investment in rate base affords. If there is a lag between the reduction in rate base and the receipt of revenues recovering the expense, a carrying cost is incurred by the Company for the time of the lag. As such, it is appropriate for these "non-cash" expenses to be part of a cash working capital allowance.

The Department also considered whether inclusion in the lead/lag study as proposed by Yankee over-compensates the Company for the carrying cost of non-cash items. The OCC's concern stems from an annual expense creating an average offset to rate base of only 50% of the expense while the cash working capital allowance could add 100% of that expense back to rate base. It is important to note that the Company's

proposed cash working capital allowance includes daily expense amounts times the net lag days associated with the expense. This means that 100% of the annual expense would only be added back to rate base if the expense had a net lag of one full year (365 days). Response to Interrogatory GA-2, SP-2, Schedule H-1.4. If an expense had such a lag, then at any point in time Yankee would need carrying cost on its average investment in rate base, plus carrying cost on a year's worth of expense that it has reduced rate base by, but is still waiting to receive from ratepayers.

While the OCC compares average rate base plus the cash working capital allowance ( $\$95,000 + \$10,000 = \$105,000$ ) to the beginning of the year balance ( $\$100,000$ ) in claiming the Company is overcompensated ( $\$105,000 > \$100,000$ ), this comparison is incomplete. OCC's comparison assumes a new depreciation expense that is only a half year in existence at the midpoint of the rate year. However, actual revenue requirements consist of a number of expenses; some just beginning, others ending and many continuing as before. A more complete comparison is back a full year (the net lag) to the midpoint of the prior year. Looking at the OCC's example this way, results in a comparison that shows the Company appropriately compensated [ $\$95,000 + \$10,000 = \$105,000 - (\$10,000 \div 2)$ ]. This comparison accurately reflects that not only is the Company still waiting for the depreciation expense from the beginning of the rate year to the midpoint of the rate year, but it is also waiting for the expense from the middle of the prior year to the beginning of the rate year. In this hypothetical, rate base is reduced, midpoint to midpoint, from  $\$105,000$  to  $\$95,000$ , but the Company has not received any of the expense that led to that reduction. It is the cash working capital allowance of  $\$10,000$  that restores the mismatch between the Company's outstanding investment ( $\$105,000$ ) and net plant in service ( $\$95,000$ ). For these reasons, the Department will not adjust the Company's study for non-cash items.

### **c. Revenue Lag on Purchased Gas Cost Related Revenues**

In developing the revenue lag for the Company, Yankee added one-half the time between the current bill date and the previous bill date to the weighted average of the time between the bill date and the payment date. WP H- 1.4a, p. 1. The purpose of adding one-half the time is to account for the fact that meters are read at the end of the month or billing cycle for service rendered during the month or cycle. This service lag portion of the revenue lag measures when service is rendered relative to when bills are issued. Tr. 3/9/11, pp. 148 - 152. While the Company did not specifically break out the service lag from its revenue lag of 42.37 days, based on billing cycles of 27 to 33 days and 12 months in a year, a reasonable estimate of the service lag would be 15.21 days [ $(365 \div 12) \div 2$ ]. Tr. 3/9/11, pp. 155 and 156; Response to Late Filed Exhibit No. 28, pp. 13 and 14. While a service lag is appropriate for revenues associated with almost all expense categories, it is not the case for revenues associated with purchased gas costs. Unlike other revenues, these revenues are trued-up and recovered through the purchased gas adjustment clause (PGA). This clause recovers purchased gas costs based on sales billed during the month, not on sales accrued or delivered during the month. As such, meters are read during the month and trued up through the PGA for service provided during the month. This action by the PGA effectively aligns meter reads with service rendered and eliminates the service lag. For purchased gas cost related revenues, meter reads are centered on the midpoint of the month or billing cycle

for service centered on the midpoint of the month or billing cycle. Tr. 3/9/11, pp. 158-168.

Yankee does not dispute that the PGA recovers purchased gas costs based on sales billed during the month.<sup>2</sup> However, the Company asserted that this fact does not impact the service lag calculation because, relative to recovery based on accrued sales, the cash flow of dollars into and out of the Company are the same. Response to Late Filed Exhibit No. 15. However, the Company agreed that, in fact, the revenues collected through the PGA would differ depending on whether billed or accrued revenues were used. Tr. 3/29/11, pp. 2272-2275. The Company acknowledged that a change from using accrued sales to using billed sales changed the timing of the defined accounting recovery pattern for the PGA, which in turn changed the defined PGA over/under recovery (revenues vs. expense). Response to Late Filed Exhibit No. 15. The whole point of a cash working capital adjustment is to account for timing differences between the incurrence of expenses and the receipt of revenues. Both the Department and the Company agree that incurrence of purchased gas cost remains the same (Tr. 3/29/11, pp. 2267-2270; Yankee Brief, p. 50), so if the timing of recovery (revenues) is changed there is necessarily an impact on cash working capital.

Yankee tries to reconcile its contradictory positions by arguing that the revenue recovery differences are either a one-time adjustment or only computed over- or under-recoveries that on a 12-month basis do not change significantly absent material usage variations due to weather and other factors. Yankee Brief, p. 50. The Company misses the point. The issue is not the difference in the amount of recovery; it is the difference in the timing of recovery. The Company's PGA recovers accrued purchased gas costs based on billed revenues. Relative to accrued revenues, billed revenues are approximately 15.21 days closer to being received by Yankee than accrued revenues. In moving from accrued sales to billed sales, Yankee has not changed its billing cycles, when it reads its meters, when it sends out its bills or anything else related to its billing process. Response to Late Filed Exhibit No. 15. What has changed is the accounting timing of its recovery of purchased gas costs. This timing difference was/is effectuated by the one time adjustment and the continuing over- and under-recoveries that are reconciled through the PGA. No longer are accrued revenues recovering accrued purchased gas costs; now billed revenues are recovering these accrued costs. Tr. 3/29/11, pp. 2284-2287. Billed revenues are received on average 15.21 days sooner than accrued revenues. Tr. 3/29/11, pp. 2298-2300. Therefore, the Department reduces the revenue lag associated with purchase gas cost related revenues by 15.21 days.

#### **d. Expense Lead on Other O&M Expenses**

During this proceeding, the OCC challenged the expense lead days proposed by Yankee for other O&M expenses. OCC Brief, pp. 59-63; Schultz/Ramas/Dady PFT, pp. 41-44. Among other issues associated with the proposed lead for this expense category, OCC objected to Yankee's use of only the invoice date and the payment date to determine the lead. OCC argued that invoices are not always sent when goods

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<sup>2</sup> The Company changed from a PGA based on accrued sales to one based on billed sales in September 2008. Late Filed Exhibit No. 15.

and/or services are delivered; that usually there is a service period lead. Schultz/Ramas/Dady PFT, pp. 41 and 42. Based on this, the OCC concluded that it would be appropriate to add the standard service lead of 15 days to Yankee's proposed expense lead for other O&M expenses of 20.18 days. Schultz/Ramas/Dady PFT, p. 44. The Company claims that it applied accepted industry practice in using the invoice date to determine the expense lead for other O&M expenses and that this methodology has been accepted in the past by the Department. Yankee Reply Brief, pp. 13 and 14; Response to Late Filed Exhibit No. 28, p. 12. However, Yankee's assertion that its methodology is accepted industry practice appears to be based on an exemption laid out in an accounting principles book. This exemption allows the Company's methodology when expenses are not recognized or accrued until an invoice is received. Tr. 3/9/11, pp. 369-373; Response to Late Filed Exhibit No. 28, p. 12. Yankee has not made the case that it, in fact, meets the requirements of the exemption. Indeed, services charged to Yankee from NUSCO appear to have a service lead since the services are accrued and charged at the end of the service period. Tr. 3/9/11, pp. 368-369. The accounting principles book relied on by Yankee stated that the general rule for measuring expense leads is from the rendering of service until payment. Response to Late Filed Exhibit No. 28, p. 12. Given that the Company has not demonstrated that it meets the circumstances for which an exemption to the general rule would be proper, the Department finds it appropriate to add a service lag to the proposed other O&M expense lead. The Department agrees with OCC recommendation and adds 15 days to the proposed other O&M expense lead for an approved expense lead of 35.18 days (20.18 + 15 = 35.18).

**e. Adjustments to Expense Amounts**

In addition to adjustments to the lag and/or lead days of some expense categories, the Department also made adjustments to the amount of expenses or income allowed for ratemaking purposes. These adjustments are detailed throughout this Decision and impact the cash working capital the Company needs. The Department adjusted the expense and income levels used to calculate the cash working capital needs of the Company to mirror the expense and income levels allowed by this Decision.

**f. Conclusion**

Based on the adjustments detailed above related to cash working capital, the Department calculates a cash working capital requirement for the Company of negative \$4,810,363 for RY1 and negative \$5,094,735 for RY2. These amounts are based on a RY1 net lag of 3.83 days and a RY2 net lag of 3.88 days and are \$10,927,363 and \$11,561,735 less than the \$6,117,000 and \$6,467,000 proposed by the Company for RY1 and RY2, respectively. As such, the Department reduces cash working capital \$10,927,363 for RY1 and \$11,561,735 for RY2.

**7. Depreciation Reserve**

As discussed below in Section II.C. Depreciation, the Department is reducing depreciation expense by \$2,384,944 in RY1 and by \$2,758,527 in RY2. These

adjustments reduce the depreciation reserve by \$1,192,472 ( $\$2,384,944 \times .5$ ) in RY1 and by \$3,764,208 [ $\$2,384,944 + (\$2,758,527 \times .5)$ ] in RY2.

### C. DEPRECIATION

In a letter dated June 8, 2010 to the Company entitled Rate Case Filing Requirements, the Department requested that Yankee provide a Depreciation Study in its next rate increase application that included specific formatting and data as described below. The study should show the proper inclusion of assets in each respective account along with the creation of sub-accounts for Accounts 37600 - Mains and 38000 - Services. The sub-accounts should separate the plant investment associated with each account into different material types, such as plastic, cast iron and steel for the Department's review.

Yankee filed a Depreciation Study with its rate case filing that did not conform to the Department's request. The original study included analyses related to the development of the depreciation accrual rates for each account and the composite depreciation rate derived from the individual accrual rates. The original study did not separate Accounts 37600 and 38000 into sub-categories of plastic, cast iron and steel. White PFT, Exhibit REW-4, Depreciation Study, pp. 1-46. By letter dated January 14, 2011, the Department informed the Company to correct the deficiencies in its original Depreciation Study within 30 days from the date of the letter. During the revenue audit in the instant case the Department and Yankee staff members had detailed discussions regarding the appropriate information to be included in the updated study. On February 10, 2011, Yankee submitted Supplemental Workpapers regarding Accounts 37600 and 38000. Yankee used an allocation procedure to separate the plant-in-service for Account 37600 into plastic, steel and cast iron plant vintages. The Company did not have the information to create sub-accounts for Account 38000. Supplemental Workpapers Exhibit REW-4 and White Supplemental PFT, pp. 1-9. The issues regarding Yankee's accounting practices relating to plant investment and the original Depreciation Study and updated Depreciation Study designed to allocate plant investment into sub-categories for mains and services are fully discussed below.

Yankee's Depreciation Study is based on a straight line method, vintage group procedure and a remaining life technique. Yankee's depreciation witness, Dr. White, provided a detailed discussion regarding the goals of a Depreciation Study. It is to charge to operations a reasonable estimate of the cost of service potential associated with an asset or group of assets consumed during a specific accounting interval. Dr. White indicated that a number of depreciation systems have been developed using time to achieve the above cited objective. The implementation of a time based or age/life system of depreciation accounting requires the estimation of a number of parameters and statistics related to each plant account. The Company did not propose any changes in its study regarding its depreciation method, procedure or technique. Dr. White PFT, pp. 2-4 and 10.

Dr. White testified there are several activities involved in conducting a Depreciation Study. These activities include the estimation of asset service lives and estimating net salvage values that are applicable to the future asset retirements. The calculation of the net salvage value includes a cost to remove an asset from service.

Additionally, a comprehensive Depreciation Study will also include an analysis of the Recorded Depreciation Reserve. Dr. White testified that the purpose of analyzing the reserve is to compare the current balance in the Recorded Reserve with the balance needed to achieve the goals and objectives of the depreciation accounting, which is known as the Theoretical or Computed Reserve. The difference between the Recorded and the Computed Reserve provides a measurement of the shortfall that will remain in the depreciation reserve if corrective action is not taken to readjust the reserve balances. Dr. White indicated that the differences between the Computed and Recorded Reserves arise naturally when service lives, dispersion patterns and salvage estimates are adjusted in a Depreciation Study. The testimony also indicates that differences will arise due to plant accounting activities such as transfers between accounts and plant adjustments. Each of the above cited activities require the identification of the reserves at a different level from those recorded and maintained on the books of the Company. Further, it is appropriate to periodically redistribute the Recorded Reserves from some accounts to other primary accounts. The redistribution of the Recorded Reserves from one specific account to another account will result in a reserve imbalance for that primary account. The final step in the Depreciation Study is the integration of the estimated service lives, Recorded and Computed Reserves and net salvages into the formulation of a composite accrual rate. White PFT, pp. 4-6.

Based on the plant-in-service, as of December 31, 2009, Yankee's current depreciation expense shown in the Depreciation Study was \$22,981,626 with a composite accrual rate of 2.21%. Based on the analysis performed in the study, the Company proposed to increase the accrual to 2.32% with a corresponding depreciation expense of \$24,160,852 assuming the same plant-in-service. The increase in the composite accrual rate results in a depreciation expense increase of \$1,179,226. Further, Dr. White's composite accrual rate is calculated based on plant balances and individual accrual rates for each account. The individual accrual rate percentages associated with each account are carried forward through RY1 and RY2. However, in the instant proceeding, Yankee proposed to increase the total rate base for each account in RY1 and RY2, compared to the plant balances included in the original Depreciation Study. The increase in rate base times the accrual rates results in an increase in the depreciation expense over and above the expense included in Yankee's Depreciation Study. White PFT, pp. 7-11; Depreciation Study, pp. 1-3; Tr. 3/23/11, pp. 2180-2185.

Yankee indicated that the plant balances for the proforma year, RY1 and RY2 include proposed capital additions and retirements for each account. Yankee also stated that the plant balances include capital additions for the Waterbury to Wallingford distribution main along with additions for the proposed expanded Bare Steel and Cast Iron Main Program. Yankee Application proposed to increase its total depreciation expense from the amount shown in the Depreciation Study of \$24,160,852, as of December 31, 2009 to \$29,949,000 for RY1 a difference of \$5,788,148. Yankee proposed to increase the depreciation expense for RY2 by \$1,717,000 to equal \$31,666,000. The Company latter reduced its depreciation expense for RY1 to \$29,887,000 and also decreased the depreciation expense for RY2 to \$31,559,000. Schedule WP C-3.30 A and B; Tr. 3/23/11, pp. 2181-2184; Response to Interrogatory GA-2-SP02, Bulk Schedule WP C-3.30 A and B.

Dr. White testified if the proposed changes in the depreciation accrual rates are incorrect and result in a shortfall in the depreciation reserve, the reserve can be corrected in future Depreciation Studies. Further, the Remaining Life technique will true-up any reserve excess or deficiencies and amortize them over the remaining life of the assets. Tr. 3/23/11, pp. 2081-2085. The Depreciation Study is divided into a number of different accounts that use statistical analyses to determine average life expectancies, net salvage and accrual rate for assets included in the plant balances for each account. The discussion below is centralized on each of the major accounts included in the Depreciation Study.

#### **1. Accounts 36000-36300 - Storage and Processing Plant**

As of December 31, 2009, Yankee's current account balance for Accounts 36000 - 36300 Storage and Processing Plant related to the LNG facility in Waterbury, CT. was \$106,238,000 with an accrual rate of 2.50% and an annualized accrual of \$2,654,231. Based on the analysis in the Depreciation Study and the plant-in-service, Yankee proposed to increase its composite accrual rate to 2.67% with an annualized accrual of \$2,834,718, which will increase the depreciation expense by \$180,487. Yankee calculated the net salvage in the Depreciation Study separately and therefore, it was not included in the above cited accrual rates. The depreciation expense in Schedule WPC-3.30B was calculated by adding the Net Salvage rate of .27% to the accrual rate 2.67% resulting in a total accrual rate of 2.94% for RY1 and for RY2. An examination of Schedule B.2-1 shows Yankee intended to add \$16,000,000 in capital additions to rate base during RY1 to Account 363.4 Measuring and Regulating Equipment. (As noted in Section II.B.3. Proposed Capital Additions, the Company used a different numbering system for the same accounts for the Depreciation Study and Schedule B-2.1.) The Company later reduced the capital additions for this account from the original \$16,000,000 to \$14,600,000 in the Company's updated SFRs. Response to Interrogatory GA-02-SP02. Yankee's filing does not show any additional capital additions to the LNG facility in RY2. The updated rate base related to the LNG facility at the end of RY1 is equal to \$120,928,000. Based on the addition of the net salvage to the accrual rate, the updated RY1 depreciation expense for Accounts 36000-36700 was \$3,338,000 and \$3,553,000 for RY2. White PFT, Exhibit REW-2 Depreciation Study, pp. 15 and 16; Response to Interrogatory GA-189; Schedule WPC-3.30A and B; Response to Interrogatory GA-2-SP01, Bulk Schedules B-2.1 and WPC-3.30 A and B.

For each of the Accounts 36100 – 36300 Storage and Processing Plant, Yankee proposed to change from a SQ Iowa Curve to a 200-SC Iowa Curve. Yankee retained the original life expectancy of 40 years and anticipates a retirement date of 2047 using the 200-SC Iowa Curve. White PFT, Exhibit REW-2 Depreciation Study, p. 20.

The OCC provided information regarding the average service lives associated with the Brooklyn Union Gas Company's (Brooklyn Gas) LNG facility. These OCC documents show the Schedule of Depreciation Accrual Rates for Brooklyn Gas is filed in the same format as the Federal Energy Regulatory (FERC) Uniform System for Accounts 361 through 363. The only difference is that Yankee adds two additional place-holders for its depreciation accounts, while Brooklyn Gas uses decimal points to sub-divide assets into sub-accounts. The Brooklyn Gas documents show it assumed an average service life for plant investment for its Accounts Nos. 361 - 363 Storage and

Processing Plant related to LNG equipment ranged from 40 and 55 years. The documents show an average service life for these accounts of 46.2 years. Late Filed Exhibit No. 123.

Yankee's stated in footnote 38 of its written exceptions that "Yankee used a 40-year life for the LNG facility in its 2006 Depreciation study, which was accepted by the Department in the 2006 Yankee Rate Case. Docket No. 06-12-02PH01, June 29, 2007 Decision at 17 [2006 Rate Case Decision]." Written Exceptions, p. 72. Yankee is incorrect with its cite on page 17 of the above cited Decision, which only discusses the Company's evidence. Further, this section does not even mention the LNG facility and actually states the following regarding depreciation.

The Department will accept the Settlement's depreciation rates for the greater benefits associated with this Settlement. In the future the Department may need to mitigate the impacts of higher rates associated with the reduction of the depreciation accruals from the instant docket and from Docket No. 04-06-01.

2006 Rate Case Decision, p. 21.

According to the written exceptions, the Company objects to the use of a higher depreciation service life than it proposed in its filing. The Company asserts that it did not have the opportunity to rebut the evidence presented regarding longer depreciation lives associated with other LNG facilities which was submitted by the OCC. Written Exceptions, pp. 71-73. The record in the proceeding is clear. The Department requested information regarding the life expectancies of other LNG facilities from both the Company and the OCC. The Department's intent regarding Late Filed Exhibit No. 123 was to request information from both the OCC and the Company on the service lives of other LNG facilities and mains. Tr. 3/23/11, pp. 2236-2241. The Company attorney's response to the Department's request for Late Filed Exhibit No. 123 was to ask "[i]s that something you're directing to both companies, Commissioner, because that's a lot of work." Tr. 3/23/11, p. 2241, lines 5-10. Consequently the OCC was the only party to submit alternate information on the record regarding service lives of different LNG facilities and distribution mains from alternate sources. Late Filed Exhibit No. 123. The Company did not cross-examine the OCC's witness during any of the late filed hearings regarding the service life information included in Late Filed Exhibit No. 123. Further, the written exceptions stated that "[t]here is no evidence to support a conclusion that the designs of Yankee's LNG facility and Brooklyn Gas' LNG facility are similar. In the absence of such evidence, it is arbitrary and capricious for the Department to reject Yankee's 40-year life . . ." Written Exceptions, p. 72.

The Department made no assertion in the draft Decision that the designs of these facilities were the same. The OCC's exhibit shows multiple LNG facilities not just Brooklyn Gas' facility. Yankee had the opportunity to provide evidence on the record on this issue and chose not to. It also could have cross-examined the OCC's witness on their document. Based on these omissions, the Company has not met its burden of proof regarding the life of its LNG facility.

The Department's analysis of the life expectancy of the Waterbury LNG facility included a review of the Decision dated November 12, 2003, in Docket No. 01-05-19RE02, Application of Yankee Gas Services Company for a Rate Increase Phase 1 – LNG Facility (LNG Decision), p. 2. That Decision stated the anticipated life expectancy of the LNG facility at that time was 40 years and that life expectancy was based on factors cited in the response to Interrogatory GA-388 in the above cited proceeding. However, an examination of the response shows that Yankee testified the LNG facility has an "expected useful life of 40 years or more."

The Department is presented with four different sets of numbers related to the life expectancies of different LNG facilities. First, the Company proposed a 40-year average service life for the facility; second the OCC provided data showing that the life expectancy of LNG facilities are greater than 40 years; and third the Company's supporting statement in the LNG Decision indicates it is anticipating the facility would last longer than 40 years. As cited below, the LNG facility in Milford is currently 39 years-old.

The Department finds that the 40-year life expectancy is the minimum design life of the Waterbury LNG facility and that it should have a greater service life then was proposed in the Depreciation Study. The following Decisions reflect evidence that the LNG facility in Milford has a life expectancy greater than 40 years: Decision dated August 1, 1996 in Docket No. 96-04-30, Application of The Southern Connecticut Gas Company to Dispose of a Portion of its Plant and Equipment, pp. 1-8; Decision dated June 20, 2007, in Docket No. 06-05-04, Request of The Southern Connecticut Gas Company for a Declaratory Ruling Requesting Pre-Approval of a Peaking Service Agreement with CNE Peaking LLC, pp. 1-13; Decision dated May 20, 2009 in Docket No. 06-05-04RE01, Request of The Southern Connecticut Gas Company for a Declaratory Ruling Requesting Pre-Approval of a Peaking Service Agreement with CNE Peaking LLC – Amendment, pp. 1-7. The culmination of the information included in the above cited Decisions shows that the LNG facility in Milford began operation in 1972. Further, the Decisions dated June 20, 2007 and May 20, 2009 indicate that the peaking services agreement between the parties in those proceedings will end in 2021. Currently the Milford LNG facility has been in service for 39 years and in 2021, that facility would be in service for 49 years.

The OCC provided data showing a life expectance for LNG facilities between 40 and 55 years. The Department finds that the 55-year life expectancy is the highest life expectance presented in the instant proceeding and that the 40-year life expectance is the lowest. Therefore, the Department finds that since Yankee's new facility in Waterbury was built with the state of the art technology, it should last at least as long as the 39 year-old LNG facility in Milford Connecticut. Further, since The Southern Connecticut Gas Company (Southern) and its former affiliate have a peaking service contract that ends in 2021 from the LNG facility in Milford, it is clear that those companies expect that facility to remain in service until it is at least 49 years-old. Therefore, it is reasonable to expect that Yankee's LNG facility should be in service for at least 50 years. Further, a 50-year life expectancy falls within the range of life expectancies of other LNG facilities provided by the OCC and the LNG facility in Milford. Since a 50-year life expectancy is only 25% greater than Yankee's proposed life, it limits the impact on the change in the depreciation accruals and expenses.

Yankee's written exceptions also object to the Department's use of a ". . . back-of-the-envelope approach instead of the sophisticated study tools provided by Dr. White to make adjustments, that choice should be attributed to the Department, not to a deficiency by Yankee. Written Exceptions, pp. 77 and 78. The Company also notes that "[t]he Department's simplified calculations do not conform to accepted depreciation standards because they adjust depreciation accrual rates in isolation." Written Exceptions, pp. 77 and 78. The Department notes that Yankee only provided a Depreciation Study based on its expected services lives of the LNG assets. It did not provide information regarding the calculations of the accrual rates. Since no other information was available on the record to re-calculate the depreciation accrual rates, the Department used its "simplified approach" to calculate them.

There is further support for the service life of the LNG facility being greater than 40 years. The Company was asked whether it intended to continue using the LNG facility, retire it or physically remove it from service at the end of its proposed 40-year life expectancy. In the response Yankee stated it planned to retain the LNG facility as part of its overall gas supply portfolio even after the estimated 40-year service life. Any decision to retire the plant would be made based on an ongoing assessment of the facility, economics and other alternatives available at that time. Response to Interrogatory GA-418.

The Department asked numerous interrogatories regarding the Depreciation Study in the instant proceeding to clarify how Dr. White calculated many of its components. He repeated the same response, which was to refer to his pre-filed testimony. However, his testimony did not clarify the issues. Dr. White did submit the 2010 Depreciation Study Database and Coding Instructions on a disk for the record. The disk included a number of Excel spreadsheets, which shows the plant investment by account and by vintage year. However, the Excel spreadsheets did not show formulas and did not calculate the accrual rates. Further, the disk did not show how the data was imputed into the Iowa curves to determine the remaining lives if the assets in each account. Therefore, the Department is unable to replicate or adjust the Depreciation Study numbers. Therefore, the Department developed its own approach to recalculate the accrual rates using approximations and judgments based on the available information in the record. The Department approximated the recorded reserve at the beginning of RY1 and subtracted that from the plant investment in these accounts to determine an approximate remaining plant that is undepreciated. The Department then subtracted the first four years of service from the new LNG facility's life expectancy and used the remaining life of 46 years to allocate the undepreciated plant investment.

As of December 31, 2009, Yankee's recorded reserve for these accounts equaled \$5,497,300, which represents 2.5 years of depreciation accruals. Therefore, to approximate the recorded reserve as of the beginning of RY1, the above cited number needs to be grossed up to reflect four full years of depreciation. The \$5,497,000 should have an additional 1.5 years of the accruals added to the end date of the Deprecation Study to approximate the recorded reserve at the beginning of RY1. Therefore, the recorded reserve at the beginning of RY1 equals \$9,478,346 (\$5,497,000 + \$2,654,231 + \$2,654,231/2). The undepreciated balance using the plant-in-service as of June 30, 2011 for Accounts 36100 - 363000 would equal \$96,849,654 (106,328,000 -

\$9,478,346). However, since Yankee is adding \$14,600,000 to Account 363.4, which is the same as sub-account 36340 during RY1, the total undepreciated plant-in-service needs to be increased by the same amount. The result is an undepreciated plant balance of \$111,449,654. The remaining undepreciated plant investment would be depreciated equally over the remaining 46 years of service life. Therefore, the annualized accrual rate for RY1 would equal \$2,422,819 (\$111,449,654 / 46 years). Since Yankee is not planning to add any capital investment for these accounts during RY2 the annualized accrual rate of \$2,422,819 would apply to RY2.

As a result the Department disallows 915,181 (\$3,338,000 - \$2,422,819) from RY1, which is the difference between the Company's proposed annual accrual rate and the Department's calculated accrual rate. Using the same methodology cited above the Department disallows \$1,110,181 (\$3,533,000 - \$2,422,819) from RY2.

## **2. Accounts 37500-38700 - Distribution Plant**

For Accounts 37500 – 38700 Distribution Plant, as of December 31, 2009 the Depreciation Study indicated a total plant investment of \$888,217,129. The current allowed composite accrual rate for these accounts is 1.78% with a total annualized accrual of \$15,819,959 and a negative net salvage of 9.5%. The Depreciation Study does not include a composite remaining life expectancy or average life expectancy for the above cited accounts. However, the Depreciation Study shows average and remaining life expectancy data for each individual account. As of December 31, 2009, the Recorded Reserve was \$296,286,441 with a Reserve Ratio of 33.36%. White PFT, Exhibit REW-2, Depreciation Study, p. 20, pp. 15-20.

Yankee proposed to change the composite accrual rate to 1.80% with a corresponding annualized accrual of \$16,001,458 resulting in an annual depreciation expense increase of \$181,499 and a corresponding negative net salvage of 20%. The Company proposed a composite remaining life associated with the above cited accounts of 38.28%. The proposed Recorded Reserve was equal to \$296,286,441 with a Reserve Ratio of 33.36% and a Computed Reserve of \$244,908,502 and a Reserve Ratio of 27.57%. Yankee calculated the Redistributed Reserve of \$261,687,343 with a Reserve Ratio of 29.46%. White PFT, Exhibit REW-2, Depreciation Study, pp. 15-17.

Distribution Plant is divided into 10 subaccounts each with their individual Plant Investment balances recorded as of December 31, 2009. Most of the plant investment in Distribution Plant is related to Account 376 Mains and Account 380 Services. These two accounts balances represent \$708,909,487 or 80% of the total plant-in-service. Each of the four largest accounts included in the Distribution Plant category balance along with their respective accrual rates are discussed below. White PFT, Exhibit REW-2 Depreciation Study, pp. 15-17.

### **a. Account 37600 - Mains**

Account 37600 – Mains includes cast iron mains, steel mains and plastic mains, Yankee proposed a plant investment of \$496,493,620 as of December 31, 2009 in the Depreciation Study. The study shows that Yankee's currently approved accrual rate for this account is 1.48% with a corresponding 2010 annualized depreciation accrual of

\$7,348,106. Its currently approved remaining life for this account is 46.55 years and a current average service life of 60 years. The study shows that Yankee has a Recorded Reserve of \$147,042,653 and a Recorded Reserve Ratio of 29.62%.

Specifically, based on the analysis performed in the Depreciation Study, Yankee's proposed a Computed Reserve for this account of \$130,345,457 and a corresponding Reserve Ratio of 26.25%. Yankee calculated a Redistributed Reserve of \$139,975,902 and a Redistributed Reserve Ratio of 28.19%. The Company also proposed a depreciation accrual rate of 1.48% with a corresponding 2010 annualized accrual of \$7,298,456. Based on the proposed accrual rate, the proposed depreciation expense in the Depreciation Study decreases by \$49,650. Further, the Company proposed a Reserve Ratio of 28.19%, a corresponding remaining life of 48.99 years and an average service life of 65 years. White PFT, Exhibit REW-2, Depreciation Study, pp. 15-17; Workpapers Account 37600 - Mains.

Yankee testified that it does not maintain sub-accounts for Account 376 – Mains by material type. However, Dr. White testified that Yankee can identify the different material types included in plant-in-service under this account since December 31, 2000, but did not maintain this information prior to this date. Dr. White created sub-categories for cast iron, steel and plastic materials within the Supplemental Depreciation Workpapers by using the 2001-2009 data to approximate the plant-in-service for the years prior to 2001. Yankee testified that its historic plant-in-service data is questionable because of the acquisition and mergers of "predecessor gas companies" and the associated records that were absorbed through the mergers and acquisitions. The Company testified there were still issues with plant records during the spin off of Yankee from CL&P in 1982. Dr. White Supplemental PFT, p. 3; Tr. 3/23/11, pp 2095-2097.

Yankee's witness indicated that the Company developed a Supplemental Depreciation Study for Account 37600 using the same process as was performed in the original Depreciation Study. Dr. White Supplemental PFT, p. 3. Yankee testified that it has surviving plant by vintage records back to 1881, but has an opening balance in the Depreciation Study starting in 1952. Dr. White testified that the opening balance from 1952 must be added to the surviving balances post 1952 to obtain the total plant balance of \$496,493,620 in the study. Tr. 3/23/11, pp. 2158-2169.

Dr. White explained that he determined an R-3 dispersion in the original and Supplemental Depreciation Study for Account 37600. He used the actual dispersions of L-1.5 for the first degree polynomial with an 85.7 year average life, S-1.5 for the second with a 71.9 year dispersion and third degree polynomial with the same S-1.5 dispersion with a 72.1 year life expectancy from the graphics analysis. He also applied his professional judgment, including field inspections to obtain the R-3 dispersion. Tr. 3/23/11, pp. 2170-2173.

#### **i. Cast Iron Mains**

Regarding cast iron mains, the Supplemental Depreciation Study shows a total plant investment of \$15,871,491. Dr. White used a dispersion of R-3 with a 65-year life expectancy. This is the same dispersion used in the original Depreciation Study for the

combined Account 37600. The Supplemental Depreciation Study shows that Yankee installed cast iron mains between 2000 and 2009 with a total capital addition of \$3,946,300 and retirements of \$1,343,665. The testimony stated that cast iron installations between 2000 and 2009 were typically related to "Betterments." The Company defines Betterments as the process used for joint sealing on existing cast iron mains. Yankee capitalizes joint seals when more than three joint seals occur on an existing main. Supplemental Depreciation Study Exhibit REW-4; Account 37600 - Cast Iron Mains Schedule A; Supplemental Depreciation Study Workpapers Statement C; Tr. 3/23/11, pp. 2170-2173. Dr. White's Supplemental testimony stated that "the absence of recorded retirements at younger ages produces projection life indications in excess of 85 years." White's Supplemental PFT, pp. 3 and 4.

## ii. Steel Mains

Regarding steel mains, the Supplemental Depreciation Study created a sub-account for this class of mains. The plant investment associated with steel mains in was \$259,313,590. Dr. White testified that between 2001 and 2009 retirements were equal to \$4.3 million from exposures ranging between \$173.7 million and \$243.4 million. The supplemental testimony indicated that an abnormal retirement ratio was calculated from \$21,000 of retirements removed from an exposure of \$70,000. Dr. White indicated that the projected service life for steel mains would range between 94 and 131 years with 18% of the investment classified at December 31, 2009 classified as occurring in the 1900 year vintage. The data included in the Supplemental Depreciation Study shows that steel mains are included in the vintages as far back as 1881. The Graphics Analysis shows a life expectancy range of 94.3 to 131 years for the observation band of 2001-2009, with censoring of .4 and a confidence range from 16.61 to 22.98. Dr. White continued to recommend a 65-R3 projection life for steel mains after completing the analysis in the Supplemental Depreciation Study. The vintage group average service life derived from the 65-R3 projection curve is equal to 67.2 years with a remaining life of 45.8 years. Supplemental Depreciation Study Exhibit REW-4, Account 376 - Steel Mains Schedule D; Supplemental Depreciation Study Workpapers Statement C; White's Supplemental PFT, pp. 5 and 6.

## iii. Plastic Mains

Regarding plastic mains, the Supplemental Depreciation Study shows a plant investment of \$221,308,538 for this sub-account. Retirements for this sub-account during the period of 2001-2009 totaled \$1.6 million from exposures ranging between \$110.1 and \$205 million. The testimony indicated that the censoring for this sub-account exceeded 80% and required Dr. White to predict the age of future retirements with less than 20% of all additions being retired from service. The testimony indicates that forces of retirement derived from a full-band analysis of highly censored data suggests a projected service life of 104 years and a probability of survival exceeding 300 years. Dr. White dismissed the projected service lives as being unrealistic. As a result, Dr. White stated that it is appropriate to continue using the 65-R3 projection curve with a 65.3 year service life and a remaining life of 54 years. White Supplemental PFT, p. 6 and Supplemental Depreciation Workpapers Statement C.

#### iv. Discussion

In its written exceptions, Yankee stated that the draft's findings are not balanced and are inconsistent with the record of evidence provided in the proceeding. Yankee stated that the Department's findings are based on flawed and uninformed assertions included in the direct testimony of the OCC's depreciation witness. The Company's written exceptions have numerous comments regarding the Department's draft Decision findings on depreciation accruals for Account 376 – Mains. Written Exceptions, pp. 73-76. The Department will address these issues and Yankee's comments below.

The data included in the Supplemental Depreciation Study Workpapers shows that plastic pipe was included in the 1900 vintage. In the exhibit Dr. White shows that \$2,551,082 of surviving plant associated with the 1900 vintage was included in Account 376 Mains – Plastic. Further, Account 376 Mains – Plastic shows 10 additional vintages from 1925 to 1973 with a combined total surviving plant balance of \$223,452. White Supplemental Depreciation Workpapers Statement A, p. 2. Plastic pipe has only been in existence since the mid-1970's. Therefore, any inclusion of plant investment for this account prior to this time period is factually impossible. Regarding that cast iron mains, the workpapers indicate that installations occurred between 2001 and 2009. Further, the Department is aware that cast iron mains have not been installed since the 1940's. Therefore any capital investments associated with cast iron mains between 2001 and 2009 can only be related to joint sealing. Joint sealing is used to stop a Class 2 Leak in a section of cast iron main. Specifically, a joint seal is performed by using core excavation technology to drilling a hole out a section of earth around the area of the cast iron joints or connects of two individual sections of main. The joint is sealed with a resin or epoxy and then the core around the joint is replaced. After the joint seal is completed, the entire core is replaced, typically without the need for paving.

The Company stated that the draft Decision ignores the testimony of Yankee's witnesses regarding the 1900 vintage issue. The Company pointed out, that the Department's draft Decision did not include Dr. White's testimony regarding the 1900 vintage assets and that it does not impact the depreciation rates. Written Exceptions, p. 74. The draft only discussed the 1900 vintage as it related to plastic pipes being included in Account 376 Mains. Yankee's written exceptions are correct that the 1900 vintage does not impact the depreciation rates. However, the Department's intent is clear. The mere fact that the 1900 vintage plastic mains were included in the Company's Depreciation Study demonstrates that the data is questionable at best. Otherwise the 1900 vintage would not include plastic mains. Further, the Company stated during cross-examination that "the 1900 vintages are unidentifiable . . . it could be a range of vintages that are included in that 1900 vintage." Also, that these vintages included in the 1900 vintage category "could range anywhere up to 1940, 1950." Tr. 3/23/11, pp. 2094 and 2095. Since the assets included in the 1900 vintage are unidentifiable and may include many years, the Department does not find that data creditable. The only other alternative on the record was that presented by the OCC's witness.

As stated in Section II.C.1. Accounts 3600 - 36300 –Storage and Processing Plant the Department requested information regarding the life expectancies of different types of pipes from both the Company and the OCC Late Filed Exhibit No. 123. Tr.

3/23/11, pp. 2236-2241. However, the OCC was the only party to submit any studies on the record regarding the service lives of different types of pipes from sources other than the Company's proposed Depreciation Study. Late Filed Exhibit No. 123. Again the Company had the opportunity to provide this information and chose not to. Based on these discussions, the Department finds that the Company has not met its burden of proof regarding the life expectancy of mains in Account 376.

The lack of information by material type prior to 2001 indicates that Yankee's records are incomplete. As a result of the unavailability or lack of recorded data on the Company's books, the accrual rates and service lives derived from the Depreciation Study are not reliable. Therefore, the Department cannot reasonably assume the highest depreciation lives are reasonable or the Company's proposed composite is reasonable. Therefore, the Department must develop a reasonable life expectancy for Account 37600 - Mains.

The OCC and their consultants were highly critical of Dr. White's Supplemental Depreciation Study. Specifically, the data used in the Supplemental Depreciation Study was in "poor shape." OCC Brief, p. 116. As a result the OCC recommended an audit of Yankee's plant investment for all of its accounts. The OCC's Brief reported that if the Company had \$28.4 million of plant investment recorded in Account 37600 - Mains from a 1900 vintage still surviving, the replacement cost would be equivalent to \$500 million dollars. The Brief stated that the \$28.4 million of surviving plant in the 1900 vintage must be an accounting error. The OCC provided data regarding life expectancies associated with plastic, steel and cast iron mains for three gas utilities in the Northeast. Specifically plastic pipe had a life expectancy ranging between 68 and 80 years. Steel pipe had service lives of 60, 75 and 80 years and cast iron pipe had service lives of 50, 60 and 70 years. Brief, pp. 116-122; Response to Late Filed Exhibit No. 123.

Yankee intends to embark on a significant cast iron and bare steel replacement program by RY2 equal to \$40,000,000 a year. It is apparent that Yankee's current plant-in-service associated with cast iron and bare steel will decrease. However, the investment associated with plastic pipe will increase significantly over the next few years. As a result, the Department finds that a reasonable approach is to assume a 75 year life expectancy for mains. The 75 year life expectancy falls within the range of the Company's proposed life expectancy of 65 years and the highest life expectancy shown in the OCC's exhibits. Since there is no average remaining life in the Supplemental Depreciation Study or OCC's exhibits, an accrual rate cannot be directly calculated. Therefore, the Department will assume that since the average service life of 75 years is approximately 15.4% greater than the proposed 65-year service life, it is a reasonable assumption to reduce the accrual rate by an equivalent 15.4%. As a result, the approved accrual rate for Account 37600 - Mains should be 15.4% lower than the proposed accrual rate. The Department approves an accrual rate of 1.244% [ $1.47\% - (1.47\% \times 15.4\%)$ ] not including net salvage. Adding the Company's net salvage accrual rate of .36% into the above cited calculation results in a total accrual rate of 1.604%.

The Department disallowed an average rate base in RY1 of \$2,264,000 and \$5,164,500 for RY2 as discussed in Section II.B.4.a. Account 376 - Mains. This reduces the Company's total plant-in-service for RY1 to \$580,501,000 (\$582,765,000 - \$2,264,000) and by \$631,337,500 (\$636,502,000 - \$5,164,500) for RY2. Applying the

Department's approved accrual rate of 1.604% to the updated average RY1 plant-in-service balance of \$581,134,184 cited above results in an approved depreciation expense of \$9,311,236 ( $\$580,501,000 \times 1.604\%$ ). The Department will apply the same accrual rate to the updated average RY2 plant-in-service balance of \$631,337,500 resulting in a Department approved depreciation expense of \$10,126,654 ( $\$631,337,500 \times 1.604\%$ ) for RY2. Consequently for RY1, the Department disallows \$1,469,763 ( $\$10,781,000 - \$9,311,236$ ), which is the difference between the Company's updated depreciation expense and the Department's approved depreciation expense. Using the same methodology cited above, the Department disallows \$1,648,346 ( $\$11,775,000 - \$10,126,654$ ) from the depreciation expense for RY2.

In its written exceptions, Yankee stated that "The Uniform System of Accounts does not require Yankee or any other gas company to maintain accounts by mains material type. Nor do the official Standard Filing Requirements ("SFR") promulgated by the Department include that requirement." Written Exceptions, p. 75. The Company is clearly incorrect in its assumption that the Uniform System of Accounts does not require the gas utilities in the State of Connecticut to provide plant data by material type. Section B – Rate Base, subsection 2.2 requires a breakdown of the dollars of plant-in-service by each major property group. Decision dated December 21, 1962 in Docket No. 10151, Uniform System of Accounts for Gas Utilities (Uniform System of Accounts), pp. 112 and 113, requires the following for Account 376 Mains, "[t]he records supporting this account shall be so kept to show separately the cost of mains of different sizes and types." Uniform System of Accounts, pp. 112 and 113. Therefore, the Company will be directed to comply with this requirement in its next rate case filing. Finally, the Department will require the three gas companies to attend a technical meeting to clarify depreciation issues.

**b. Account 39000 – 39400**

For Accounts 39000 – 394000, the Department will not adjust the depreciation expense included in Schedule WPC-3.30 A and B, for the following reasons. First, any adjustment to the depreciation expense in Accounts 39000 and 39200 would have an impact that is less than \$100,000 and, therefore, it is considered a rounding error. Regarding Account 39200, the assets in this account are amortized and do not have a depreciation accrual rate.

**c. Reserves and Net Salvage Analysis**

Dr. White testified that depreciation rates are designed to achieve the goals and objectives of depreciation accounting, will include a parameter for future net salvage and a variable for average net salvage reflecting both the realized and future net salvage rates. White PFT, Exhibit REW-2, Depreciation Study, pp. 9-18

The estimation of net salvage rates applicable to future retirements are most often derived from an analysis of gross salvage and the cost of removal that have been realized in the past. An analysis of the past experience associated with cost of removal and gross salvage would include long-term trends and should provide a basis for estimating future salvage and cost of removal. However, consideration should be given to events that may cause deviations from net salvage realized in the past. Dr. White

indicated that factors that should be considered include: the age of the plant retired, the portion of retirements likely to be reused, changes in the method of removing plant, the type of plant being retired in the future, inflation expectations, the shape of the projection life curve, and economic conditions that may warrant greater or lesser weight to be given to the Net Salvage rates observed in the past. Special consideration should be given to treatment of insurance proceeds and other forms of third-party reimbursements credited to the depreciation reserve. White PFT, Exhibit REW-2, Depreciation Study, pp. 9–18.

Dr. White testified that the Net Salvage value calculated in the 2010 Depreciation Study included five-year averages of the ratio of realized salvage compared to the cost of removal associated with retirements. These averages were used to estimate the realized net salvage rates, detect historical trends and establish a basis for estimating future net salvage rates. From the Company's personnel Dr. White obtained cost of removal and estimated salvage costs. Dr. White blended the opinions of Company staff with his professional judgment and historical net salvage data to develop the future salvage values and accrual rates. White PFT, Exhibit REW-2, Depreciation Study, pp. 9–18.

Dr. White performed the redistribution of the reserves by multiplying the Computed Reserve for each primary account by the ratio of the sum of Recorded Reserves, net of amortizable accounts, to the sum of the net calculated reserves. Therefore, the sum of the Redistributed Reserves is equal to the sum of the Recorded Reserves before redistribution. White PFT, Exhibit REW-2 Depreciation Study, pp. 10 and 11.

Dr. White determined that the total Utility Recorded Reserve for storage, distribution and general plant, as of December 31, 2009, was equal to \$324,285,384 or 31% of the depreciable plant investment. The corresponding Computed Reserve was equal to \$303,968,807 or 29.2% of plant investment and a Redistributed Reserve of \$324,285,384. As a result of the redistribution, an imbalance of \$20,316,577 occurred in the total depreciation reserve. Most of this imbalance is related to the accounts included in the Distribution Plant category. Dr. White amortized this imbalance over the composite weighted average remaining life for each account using the depreciation rates developed within the Depreciation Study. The Total Investment line item shows a Recorded Reserve of \$324,285,384, a Computed Reserve of \$271,115,931 and a Redistributed Reserve of \$289,187,127. White PFT, Exhibit REW-2, Depreciation Study, pp. 10-18.

Regarding the Distribution Plant Accounts, Yankee proposed a Recorded Reserve of \$296,286,441, a Computed Reserve of \$244,908,502, a Redistributed Reserve of \$261,687,343 and a Net Salvage of \$34,599,098. White PFT, Exhibit REW-2, Depreciation Study, pp. 17 and 18. Dr. White stated that adding the net salvage to the Redistribute Reserve of \$261,687,343 would equal the Recorded Reserve of \$296,286,441. Tr. 3/23/11, pp. 2130-2137.

As indicated earlier in this section and by the OCC, Yankee's Depreciation Study has limited data to develop the appropriate depreciation rates. Further, it is unclear when Yankee ramps up its Cast Iron and Bare Steel Replacement Program how the

Company will determine which assets will be properly retired from rate base. The Department also agrees with the OCC that it is questionable as to whether the 1900 vintage of asset on the Company's books exist. The Department agrees with the OCC that Yankee needs to perform an audit of its books to determine which assets remain in-service and which assets have been retired. Additionally, the Department is extremely concerned that Yankee does not have plant records regarding material types before 2001. However, Yankee's Depreciation Study Workpapers show plant investment for Cast Iron of \$14,377,747, Cathodically Protected Steel of \$2,480,203, Steel of \$232,661,523 and Plastic of \$200,480,094. Depreciation Workpapers, Account 37600 Mains, p. 1. Yankee's Depreciation Study Workpapers indicated that of the \$212,415,867 in plant assets in Account 38000 Services, as of December 31, 2009, 61% were plastic. Depreciation Workpapers, Account 37800 Services, p. 1.

Yankee stated in it written exceptions that "[t]he Draft orders an audit of Yankee's plant assets due to the lack of data in Yankee's historical records." The exceptions also stated that "[i]n light of the fact that Yankee was never required to maintain historical plant data by material type in prior years, and an audit cannot create history that does not exist, the Company requests that the audit requirements be omitted from the final decision." Written Exceptions, p. 76. Yankee fails to state that it has information regarding the type of materials installed by miles of mains and by decade. The following table shows the information that Yankee submits annually to the US Department of Transportation Pipeline and Hazardous Safety Administration, regarding the types of materials in the Company's distribution territory.

**Mains by Material Type**

		Steel								
		Unprotected		Cathodically Protected						
	Bare	Coated	Bare	Coated	Plastic	Cast/Wrought Iron	Ductile Iron	Copper	Other	
Miles of mains	89	34	0	1,622	1,047	445.9	0	.159	0	
No. Services	19,551	4,659	0	24,458	94,379	35	0	545	6,808	

Response to Interrogatory AR-OCC-50-SP01, p. 2

Based on the table above it is apparent that Yankee has information regarding the types of materials used for Account 376 Mains within the Company's records. The Department finds that the Company did not take into account the data it submits to the federal government in the development of its Depreciation Study. Therefore, Yankee has not met its burden of proof regarding the accuracy and unaccounted for data relating to the plant investment included in the Company's Depreciation Study. As a result of the lack of data presented in the instant proceeding related to the Depreciation Study relating to Yankee's historical records, the Department will direct the Company to perform an audit of its records. The audit will determine the accuracy of the information included in its rate base, which is then used in the Company's Depreciation Study. It is Yankee's responsibility to maintain appropriate records regarding its plant assets. Therefore, the Company will bear the burden of the costs of the audit to correct for the

current and future shortcomings associated with its Depreciation Study. Yankee is not the first gas utility to be required to perform an audit of its rate base. In Order No. 25 from the Decision dated June 30, 2009, in Docket No 08-12-06, Application of Connecticut Natural Gas Corporation for a Rate Increase, the Connecticut Natural Gas Corporation was required to perform an audit of all of its plant accounts. Further, Order No. 30, from the Decision dated July 17, 2009 in Docket No. 08-12-07, Application of the Southern Connecticut Gas Company for a Rate Increase, Southern was required to perform an audit of all of its plant accounts. Both of these companies were required to perform audits as the result of inconsistent and inaccurate records discovered during their respective rate cases.

#### D. EXPENSE AND EXPENSE ADJUSTMENTS

##### 1. Inflation Adjustment

The Department typically allows utilities to apply a general inflation factor to O&M expenses not specifically adjusted elsewhere. Yankee requested an inflation adjustment of \$50,000 for RY1 and \$57,000 for RY2. Response to Interrogatory GA-2SP01. Yankee's filing used a proposed inflation rate based on the price deflator for gross domestic product (PGDP) published by Global Insight Inc. The PGDP is a broad measure of inflation in the economy.

Yankee used an inflation factor of 1.4% for the proforma period, 1.7% for RY1 and 1.9% for RY2. The historical PGDP data are released quarterly by the U.S. Dept. of Commerce, Bureau of Economic Analysis. The forecasted PGDP data are also provided on a quarterly frequency by Global Insight, Inc. The four quarters are averaged to create an annual index number. Specifically, for the instant proceeding, the annual index was created by averaging from the third quarter of the preceding year to the second quarter of the current year. Therefore, the annual index for PGDP is calculated as follows:

$$\text{Annual PGDP}_{\text{year } t} = \text{Average} (\text{PGDP}_{\text{year } t, q2}, \text{PGDP}_{\text{year } t, q1}, \text{PGDP}_{\text{year } t-1, q4}, \text{PGDP}_{\text{year } t-1, q3}).$$

Split Year Date	PGDP	% Change	Calculation of % Change
Test Year	1.102		
Proforma Period	1.117	1.4%	1.117 divided by 1.102
RY1	1.136	1.7%	1.136 divided by 1.117
RY2	1.157	1.9%	1.157 divided by 1.136

Response to Interrogatory GA-97.

The Department reviewed Yankee's calculations and finds them to be correct. The rates of inflation of 1.4% for the proforma period, 1.7% for RY1, and 1.9% for RY2 are reasonable based on similar inflation rates taken from Blue Chip Financial Forecasts. See Administrative Notice, Tr. 3/10/11, pp. 668 and 669.

The OCC asserted that none of the residual O&M accounts should be inflated in the instant proceeding, which includes the residual O&M inflation of \$91,000 in RY1 and \$148,000 in RY2. This reasoning is based on the fact that a general inflation factor

captures an average change in costs. Some O&M expenses will increase and some will decline; however, an inflation factor will capture an average overall change in the cost level. The OCC pointed out that of the total test year operating expenses of \$380,199,000, Yankee has made adjustments of \$378,008,000 to that balance resulting in the residual inflation being applied to the balance of \$2,915,000. This calculated to Yankee applying an inflation adjustment to 0.77% of expenses or less than 1% of the total operating costs. The OCC declared it is not reasonable for Yankee to specifically adjust the vast majority of operating costs in a rate case. In the instant proceeding the Company adjusted 99.49% of expenses by more than a general inflationary factor. It then applied a general inflation factor to all other expenses that have not already been adjusted. Response to Interrogatory GA-469 and Schedule C-2.0A.

Finally, the OCC argued that some of the 188 accounts to which Yankee applied an inflation factor should not be subject to an inflationary factor. These accounts include the following: 40803 Federal Excise, 40804 Federal Highway Use, 40807 New Hampshire business enterprise tax, 40819 Local Property, 40890 payroll tax trans, 414R1 impairments long lived asset, 4080B Connecticut Insurance premium excise tax, 4081F Connecticut motor vehicle fuels tax, 4081H other taxes employment New Hampshire, and 930NR NUSCO rate of return charge. Response to Interrogatory GA-469.

Yankee has the burden of proving that its rates are just and reasonable. Conn. Gen. Stat. §16-22.<sup>3</sup> The Department agrees with the OCC that the residual pool of Yankee's O&M expenses should not be subject to a general inflationary adjustment. Although Yankee calculated the inflation adjustment correctly, Yankee failed to provide sufficient evidence showing support for the pool of residual expenses to which the inflation factor was applied. First, Yankee failed to even identify whether these residual costs are fixed or variable. Yankee stated that, "[t]he amounts that were not captured in specific 'C' schedules were instead captured as residual O&M and cannot be readily identified as fixed or variable costs." Response to Interrogatory GA-94. The Department cannot force ratepayers to fund an expense escalation on O&M expenses that may be fixed in nature.

Second, evidence shows that Yankee failed to ascertain whether all the 188 accounts included in the proposed residual O&M pool should be subject to an inflation adjustment for RY2 as opposed for only RY1. According to Yankee, "[a]ny expenses that were determined to be unrelated to the major categories of expenses or immaterial on a stand-alone basis were allowed to flow into the residual O&M adjustment." Response to Interrogatory GA-94. This was confirmed during cross examination by Department staff at which Yankee's witness stated:

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<sup>3</sup> Conn. Gen. Stat. §16-22 provides in pertinent parts: "At any hearing involving a rate..., the burden of proving that said rate under consideration is just and reasonable...shall be on the public service company."

And we start with the total cost and then keep reducing the total cost by the different items that we have found until we get to the residual amount, which is just, for lack of a better term, a count of costs that haven't been individually identified due to their general size and they don't really fit into the categories that we have determined.

Tr. 3/10/11, p. 673.

The Company's testimonies at the hearing confirm further that Yankee did not change the set of residual expenses of \$2,915,000 from RY1 to RY2. Tr. 3/10/11, pp. 674 and 675.

Third, Yankee failed to provide any specificity concerning said 188 residual accounts. During cross examination on the 188 residual accounts subject to the inflation adjustment Yankee stated, "Yes, some of these accounts could go up. Some of these accounts could be -- they could diminish or be reduced," and "[t]here's no way of telling specifically that these exact dollars will reoccur in these exact accounts in the future." See. Tr. 3/10/11, pp. 695 and 697. During further cross examination in a protected session, Yankee again failed to provide any evidence supporting its claim that the residual pool of expenses should be granted a general increase based on a rate of inflation. See Protected Tr. 3/29/11, pp. 2373-2376.

Fourth, upon examination of the records, the Department finds that many of these 188 residual accounts clearly should not be subjected to an inflation adjustment either because the expenses had been adjusted elsewhere in the Application, or because the probability that inflation in the general economy would affect that account. Specifically, the Department finds that the following accounts should be removed from the base of the \$2,915,000 in expense accounts to which Yankee applied an inflation factor:

<b>Account No.</b>	<b>Account Name</b>	<b>Dollars</b>
40803	Federal Excise	(9,000)
40804	Federal Highway Use	(1,000)
40807	New Hampshire Business Enterprise Tax	(11,000)
40819	Local Property	5,000
40890	Payroll Tax Trans	(71,000)
414R1	Impairments – Long Lived Assets	(76,000)
4080B	CT Insurance Premium Excise Tax	(41,000)
4081F	CT Motor Vehicles Fuels Tax	(17,000)
4081H	Other Taxes Unemployment New Hampshire	(5,000)
930NR	NUSCO Rate of Return Charge	(43,000)
93001	UCONN Sponsorship	(136,549)
93001	Corporate Sponsorship Buick Golf Tournament	(8,273)
Total		(413,822)

Response to Interrogatory GA-469; Late Filed Exhibit Nos. 52 and 90;  
Tr. 3/10/11, pp. 675-703; and Tr. 3/29/11, pp. 2307-2314.

In conclusion, the Department finds that there is a lack of specificity in the set of 188 accounts making up the residual O&M expense adjustment. The Department finds that it is not permissible to allow ratepayers to be charged for an expense that Yankee has not thoroughly analyzed. For these reasons stated herein, based on the Department's analysis of the record evidence, Yankee's requested residual O&M expense adjustment in the amount of \$50,000 for RY1 and \$57,000 for RY2 is denied.

## **2. Employee Retiree Benefits**

### **a. Qualified Pension Plan**

Yankee offers a qualified pension plans under the NUSCO umbrella (Plan) to its employees in both union and non-union pension plans. Pension expense is calculated based on Accounting Standards Codification (ASC) 715-30, which was previously referred to as "Statement of Financial Accounting Standard No.87, Employers Accounting for Pensions" (FAS 87). Yankee requested a total pension expense of \$8,322,000 for RY1, which is broken down between the direct charge to Yankee of \$5,248,000 and an allocation to Yankee from NUSCO of \$3,074,000. For RY2, Yankee's requested pension expense is \$7,663,000. This is broken down between the direct charge to Yankee of \$4,846,000 and an allocation to Yankee from NUSCO of \$2,817,000. Response to Interrogatory GA-2SP01, WPC 3.27d, p. 1.

Yankee's requested pension expense is an estimate of the current year's cost to its employees. For each employee covered under the Plan, costs are accrued over the employee's working careers and payments to employees and are used to pay benefits to employees after their retirement. For each eligible employee, benefits are determined based on years of service, age at retirement, and final pay before retiring. Pension benefits are administered through a pension plan that is sponsored by NUSCO. Yankee reports there are approximately 17,900 retirees, current and former employees and surviving spouses covered by the Plan. DeAngelo PFT, p. 2.

The Company receives an allocation of Plan costs based on an allocator of Yankee's gas percentage of NUSCO of 8.01% for the proforma period, 7.97% for RY1, and 7.91% for RY2. The capitalized percentages of NUSCO allocated pension costs of 10.17% are subtracted. Response to Interrogatory GA-113. The Department finds this allocation to be correct.

Service cost, interest cost, expected return on pension plan assets, prior service cost, and actuarial gains and losses are the components of pension expense. Service cost is the cost of additional pension benefits earned by employees in the current year based on projected pay. Interest cost is the forecasted growth of past liabilities that will occur in the current year. Calculation of the interest cost is done by multiplying the discount rate and the projected benefit obligation less the expected benefit payments to be made during the year. The expected return on Plan assets is accounted for as an offset to pension expense representing the amount of earnings the pension assets are expected to earn in the current year. Calculation of the expected return on Plan assets is done by multiplying the expected long-term rate of return assumption by the market related value of assets with an adjustment for expected cash flow during the year which are comprised of contributions and benefit payments. This cost is amortized over the

average future working lifetime of the Plan's population. Actuarial gains and losses are booked each year as the difference between actual Plan experience and assumed Plan experience. These actuarial gains and losses are amortized as a component of expense over the average future working lifetime of the Plan's population. DeAngelo PFT, pp. 2 and 3.

The mechanism for calculating the total NU Companies' pension expense is to calculate pension expense for each NU Company participating in the NUSCO Plan and each business segment within each company. Each business segment and company is then allocated its appropriate amount of NUSCO costs. NUSCO uses the actuarial firm Aon Hewitt in calculating projected pension expense. The main pension assumptions used by the actuary to determine pension expense are the salary increase assumptions, the discount rate, and the expected long-term rate of return on assets. DeAngelo PFT, pp. 3 and 4.

Benefits payable under the Plan are based on final average earnings. The salary increase assumption is used to estimate the retirement payments participants are entitled to at the time of retirement based on final average pay. The salary increase assumption used to determine pension expense for the Plan is determined by the actuary in consultation with the NUSCO human resources department. To determine the salary increase assumption, salary surveys are reviewed as well as consideration given to professional judgments about the direction of salary growth within NU. Current salary increases, the level of increases built into the union contracts, and the level of promotions are all considerations used to determine the salary increase assumption. Therefore, the salary increase assumption not only reflects the value of annual merit increases but it also reflects the impacts of projected promotions. DeAngelo PFT, p. 4.

The discount rate is used, by the actuary, to discount the cash flow stream of benefit payments to determine the net present value. For financial reporting purposes, the Securities and Exchange Commission (SEC) mandates the use of high quality bond yields, such as AA rated bonds, as the basis for the discount rate at the time of measurement. In addition, the SEC has stated that discount rates should reflect the duration of a Plan's liabilities. Standard practice is for actuaries to use a yield curve approach to each company with the SEC's directives in calculating a discount rate. NUSCO has adopted the yield curve approach such that each cash flow of the liability stream is discounted at an interest rate specifically applicable to the time of the cash flow. Since the discount rate assumption is impacted by changes in interest rates, the assumption will change when rates change. DeAngelo PFT, pp. 4 and 5.

The expected long-term rate of return on Plan assets is the assumption used to calculate the expected return on Plan assets, which is used as an off-set to pension expense. The rate of return assumption should be a long-term rate that reflects that Plan's assets will be invested over long periods of time prior to being paid out as benefits. Due to this methodology, year to year volatility in returns should not have a significantly impact on the long-term rate of return on assets assumption. The SEC has stated that any rate of return assumption of 9.00% or higher will be subject to heightened scrutiny. DeAngelo PFT, p. 5.

The following table shows Yankee's original actuarial assumptions for its Plans.

	<b>Discount Rate</b>	<b>Rate of Return</b>	<b>Salary Increase</b>
2009	6.89%	8.75%	4.00%
2010	5.98%	8.75%	4.00%
2011 - 2013	5.45%	8.25%	3.50%

DeAngelo PFT, p. 6.

The following table shows Yankee's updated actuarial assumptions for its Plans.

	<b>Discount Rate</b>	<b>Rate of Return</b>	<b>Salary Increase</b>
RY1	5.57%	8.25%	3.50%
RY2	5.57%	8.25%	3.50%

Response to Interrogatory OCC-242.

The OCC, through their expert witnesses' Helmuth Schultz, Donna Ramos, and Mark Dady, analyzed Yankee's requested Plan expense and recommended that the long-term rate of return assumption be increased from 8.25% to 8.75%. In addition, the OCC recommended that the Department use the updated Plan information found in the Response to Interrogatory OCC-242. This response incorporated the total impact of the actuarial gains realized in 2010 that resulted from the actual returns earned on pension plan assets exceeding the actuarial assumptions utilized in deriving the 2010 Plan expense. In 2009 and 2010, many of the actuarial losses in 2008 on Plan assets were reversed and actuarial gains on the Plan assets resulted during 2009 and 2010. Schultz, Ramos, and Dady PFT, p. 62.

The OCC reported that the impact of Yankee's updated Plan cost projection for RY1 is a reduction of \$776,000 from the \$9,098,000 incorporated in Yankee's original filing, producing a revised estimate of \$8,322,000. This reduction consists of Plan expense specific to Yankee, pension costs allocated to Yankee from NUSCO, Plan actuarial fees allocated to Yankee from NUSCO, and are net of the portion that is capitalized by the Company. Schultz, Ramos, and Dady PFT, p. 64.

The OCC's recommended that the long-term rate of return assumption incorporated in Yankee's original and updated estimates of 8.25% be increased to 8.75%. The OCC bases this recommendation on several observations. For every year from 2006 through 2010, a long-term rate of return assumption of 8.75% was selected. NU chose to reduce that long standing long-term rate of return assumption to 8.25%. Historical analysis shows that over the past five years, with the exception of 2008 the Plan has earned well in excess of the long-term rate of return assumption incorporated in the actuarial assumptions on Plan assets. The table below shows the long-term rate of return assumption as compared to the actual average return on Plan assets realized by NU for the period 2006 through 2010.

Year	Pension Plan Returns	Assumed Rate of Return
2010	16.4%	8.75%
2009	25.0%	8.75%
2008	-31.1%	8.75%
2007	9.9%	8.75%
2006	17.1%	8.75%

Schultz, Ramos, and Dady PFT, p. 65.

The OCC reviewed the historic earnings realized by NU on the Plan assets coupled with the earnings realized in recent years. It recommended that the 50 basis point reduction adopted by NU in calculating its 2011 actuarial assumptions should not be used for purposes of determining the level of pension expense incorporated into rates. In the instant proceeding, rates should be set based on the 8.75% long-term rate of return assumption that has been used by NU for many years. Schultz, Ramos, and Dady PFT, pp. 65 and 66.

The OCC offered a calculation for an adjustment that includes the impact of increasing the assumed long-term rate of return on Plan assets from 8.25% to 8.75%. Yankee indicated that each 10 basis point increase in the assumed long-term rate of return on plan assets results in a \$0.1 million (or \$100,000) reduction to Yankee pension expense and a \$0.3 million (or \$300,000) reduction to NUSCO pension expense. As such, the OCC calculated the impact of a 50 basis point increase in the long-term rate of return would result in a \$500,000 reduction to Yankee pension expense and a \$1.5 million reduction to NUSCO pension expense. Yankee is allocated 7.97% of NUSCO's pension costs in RY1 and 7.91% in RY2. As such a \$1.5 million reduction to NUSCO pension expense would reduce the NUSCO pension expense allocated to Yankee by \$119,550 in RY1 ( $\$1,500,000 \times 7.97\%$ ) and \$118,650 in RY2 ( $\$1,500,000 \times 7.91\%$ ). The overall impact of the increase in the long-term rate of return assumption from 8.25% to 8.75%, inclusive of Yankee specific and NUSCO allocated costs, would be a \$619,550 reduction in RY1 expenses and a \$618,650 reduction in RY2. Schultz, Ramos, and Dady PFT, pp. 66 and 67.

The OCC recommended that the proposed pension expense for RY1 be reduced by \$1,396,000. This reduction consisted of the recommended \$776,000 reduction to reflect the impact of the actual 2010 pension plan experience and the more recent assumptions selected by Yankee coupled with the \$620,000 reduction to reflect the impact of increasing the long-term rate of return assumption from 8.25% to 8.75%. The proposed pension expense for RY2 should be reduced by \$1,771,000. Schultz, Ramos, and Dady PFT, p. 67.

The Department analyzed Yankee's Plan expense as well as the allocation of the NUSCO expense to Yankee. The Department finds the Plan expense as calculated in the Response to Interrogatory OCC-242 should be used since this provides updated information from the actuary. In addition this response includes updated calculations of the Plan expense specific to Yankee, pension costs allocated to Yankee from NUSCO, Plan actuarial fees allocated to Yankee from NUSCO, and are net of the portion that is

capitalized by the Company. The Response to Interrogatory GA-2SP01 reflects the information found in Yankee's Response to Interrogatory OCC-242. The Department will work from the information provided in the Response to Interrogatory GA-2SP01, which includes the impact of the actual 2010 pension plan experience and the more recent assumptions selected by Yankee.

The Department agrees with the OCC's argument for increasing the long-term rate of return assumption, for ratemaking purposes, from 8.25% to 8.75%. The Department bases this, in part, on the recent returns on Plan assets of Yankee. The Department notes that the 8.75% return on Plan assets has been used by Yankee for many years and even did not decrease this assumption when a negative actual return of -31.1% was shown in 2008.

Yankee argued that the 8.25% return does not conform to accounting standards and the record evidence. Written Exceptions, pp. 37-39. The Department recognizes that the long-term rate of return should reflect future returns. The Department considered Mr. Eckenroth's forward looking DCF calculation of the S&P 500 of 14.07% return a proxy for long-term returns in the economy that are open to investors. Mr. Eckenroth used the Institutional Brokers Estimate System (IBES) consensus earnings growth rates and current market weightings for each company. Mr. Eckenroth calculated a long-term growth rate of 11.9% for the earnings of the S&P 500. Eckenroth PFT, Attachment GJE-4 p. 4 and 5; Appendix CAPM – 2.2. Mr. Eckenroth used the current annual dividend on the S&P 500 of 1.96% and adjusted this for future dividend payments to 2.19% for an overall future market return of the S&P 500 of 14.07%. Eckenroth PFT Attachment GJE-4, pp.5 and 6. In addition, current rates in the stock market indicate an 8.75% return is justified. The Department found evidence of this in the February 1, 2011 issue of Blue Chip Financial Forecasts of the seven best performing industries price performance from over the last six weeks ending February 1, 2011 which shows returns in the range of 9.2% to 13.2%. Tr. 3/10/11, 668 and 669. In the last CL&P rate case in the Decision dated June 30, 2010 in Docket No. 09-12-05, Application of The Connecticut Light and Power Company to Amend Its Rate Schedules, the Department found an 8.75% expected return on plan assets to be reasonable for the pension plan. Decision, p. 58. Therefore, the Department finds an 8.75% return on plan assets is a reasonable assumption.

Yankee indicated that for each 10 basis point increase in the assumed long-term rate of return on plan assets results in a \$0.1 million or \$100,000 reduction to Yankee pension expense and a \$0.3 million or \$300,000 reduction to NUSCO pension expense. Response to Interrogatory GA-116. Using this information, the impact of a 50 basis point increase in the long-term rate of return would result in a \$500,000 reduction to Yankee pension expense and a \$1.5 million reduction to NUSCO pension expense. Yankee is only allocated a portion of the NUSCO pension expense, which is 7.97% of NUSCO's pension costs in RY1 and 7.91% in RY2. As such, a \$1.5 million reduction to NUSCO pension expense would reduce the NUSCO pension expense allocated to Yankee by \$119,550 in RY1 ( $\$1,500,000 \times 7.97\%$ ) and \$118,650 in RY2 ( $\$1,500,000 \times 7.91\%$ ). The overall impact of the increase in the long-term rate of return assumption from 8.25% to 8.75%, adding both the Yankee specific pension cost decrease and NUSCO allocated pension cost decrease, would be a \$619,550 reduction in RY1 expenses and a \$618,650 reduction in RY2. Therefore, the Department finds a

decrease in Yankee's pension expense of \$619,550 in RY1 and a \$618,650 decrease in RY2 is appropriate.

**b. 401(k) Plan**

Under Section 401(k) of the Internal Revenue Code, employees can set aside money for retirement on a pre-tax basis through a plan sponsored by their employer. Yankee offers a 401(k) plan to all its employees. This 401(k) expense includes both the traditional 401(k) and also the K-Vantage plan Yankee is now offering in lieu of a qualified defined benefit plan.

Yankee updated its 401(k) expense showing the direct expense to Yankee of \$756,000 in RY1 and \$835,000 in RY2. Yankee's allocation from NUSCO for the 401(k) is \$543,000 in RY1 and \$594,000 in RY2 for a total expense of \$1,299,000 for RY1 and \$1,429,000 for RY2. Response to Interrogatory GA-2SP01, Schedule WP C 3.27E.

Yankee's costs for its 401(k) plan have been increasing due to participation rates, numbers of employees, and salary growth. An added influence on the cost of the 401(k) is the introduction in 2006 of the 401(k) based K-Vantage benefit, which takes the place of Yankee's defined benefit pension plan. Effective January 1, 2006, Yankee closed its defined benefit pension plan to newly hired non-bargaining employees who now participate in an enhanced 401(k) match benefit called K-Vantage. Under K-Vantage, Yankee contributes an amount equal to a percentage of the employee's covered plan on their 401(k) account. The K-Vantage program also includes a non-qualified benefit payable to officers hired after January 1, 2006, that restores benefits lost as a result of the Internal Revenue Service limits on qualified plan benefits under the NUSCO 401(k) plan. Arendt PFT, p. 10.

Yankee contributions are based on the age of the employee and years of service which are as follows:

<b>Age Plus Service</b>	<b>% of Covered Pay</b>
Less than 40 years	2.5
40 or more but less than 60 years	4.5
60 or more years	6.5

Arendt PFT, p. 11.

In the summer of 2006, NU and thus Yankee offered non-union employees hired prior to 2006 the opportunity to choose between continuing to earn benefits in the traditional defined pension plan or to choose to become part of the K-Vantage plan. Of the Yankee employees eligible, 4.7% chose to participate in the K-Vantage plan and 7.8% of eligible NUSCO employees chose to participate in K-Vantage. Participants in the K-Vantage plan are not eligible to participate in the Company paid retiree life insurance program. By 2008, the bargaining unit employees of Yankee voted to participate in the K-Vantage program as a result of collective bargaining. As of January 1, 2009, all newly hired bargaining unit employees participated in the K-Vantage program and are not eligible to participate in the defined benefit retirement plan or the Company paid retiree life insurance. Arendt PFT, p. 11.

Besides the K-Vantage savings program, NU implemented a new retiree medical savings program in 2007 called Med-Vantage that supplements benefits offered to employees that participate in K-Vantage. Under the Med-Vantage plan, the Company deposits \$1,000 annually into a tax advantaged health reimbursement account for participants 40 years or older, which is ear marketed for post-employment health care premiums or expenses. Yankee asserts that in combination the K-Vantage plan, reduction in eligibility for Company paid retiree life insurance, and the Med-Vantage program, although increasing short-term expenses are expected to lower total retirement benefits expense and reduce cost volatility to Yankee in the long-term. Arendt PFT, pp. 11 and 12.

Yankee's witness testified that the K-Vantage plan will save money in the long-term. Tr. 3/10/11, p. 725. The Department agrees with Yankee that in the long-term the K-Vantage plan will save the rate payers money due to a decrease in the pension expense as a result of the K-Vantage plan. This is because switching to the K-Vantage plan avoids exposure to expenses that are uncontrollable in a traditional pension plan such as performance of the stock and bond markets, bond indexes for the discount rate, and salary growth. The defined benefit pension plan is recorded annually on the books of Yankee while the K-Vantage 401(k) plan is reflected in the employees' accounts rather than Yankee's books. The design of Yankee's K-Vantage plan was recommended by the Company's benefits consultant Towers Watson. Response to Interrogatory GA-239. Yankee submitted the 401(k) plan summary and description which included the K-Vantage plan. Response to Interrogatory GA-66. The Department reviewed the 401(k) plan summary and description document and finds it to be reasonable.

The Department approves Yankee's requested 401(k) expense, which included the K-Vantage plan. The allowed 401(k) expense, which includes Yankee's direct charge and the NUSCO allocation, is \$1,299,000 for RY1 and \$1,429,000 for RY2.

### **c. Supplemental Employee Retirement Program**

Yankee offers a supplemental employee retirement plan (SERP) to provide certain executives with a supplemental retirement benefit in addition to the benefit provided under the non-union pension plan. The projected benefits to be provided under the SERP and the estimated costs of providing those benefits are determined on an annual basis through an actuarial valuation process based on various actuarial assumptions. Yankee reports that their actuary, Hewitt Associates, analyzes NU's SERP participant information for purposes of an actuarial valuation to determine the appropriate pension expense under the ASC 715-30 Defined Benefit Plans – Pension accounting standard. Arendt PFT, p. 13. Yankee's requested expense for the SERP is \$347,000, which is broken down between the direct charge to Yankee of \$133,000 and an allocation to Yankee from NUSCO of \$214,000 for RY1. For RY2, Yankee's requested SERP expense is \$344,000, which is broken down between the direct charge to Yankee of \$131,000 and an allocation to Yankee from NUSCO of \$213,000. Response to Interrogatory GA-2SP01, WPC 3.27f, p. 1.

Yankee reported that it is common practice among companies with qualified defined benefit pension plans such as the NUSCO Plan to provide executives with a

SERP benefit that makes them whole for the limits on pensionable earnings that the IRS places on qualified pension plans. The result is for executives to receive a pension payment that equates to non-executives' pensions relative to their compensation. The SERP, classified as a non-qualified plan, is the vehicle that provides executives with a supplemental retirement benefit, in addition to the benefit provided under the qualified plan retirement benefit by increasing their pension payment to the amount above what the IRS rules allows based on the NUSCO Plan calculation. Arendt PFT, p. 13.

Absent the SERP, Yankee argued that it and NU would not have been able to attract and retain qualified executives from other companies since the SERP is widely used in the utility industry. Officers hired before January 1, 2006 with the title of Vice President or higher have been eligible for the SERP. Officers hired after January 1, 2006, participate in the K-Vantage program. At present, there are five current or former Yankee participants in the SERP and 50 current or former NUSCO participants. Arendt PFT, p. 13. In its brief, Yankee reiterated its position on the SERP expense. The provision of a SERP expense by a company with a qualified defined benefit pension plan is reasonable and justified business expense recoverable under cost of service ratemaking principles. Brief, p. 27.

The OCC, through their expert witnesses' Helmut Schultz, Donna Ramos, and Mark Daddy, recommended that 100% of the SERP expense be removed, which is a \$348,000 reduction to expense for RY1 and a \$347,000 expense reduction for RY2. The OCC stated that the SERP benefit is awarded to only a select few officer level employees that are highly compensated. The SERP provides post-retirement pension benefits to officers above and beyond the level of benefits they would otherwise receive from the NU retirement plan. The OCC asserted that since the SERP is an additional benefit above and beyond the regular pension plan benefits for highly compensated employees then ratepayers should not be required to fund it and as such it should be excluded from rates. Schultz, Ramos, Daddy PFT, pp. 71 and 72; and Brief, pp.70-72.

The OCC's expert witnesses reiterated that there are a total of five current or former Yankee participants and 50 current or former NUSCO participants in the SERP. Based on Yankee's response to Interrogatory GA-49, of these total participants, there are only two active Yankee officers and 15 active NUSCO officers in the SERP. As such, the SERP expense includes 38 prior officers and only 17 active officers. Yankee's ratepayers are receiving no services from the past employees and, therefore, the SERP costs should not be recovered from current ratepayers. Schultz, Ramos, and Dady PFT, p. 72.

Yankee provided the actuarial statement on the SERP. Response to Interrogatory GA-151. The Department's analysis finds these statements provide the actuarial calculations for the SERP and are correct. The SERP expense applies to a select few group of Yankee employees that are so highly compensated they fall outside of the IRS salary cap for qualified pension plans which is \$240,000. See, Tr. 3/29/11, p. 2318. In the past the Department has not allowed SERP expense for this very reason stating in the Decisions dated July 14, 2009 in Docket No. 08-12-07, Application of The Southern Connecticut Gas Company for a Rate Increase that, "[t]he Department agrees with OCC that ratepayers should not fund benefits that are over and above the IRS code, particularly in these difficult economic times." Decision, p. 74. Further precedent

is available in the Decision dated June 30, 2009 in Docket No. 08-12-06, Application of Connecticut Natural Gas Corporation for a Rate Increase, where the Department stated that, “[t]he Department agrees with the OCC that ratepayers should not have to fund excessive benefits that are over and above the IRS code, particularly in these difficult economic times.” Decision p. 50. Again, further precedent in the Decision dated October 13, 1995 in Docket No. 95-02-07, Application of the Connecticut Natural Gas Corporation for a Rate Increase PH01, the Department stated, “[a]lthough the Department has allowed this in past rate cases, it is too great of an expense to be borne by ratepayers struggling under a poor economy.” Decision, p. 45.

Further precedent for not allowing the SERP expense for ratemaking purposes, based on other state jurisdictions, is found in the Oklahoma Corporation Commission disallowance of the inclusion of SERP costs in cases Nos. PUD 20060000285 and PUD 200800144. Late Filed Exhibit No. 89. During the hearing, the OCC expanded on this and stated that the Oklahoma Commission found that the SERP expenses do not provide a benefit to ratepayers. More precedent is found in the Arizona Corporation Counsel disallowance of SERP costs in rates in cases D.70665 and 70011. Late Filed Exhibit No. 89. During the hearing the OCC expanded on this and stated, “They found that they [SERP] did not provide a benefit to ratepayers. They had indicated that – along the lines that if the company is – shareholders wished to pay it, that was fine, but it shouldn’t be passed on to ratepayers.” Lastly, the Oregon Public Service Commission disallowed the inclusion of SERP costs in rates as was seen in Order No. 01-787. Late Filed Exhibit No. 89. During cross-examination, the OCC stated that Oregon Public Service Commission indicated, “. . . the company had not persuaded them it was necessary to pay SERP to hire or retain executive officers; therefore, they disallowed the cost.” Tr. 3/28/11, pp. 2366 and 2367.

The OCC’s brief is adamantly against including the SERP in rates. Yankee’s captive ratepayers should not be forced to fund these additional generous benefits that are above and beyond the regular pension plan benefits for these highly compensated employees, and 100% of these costs should be removed from each of the rate years. Brief, p. 70. The OCC further stated that, “[t]he majority of the SERP costs requested by the Company for recovery from ratepayers are associated with prior employees who no longer provide any service to the Company’s customers.” Yankee’s \$140,000 SERP request in RY1 pertains to only two active Yankee officers and three former Yankee officers. In the allocation of NUSCO expense to Yankee the SERP has costs of 15 active NUSCO officers and 35 inactive prior NUSCO officers. The OCC recommended excluding SERP costs for both rate years. Brief, p. 71.

Yankee objected to the Department denying the SERP expense in the Department’s Draft Decision. Written Exceptions, pp. 48-50. The Department recognizes that in the Decision dated June 30, 2010 in Docket No. 09-12-05, Application of The Connecticut Light and Power Company to Amend Its Rate Schedules, the Department approved CL&P’s SERP. The Department is not bound by this previous Decision in the CL&P rate case in Docket No. 09-12-05. The Department finds that at this time economic conditions have had such a downturn that it would be overly burdensome for Yankee’s ratepayers to be held liable for a benefit above and beyond what is allowed by the IRS. The Department basis its determination on evidence presented by the Yankee’s witness Mr. Eckenroth. He stated that:

In the aftermath of the subprime meltdown, the capital markets have been attempting to cope with a series of challenging developments both in the U.S. and abroad. In particular, investors have been attempting to evaluate the implications and potential risks of the second round of quantitative easing ("QE2") and potential gridlock in Washington D.C., while nervously watching a series of sovereign debt crises unfold abroad.

Eckenroth PFT, p. 3.

Based on the record evidence, the Department denies Yankee's SERP expense. This denial is based on prior rate case denial in Connecticut and other jurisdictions as is discussed above. The Department finds that Connecticut is still in bad economic times and as such, ratepayers cannot afford in rates benefit costs that are above and beyond what the IRS allows for a qualified pension plan. In addition, the Department is not convinced that SERP is necessary to hire or retain executives as was stated by Yankee. The Department's denial is for ratemaking purposes only and Yankee may fund the SERP expense through stockholder funds. The Department finds this denial of the SERP expense, which includes the Yankee direct SERP expense and the NUSCO allocated SERP expense, to be \$347,000 in RY1 and \$344,000 in RY2.

In addition, the Department finds that Yankee has included an offset to rate base for the SERP reserve net of accumulated deferred income taxes. Response to Interrogatory GA-2SP01, Schedule B-8. Since the Department has disallowed the SERP expense, the rate base offset should also be removed. This results in an increase in rate base of \$674,000. This is an increase in rate base since the reserve offset is being removed. The OCC also recommended such an adjustment. Schultz, Ramos, and Dady PFT, p. 74; Brief, pp. 51 and 52.

Due to accrual accounting Yankee will accrue the SERP expense each year and set up a liability for payment of that expense when the payments are made. In the past, the SERP expenses have been included in rates charged to Yankee's customers. Historically on an overall basis, Yankee has expended a higher amount than the annual level of payout, which has resulted in a deferred credit related to the SERP plan. As such, ratepayers have advanced these payments to Yankee because the accruals have exceeded the overall cash payouts. If the SERP expenses remain in costs paid for by ratepayers, then the offset to rate base that results must also be reflected. Response to Interrogatory GA-482.

The Department's adjustment to rate base of \$674,000 on a net of ADIT basis removes the rate base offset included by Yankee. The Department finds this reversal of Yankee's adjustment is made as a result of the disallowance of the SERP expense. Therefore, the Department removes the rate base offset, which results in an increase in rate base of \$674,000 for RY1 and \$737,000 for RY2.

**d. Non-Supplemental Employee Retirement Program**

Yankee offers a Non-Supplemental Employee Retirement Program (Non-SERP) which is an account used to record expenses for specially negotiated post-employment benefits including pension enhancements not covered by the NUSCO Plan or the SERP. Arendt PFT, p. 13. Yankee's requested expense for the Non-SERP is \$304,000, which is broken down between the direct charge to Yankee of \$21,000 and an allocation to Yankee from NUSCO of \$282,000 for RY1. For RY2, Yankee's requested SERP expense is \$304,000, which is broken down between the direct charge to Yankee of \$21,000 and an allocation to Yankee from NUSCO of \$282,000. Response to Interrogatory GA-2SP01, WPC 3.27g, p. 1.

Yankee stated that Non-SERP enhancements are provided in some employment agreements for mid-careers hires in order to make up for benefits forgone at previous employers or as a part of a separation agreement with NU. Yankee argued that as with the SERP, these Non-SERP benefits helped to attract and retain qualified personnel. Hewitt Associates, Yankees actuary, collects Non-SERP participant information from NU and uses this information to calculate an actuarial valuation to determine pension expense under the ASC 715-20 accounting standard. At present, there is one former Yankee employee and 49 current or former NUSCO employees whose expense is recorded in the non-SERP account. Arendt PFT, pp. 13 and 14. In its brief, Yankee augmented its position to include the Non-SERP. It stated that such an expense is reasonable and justified and it should be allowed recovery of this legitimate expense. Brief, p. 27.

The OCC stated that the Non-SERP benefits are additional benefits above and beyond the regular retirement benefits and the supplemental executive retirement plan benefits received by officers. Schultz, Ramos, and Dady PFT, p. 74. The OCC's reason that consistent with the treatment of SERP costs, the Non-SERP costs is above and beyond normal retirement costs and, therefore, should be disallowed and not passed on to ratepayers. The OCC asserts that \$300,000 in Non-SERP costs requested by Yankee be removed from the rate case. Schultz, Ramos, and Dady PFT, p. 75.

The OCC in its brief reiterated its position that the entire cost included in each of the rate years for the Non-SERP be removed. This removal results in a reduction to RY1 expenses of \$300,000 consisting of \$22,000 associated with one former Yankee employee and \$278,000 that is allocated to Yankee associated with 49 current or former NUSCO employees. The OCC argued that ratepayers should not be burdened with funding these generous benefits that Yankee and NUSCO have decided to provide to their former and a few current officers. Ratepayers are receiving no benefit associated with this excessive benefit. Brief, p. 72.

Yankee objected to the Department denying the Non-SERP expense in the Department's draft Decision. Written Exceptions, pp. 48-50. Similar to the SERP for Yankee's requested Non-SERP expense, the Department recognizes that in the Decision dated June 30, 2010 in Docket No. 09-12-05, Application of The Connecticut Light and Power Company to Amend its Rate Schedules the Department approved CL&P's Non-SERP. The Department is not bound by the previous decision in the CL&P rate case in Docket No. 09-12-05. The Department finds that at this time economic

conditions have had such a downturn that it would be overly burdensome for Yankee's ratepayers to be held liable for a benefit above and beyond what is allowed by the IRS. The Department basis its determination on evidence presented by Yankee's witness Mr. Eckenroth. He stated that

In the aftermath of the subprime meltdown, the capital markets have been attempting to cope with a series of challenging developments both in the U.S. and abroad. In particular, investors have been attempting to evaluate the implications and potential risks of the second round of quantitative easing ("QE2") and potential gridlock in Washington D.C., while nervously watching a series of sovereign debt crises unfold abroad.

Eckenroth PFT, p. 3.

Based on the record evidence, the Department denies Yankee's Non-SERP expense for both rate years. The Department agrees with the OCC that this Non-SERP benefit should not be paid for by ratepayers since this is too generous a benefit given to a select group of employees. The Department's denial is for ratemaking purposes only and Yankee may fund the Non-SERP expense through stockholder funds. The Department finds this denial of the Non-SERP expense, which includes the Yankee direct Non-SERP expense and the NUSCO allocated Non-SERP expense, to be \$304,000 in RY1 and \$304,000 in RY2.

Similar to the rate base adjustment made relating to the SERP, the Department must also make such an adjustment for the Non-SERP. The Department finds that Yankee included an offset to rate base for the Non-SERP reserve net of accumulated deferred income taxes. See, Response to Interrogatory GA-2SP01, Schedule B-8. Since the Department has disallowed the Non-SERP expense, the rate base offset should also be removed. This results in an increase in rate base of \$160,000. This is an increase in rate base since the reserve offset is being removed. The OCC also recommended such an adjustment. Schultz, Ramos, and Dady PFT, pp. 75 and 76; Brief, pp. 51 and 52.

Due to accrual accounting, Yankee will accrue the Non-SERP expense each year and set up a liability for payment of that expense when the payments are made. In the past, the Non-SERP expenses have been included in rates charged to Yankee's customers. Historically, on an overall basis, Yankee has expended a higher amount than the annual level of payout, which has resulted in a deferred credit related to the Non-SERP plan. As such, ratepayers have advanced these payments to Yankee because the accruals have exceeded the overall cash payouts. If the Non-SERP expenses remain in costs paid for by ratepayers, then the offset to rate base that results must also be reflected. Response to Interrogatory GA-474.

The Department's adjustment to rate base of \$160,000 on a net of ADIT basis removes the rate base offset included by Yankee. The Department finds this reversal of Yankee's adjustment is made as a result of the disallowance of the Non-SERP expense. Therefore, the Department removes the rate base offset, which results in an increase in rate base of \$160,000 for RY1 and \$145,000 for RY2.

**e. Post-Retirements Benefits Other Than Pensions**

Yankee provides retiree medical benefits under ASC 715-60-20 formerly known as Financial Accounting Standard No. 106 - Employers' Accounting for Post-Retirements Benefits Other Than Pensions (OPEB or FAS 106). Yankee is required to recognize these benefits during the working career of employees, not after they retire. Costs accrue from the date an employee is hired to the date of retirement when an employee is fully eligible to receive OPEB benefits. The present value of future benefits would be determined by employee retiree demographics.

Yankee revised its FAS 106 expense request showing a direct FAS 106 expense to Yankee of \$920,000 for RY1 and \$864,000 for RY2. Yankee's allocation from NUSCO for the FAS 106 expense is \$694,000 for RY1 and \$591,000 for RY2. Yankee's update to the FAS 106 expense in its updated filing included the impact of its FAS 106 plan asset experience and asset values at the end of 2010, as well as to reflect the impact of the actuarial assumptions that were selected by Yankee at the end of 2010 for determining its 2011 FAS 106 expenses. Total required FAS 106 expense for RY1 is \$1,614,000 and for RY2 is \$1,455,000. Response to Interrogatory GA-2SP01, Schedule WP C 3.27h.

The FAS 106 expense is calculated in a similar fashion as the pension expense using certain actuarial assumptions. The assumptions used in determining the Yankee's FAS 106 expense are discount rate, expected return on assets, average wage increase, and the health care cost trend rate. The discount rate is used to evaluate the present value of the plan liabilities. The higher the discount rates, the lower the present value resulting in lower pension expense. The expected return is an assumption, not an actual return, and is a product of a plan investment mix and the expected earnings on such a mix. The higher the assumption, the more the plan assumes it can earn resulting in lower pension expense. The average wage increase is the assumed increase in annual wages for all employees in the plan and is used for the life insurance portion of the FAS 106 expense. The higher the wage increase assumption, the higher the expense. The health care cost trend rate is an assumption that reflects the cost of future health care. The initial health care trend assumption reflects expectations of cost increases in the near term. The ultimate assumption is developed from a 'building block' approach, where the underlying inflation assumption is increased to reflect improvements in technology and additional utilization.

The OCC agreed that Yankee's update is appropriate and recommended it. Schultz, Ramos, and Dady PFT, p. 68. However the OCC is recommending that the long-term rate of return assumption incorporated in the Yankee's updated estimates of 8.25% be increased by 50 basis points to 8.75%. Brief, pp. 68-70. In its original filing, Yankee included an assumed long-term rate of return assumption of 8.75% for purposes of projecting the FAS 106 expense; however, Yankee reduced this assumption to 8.25% in its update. The OCC bases its recommendation for a 50 basis point decrease on the assumed rate of return on plant assets. The OCC offers the record evidence presented below that shows the present long-term rate of return assumption as compared to the actual average return on FAS 106 plan assets realized by NU for the period 2006 through 2010.

Year	Union Retiree Health Actual Return	Non Union Retiree Health Actual Return	Retiree Life Actual Return	Assumed Rate Of Return
2010	15.2%	13.7%	14.9%	8.75%
2009	25.8%	24.2%	25.0%	8.75%
2008	-29.4%	-28.6%	-29.3%	8.75%
2007	14.3%	14.5%	14.1%	8.75%
2006	5.3%	5.2%	4.8%	8.75%

Schultz, Ramos, and Dady PFT, p. 69.

The OCC's expert witnesses stated that based on the historic earnings realized by NU on the plan assets, coupled with the earnings realized in recent years, it is their opinion that the 50 basis point reduction adopted by NU in deriving its 2011 actuarial assumptions should not be used for purposes of determining the level of FAS 106 expense to incorporate in rates. Consistent with the expert witnesses' pension expense recommendation, the OCC recommended that the long-term rate of return assumption incorporated in Yankee's updated estimates of 8.25% be increased by 50 basis points to 8.75%. Brief, pp. 68-70.

Similar to the pension's long-term rate of return, the Department recognizes that the FAS 106 long-term rate of return should reflect future returns. The Department considered Mr. Eckenroth's forward looking DCF calculation of the S&P 500 of 14.7% return a proxy for long-term returns in the economy that are open to investors as it did for the pension long-term rate of return. See Section II.D.a. Qualified Pension Plan. In addition, as shown above in Section II.D.a. Qualified Pension Plan, the current rates in the stock market indicate an 8.75% return is justified. In the last CL&P rate case in the Decision dated June 30, 2010 in Docket No. 09-12-05, the Department found an 8.75% expected return on plan assets for union health and life to be reasonable. Decision, p. 58. Therefore, the Department finds an 8.75% return on plan assets is a reasonable assumption.

The Department concurs with the OCC that a 50 basis point increase going from 8.25% to 8.75% is warranted given the actual returns shown above. The OCC stated the overall impact of the increase in the long-term rate of return assumption from 8.25% to 8.75%, inclusive of Yankee specific and NUSCO allocated costs, would be an \$87,500 reduction in RY1 expenses and an \$87,400 reduction in RY2. Schultz, Ramos, and Dady PFT, pp. 69 and 70.

The Department also agrees with Yankee's update to the FAS 106 expense in its updated filing. It included the impact of its FAS 106 plan asset experience and asset values at the end of 2010, as well as to reflect the impact of the actuarial assumptions that were selected by Yankee at the end of 2010 for determining its 2011 FAS 106 expenses. Response to Interrogatory GA-2SP01, Schedule WP C 3.27h.

Yankee indicated that each 10 basis point increase in the assumed long-term rate of return on plan assets results in a \$14,000 reduction to Yankee FAS 106 expense and a \$44,000 reduction to NUSCO FAS 106 expense. Response to Interrogatory GA-128. Using the information provided by Yankee, the impact of a 50 basis point

increase in the long-term rate of return would result in a \$70,000 reduction to Yankee specific FAS 106 expense.

A 50 basis point increase in the long-term rate of return assumption would result in a \$220,000 reduction in NUSCO FAS 106 expense. Applying the Yankee allocation of NUSCO costs of 7.97% in RY1 to the \$220,000 reduction results in a \$17,500 reduction in costs allocated to Yankee. Applying the Yankee allocation of NUSCO costs of 7.91% for RY2, would result in a reduction of \$17,400 to costs allocated to Yankee. The overall impact of the increase in the long-term rate of return assumption from 8.25% to 8.75%, inclusive of Yankee specific and NUSCO allocated costs would be a \$87,500 reduction in RY1 expenses and a \$87,400 reduction in RY2. Therefore, the Department finds a decrease in Yankee's FAS 106 expense of \$87,500 in RY1 and an \$87,400 decrease in RY2 is appropriate.

### **3. Postage Expense**

Yankee requested postage expense of approximately \$1,752,000 for the proforma test year ending June 30, 2011. The proposed amounts comprised of approximately \$1,226,000 for postage and \$526,000 for lease, permits and other delivery services. For RY1, the Company proposed postage expenses of approximately \$1,891,000, which is comprised of approximately \$1,326,000 for postage and \$566,000 for lease, permits and other delivery services. For RY2, the Company proposed postage expenses of approximately \$1,975,000, which is comprised of approximately \$1,403,000 for postage and \$572,000 for lease, permits and other delivery services. For the postage service expense, Yankee proposed a proforma period adjustment of \$78,000, which included \$57,000 based on the assumption that the first class postage rate would increase from \$0.44 to \$0.46, and \$21,000 for increases in the number of customer bills mailed.

For RY1, Yankee proposed the postage service expense increase of approximately \$100,000, which consists of the proforma period adjustment of \$78,000 and \$22,000 for increases in the number of customer bills mailed. For both the proforma period and RY1, the projected increases in the number of customer bills mailed were based on an escalation rate of 1.7%. For RY2, Yankee proposed increasing the postage service expense by approximately \$77,000, which consists of \$58,000 which is based on the assumption that the first class postage rate would increase from \$0.46 to \$0.48; and \$19,000 for increases in the number of customer bills mailed. For RY2, the projected increase in the number of customer bills mailed was based on an escalation rate of 1.4%. Schedules WP C-3.18 A and WP C-3.18 B; Response to Interrogatory OCC-226, p. 1.

The OCC stated that the Company's proposed \$139,000 (\$1,891,000 - \$1,752,000) increase in postage expense in RY1 over the proforma test year amount should be adjusted. Approximately \$57,000 of Yankee's proposed increase was based on the assumption that first class postage rate would increase from \$0.44 to \$0.46. The OCC referenced the Company's Response to Interrogatory OCC-226 in which Yankee provided a Postal News dated July 6, 2010 from the United States Postal Service (USPS). In the news release, the USPS recommended to the Postal Regulatory

Commission (PRC) a two cent increase to the price of a first class stamp to become effective January 2, 2011. OCC PFT, pp. 87-90.

The OCC indicated that in a different news release dated January 13, 2011, the USPS reported that the first class rate will continue to be \$0.44. Furthermore, USPS filed an appeal of the PRC's rejection of its proposal to increase the rate with the United States Court of Appeals for the District of Columbia Circuit. According to the OCC, the United States Court of Appeals has not issued its decision in this matter. Therefore, the Company's proposed adjustment to reflect an increase in the first-class postage rate during the proforma period should be rejected. *Id.* Additionally, the OCC stated that the Company's postage service expense due to 1.7% escalation rate which represents the increase in the number of bills mailed to customers also should be adjusted. According to the OCC, the proposed \$1,000 (\$22,000 - \$21,000) increase was similarly due to the assumption that the first class postage rate would increase from \$0.44 to \$0.46. Consequently, the OCC recommended that RY1 proposed expenses be reduced by \$58,000 (\$57,000 + \$1,000). Likewise, the OCC recommended that RY2 proposed postage expenses be reduced by \$59,000 (\$58,000 + \$1,000). *Id.*; OCC PFT, Schedule C-10

The Department reviewed the customers' billings and accounting expenses reported in Accounts 90303 and 90304. The table below summarizes the total expenses in these accounts for calendar years 2007 through 2010:

	2007	2008	2009	2010
Account 90303	\$ 646,713	\$1,366,137	\$1,546,011	\$1,111,851
Account 90304	\$ 0	\$ 0	\$ 0	\$ 981,063
Total	\$ 646,713	\$1,366,137	\$1,546,011	\$2,092,914

Responses to Interrogatories GA-60, p. 8, and OCC-16SP02, p. 68.

Prior to 2010, billings and accounting expenses for customers were all recorded in Account 90303. In 2010, Yankee began recording the postage service expenses in Account 90304. The reduction of \$434,159 in Account 90303 in 2010 from the 2009 amount was primarily due to a decrease of \$434,987 in the GAB cost control center (CCC) described as "NUSCO BILL YGSCO," which represents billing from NUSCO to Yankee. See, Response to Interrogatory OCC-16SP02, p. 68; Schedule H-1.1, p. D3-1.

The Department is concerned with level of the yearly increases to customers' billings and accounting expenses. The Department will direct Yankee to provide worksheets showing the quarterly charges and credits recorded in the applicable CCCs for Accounts 90303 and 90304 until its next rate case. While it is prudent for the Company to budget for known expense escalations; simply relying on news releases of potential postage rate increases, which have not been finalized, is not a reliable justification for the proposed increases to postage expenses to be recovered in rates. The stated effective date of January 1, 2011 for the postage rate increases cited by Yankee has passed and the first class postage rate remains \$0.44 per stamp. For RY1, the Department will disallow postage expenses of \$58,000. The Department finds that the \$59,000 that the OCC recommended for disallowance in RY2 does not account for the fact the total postage expenses for RY2 were cumulative of the proposed

adjustments in both RY1 and RY2 to the amounts proposed for the proforma test year. Therefore, to correctly remove the impact of the assumptions that the first class postage rate will increase from \$0.44 to \$0.46 in RY1 and again from \$0.46 to \$0.48 in RY2, the Department will disallow postage expenses of \$117,000 (\$58,000 + \$58,000 + \$1,000) in RY2.

#### **4. Telecommunications Expense**

Yankee reported a telecommunication expense of approximately \$938,000 for the test year and proposed expense of \$1.122 million for RY1 and for RY2. The Company testified that the proposed increase of approximately \$184,000 (\$1,122,000 - \$938,000) is associated with an increase in rates charged by its service provider. Michelson PFT, p. 25. However, in its response to inquiry, Yankee provided a different response. Specifically, that the \$184,000 adjustment consisted of \$52,000 in non-recurring credits from Verizon, \$58,000 for new products in the rate years for wide area network, and \$74,000 for escalation above the test year expense. Response to Interrogatory OCC-229; Schedules C-3.22 A and C-3.22 B.

The OCC recommended that the telecommunication expenses for the proposed rate years be kept at the test year level. This is because the Company failed to provide a copy of the contract from its service provider or other documentation to support the projected expense escalations. Also, the OCC referenced the Company response to Interrogatory OCC-229 shows that telecommunication expenses have been decreasing from 2005 through 2009. Due to these factors, the OCC recommended that the Department disallow the \$184,000 proposed increase from each of the rate years. OCC PFT, pp. 84-87.

After reviewing the exhibits submitted in this proceeding, the Department is not convinced that the credit received from Verizon is non-recurring. Such credits would indicate that the Company had been previously overcharged. Furthermore, the Company failed to explain why credits from Verizon are non-recurring. See, Response to Interrogatory OCC-229. The Department opines that such credits may be one of the reasons the telecommunication expenses have declined since 2005. In addition, telecommunication expenses have declined from 2005 through the test year. Based on these factors, the Department will disallow the amounts proposed for escalation and new products during for the proposed rate years. The Department finds that the test year telecommunication expense is a reasonable proxy for the each of the proposed rate years. Consequently, the Department will disallow telecommunication expense of \$184,000 for RY1 and for RY2.

#### **5. Payroll Tax Expense**

Yankee initially proposed payroll tax expenses of \$3.131 million for RY1 and \$3.148 million for RY2. Schedules WPC-3.0A, WPC-3.0B AND C-3.34A&B. In its latest updates to the SFR schedules, Yankee proposed \$3.126 million for RY1 and \$3.142 million for RY2. Response to Interrogatory GA-2SP02 Schedules WPC-3.0A, WPC-3.0B and C-3.34A&B.

Based on the total adjustments to the proposed payroll expenses as discussed in Section II.D.12. Payroll Expense, the Department calculated adjustments to the proposed payroll tax expenses using the combined effective rate for social security and Medicare taxes as detailed below.

Item	RY1	RY2
Payroll Expense Adjustment	\$2,386,211	\$2,831,211
Employer's combined Payroll Tax Rate	7.65%	7.65%
Disallowed Payroll Tax Expense	\$182,545	\$216,588

Based on the calculations depicted above, the Department will allow payroll tax expenses of approximately \$2.943 million (\$3.126M - \$0.183M) in RY1 and \$2.925 million (\$3.142 M - \$0.217M) in RY2. Therefore, the Department will disallow payroll tax expenses of \$182,545 in RY1 and \$216,588 in RY2.

## 6. Hardship/MPP Expenses

Yankee stated that the deferred balances as of June 3, 2010 for hardship write-offs and hardship forgiveness/matching payment program (MPP) were \$6,425,662 and \$4,937,531, respectively. This resulted in total hardship deferred balance of approximately \$11,364,000. Schedule WP C-3.32, p. 4. The deferred balances as of December 31, 2010, were \$5,169,237 and for hardship write-offs and \$3,269,628 for MPP. Response to Interrogatory OCC-13, pp. 2 and 3. Thus, the total hardship/MPP balance as of December 31, 2010 was \$8,438,865 (\$5,169,237 + \$3,269,628). For RY1 and RY2, the Company proposed ongoing annual hardship write-offs and a MPP expense of approximately \$3,164,000 and \$2,671,000, respectively, resulting in an annual total ongoing hardship expense of \$5,835,000. The proposed amounts are based on historical averages of the hardship forgiveness charges and the net write-offs of hardship uncollectible accounts for the three years July 2007 through ended June 30, 2010. Responses to Interrogatories GA-361 and OCC-248, pp. 3 and 4. The currently allowed annual amortization of the total deferred hardship balances is \$8,890,000. Thus, the proposed deferred balance at the beginning of RY1 is approximately \$8,309,000 (\$11,364,000 + \$3,164,000 + \$2,671,000 - \$8,890,000). Yankee proposed to amortize the total deferred balance over 4 years, which resulted in a proposed annual amortization expense of \$2,077,000 (\$8,309,000 / 4). Therefore, the proposed annual ongoing hardship expense would be \$7,912,000 (\$5,835,000 + \$2,077,000). Schedule WPC-3.32, p. 4.

The OCC determined that the total deferred hardship/MPP balance as of the beginning of the RY1 would be approximately \$6,911,000. The OCC calculated this amount based on the deferred balances in Accounts 182HM and 182HW as of December 31, 2010. OCC recommended that the hardship expense should be reduced by \$349,000 in each of the proposed rate years. OCC PFT, p. 80 and Schedule C-9.

The Department analyzed the Company's calculations of the proposed average deferred hardship balances included in rate base, the related amortization expenses and the proposed annual ongoing hardship/MPP expenses for both RY1 and RY2. The Department finds that Yankee failed to update and revise the proposed annual amortization expense to reflect the deferred balances in Accounts 182HM and 182HW

as of December 31, 2010. The difference between the total deferred balances as June 30, 2010 and as of December 31, 2010 is \$1,398,000 (\$8,309,000 - \$6,911,000). Therefore, the proposed annual amortization of the deferred hardship/MPP balances for the proposed rate years was overstated by \$349,500 ( $\$1,398,000 / 4$ ). As a result, the allowed annual amortization expense for the total deferred hardship balance is \$1,728,000 [ $(\$6,911,000) / 4$ ]. The Department accepts the Company's proposed total ongoing hardship expense of \$5,835,000. However, if the actual total ongoing hardship expense is less than this amount, the excess should be applied to the deferred hardship balances in either Account 182HM or Account 182HW. Therefore the allowed total yearly hardship expense is \$7,563,000 ( $\$1,728,000 + \$5,835,000$ ). Consequently, the Department will disallow \$349,000 ( $\$7,912,000 - \$7,563,000$ ) of the proposed total ongoing hardship/MPP expense in RY1 and as well in RY2.

## 7. Uncollectible Expense

Yankee originally proposed a proforma uncollectible expense of approximately \$7.834 million and \$8.159 million for RY1 and RY2, respectively. The proposed expenses were calculated by multiplying the original proforma revenues of approximately \$450.75 million for RY1 and \$469.433 million for RY2 by the proposed uncollectible percentage of 1.7381%. Schedules WPC-3-23A and Schedules WPC-3-23B, p. 1. In its latest updated schedules, the Company proposed uncollectible expenses of approximately \$7.811 million and \$8.135 million for RY1 and RY2, respectively, based on their corresponding revised proforma revenues of \$449.373 million and \$468.035 million. Similar to the GET expenses, the additional revenue requests for RY1 and RY2 included uncollectible expenses of approximately \$0.504 million and \$0.673 million, respectively. Thus, the total requested uncollectible expenses are \$8.315 million ( $\$7.811M + \$0.504M$ ) for RY1 and \$8.808 million ( $\$8.135M + \$0.673M$ ) for RY2. Response to Interrogatory GA-2SP02 Schedules WP C3.23 A, WP C-3.23 B, p. 1, A-1.0 A and A-1.0 B

In Section II.F.3. Uncollectible Expense Rate, the Department calculated and found that 1.5940% represents a reasonable non-hardship uncollectible percentage. Accordingly, the Department approves uncollectible expenses of \$7.163 million ( $\$449.373M \times 1.5940\%$ ) and \$7.460 million ( $\$468.035M \times 1.5940\%$ ) for RY1 and RY2, respectively. Regarding the additional revenue requests, the Department calculated related uncollectible expenses of approximately \$0.471 ( $\$29.521 \times 1.5940\%$ ) million and \$0.628 ( $\$39.404 \times 1.5940\%$ ) million for RY1 and RY2, respectively.

Additionally, in Section II.K. Revenue and Revenue Adjustments, the Department calculated additional revenue at current rates of \$10,065,781 and \$10,463,094 for RY1 and RY2, respectively. As a result, the Department determined that the uncollectible expenses related to the additional revenue at current rates are approximately \$106,244 ( $\$6,665,218 \times 1.5940\%$ ) for RY1 and \$113,737 ( $\$7,135,314 \times 1.5940\%$ ) for RY2. Therefore, the total allowed uncollectible expenses are \$7.740 million ( $\$7.163M + \$0.471M + \$0.106M$ ) for RY1 and \$8.202 million ( $\$7.460M + \$0.628M + \$0.114M$ ) for RY2. Consequently, the Department disallows uncollectible expenses of approximately \$575,000 or \$0.575 million ( $\$8.315M - \$7.740M$ ) in RY1 and \$606,000 or \$0.606 million ( $\$8.808M - \$8.202M$ ) in RY2.

## 8. Healthcare Expenses

The Company reported total healthcare expenses of approximately \$4.227 million for the test year. Yankee proposed total healthcare expenses of approximately \$5.651 million and \$6.124 million for RY1 and RY2, respectively. The total proposed amounts included net allocations from NUSCO of approximately \$1.313 million, \$1.673 million and \$1.806 million for the test year, RY1 and RY2, respectively. Schedule WP C-3.27a. Yankee proposed gross healthcare costs, exclusive of allocated amounts from NUSCO, of \$6,746,149 for RY1 and \$7,324,472 for RY2. Yankee proposed employee contributions for healthcare expenses of \$1,214,847 for RY1 and \$1,318,405 for RY2 using an 18% contribution percentage. Response to Interrogatory OCC-40, p. 2.

The Company testified that as part of the larger NU organization its healthcare costs are lower than if it were a stand-alone company. As such, it enjoys certain efficiencies and takes advantage of access to a larger risk pool and uses self-funded program. However, the Company stated that employee health care costs in RY1 are projected to rise by approximately 10% above the test year level and 8% in RY2 over the RY1 amount. The Company claimed that these projections were based on forecasts from Towers Watson, an employee benefit consultant employed by NU. They reflect growths in medical care and prescription costs as well as the impact of mandated changes under healthcare reform legislation. Arendt PFT, pp. 3 and 4.

The Company testified that NU has taken steps to control employee benefit costs without diminishing the quality of benefits programs. Since 2007, NU consolidated vendors which resulted in active employee plan participants receiving medical and behavioral health coverage through a single administrator. Yankee stated that savings associated with these consolidation initiatives were achieved through lower administrative fees and higher discounts, and through consistent delivery of disease management solutions to participants suffering from chronic high medical cost conditions. These consolidation initiatives resulted in costs reduction of approximately \$950,000 in 2007 and projected costs reduction of approximately \$450,000 in 2010. Since 2004, all nonunion employees who selected benefits only for themselves have contributed 10% of the monthly medical benefit costs. Contributions by non-union employees, who selected family coverage, have increased from 20% in 2004 and 2005 to 22.5% in 2006 and to 25% from 2007 to the present. The Company stated that increasing employee contributions for family plan coverage encourages employees' spouses who work for other employers to obtain coverage elsewhere. Additionally, based on labor negotiations in 2008, all Yankee union employees are now also on this 10% or 25% cost sharing structure. Arendt PFT, pp. 4-7.

The OCC stated that the Company's proposed healthcare increases of 36.7% for its employees and 26.9% for the allocated healthcare costs for NUSCO employee expenses were based on unsupported escalation rates. The OCC stated that based on Yankee's reported \$5,636,844 gross healthcare cost and the 395.3 total average number of employees covered under its healthcare plan, the Company's average employer/employee cost was \$14,260 in 2010. In the Response to Interrogatory OCC-143, the Towers Watson survey page shows an average employer/employee healthcare cost per active employee of \$10,094 for 2010. OCC PFT, pp. 57-60.

The OCC calculated a healthcare expense for Yankee of \$6,331,000 for RY1 by multiplying the calendar year 2010 cost of \$5,637,000 by 8% for 2011 and then by 4% for the first six months of 2012. For NUSCO's RY1 healthcare expense, the OCC first estimated the test year gross costs by dividing the net employer cost of \$1.467 million from Schedule WP C-3.27a by the approximate average employee contribution of 80%. The result was inflated by 10% for the increase that occurred between June 30, 2010 and December 31, 2010. That result was then increased by the same 8% and 4% used for Yankee Gas for 2011 and the first six months of 2012, respectively. The OCC calculated an estimated RY1 employer/employee healthcare cost of \$2,266,000 for NUSCO. For RY2, the OCC escalated the amounts calculated for RY1 using 8%. The OCC recommended that the Company's proposed healthcare expenses be reduced by \$437,000 in RY1 and by \$493,000 in RY2. OCC PFT, pp. 61 and 62 and Schedule C-3.

The Department reviewed the exhibits and responses in support of the Company's proposed healthcare expenses for RY1 and RY2. The Department noticed that the approximately \$5,514 million reported for the test year as the total healthcare expenses before adjusting for the capitalized portions essentially equaled the total for the amounts reported in the referenced accounts for Yankee and NUSCO. See, Schedule WPC-3.27a; Response to Interrogatory GA-60, p. 13. As detailed in the table below, which is based on the Company's response to Interrogatory OCC-40, the Department calculated the ratios for portions of Yankee's gross healthcare expenses for employees' contributions and for annual amount capitalized.

**Healthcare Expenses – Employee Contribution and Capitalized Ratios(000)**

		2007	2008	2009	2010
A	Gross Costs	\$4,036,184	\$4,303,068	\$4,430,237	\$5,636,844
B	Employee Contributions	\$849,209	\$842,110	\$1,009,169	\$1,127,807
C	Contribution Percentage (C = B / A)	21.04%	19.57%	22.78%	20.01%
D	Yankee Expense (D = A - B)	\$3,186,975	\$3,460,958	\$3,421,068	\$4,509,037

Response to Interrogatory OCC-40, p. 2.

Based on its analysis of the healthcare costs summarized in the table above and testimonies the Company provided in this proceeding, the Department cannot understand why the employee contribution percentage would decline to 20% in 2010. Yankee's gross healthcare expense actually increased by approximately 27% [ $(\$5,636,844 / \$4,430,237) - 1$ ] in 2010 compared to 2009. Similarly, the Department is concerned that the Company proposed 18% employee contributions for proposed healthcare expenses for RY1 and RY2. The ratio is noticeably less than 22.78% in 2009. The Department determined that Yankee's gross healthcare cost in 2009 was only approximately 66% ( $\$4,430,237 / \$6,746,149$ ) of the amount proposed for RY1. Therefore, the Department concluded that the employee contribution for the proposed rate years should be 21.39%, which is the average of the 2009 and 2010 employee contribution ratios. Additionally, the Department agrees with the OCC that the Company's use of 8%, in addition to the 10% escalation for 2011 for the six months ending June 30, 2012, is excessive. Therefore, considering that the gross healthcare expense for 2010 had increased by approximately 27% over the 2009 amount, the

Department considers the 8% annual escalation rate for each of the proposed rate years reasonable. The Department calculated the allowed healthcare expenses for RY1 and RY2 as detailed in the table below.

#### Calculation of Allowed Healthcare Expenses

ITEM	Amount \$(000)
Yankee's RY1 Healthcare Expenses Per Schedule WPC-3-27a (A)	5,534
NUCSO's RY1 Healthcare Expenses Per Schedule WPC-3-27a (B)	1,862
Total Per Schedule WPC-3-27a (C = A + B)	7,396
Add back Employee Contribution of 18% (D = C / 82%)	9,020
Remove 8% Escalation (E = D / 1.08)	8,351
Add Escalation at 4% (F = E x 1.04)	8,685
Remove Employee Contribution at 21.39% (G = F x 21.29%)	1,858
Total Healthcare Expense (H = F - G)	6,828
Less Yankee Capitalized Portion Per Schedule WPC-3-27a (I)	1,556
Less NUSCO Capitalized Portion Per Schedule WPC-3-27a (J)	189
Allowed RY1 Healthcare Expense (K= H - I - J)	5,083
Allowed RY2 Healthcare Expense (K x 1.08)	5,489

As calculated in the table above, the Department will allow healthcare expenses of approximately \$5.083 million in RY1 and \$5.489 million RY2. Accordingly, the Department will disallow healthcare expenses of \$568,000 (\$5.651M - \$5.083M) in RY1 and \$635,000 (\$6.124M - \$5.489) in RY2.

Yankee stated that its consultant supported an 8% increase for plans not having any planned design changes in 2010 and a 10% increase for those with planned design changes in 2011. Due to the 2010 healthcare reform legislation, Yankee amended its plan design. It foresaw an additional \$1.5 million for additional coverage for 750 new dependent children at an estimated cost of \$1.3 million and an increase of \$200,000 to \$500,000 in additional claims cost for preventive care. Based on the actual enrollment for plan year 2011, the Company estimates provided by its consultant were conservative. Yankee has seen child dependent enrollment increase by 868; more than 100 enrollments in excess of original estimates. Written Exceptions, pp. 34-36.

The Company referenced its testimony on pages 740 and 741 of the March 10, 2011 hearing transcript to support its proposed 18% employee contribution to the monthly healthcare costs. Therein, the Company witness stated that employee contribution is set based on a formula. Specifically in 2010, Yankee worked with its actuary to gather claims data, healthcare inflation data to determine cost of coverage for 2011. It then applied its cost-sharing formula to calculate employees' allocated fraction the total cost. This yielded 18% on a blended basis. The Company stated that there was no follow up to its witness' explanation for the proposed employee contribution. Yankee asserted that there is enough record evidence supporting its proposed 10%

escalation factor and 18% employee contribution for the proposed healthcare expenses. Id., pp. 35 and 36.

There is no evidence on record supporting any significant changes in the mixes of Yankee's employees during the proposed rate years to account for the "blended basis" 18% employee contribution. To the extent most employees are changing to single health plans with 10% contribution to cause such a decrease in employee contribution rate, this would contradict the projected increasing healthcare costs due to additional dependents qualifying for coverage. Evidence in this proceeding supports the fact historical employee contributions are significantly higher than the 18% proposed for the rate years. Also, the projected total healthcare cost for RY1 is approximately \$9 million or more than double the approximately \$4.4 million for 2009, when employee contribution was 22.78%. The projected total healthcare cost for RY1 is approximately 160% (\$9.02 M/ \$5.6379 M) of the approximately \$5.537 million for 2010, when employee contribution was 20.01%. See, Response to Interrogatory OCC-40, p. 2. The Department concludes that the Company's "blended basis" formula, as prescribed by its consultant, is generating employee contribution rates that are not reflective of proposed healthcare cost increases.

The Department noticed that the Company did not argue in its written exceptions that its proposed 8% escalation for the six months ending June 30, 2012 was not excessive. However, Yankee stated that the 10% it proposed for RY2 is supported by record evidence. Based on the facts that total healthcare costs increased by approximately 27% in 2010 above the 2009 level and is projected to further increase by approximately 60% in RY1 as compared to 2010 amount, the Department deduces that an escalation rate of 8% is reasonable for RY2.

## **9. Rent Expense**

The Company reported rent expense of approximately \$1.4 million for the test year. Yankee requested rent expenses of approximately \$1.655 million and \$1.709 million for RY1 and RY2, respectively. The proposed net increase of \$255,000 (\$1.655M - \$1.400M) for RY1 consists of a proforma period reduction adjustment of \$55,000 and a proposed \$308,000 increase in RY1. Yankee proposed an increase of approximately \$54,000 (\$1.709M - \$1.655M) for RY2. The proposed rent expense increases in RY1 of \$234,000 and RY2 of \$38,000 are mostly due to a rent adjustment for the Berlin Campus. Schedules C-3.20 A; C-3.20 B, WP C-3.20 A and WP C-3.20 B. The company stated that the proposed rent increase at the Berlin Campus in RY1 is based on an increase in the overall floor space used by Yankee following its January 2009 separation of operations from its affiliate, CL&P. Michelson PFT, p. 25. For the Prospect Street building, Yankee proposed rent expenses of \$162,653 for RY1 and \$166,419 for RY2. For the South Building in Berlin, Yankee proposed total rent expenses of \$974,580 and \$1,012,186 for RY1 and RY2 respectively. Responses to Interrogatories OCC-11, pp. 2 and 14; OCC-12, p. 2.

In its Brief, the OCC stated that NU's acquisition of the building at 56 Prospect Street in Hartford added 96,109 square feet of office space and the upgrade and expansion of the South Building in Berlin increased space available on the Berlin Campus by 19,045 square feet. The total square footage of the corporate office

facilities increased from 1,091,609 square feet to 1,206,790 square feet in the past few years. The OCC indicated that the data provided in Late Filed Exhibit No. 43 show that the current 350 square footage per person at the Berlin Campus facilities and 575 for the new Hartford corporate offices on Prospect Street. Additionally, the OCC stated that the Company's response to Interrogatory OCC-247 showed that the total square footage at the Berlin Campus directly charged to Yankee is 24,741 square feet for 63 employees, which resulted in 393 square feet per employee. The OCC contended that ratepayers should not be responsible for funding costs associated with such excessive space. Brief, pp. 74-82.

Regarding the requested rent expense for the Prospect Street building, the OCC referenced the Decision dated June 30, 2010 in Docket No. 09-12-05, Application of The Connecticut Light and Power to Amend Its Rate Schedules (2010 CL&P Rate Decision). In that Decision, the Department indicated that the cost benefit analysis provided by CL&P showed that costs to the operating companies would have been lower had the NU chosen to renovate and expand its facilities and had not acquired the Prospect Street building. Further, that cost choices should show a direct benefit to CL&P ratepayers. The OCC recommended that the Department makes similar determination in this proceeding. Yankee's customers should not be harmed by the rent expense directly charged and indirectly allocated to the Yankee for the Prospect Street building. The OCC recommended that the Department disallow the proposed rent expenses for the Prospect Street building of \$162,653 in RY1 and \$166,419 in RY2. Additionally, that the Department disallows facility costs associated with the Hartford corporate offices allocated to Yankee. The OCC noted that on page 2 of the Company's response to Interrogatory OCC-10, these costs are for utilities, snow removal, building maintenance, facility cleaning, grounds maintenance and rubbish removal costs, which are related to the support of the Hartford corporate offices. Therefore, the OCC also recommended that the Department disallow the recoveries of the Prospect Street facility expenses of \$54,356 in RY1 and \$54,016 in RY2. Id.

The OCC also expressed its concern with the increases in rent expenses that are both directly charged and indirectly allocated to Yankee for the Berlin facility. The total proposed rent expenses allocated to Yankee associated with the space it and NUSCO uses at the Berlin Campus are \$974,580 for RY1 and \$822,397 for 2010. The OCC argued that the proposed increase of approximately \$152,000 or 18.5% was not justified. The OCC recommended that the allowed total internal rent expense for the Berlin facility be held at the 2010 level and that the Department disallow \$152,183 in RY1 and \$189,789 in RY2. Id.

The Department is concerned with the level at which rent expenses allocated to Yankee are increasing. For 2010, Yankee was allocated a total rent expense of approximately \$1.414 million. The total proposed rent expense for RY1 is approximately \$1.884 million or \$470,000 growth in 18 months. See, Response to Interrogatory OCC-12, p. 2. Specifically, the Department is concerned by the proposed rent increases for the Prospect Street building and South Building in Berlin. The Company testified that the rent expense associated with the Prospect Street building are allocated based on how regulated NUSCO employees' total payroll is budgeted for each year. This indicates rent expense is directly charged and allocated through the use of a NUSCO Charge Accounting Unit (CAU) 99 allocation rate. The Company referred

to this allocation rate as the 9C allocation. See, Response to Interrogatory OCC-10, p. 1. The Department noticed that the rate code 9C allocation is used for indirect allocations of rent expenses for all internal facilities. The annual averages of the monthly 9C allocations are 7.36%, 7.99% and 7.94% for the test year, RY1 and RY2, respectively. *Id.*, pp. 3 and 4. The Department is concerned that in addition to the projected growth of the expenditures that are subject to indirect allocations, the 9C allocation was budgeted to increase by approximately 8.6%  $[(7.99\% / 7.36\%) - 1]$  in RY1 from the test year level. Another concern with the use of the 9C allocation for the internal rent expense allocation because is the fact that it is based on the total budgeted payroll of regulated NUSCO employees. Given the probability that the total budgeted regulated NUSCO employees payroll would be allocated only to regulated entities, the use of 9C allocation implies that the total internal rent expenses are also primarily being allocated regulated entities. For example, in 2011 and for the South Building in Berlin, less than 1% of the 9C allocation is being attributable to unregulated entities. See, Response to Interrogatory Occ-11, p. 28. Further, the Department postulates that there are tasks or activities conducted at the corporate offices that are not all attributable to regulated operations.

The Department is also concerned with the rate of growth of the internal rent expenses in comparison to external rent expenses. The Department noticed that the total external rent expenses allocated to the Company declined in 2010 as compared to 2009 and projected to decline further during the proposed rate years. As discussed above, Yankee is proposing significant increases for the internal rent expenses during these periods. The total rent expenses reported under CCC 141 included depreciation, interest, property tax and actual rent expenses for the internal facilities. After reducing the total for these other expenses for amounts applicable to ISO and Convex, the Company added the ROR expense. For 2010, the Department determined that the total depreciation, interest, property tax, actual rent and ROR expenses for CCC 141 subject to rate code 9C allocations were \$3,265,563, \$1,735,712, \$1,752,779, \$908,530 and \$5,981,778 respectively. See, Response to Interrogatory OCC-11, p. 2 and 3. Based on the Department's and OCC's concerns pertaining to the Prospect Street building, the Department finds the adjustments recommended by the OCC reasonable and will disallow the proposed rent for this facility. The Company failed to provide support for why Yankee ratepayers should pay for these myriad of corporate offices. The Department will direct the Company to provide worksheets detailing how the total monthly depreciation, interest and ROR expenses, that are subject to the 9C allocations, are derived.

Yankee stated in its written exceptions that the Department disallowed rent expenses for the 56 Prospect Street building based on the OCC's recommendation that the Company did not demonstrate how this building provided benefit to customers. Yankee stated that its testimony demonstrated how customers benefit from the 56 Prospect building. Specifically, the Company testified that the 56 Prospect building contains a customer care center and houses many officers and functions that support it and its customers. Written Exception, p. 46.

The Department noticed that in its response to the follow-up questions, the Company stated that it has no specific knowledge of whether its customers have come

to the customer center within the 56 Prospect building and its employees are not located in the building. Tr. 3/9/11, p. 494.

The Department indicated that it found the OCC's recommendation to disallow the proposed allocated rent expenses for the 56 Prospect building reasonable based on its own concerns as discussed in paragraphs above. In its written exceptions, Yankee failed to address the Department's concerns. Specifically, the fact that Yankee's direct and indirect allocated rent expenses are increasing significantly; the use the 9C allocation factor that is based on the total budgeted payroll of regulated NUSCO employees; the rate of growth of the internal rent expenses as compared to the external ones; CCC 141 rent expenses included depreciation, interest, property tax; actual rent; and ROR expenses; and the fact that Yankee's square footage allocation for the south Building in Berlin increased to 24,741 compared to 10,144 in 2009.

The Department finds that both the indirect allocations as well as the percentage of the direct allocation based on square footage are increasing significantly, for Yankee. The Department noticed that in 2009, the total square footage for the South Building in Berlin was 68,276 of which 35,242 was allocated to CL&P distribution, 10,144 to Yankee and 22,890 to NUSCO. As of 2010, the footage for the South Building in Berlin declined to 41,144 of which 10,960 was allocated to CL&P Distribution, 24,741 to Yankee and 5,443 to NUSCO. While the square footage allocations for NUSCO and CL&P Distribution declined in 2010, Yankee's allocation increased above its 2008 level of 24,442 to 24,741. See, Response to OCC-11, pp. 19-30. For the South Building in Berlin, the Department finds OCC's recommendation reasonable and will hold the allowed rent expenses for the proposed rate years at the 2010 level. Consequently, the Department will disallow rent expenses of \$314,836 (\$162,653 + \$152,183) in RY1 and \$356,208 (\$189,789 + \$166,419) in RY2. Therefore, the Department will allow rent expenses of \$1.34 million (\$1.655M - \$0.315M) for RY1 and \$1.353 million (\$1.709M - \$0.356M) for RY2.

## **10. Regulatory Assessment Expense**

For the proforma period, Yankee proposed a total regulatory assessment cost of approximately \$1.406 million, which consists of Department regulatory assessment of \$1.025 million and consultant fees of \$18,000 for the PGA proceeding in Docket No. 08-10-01, DPUC Semi-Annual Investigation of the Purchased Gas Adjustment Clause Charged or Credits filed by Connecticut Natural Corporation, The Southern Connecticut Gas Company, Yankee Gas Services Company (2008 PGA). The Company proposed for RY1 a total regulatory assessment expense of \$1.324 million, which consisted of the Department assessment of \$1.054 million, 2008 PGA proceeding consultant fees of \$19,000, and the code of conduct (COC) regulation expense of \$251,000 for Docket No. 09-07-02, Promulgation of Regulation by the DPUC to Establish a Code of Conduct for Transactions Between Natural Gas Distribution Companies and their Affiliates (2009 COC). For RY2, the total proposed regulatory assessment expense of \$1.314 million consisted of the Department assessment of \$1.084 million, 2008 PGA proceeding consultant fees of \$20,000, and 2009 COC cost of \$210,000. In RY1 and RY2, Yankee escalated the Department assessment and the 2008 PGA consultant fees by 2.8%. Yankee stated that the O&M escalation rate data were obtained from Global Insight U.S. Economic Outlook. Schedules WP C-3.0 A; WP C-3.0 B; C-3.19 A&B, WP C-3.19

A&B, pp. 1-3; Response to Interrogatory OCC-99, pp. 1-5. The Company stated that the adoption of a COC pursuant to the 2009 COC is currently pending final approval before the Connecticut legislature and it plans to develop and file a compliance plan with the Department by September 1, 2011. Response to Interrogatory GA-168.

The OCC stated that the Company did not provide a detailed explanation or calculations to support the projected costs to comply with the COC. According to the OCC, the COC's regulation has not received final approval from the legislature and that the Company has not developed its COC upon which the projected costs are based. The Connecticut legislature will presumably approve the COC regulation. The OCC recommended that the Department should only approve halves of the Company's proposed COC costs or \$125,500 and \$105,000 for RY1 and RY2, respectively. OCC PFT, pp. 90-94; Brief, pp. 99-101.

The Department is concerned that Yankee requested recoveries for projected costs for the 2008 PGA in RY1 and RY2. The final Decision for the 2008 PGA was issued on December 8, 2010. The Department finds it unreasonable that the Company projected consultant fees for periods subsequent to the close of the 2008 PGA proceeding. Therefore, the Department will deny the \$19,000 and \$20,000 requested in RY1 and RY2, respectively.

Regarding the proposed COC regulation costs, the Department acknowledges that the Company will incur costs to comply with pending regulation. However, the COC regulation is not meant to create unreasonable cost burdens on the Company's ratepayers. Most of the activities Yankee described for the proposed COC related costs are activities that the Department would expect the Company to be currently performing. Furthermore, administrative costs are mostly salaries and related overhead costs for which the Company already proposed to increase in other schedules in this Application. Based on its review of the proposed COC regulation costs, the Department will allow in rates an annual total expense of \$75,000 for training and monitoring compliance. As a result, the Department will disallow COC costs of \$176,000 (\$251,000 - \$75,000) in RY1 and \$135,000 (\$210,000 - \$75,000) in RY2. Consequently, the Department will disallow total regulatory assessment costs of \$195,000 (\$176,000 + \$19,000) and \$155,000 (\$135,000 + \$20,000) in RY1 and RY2, respectively. The Department will allow regulatory assessment expenses of \$1.129 million (\$1.324M - \$0.195M) for RY1 and \$1.159 million (\$1.314M - \$0.155M) for RY2.

## **11. Property Tax Expense**

Yankee initially proposed property tax expenses of approximately \$12.962 million and \$15.685 million for RY1 and RY2, respectively. Schedules WP C-3.0 A and WP C-3.0 B. In its latest updates, Yankee proposed a revised property tax expense of approximately \$15.580 million for RY2. The total proposed revised property tax expense for RY2 included \$2,050,839 based on the proposed net plant additions of \$81,285,722 multiplied by a composite mill rate of 25.23. Response to GA-2SP02 Schedules WP C-3.0 B and WP C-3.33 B, p. 4.

The OCC referenced page 3 of the Company's response to Interrogatory OCC-193 which provided a calculation of the property taxes associated with the

Kensington, Danbury, Shelton and Vernon propane plants. The OCC noted that the Company proposed to remove property taxes for the propane plants in Danbury, Shelton and Vernon only in RY2. The OCC reiterated the Company's assumptions that the retirements of the Danbury, Shelton and Vernon Plants will take place in the first half of 2011 and therefore, the were removed property taxes in RY2 only. As the Kensington plant will be retired sometime after November 1, 2011, the Company did not adjust property taxes in RY2 for this plant. OCC PFT, pp. 82-84.

The OCC stated that the Department, pursuant to compliance filings in Docket No. 09-09-21, Application of Yankee Gas Services Company for Approval to Sell Propane Equipment and Real Property, approved the sales of all four propane plants. The OCC stated that the propane plants are in the process of being sold and will not provide service to ratepayers during either of the proposed rate years. The OCC recommended that the Department disallow the property tax expense associated with the Danbury, Shelton, Vernon, and Kensington propane plants in RY1 as well. This would result in the proposed property tax expenses being reduced in each of the rate years by \$114,000. PFT, pp. 82-84 and Schedule C-10.

The Department indicated in its Decision dated June 29, 2007 in Docket No. 06-12-02PH01, Application of Yankee Gas Services Company for a Rate Increase – Revenue Requirement (Yankee 2007 Rate Decision), that it will allow Yankee to defer actual LNG-related property taxes paid and not exempted by the City of Waterbury for consideration in its next rate case, which is the instant proceeding. See, Yankee 2007 Rate Decision, p. 5. For RY1, the total proposed property tax expense of \$3,430,261 for the City of Waterbury consists of \$2,206,522 based on the net assessment of \$52,762,370 times the mill rate of 41.82 and \$1,233,739 for the 40% of the property tax assessment for the LNG facility that would not be abated. For RY2, the total proposed property tax expense of \$4,040,961 for the City of Waterbury included \$1,834,439 for the 60% of the property tax assessment for the company's LNG facility that would not be abated. See, Schedules WP C-3.33 A, pp. 6 and 7 and WP C-3.33 B, pp. 3 and 4; Michelson PFT, p 19. The Department's analysis of the exhibits provided regarding the property tax assessment expenses for the City of Waterbury is summarized in the tables below.

**TABLE A: Analysis of Fiscal 2010 Tax Assessment by the City of Waterbury in Dollars**

	<b>A</b>	<b>B</b>	<b>C = A - B</b>	<b>D</b>	<b>E = A + C</b>	<b>F = B + D</b>	<b>G = E - F</b>
	Personal Property Assessment	Personal Property Exemption	Real Estate Assessment	Real Estate Exemption	Total Assessment	Total Exemption	Net Assessment
FY2010*	37,681,180	0	4,247,920	0	41,929,100	0	41,929,100
FY2010**	23,936,710	19,149,370	54,166,350	43,333,080	78,103,060	62,482,450	15,620,610
Total	61,617,890	19,149,370	58,414,270	43,333,080	120,032,160	62,482,450	57,549,710

FY 2010\* (without LNG) City of Waterbury's property tax assessment for Grand List Year 2009 – See, GA-45 SP01 Bulk  
 FY 2010\* (LNG Only) City of Waterbury's property tax assessment for Grand List Year 2009 – See, GA-45 SP01 Bulk

**TABLE B: Calculations of the City of Waterbury Property Tax Expenses in RY1 and RY2**

	ITEM	Amounts(\$)	Reference
A	Proforma Period (FY2010) Net Assessment	57,549,710	See G, in Table A
B	Mill Rate	41.82	WPC-3.33A, p. 6
C	Property Tax for FY2010 (C = A x B)	2,406,729	
D	Total LNG Property Assessment	78,103,060	See E, in Table A
E	Additional 20%LNG Assessment Tax not Abated (E = D x 20%)	653,254	
F	Estimated Property Tax for (RY1) FY 2011 (F = C + E)	3,059,983	
G	Estimated Property Tax for (RY2) FY 2012 (G = F + E)	3,713,237	

As Table A above indicates, Yankee was exempted 80% (62,482,450 / 78,103,060) of the property tax assessment for the LNG property tax assessment in fiscal year 2010. Fiscal year 2010 is the same as grand list year 2009 or the proforma period between the end of the test year and beginning of RY1 in the instant proceeding. The Company requested deferred treatment for approximately \$653,000 (78,103,060 x 20%) or 20% of the LNG property assessment that was not abated during proforma period, not in the test year. See, Schedule B-6.0. The Department calculated the property tax expenses for the City of Waterbury for the LNG grand list years 2010 (RY1) and 2011 (RY2) as detailed above. In Table A above, the net real estate assessment for the FY2010 is \$15,081,190 (58,414,270 - 43,333,080), which is the total assessment less the 80% that was abated. This real estate assessment is the exact amount that the Company reported as its estimates for RY1 and RY2. For personal property assessment, the Company did not include \$4,787,340 (23,936,710 - 19,149,370). This is the 20% not abated and also the difference between the FY2010 total net assessment of \$57,549,710 and the Company's total Waterbury's assessment of \$52,762,370. See, WPC-3.33A, p. 6 and WPC-3.33B, p. 3. The Department determines that the Company's estimated real property assessment for the City of Waterbury already included 20% unabated. Therefore, the proposed 40% and 60% additional property taxes for the unabated LNG assessment for RY1 and RY2 are overstated. Based on its analysis as depicted in the tables above, the Department determined the proposed total property tax expenses for the City of Waterbury were overstated by \$380,278 (3,430,261 - 3,059,983) in RY1 and \$327,754 (4,040,991 - 3,713,237) in RY2.

For the property tax expenses for the retired propane facilities, the Department concludes that, although the assessments for the retired propane facilities may be included on the grand list year 2010 assessment, the tax assessment period is for FY2011, which is RY1. The Department's position is that property tax expenses should reflect the amounts for plant in service. The propane plants were retired and removed from plants-in-service prior to start of RY1. The pending sales of the retired propane facilities would more likely than not have occurred prior to RY1. The Department also finds the Company's assumptions, that the propane facilities would be retired in first half of 2011 and in case of Kensington facility after November 1 2011, are inconsistent with its proposal to treat the unamortized balance of the propane facilities as a regulatory deferred asset. The proposed property tax expense for RY1 will be reduced to remove property taxes propane facilities for Danbury, Shelton, Vernon and 50% of the estimated assessment for Kensington. Therefore, for RY1, the Department will disallow \$79,088. See, Response to Interrogatory OCC-193, p. 3. For RY2, the Department will disallow the \$114,288 total estimated property tax for the four propane facilities. Id.

Based on the adjustments determined and discussed herein, the Department will disallow property tax expense of \$459,366 (\$380,278 + \$79,088) in RY1 and \$442,042 (\$327,754 + \$114,288) in RY2. The Department will allow property tax expenses of \$12.503 million (\$12.962M - \$0.459M) for RY1 and \$15.138 million (\$15.580M - \$0.442M) for RY2.

## 12. Payroll Expense

In its Application, Yankee proposed payroll expenses of approximately \$40.891 million and \$42.262 million for RY1 and RY2, respectively. Schedules WP C-3.0 A and WP C-3.0 B. In its latest updated filings, Yankee proposed payroll expenses of approximately \$40.909 million and \$42.280 million for RY1 and RY2, respectively. The total payroll expense for the test year was approximately \$37.539 million, which consists of \$25.005 million for Yankee and \$12.534 million allocated to Yankee by NUSCO. The revised \$40.909 million proposed for RY1 consists of Yankee's own payroll expense of \$27.020 million and \$13.889 million allocated to it by NUSCO. Similarly, \$42.280 million proposed for RY2 consists of Yankee's own payroll expense of \$27.895 million and \$14.385 million allocated to it by NUSCO. Both Yankee's and NUSCO's total payroll expenses include amounts for exempt, non-exempt and union employees as well as for overtime payments. The proposed adjustment of \$3.370 million (\$40.909M - \$37.539M) for RY1 consists of approximately \$809,000 for proforma period adjustment, \$1,848,000 for RY1 payroll escalation and \$712,000 in salary for additional 17.7 full-time equivalent employees (FTEs) requested for the Customer Experience (CE). The \$1.371 million (\$42.280M - \$40.909M) adjustment proposed for RY2 is due to payroll escalation. Response to Interrogatory GA-2 SP02, Schedule WP C-3.25 A & B.

For RY1, the additional payroll expense request of \$711,540 for 17.7 FTEs for the CE consists of a \$482,400 estimated payroll expense for 12 new FTEs and a \$229,140 adjustment for the additional 5.7 FTEs requested for the call center and the credit and collection centers. The Company testified that additional \$229,140 NUSCO payroll allocation consists of \$148,740 for 3.7 additional FTEs for the call center and \$80,400 for 2 additional FTEs allocated to Yankee for the credit and collection center. The 3.7 additional FTEs requested for the call center was generated because the allocation methodology was changed from customer count method, which in 2009 generated 12.7% allocation, to call minute method, which Yankee stated would increase the allocation to 14.7%. Yankee stated that six customer service representatives (CSRs) hired for the call center and an additional two CSRs hired in anticipation of attrition began training on November 29, 2010. Comer and Eberman, pp. 19-24; Michelson PFT, pp. 22 and 23; Tr. 03/09/11, pp. 266-269.

The Company stated that the payroll adjustments proposed for each of the rate years reflect annual salary escalation, shift differentials, promotions and step increases for certain employee group. The Company testified that it created a typical average payroll expense based on the total payroll expense for the test year and then adjusted it to include salaries for vacant and refilled positions. The proposed payroll adjustments for RY1 and RY2 reflect several increases that occurred since the test year. The total payroll adjustments for RY1 included funding for salaries of seven FTE vacancies some of which had have been filled and others are expected to be filled by the beginning of RY1. These positions were vacant during the test year and were not part of the normal

employee changes that are due to new hires and retirements. Yankee claimed that these positions would not be vacant for the majority of the time in a normal working year. Therefore, the Company included an adjustment in RY1 for the costs associated with these positions. Id.

For non-union employees, the Company used a merit rate of 3% to escalate base payroll from the beginning of the proforma period through the first eight months of RY1. For the last four months of RY1 through the end of RY2, a 3.25% base merit rate was used for a base payroll escalation for non-union employees. For union employees, the Company used a merit increase of 3.5% to escalate the base payroll from the beginning of the proforma period through the first five months of RY1. For the last seven months of RY1 through the end of RY2, a 3.25% merit rate was used for the base payroll escalation for union employees. Each of the base merit rates was increased by 60 to 75 basis points for promotions and cumulatively reduced by 20 to 25 basis points for impacts of turn-over and lump sum payments. Responses to Interrogatories OCC-27, pp. 1-5; GA-2 SP02 Schedule WP C-3.25 A & B.

In its latest updates to the SFR schedules, Yankee proposed revised total payroll expenses of approximately \$38.348 million, \$40.909 million and \$42.280 million for the proforma period, RY1 and RY2, respectively. The approximately \$0.809 million (\$38.348M - \$37.539M) proforma adjustment includes \$387,000, \$117,000 and \$305,000 adjustments to the test year payroll expenses for exempt, non-exempt and union employees, respectively. The total proposed payroll expense adjustment of approximately \$2.561 million (\$40.909M - \$38.348M) for RY1 consists of \$770,000, \$268,000, and \$810,000 adjustments for exempt, non-exempt and union employees, respectively and \$712,000 for the additional 17.7 FTEs at CE. The total proposed payroll expense adjustment of approximately \$1.371 million (\$42.280M - \$40.909M) for RY2 consists of \$633,000, \$226,000 and \$512,000 adjustments for exempt, non-exempt and union employees, respectively. Responses to Interrogatories OCC-289, p. 2; GA-2 SP02, Schedule WP C-3.25 A & B.

The OCC expressed several concerns regarding the Company's payroll expense requests. The OCC considered the escalation increases high given the state of the economy in Connecticut. The attrition adjustment of \$333,000 for seven employee positions is a concern because four of the positions remain vacant. The OCC is also concerned that 8 of the 12 proposed FTEs for the CE were already hired, four positions have not been filled and the proposed adjustments made to NUSCO's allocation percentages. Given the fact that the economy is still in a state of recovery, Yankee's proposed merit increases of 3% to 3.5% for each of the years 2010 through 2012 are high in comparison to the projected inflation of less than 2%. These increases are additions to the 2.5% to 3.5% increases granted in 2008 and 2009 when several companies froze or reduced wages. The OCC concluded that Yankee and NUSCO employees should not be exempt from cost containment measures. The OCC recommended that the total escalation increases of \$2,540,000 be denied from payroll expenses. Yankee should seek wage concessions from its employees or have shareholders responsible for the payroll expense increases that are due to the proposed wage escalations. OCC PFT, pp. 45-50

The OCC stated that the proposed attrition payroll expense adjustment reflects a full year payroll expense for the positions the Company stated were vacant at the end of the test year. The proforma payroll expense should be reduced by \$220,000 for these vacant positions. The OCC also questioned the appropriateness of hiring eight of the 12 FTEs requested for the CE. The OCC recommended that four positions for the credit and collections center be eliminated and the proposed payroll expense be reduced by \$160,800. Regarding the proposed payroll expense for the additional 5.7[5] FTEs for the call center and collection department, insufficient analysis was performed to justify changes in the allocation methodology that resulted in the larger payroll expense being allocated to Yankee. Finally, that the payroll expense for RY2 be further reduced by \$229,140. *Id.* In total, the OCC recommended that the payroll expense for RY1 be reduced by \$3,149,940 (\$2,540,000 + \$220,000 + \$160,800 + \$229,140). *Id.*

**a. Proforma Period Attrition**

The Department has determined that the payroll adjustment for what the Company described as “normal” attrition is not supported. No evidence was provided in this proceeding to support Yankee’s need for the requested additional workforce. Simply stating that the vacant positions were not part of the normal employee changes that are due to new hires and retirements and would not be vacant in a normal working year do not support why the Company would specifically need to hire employees to fill these vacant positions. Therefore, the Department will disallow the approximately \$333,000 proposed payroll expense incorporated into the proforma period adjustment.

**b. Non-Union Merit Payment**

Yankee testified that the pay levels of its non-union employees are determined through regular job evaluations. It compares employee job responsibilities to those of other employees within utility and non-utility industries. As part of the evaluation process, Yankee partakes and buys salary surveys. Each employee’s total compensation includes a fixed base salary and variable incentive payments. Annually, non-union employees with performance reviews meeting Yankee’s performance goals are eligible for salary increases known as “merit increases.” Merit increase targets are based on general market place trends and the result of salary surveys. Yankee’s proposed wage increases incorporate merit, promotion and step increases. Lazor PFT, p. 2.

Yankee provided Exhibit SL-2 to explain how it calculated merit increases for non-union employees.<sup>4</sup> It concluded that after surveying similarly<sup>5</sup> sized, risky, national, regional, local firms that the average merit increases is 3%. The Company noted at the bottom of Exhibit SL-2 that it developed this average by excluding all surveyed firms that had no merit increases, including those with salary freezes. Mathematically, the 3% is automatically overstated by an unknown amount. Tr. 03/21/2011, pp. 1761-1762.

<sup>4</sup> Non-merit compensation expense does not address the quality or quantity of “merit” that justifies the compensation increase. See, Tr. 3/21/11, pp. 659-658 and 1759-1793.

<sup>5</sup> Non-merit compensation expense does not address the comparableness of the surveyed companies or the criteria established in Docket No. 95-02-03, Petition of the Attorney General for an Investigation of Utility Company Executive Compensation, by the Department to ensure that the merit setting process employs best practices. See, Tr. 3/21/11, pp. 1759-1793.

Yankee testified that its compensation plan for 2010 was to increase salaries. Therefore, to be consistent with the Company's plan, it included companies that raised salaries and excluded those with freezes. The Department finds that the Company has not met its burden of proof pursuant to Conn. Gen. Stat. §16-22 regarding the rate for non-union merit payroll increases. Therefore, the Department will disallow the portion of the proposed payroll expense increases attributable to non-union's average merit increases.

Based on responses to data requests in this proceeding, the Department determined that the total proposed payroll adjustments due to escalation of non-union base payroll expenses are approximately \$744,000, \$792,000 and \$859,000 for the proforma period, RY1 and RY2, respectively. The Department determined that approximately \$90,000, \$64,000 and \$81,000 of the total non-union escalation adjustments in the proforma period, RY1 and RY2, respectively, are for the total impacts of promotions, turnovers and lump sum payments. See, Responses to Interrogatories OCC-27 and GA-2 SP02 Schedule WPC-2.25 A&B. Therefore, the Department determined that payroll escalation due to merit rates are approximately \$654,000 (\$744,000 - \$90,000), \$728,000 (\$792,000 - \$64,000) and \$778,000 (\$859,000 - \$81,000) for the proforma period, RY1 and RY2, respectively. Accordingly, the Department will disallow proposed payroll expense escalations due to non-union base merit rate adjustments of \$1.382 million (\$654,000 + \$728,000) in RY1 and \$2.16 million (\$1.382M + \$0.778M) in RY2. The Department will allow only the portion of the proposed non-union employee payroll escalation adjustments that are due to the impacts of promotions, turnovers and lump sum payments as discussed above.

Based on its Response to Interrogatory GA-1 AR-OCC-3, Yankee stated that if all of the companies in salary survey, including those granting zero salary increases, were taken into consideration, the requested 3% increase would not decrease substantially. There were 64 companies that responded to the question asking whether they were granting salary increases and 90% of the respondents were in the affirmative. The average increase granted by those companies was 3.0%. The Company indicated that if 10% of the survey's respondents not granting salary increases were included in the calculation of the average increase, the proposed non-union merit increase would have been 2.7%. Written Exceptions, p. 27.

Yankee stated that the disallowance of its proposed non-union merit payroll increases is based on its purported failure to meet its burden of proof under Conn. Gen. Stat. §16-22 is "unfounded." The Company indicated that the Department is wrong for stating that its proposed 3% non-union merit increase rate is automatically overstated by an unknown amount. Furthermore, there is enough record evidence to support its requested 3% payroll increase and, if not at the level, for at least at a level of 2.7%. Consequently, Yankee requested that the Department grant recovery of non-union merit payment increases of \$1,243,800 ( $\$1,382,000 \times 2.7\% / 3.0\%$ ) for RY1 and \$1,944,000 ( $\$2,160,000 \times 2.7\% / 3.0\%$ ) for RY2. Id.

The Department determines that the 2.7% (90% x 3%) the Company argued for in its written exceptions is simply derived by multiplying the 90% positive responses times the Company's proposed average merit base increase of 3%. In essence, the Company is requesting that the Department grant 90% (2.7% / 3%) of its proposed

merit increases. The Department noticed that page 70 of the Response to Interrogatory GA-1 AR-OCC-3 cited by the Company in its written exceptions does not contain certain information. Specifically, the average rate of increases granted by the companies that responded in the affirmative to the compensation survey nor what the average of increases would be if the companies that responded in the negative were included. The cited reference page contains the 2009's prevalence of salary increases by confirmatory respondents and not the percentage of increases granted. Additionally only 13 of the 58 positive responses were from the Northeast region. The Department maintains Yankee did not meet its burden of proof for the proposed merit base increases for non-union employees. Simply changing the proposed rate from 3% to 2.7% would be arbitrary, as there is no record evidence that supports either salary increase rates.

**c. Customer Experience FTEs and NUSCO Allocation**

The Department is concerned with the additional payroll expense request of approximately \$712,000 for the proposed additional 17.7 FTEs for CE. Regarding the Company's proposed payroll expenses for the 5.7 additional FTEs for CE, the Department finds changes in NUSCO's allocation methodologies and their timing arbitrary. There are no meritorious reasons for the proposed changes besides increasing payroll expenses recoverable from Yankee's ratepayers. There is no evidence that the new methodologies are better measurements of cost causation than the ones they are supposed to replace. The timing of the proposed allocation changes calls into question why the new methodologies were proposed to be implemented during periods coinciding with this Application to amend rates. Given these concerns, the Department will disallow the proposed payroll expense of \$229,140 for the additional 5.7 FTEs requested for the call center and the credit and collection centers.

The Department is not convinced that the additional 12 FTEs requested for the call center and the credit and collection center are needed or that the \$482,400 in payroll expense for these CSRs are 100% allocable to Yankee. As discussed in Section II.T.2. Call Center Operations, Yankee's customer service operations began showing improvement before the newly hired CSRs were fully trained and the Department finds that the Company complies with all of its customer service policies and procedures. No evidence was provided in this proceeding that would indicate that Yankee's credit and collection activities would be impacted negatively without the additional FTEs requested.

The Company testified that the proposed additional 12 FTEs would be NUSCO employees for the CE and that all of the employees of NUSCO are for the services of all of its operating affiliates. Tr. 3/09/11, pp. 268-269. The Department noticed that for calendar year ended December 31, 2009, NUSCO reported approximately \$14.262 million for the Windsor call center's CCC 12X. This amount consisted of \$394,000 and \$13.868 million for direct and allocated charges, respectively. Yankee was allocated approximately \$7,000 and \$1.701 million for direct and allocated charges, respectively. Response to Interrogatory GA-20, pp. 5 and 26. The Department also noticed that, as of June 30, 2010, NUSCO's allocation rates for Yankee for rate codes A2 and CP under CCC 12X were 16.83% and 12.54%, respectively. Both rate codes have the same objective, which is to plan and administer the distribution and regulated generation customer inquiry center. However, the rate code A2 allocation formula is based on

handle time by company and it only has allocation ratios for Yankee and CL&P. Rate code CP allocation formula is based on the customers in each operating company and has allocation ratios for Yankee, CL&P and WEMCO. See, Schedule G-2.16, pp. 528 and 529.

Based on its review of exhibits and responses to information requests in this proceeding, the Department finds that in 2009, approximately 97.24% or predominant portions of payroll expenses for the Windsor call center is indirectly allocated by NUSCO to affiliates. There is no evidence provided in this proceeding to support the assertion that NUSCO's employees at the Windsor call center or that the CSRs for the collection credit center are mainly and specifically dedicated to service Yankee's customers or accounts. Therefore, the Department will disallow the \$482,400 payroll expense adjustment requested for the additional 12 FTEs for CE. However, the Department will allow the proposed payroll expense for 8 of the 12 proposed FTEs that were already hired to be allocated to Yankee using 12.54% CCC 12X rate code CP for the Windsor Call Center. The Department determined an allowed payroll expense of \$40,329 ( $\$482,400 / 12 \times 8 \times 12.54\%$ ) for the eight CSRs already hired by NUSCO. Therefore, the Department will disallow a payroll expense of \$442,071 ( $\$482,400 - \$40,329$ ) related to the proposed 12 additional FTEs for CE. Consequently, the Department will disallow total payroll expense of \$671,211 ( $\$229,140 + \$442,071$ ) associated with the 17.7 FTEs requested for the CE in each of the proposed rate years.

In its written exceptions, Yankee disagreed with the Department's position that its proposed changes to the NUSCO's FTE allocation methodology were arbitrary and that there was no evidence on the record to support such changes. The Company stated its testimony demonstrated that its new methodology uses call minutes to determine the appropriate allocation percentage. This results in a less arbitrary cost allocation than its previous one that used customer counts to determine the call center cost percentage allocated to each operating company. The Company reiterated its testimony that the proposed adjustment for the expense allocation for the credit and collection center is based on the projected increase to Yankee's revenues. Each operating company's allocation of the credit and collection center has traditionally been associated with each of its respective gross revenue. Because Yankee's revenue as a portion of NU's total operating revenues is expected to increase, therefore, its allocation of costs for the credit and collection center would also increase. For these reasons, Yankee requested that the Department allow the recovery of \$229,140 for 5.7 additional FTEs resulting from the proposed changes in the allocation methodology for the call center and percentage for the credit collection center. Written Exceptions, pp. 27-30.

The Company stated that record evidence it provided in the instant proceeding supports its need for the 12 additional FTEs requested for CE and the claim that 100% of the related additional payroll expense of \$482,400 is allocable to it by NUSCO. Regarding the eight additional FTEs requested for the call center, Yankee referred to its testimony on pages 62 and 63 of the March 8, 2011 hearing transcript. It had stated that in June 2010, the call center CSRs began charging the operating companies directly for their time. The concept of a virtual representative, in which the CSRs handle customer calls for any of the operating companies, was replaced with the plan for dedicated representatives. The Company stated that this means that the vast majority of each representative's day is spent supporting one company. Yankee also referenced

page 269 of the March 8, 2011 hearing transcript where it testified that while the CSRs are NUSCO's employees, their services are predominantly dedicated to one operating company. Id., pp. 30-32.

Regarding the four additional FTEs requested for the credit and collection center, Yankee stated that its successful "90 in 90" program achieved its goal of reducing the average weekly speed of answer to below 90 seconds with temporary assistance. In order to maintain this improved call center performance, permanent measures will be needed to replace the temporary assistance that helped achieve the improvements. Additionally, Yankee referred to its testimony that it plans to replace seven vendors with the additional four FTEs requested. Yankee asserted that it did not include the cost of these seven vendors in its rate request and instead requested the four FTEs. Yankee stated that the Department should allow it to increase its credit and collections staff to help keep uncollectible expense to a minimum. Alternatively, Yankee requested that the Department reinstates \$149,000, which is the negative vendor support adjustment it made in RY2. Id., pp. 32-34.

In its response to Interrogatory OCC-122, Yankee requested an additional 3.7 FTEs because "the percent of total CSR phone time being spent on each operating company" is a "more accurate method of allocation of call center costs" than the customer counts method. Yankee simultaneously testified that, CSRs began charging their time directly to each operating company in June 2010. Therefore, the Company is no longer using the total handle time. In this proceeding, Yankee is requesting 3.7 additional FTEs based on an allocation method it no longer or ever used. An additional 8 FTEs based on a new method where CSRs charge time directly to the operating companies. The new allocation method replaces the previous method that was supposedly more accurate. Yankee's proposal for 11.7 additional FTEs was based on two concurrent changes to its methodology for allocating costs for the call center.

The Department is of the opinion that a cost allocation methodology should be based primarily on activities that have already occurred and not on expectations that an entity revenue would increase in the future. The proposed increase to Yankee's credit and collection center cost allocation percentage based on the expectation of increased revenue is speculative and irregular. The Company may determine each operating company's allocation of the credit and collection center costs based on the gross revenue associated with each entity. However, it must be based on reported historical revenues, not projected fluctuating revenues that may be subject to regulatory agencies' approvals. Subsequent to this proceeding, if the revenues of other NU's entities were similarly increased, Yankee's allocation percentage would be injuriously higher and ratepayers would be paying higher than normal allocated expenses.

The Department will restore the \$149,000 reduction adjustment the Company made to its customer services expense. See, Response to Interrogatory GA-2SP02 Schedule WPC-3.9B. This will allow the Company to continue to use vendors to help keep uncollectible expense to a minimum.

**d. Summary Payroll Expense Adjustments**

As discussed and detailed in the sections above, the Department will disallow total payroll expenses as summarized below.

**Summary of Payroll Adjustments**

Adjustments	RY1	RY2
Proforma Period Attrition	\$ 333,000	\$ 0
Non-Union Merit Escalation	\$1,382,000	\$2,160,000
Customer Experience FTEs	\$ 671,211	\$ 671,211
Total Payroll Adjustments	\$2,386,211	\$2,831,211

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**13. Incentive Compensation Expense**

Yankee reported a total incentive plan expense of approximately \$3.041 million for the test year. This amount consisted of \$1.532 million for Yankee employees and \$1.509 million allocated to Yankee for NUSCO employees. Yankee originally proposed employee incentive expenses of approximately \$3.136 million for RY1 and \$3.245 million for RY2. The net adjustment of \$95,000 (\$3.136M - \$3.041M) in RY1 consists of a proforma reduction of \$229,000 and a rate year increase of \$324,000. The Company proposed an approximately \$109,000 (\$3.245M - \$3.136M) increase for the employee incentive compensation expense for RY2. Response to Interrogatory OCC-234, pp. 2 and 3.

In its latest updates to the SFR schedules for its employees and the amount allocated to the Company for NUSCO's employees, Yankee proposed total employee incentive compensation expenses of approximately \$2.674 million for RY1 and \$2.764 million for RY2. The Company stated that its original proforma reduction adjustment of \$229,000 was a one time event of a 1% bonus that was not included in the test year. Yankee also stated that its original revision involved an adjustment associated with material and supplies (M&S) and vehicles, which were inadvertently included in clearing accounts. Subsequently, the Company stated that after further review, it concluded that \$198,741 of the \$229,000 proforma reduction adjustment was included in residual and the remaining \$30,129.68 was capitalized labor costs related to engineering and supervision charged to a clearing account. Responses to Interrogatories OCC-234 SP01, pp. 1-3; GA-2 SP02 Schedules C-3.26 A and C-3.26 A.

Yankee testified that all of its employees, union and non-union alike, are eligible for annual incentive payments upon meeting certain goals. Employee incentive payments are tied to the performance of their business units as well as to individual performances. Incentive awards are adjusted to reflect individual employee's contribution toward achieving performance goals. Lazor PFT, p. 3. Yankee stated that it competes for employees within both utility and non-utility industries and incentive payments allowed its earnings to be at a competitive level without increasing base pay. To ensure that employees are committed to meeting the needs of customers, Yankee stated that performance goals are based on metrics that include reliability, operational efficiency, safety, financial, organizational, strategic, and stewardship. Id., pp. 4 and 5.

The OCC stated that incentive compensation is a variable compensation that is an addition to an employee's base pay and is paid based on performance. For a plan to be a true incentive pay plan, an employee must be encouraged to perform at a level that enhances the quality of service as well as improve the operations of the company. The employee must have goals that are above expectations implied for base pay compensation. The OCC opined that the incentive payment for just performing the day to day operations at an adequate level is not really an incentive payment but just a way to provide extra compensation to the employees. OCC PFT pp. 50 and 51.

The OCC stated that the testimony of Sasha Lazor and the response to Interrogatory OCC-153 essentially confirmed that shareholders are the primary beneficiaries of the Company's incentive compensation plans. Specifically, according to the NU Board of Trustees, incentive payments should not be made unless minimum financial performance is achieved regardless of performance for operations or strategic goals. This is to ensure that employees do not receive rewards when shareholders are not fairly compensated for their investments. The OCC stated that the referenced response suggested that shareholders have some protection and ratepayers are not afforded any protection. The Company did not provide any evidence that employees have left because they were offered better compensation and benefits elsewhere. Given current economic conditions, employees would be more concerned about base pay and the benefits than whether a potential employer offers additional incentive plan. The OCC recommended that the Department disallow \$3.186 million and \$3.245 million in RY1 and RY2, respectively, which are the amounts the Company originally requested in its Application. OCC PFT, pp. 50-56.

The Department acknowledges that incentive compensation expenses are part of the normal costs of operations for regulated utilities. While the Department shares the OCC's concern regarding whether goals are being set at above and beyond normal expectations. However, the Department is not convinced that the Company made payments for incentive performances that were not achieved. Incentive compensation plans benefit both the ratepayers and shareholders. To the extent financial goals are not met, the costs of utility operations may be negatively affected and as such regulated utilities may seek additional cost recoveries from ratepayers. On the contrary, to the extent that shareholders are fairly compensated for their investments, the reasons for additional rate requests are to some extent diminished. Therefore, for the instant proceeding, the Department will allow the recovery of the incentive compensation expense. Unlike the Company's proposed escalations for payroll expenses, the total incentive compensation expense requested for each of the proposed rate years is significantly less than test year amount in spite of the Company's subsequent revisions to the test year proforma adjustments. Consequently, the Department finds the proposed incentive compensation expenses for RY1 and RY2 reasonable.

In its written exceptions, the OCC stated that the Department failed to have Yankee prove that the allowed incentive compensation expenses are justified. The OCC referred to its Brief where it noted that the information and responses provided by the Company are insufficient to justify the recovery of incentive compensation expenses from ratepayers. The Company did not provide the operational and the financial goal metrics set for incentive compensation for 2007 and 2008 and that the data provided in the response to Interrogatory OCC-32 for 2009 and 2010 were not as requested. The

2009 information only indicated that the achievement was at target, above-target or below-target. The OCC stated that its brief noted that the Company's responses to interrogatories confirmed that shareholders are the primary beneficiaries of the Company's incentive compensation goals. Specifically, the OCC made reference to the Company's response to Interrogatory OCC-153, which states "the NU Board of Trustees believes that no incentive payout should be made unless minimum financial performance is achieved, regardless of performance on other operations or strategic goals. This ensures that employees do not receive rewards when shareholders are not fairly compensated for their investment." Written Exceptions, pp. 7-11.

The OCC pointed out that an incentive compensation plan must encourage employees to perform at a level that enhances the quality of service as well as improves the operations of the company. According to the OCC, the fact that from 2006 through 2010, all but less than 1% of the eligible employees of the Company received incentive compensation shows that goals set are not set at high level of performances. Incentive compensation expenses allowed in rates should provide benefits to ratepayers. Additionally, the Company was non-responsive to inquiries on this issue and a significant portion of the 572 page response to Interrogatory OCC-329 was redacted. The primary goal of the incentive compensation plan requiring the achievement of adjusted net income (ANI) at the NU level is not Yankee specific because it is shareholder oriented. The OCC maintains its position that the incentive compensation expenses that the Company proposed for RY1 and RY2 should be disallowed or at least reduced by 50% of the requested incentive compensation. That would provide for an equal sharing of the cost that is commensurate with a purported sharing of the benefits from the incentive compensation plan. *Id.*, pp. 9-11.

The OCC had ample opportunities in this proceeding to make discovery of non-redacted version of redacted responses. The Department is not convinced that because incentive payments are not made if financial goals were not achieved meant that an incentive plan only serves to benefit the shareholders. Additionally, there is no record evidence to support the OCC's position that payments can be made only if financial goals are met and operational goals are not achieved. The OCC did not indicate why information provided in the response to Interrogatory OCC-032 for 2010 was insufficient other than not being in the format requested.

#### **14. Amortization Expenses for Regulatory Deferred Assets**

For the proposed regulatory deferred assets, Yankee initially proposed amortization expenses of \$14.211 million for RY1 and \$13.999 million for RY2. Schedules C-3.32A and C-3.32B. In its latest updates to the SFR schedules, Yankee proposed \$14.371 million for RY1 and \$14.159 million for RY2. Response to Interrogatory GA-2SP02, Schedules C-3.32A and C-3.32B.

Based on the adjustments to the proposed deferred assets and related amortization expenses as discussed in Section II.B.1., Regulatory Deferred Assets, the Department summarizes the adjustments to the proposed amortization expenses as detailed below.

Item	Rate Year 1	Rate Year 2
C2 System Implementation Costs	\$ 61,000	\$ 61,000
Environmental Remediation Costs	\$1,205,000	\$1,097,000
Hardship/MPP	\$ 349,000	\$ 349,000
Medicare Tax Assets	\$ 406,000	\$ 406,000
MGT Litigation Costs	\$ 148,000	\$ 148,000
Retired Propane Facilities	\$ 105,000	\$ 105,000
Total Amortization Expense Adjustments	\$2,274,000	\$2,166,000

Based on the calculations depicted above, the Department will disallow amortization expenses of \$2.274 million in RY1 and \$2.166 million in RY2. Therefore, the Department will allow amortization of deferred assets expenses of approximately \$12.097 million (\$14.3711M - \$2.274M) in RY1 and \$11.993 million (\$14.159M - \$2.166M) in RY2.

## 15. O&M Expenses

In its written exceptions, the OCC referenced its brief where it presented an analysis of administration and general (A&G) expenses in Accounts 920, 921, 922 and 923. Purposely using data from the 2009 annual reports of local distribution companies (LDCs), the OCC compared Yankee's total expenses in these accounts to those of Southern and the Connecticut Natural Gas Corporation (CNG). The OCC calculated an average expense per customer for each LDC and concluded that Yankee is spending \$10 million more on administrative functions than CNG and Southern. Yankee should be using the economy of scale available to it as a subsidiary of NU, the largest utilities holding company in New England. The Department should consider reducing the O&M expenses further, or in the alternative, requires Yankee to investigate its excess administrative expense in these accounts and file a compliance report or detailed analysis in its next rate. Written Exceptions, pp. 11-13.

The Department disagrees with the OCC's position and recommendation that pertain to the Company's A&G expenses. Several of the O&M expenses recorded in the accounts referenced by the OCC were reviewed in this proceeding and several were adjusted as necessary. The Department is not convincing that an audit of the Company's O&M accounts are necessary or that such an examination would provide any effective additional information. Therefore, no additional reduction will be made to the Company's operating expenses based on the analysis of A&G accounts by the OCC. Also, the Company will not be required to investigate its own administrative expense accounts, nor to file additional analysis beyond those required by the Department's SFRs in its next rate case.

## E. INCOME AND OTHER TAXES

### 1. Sales Tax

In its Application for both RY1 and RY2, Yankee requested a sales tax expense of approximately \$342,432, which was the same amount expensed in the test year. Schedules WP C-3.0 A and WP C-3.0 B; Responses to Interrogatory GA-60, p. 15. The sales tax expenses reported in Account 40815 for 2007, 2008, 2009 and 2010 were

approximately -\$104,583, \$283,922, -\$897,569 and \$500,734, respectively. Responses to Interrogatories GA-60, p. 15; OCC-16SP01, p. 136.

The OCC recommended that the proposed sales expense be reduced by \$300,000 based on its argument. OCC PFT, pp. 94 and 95 Protected and Schedule C.

The Department finds the OCC's argument reasonable. The sales tax expense reported for the test year did not represent a reasonable level of ongoing and recurring expenditures for the proposed rate years. The total of the sales tax expenses from 2007 to 2010 was approximately negative \$217,496 ( $-\$104,583 + \$283,922 - \$897,569 + \$500,734$ ).

Yankee stated that the adjustment to its proposed sales and use tax expenses were based on the OCC's arguments that "have no basis in fact or reason." Also, Yankee noticed that sales tax adjustment shown on Appendix B was for \$300,000 and not the \$141,698 discussed in the Draft. Written Exceptions, pp. 46, 59 and 60.

If the Department had based its adjustment in the draft Decision solely on the OCC's recommendation that the allowed sales expenses would be \$42,000 ( $\$342,000 - 300,000$ ) not the \$141,698 allowed. The Department does not accept the Company's proposal to extrapolate a non-recurring adjustment as the basis for expense recovery in the proposed rate years. However, for RY1 and RY2, the Department reconsiders its adjustment in the draft and will allow a sales tax expense of \$217,496, which is the four-year average determined above. Therefore, the Department will reduce the proposed sales tax expenses in each of the rate years by \$124,504 ( $\$342,000 - \$217,496$ ). The Department agrees with Yankee that the sales tax adjustment of \$300,000 shown on Appendix B attached to the draft was erroneous. However, this issue is moot as the final Decision will reflect the \$124,504 adjustment determined herein.

## **2. Gross Earnings Tax Expense**

Yankee proposed proforma gross earning tax (GET) expenses of approximately \$16.286 million and \$16.961 million for RY1 and RY2, respectively. The expenses were derived by multiplying the proforma revenues of approximately \$450.75 million and \$469.433 million by the proposed GET rate of 3.613%. Schedules WP C-3-36 A, p. 2 and WP C-3.36 B. In its updated schedules, Yankee's proforma revenues decreased to approximately \$449.373 million and \$468.035 million for RY1 and RY2, respectively. Correspondingly, Yankee proposed GET expenses decreased to approximately \$16.236 million and \$16.91 million for RY1 and RY2,, respectively. Additionally, Yankee's updated schedules included proposed revenue increases of approximately \$29.521 million and \$39.404 million for RY1 and RY2, respectively. Likewise, the additional revenue requests for RY1 and RY2 included GET expenses of approximately \$1.067 million and \$1.424 million, respectively. Thus, the total requested GET expenses for RY1 is \$17.303 ( $\$16.236 + \$1.067$ ) million and for RY2 is \$18.334 ( $\$16.91 + \$1.424$ ) million. Response to Interrogatory GA-2SP02 Schedules WPC-3-36 A, p. 2, WPC-3.36 B, A-1.0 A and A-1.0 B.

In Section II.F.1. Gross Earnings Tax Rate, the Department calculated and found that 3.6064% represents a reasonable GET rate. Accordingly, the Department determines proforma GET expenses of \$16.206 (\$449.373 x 3.6064%) million for Rate RY1 and \$16.879 million (\$468.035M x 3.6064%) for RY2. Also, the Department determined that the GET expenses for the additional revenue requests are approximately \$1.065 (\$29.521 x 3.6064%) million for RY1 and \$1.421 (\$39.404 x 3.6064%) million for RY2.

Also, in Section II.K. Revenue and Revenue Adjustments, the Department calculated additional revenue at current rates of \$6,665,218 and \$7,135,314 for RY1 and RY2, respectively. As a result, the Department determined that the GET expenses for the additional revenue at current rates are approximately \$240,374 (\$6,665,218 x 3.6064%) for RY1 and \$257,328 (\$7,135,314 x 3.6064%) for RY2. Therefore, the total allowed GET expenses for RY 1 is approximately \$17.511 million (\$16.206 + \$1.065 + \$0.240M) and \$18.557 million (\$16.879M + \$1.421M + \$0.257M) for RY2. Consequently, the Department will increase GET expenses by \$208,000 or \$0.208 million (\$17.511M - \$17.303M) in RY1 and by \$223,000 or \$0.223 million (\$18.557M - \$18.334M) in RY2.

#### **F. GROSS REVENUE CONVERSION FACTOR**

Yankee proposed GRCFs of 1.7600 and 1.7532 for RY1 and RY2, respectively. Response to Interrogatory GA-2SP02 Schedules A-3.0 A & B.

OCC recommended GRCFs of 1.7537 and 1.7465 for RY1 and RY2, respectively. OCC PFT, p. 9 and Schedule A, pp 2 and 3.

##### **1. Gross Earnings Tax Rate**

To calculate the GRCF, Yankee used a gross earnings tax (GET) rate of 3.613%. This rate was determined by dividing the test year's GET expense of \$15,245,000 by the billed revenue of approximately \$421,986,000. Response to GA-A SP02, Schedule WPC-3.36 A, p. 1; Tr. 03/09/11, pp. 179-181.

The Department disagrees with Yankee's proposal to use only billed revenue to calculate the GET rate. All billed and unbilled revenues are grossed up to include their class specific statutory GET and uncollectible expenses. Revenue deficiencies are calculated as the difference between the total test year revenue and the proposed rate year revenues at present rates. The Department calculated the allowed GET rate as detailed in the table below:

### Calculation of the Allowed GET Rate

Customer Class	Revenue*	GET
Residential- Billed	\$ 210,456,724	\$ 8,418,269
Residential- Un-Billed	\$ 1,063,212	\$ 42,528
Commercial and Industrial (C&I)- Billed	\$ 137,974,107	\$ 6,898,705
C&I- Un-Billed	\$ (225,626)	\$ (11,281)
FTS Ancillary	\$ 9,269,783	\$ 0
Special Contracts	\$ 30,174,788	\$ 1,508,739
Interruptible Sales and Transportation	\$ 35,425,346	\$ 1,771,267
Seasonal	\$ 933,819	\$ 46,691
Other Revenue – Residential**	\$ 1,908,033	\$ 76,321
Other Revenue – C&I	\$ 993,177	\$ 49,659
Economic Development Discounts	\$ (1,682,023)	\$ (84,101)
Totals before Manufacturing Discounts	\$ 426,291,342	\$ 18,716,798
Less Manufacturing Discounts	\$ (3,467,943)	\$ (3,467,943)
Totals after Manufacturing Discounts	\$ 422,823,399	\$ 15,248,856
GET Rate		3.6064%

\* See, Response to Interrogatory GA-2 SP03, p. 12, Revised Schedule E-3.4 A

\*\* See, Responses to Interrogatories GA-254, p. 2 and GA-60, p. 14

As depicted above, the Department multiplied each customer class revenue by the applicable statutory GET rates of 4% and 5% for residential and C&I, respectively. This resulted in a GET rate of 3.6064% (\$15,248,856 / \$422,823,399).

## 2. Connecticut Corporate Business Tax (CCBT)

To calculate the GRCF for the test year, Yankee used the Connecticut Corporate Business Tax (CCBT) rate of 8.25%. For RY1 and RY2, Yankee proposed using CCBT rates of 7.67785% and 7.3167%, respectively. Schedules A-2.0 A and A-2.0 B. The Company stated that the CCBT rates in its Application were actually average composite rates based on the statutory rates for calendar years 2011 through 2013 for Connecticut, Maryland, Pennsylvania, and West Virginia. Yankee calculated composite effective state income rates of 8.039% for 2011 and 7.3167% for both 2012 and 2013. The proposed CCBT rate for RY1, 12 months ended June 30, 2012, is the sum of halves of the calculated composite rates for calendar years 2011 and 2012. The proposed CCBT rate for RY2, 12 months ended June 30, 2013, is the sum of halves of the calculated composite rates for calendar years 2012 and 2013. Response to Interrogatory GA-92.

Yankee testified that apportionment to other jurisdictions were included in calculating the CCBT rates to refine its tax calculation and estimates of the projected income taxes included in the proposed revenue requirements. Yankee had income tax apportionments to other states in 2009 and 2010. Yankee did not include apportionments to other jurisdictions in calculating the GRCF for the test year because it does not affect the revenue requirements for the proposed rate years. Furthermore, the proforma adjustment simply represents the difference between the test year and the rate year and is not an additive to the former. The Company stated that it is correct to state that the test year's GRCF affects the level of that period's operating income.

However, the test year's GRCF in its Application was just for presentation. The total revenue for the test year is the actual results for the 12 months. The test year revenue does not affect the revenue requirements for RY1 and RY2. Tr. 03/09/11, pp. 194-199.

OCC stated that this is the first case in which Yankee applied a composite state income tax rate reflecting corporate income tax rates from other states. Connecticut customers will pay for the revenue request in this proceeding and the Company did not provide justification for including the statutory rates of other jurisdictions. OCC stated that the proposed CCBT rates Yankee used to calculate the GRCFs should be rejected and recommended that only Connecticut statutory rates should be used to calculate the GRCF. For RY1, OCC recommended a CCBT rate of 7.875%, which is the sum of 50% of the Connecticut statutory rates of 8.25% for 2011 and 7.5% for 2012. For RY2, OCC recommended a CCBT rate of 7.5%, the current Connecticut statutory rate for both 2012 and 2013. OCC PFT, pp 7 and 8; OCC Brief, pp. 81 and 82.

The Department acknowledges that the calculations of revenue requirement for the rate years are independent of the actual results of the Company's operations in the test year. However, the Department disagrees with the Company's oversimplification that the proforma adjustments are just the differences between the actual test year and the revenue projected rate year revenue. The generalization by Yankee that rate year revenue requests are independent of actual results from the test year is not altogether correct. The revenue insufficiency for the test year revenue in relation to a regulated utility rate base is one of the main factors in requests to amend rates. Additionally, the materiality of the items being adjusted should also be considered. The Department would prefer that Yankee had been consistent by applying a similar composite CCBT rate for calculating the test year's GRCF. Nonetheless, the Department reviewed documents submitted in this proceeding and found that Yankee indeed pays franchise and corporate income taxes to other states. However, in comparison to income taxes payable to Connecticut included in the Company's Application, the taxes payable to other jurisdictions are very small.

The Department does not accept OCC's argument, that the fact this the first time Yankee is including the statutory rates from other states in calculating a composite CCBT rate, as a valid reason to disallow the Company's proposed CCBT rates. Also, the Department does not accept OCC's argument that because Connecticut customers are responsible for the revenue request in this proceeding, the proposed composite CCBT rates which included apportioned statutory rates of other states should be rejected. State income tax apportionment factors are calculated not just based on where revenues are generated but also include the allocations of wages and tangible property among applicable jurisdictions. Therefore, the Department accepts Yankee's proposed CCBT rates for the calculations of the GRCFs for RY1 and RY2.

### **3. Uncollectible Expense Rate**

For the calculating the proposed GRCF for both rate years, Yankee initially proposed an uncollectible expense rate of 1.7381%. Schedules A-3.0 A. The proposed uncollectible rate was determined by dividing the average net bad debt write-offs of \$8,381,000 by the average billed revenue of \$482,209,000. The average net bad debt write-off and billed revenue amounts were simply 4.75 year averages of their

corresponding amounts from calendar year ended 2006 through September 30, 2010. Schedule WPC-3.23 B, p. 2. Subsequently, Yankee updated and increased the proposed uncollectible rate from 1.7381% to 1.8118%. The revised rate was based on a five-year average of net write-offs to billed revenues from 2006 through 2010. Response to Interrogatory OCC-196; Tr. 03/09/11, pp. 253 and 254. However, in its latest updates to the SFR schedules, Yankee used the originally proposed uncollectible rate of 1.7381% to calculate both the GRCR and proposed uncollectible expenses for RY1 and RY2. Response to Interrogatory GA-2 SP02, Schedules A-3.0 A, p. 1; A-3.0 B, p. 1; WP C-3.23 A; WP C-3.23 B.

Yankee stated that the non-hardship uncollectible expense increased by \$11.7 in 2009 over the 2008 level because it recognized an additional \$5 million in bad debt expense due to increased net write-offs. Based on its assessment of outstanding customer accounts, the Company increased write-offs as it noticed monthly write-offs increasing substantially in late 2008. This caused the average write-off factor for 2009 to more than double that of 2008. Thus, the related uncollectible expenses correspondingly increased. Additionally, Yankee stated that the balance of approximately \$6.7 million was an increase to its bad debt reserve in 2009. The increase to bad debt reserve was due to Yankee's assessment of collections from customers resulting from "negative" economic conditions in Connecticut and their impact on aged account receivables. Yankee claimed that its newly installed customer service system (C2) allows it to expand its aged accounts receivables and exposes the need for additional bad debt reserve for customers with accounts that were substantially greater than 120 days delinquent. Response to Interrogatory OCC-195. Moreover, Yankee testified that the larger 2009 uncollectible expense reflected expenses for periods prior to 2009 and that the net write-offs for pre-2009 periods were less than they should normally have been. The purpose of the proposed five year average is to "smooth out any aberrations." Tr. 03/09/11, pp. 250 and 251.

OCC recommended an uncollectible rate of 1.1730%. This rate was calculated by the dividing the total sum of the net write-offs for 2004 through 2008 by the total sum of the revenues for the same periods. The related data for 2009 and 2010 were excluded. OCC PFT, p. 8; OCC Exhibit L&A-1, Schedule C-8.

The Department rejects OCC's recommended uncollectible rate of 1.173% because its calculation completely disregards data from 2009 and 2010. The Department does agree with OCC that the 2009 and 2010 data pertaining to the Yankee's uncollectible expenses were distorted by the adjustments in 2009 and the higher level of non-hardship reserves in 2010 than for periods prior to 2009. However, the Department recognizes that Yankee's increase to the uncollectible expense in 2009 not only reflected the impact of the economic conditions for periods subsequent to 2008 but may also have been impacted by a historically low level of uncollectible estimates. OCC's own schedule indicated that the average uncollectible rate for 2004 through 2007 was approximately 1.05%. See, Id.

The Department finds that the Company's proposed uncollectible rate of 1.7381% was skewed by the significant increases to the uncollectible expense in 2009 and the related reserves in 2009 and 2010. The skewness is more pronounced as the Department compares the uncollectible expenses of \$20,997,033 and \$5,256,383 for

2009 and 2010, respectively. See, Response to Interrogatory OCC-16 SP02, p. 69. The Department understands that the Company made the adjustments to its provisions for uncollectible accounts based on the results of its assessments of the conditions at that point in time. However, the Department cannot ignore the impact of these adjustments on the proposed uncollectible rate in this proceeding. The Department noticed that the account receivable balances were approximately \$54 million and \$52.2 million for calendar year ended 2009 and 2010, respectively, as compared to approximately \$88.2 million in 2008. See, Responses to Interrogatories GA-60, p. 2 and OCC-16 SP02, p. 11. Similarly, the total cost of purchased gas in Account 80499 declined from approximately \$340.9 million in calendar year ended 2008 to approximately \$200.3 million in 2010. See, Responses to Interrogatories GA-60, p. 7 and OCC-16 SP02, p. 53. The effect of the decrease in the unit cost of commodity natural gas is more accurately reflected in Account 15107 as the storage inventory costs declined to approximately \$43.7 million as of December 2010 compare to \$93.2 million in 2008. See, Responses to Interrogatories GA-60, p. 2 and OCC-16 SP02, p. 13.

Additionally, absent the Company's adjustment to uncollectible expenses in 2009, the test year uncollectible expense would be less than \$19.1 million. The operating income for the test year would be significantly higher than \$41.42 million and the related income deficiency would be noticeably less than 10.2 million. See, Response to Interrogatory GA-2 SP02, Schedule A-1.0 A. Furthermore, as indicated in Section II.E.2. Gross Earnings Tax Expense, the Department also rejects Yankee's proposal to use billed revenues to calculate the non-hardship uncollectible rate. Revenues that are unbilled in one period are billed in the immediate following period. For rate making purposes, all revenues are considered billed and they reflect the appropriate levels of write-offs for uncollectible accounts.

The Department concludes that the write-offs levels in 2008 through 2010 are significantly above the average for the previous five years. Therefore, to correctly mitigate the slanting in the proposed uncollectible percentage resulting from Yankee's adjustment to the 2009 uncollectible expense and the significant increases to bad debt reserves in both 2009 and 2010, the Department used the revenues and net write-offs for the seven year period 2004 through 2010 to calculate the allowed non-hardship uncollectible percentage. In the instant proceeding, the Department concluded that the seven-year average offers a better smoothing effect than the traditional five-year average in order negate to the impact of any aberrations from 2009 and 2010.

### Calculation of the Allowed Uncollectible Percentage

Year	Net Write-offs (\$000's)	Total Revenue* (\$000's)
2004	5,210	408,998
2005	4,230	503,303
2006	5,027	453,894
2007	4,998	514,185
2008	9,322	577,390
2009	12,667	449,495
2010	11,811	434,277
Total	53,265	3,341,542
Bad Debt Ratio	1.5940%	

\* For 2004 and 2005 revenues: see, OCC Schedule C-8; for 2006 to 2009: see, Schedule G-2-2; and for 2010, see, Response to Interrogatory OCC-16SP02, p. 52.

Based on the seven-year data in the table above, the Department calculated an allowed non-hardship uncollectible percentage of 1.5940% (\$53,265 / \$3,341,542). Based on the allowed GET percentage of 3.6064%, the uncollectible percentage of 1.5940%, and the CCBT rates of 7.67785% for RY1 and 7.3167% for RY2, the Department calculated GRCFs of 1.75782 for RY1 and 1.75097 for RY2. The calculations of the allowed GRCFs are detailed below:

### Calculations of the Allowed GRCFs

	RY1	RY2
1 Operating Revenue Change	100.0000%	100.0000%
2 Less: Allowed GET Rate	3.6064%	3.6064%
3 Less: Allowed Uncollectible Rate	1.5940%	1.5940%
4 Income Before Income CCBT	94.7996%	94.7996%
5 O&M Revenue Conversion Factor (Reciprocal of Line 4)	105.4857%	105.4857%
6 CCBT (RY1: Line 4 x 7.67785%; RY2: Line 4 x 7.3167%)	<u>7.2786%</u>	<u>6.9362%</u>
7 Income Before Federal Income Tax (Line 4 - Line 6)	87.5210%	87.8634%
8 Federal Income Taxes (Line 7 x 35%)	<u>30.6324%</u>	<u>30.7522%</u>
9 Operating Revenue Percentage (Line 7- Line 8)	56.8887%	57.1112%
10 Allowed GRCF for the Rate Year (Reciprocal of Line 9)	1.75782	1.75097

Therefore, the Department denies the Company's proposed GRCFs of 1.7600 for RY1 and 1.7532 for RY2 and finds the above calculated GRCFs reasonable.

**G. COST OF CAPITAL**

**1. Introduction**

In determining the appropriate cost of capital to allow the Company, Conn. Gen. Stat. §16-19e(a)(4) requires that:

The level and structure of rates be sufficient, but no more than sufficient, to allow public service companies to cover their operating costs including, but not limited to, appropriate staffing levels, and capital costs, to attract needed capital and to maintain their financial integrity, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable. . .

To determine a rate of return (ROR) on rate base that is appropriate for Yankee’s overall cost of capital, the Department first identifies the components of the Company’s capital structure. The cost of each capital component is then determined and weighted according to its proportion of total capitalization. These weighted costs are summed to determine the Company’s overall cost of capital, which becomes the allowed rate of return on rate base (ROR).

**2. Capital Structure**

Yankee’s proposed capital structure and its corresponding component costs are depicted in the table below. This capital structure is for both RY1 one and RY2 and was developed by starting with the test year capitalization levels and adjusting these to the midpoint of the rate year. . The capitalization ratios were based on an average debt and equity amounts reported on Yankee’s books starting with test year levels.

<b>Class of Capital</b>	<b>Amount</b>	<b>% of Total</b>	<b>Cost</b>	<b>Weighted Cost</b>
Long-Term Debt	\$344,316,000	47.80%	6.00%	2.87%
Common Equity	\$376,034,000	52.20%	10.10%	5.27%
Total Capitalization	\$720,350,000	100.00%		8.14%

Response to Interrogatory GA-2SP01, Schedule D-1.0.

Mr. Eckenroth did not include short-term debt in Yankee’s capital structure since over the period that rates will be in effect Yankee’s financing plan maintains an average level of short-term debt that is approximately equal to the average level of construction work in progress (CWIP). Eckenroth PFT, p. 22. Yankee’s projected CWIP and short-term debt balances (\$ millions) are as follows:

	<b>Q2 2011</b>	<b>Q3 2011</b>	<b>Q4 2011</b>	<b>Q1 2012</b>	<b>Q2 2012</b>	<b>Q3 2012</b>	<b>Q4 2012</b>	<b>Q1 2013</b>	<b>Average</b>
CWIP	65.0	74.2	23.4	20.2	22.5	28.6	32.8	39.0	38.2
Short-Term Debt	28.0	52.9	69.9	36.4	13.6	64.0	52.4	11.2	41.1

Eckenroth PFT, p. 22.

Yankee asserted that when applying the allowance for funds used during construction (AFUDC) formula, almost all short-term debt interest costs will be capitalized to construction projects and therefore short-term debt will not be used to support rate base. Yankee declared that if the Department were to determine short-term debt should be included in its capital structure that funds rate base, then the Department should require Yankee to adjust its calculation of AFUDC. Therefore, Yankee would not be penalized by having to use the same low cost short-term debt to fund both CWIP and rate base. If this were not required, this would prevent Yankee from fully recovering the carrying costs on all of the debt and equity that was incurred for the benefit of ratepayers. Eckenroth PFT, pp. 22 and 23. Yankee testified that short-term debt is used to fund CWIP. Tr. 3/17/11, p. 1350.

The Department approves excluding short-term debt from Yankee's allowed capital structure. This is based on the mechanics of the AFUDC formula, which assumes CWIP is first funded by short-term debt. A similar ruling by the Department was made in the Decision dated June 29, 2007 in Docket No. 06-12-02PH01, Application of Yankee Gas Services Company for a Rate Increase – Revenue Requirement. Further precedent for not including short-term debt in Yankee's capital structure comes from the Department's Decision dated December 8, 2004 in Docket No. 04-06-01, Application of Yankee Gas Services Company for a Rate Case. Short-term debt was excluded from Yankee's capital structure based on the mechanics of the allowance for funds used during construction formula. It assumes CWIP is first funded by short-term debt and then if necessary funded by long-term debt and equity. If short-term balances are less than construction work in progress balances, all short-term debt interest will be capitalized to CWIP.

The OCC argued that Yankee's proposed capital structure is based upon the premises that it needs to have a 54.9% debt and 45.1% equity capital structure from a rating agency perspective. Brief, p. 20. The Department finds that Yankee does consider the rating agency capital structure for the reason that it exerts a strong influence over access to and marketability of debt securities, which ultimately is the Company's cost of capital. Eckenroth PFT, p. 19. However, Yankee reported that it must manage to its allowed capital structure. Additional equity provided for by the Department in the rate making process is undesirable from an NU investment perspective. It would lower Yankee's actual earned ROE because based on ratemaking Yankee would be earning a zero return on the incremental equity. Eckenroth PFT, pp. 20 and 21.

Yankee noted that the difference between a rating agency capital structure and a ratemaking capital structure is what is included in the capital structure. The rating agencies calculation of debt includes all contractual obligations that have a claim on current and future cash flows not just traditional long-term debt such as bond issuances. The rating agencies impute debt on to a company's capital structure by including leases, asset retirement obligations, unfunded pension obligations, and unfunded post retirement obligations. As a result of this rating agency capital structures have a higher percentage of debt than ratemaking capital structures. Eckenroth PFT, p. 19.

Yankee reported that the process of managing its allowed ratemaking capital structure starts during the annual budget formulation process. This is where Yankee

identifies its projected external financing requirements over the budget year. The amounts and timing of the Company's long-term debt issuances and capital contributions from its parent NU to Yankee are then planned. The objective is that Yankee's capital structure must remain consistent with the approved allowed ratemaking capital structure on a five quarter average. Yankee's management continually monitors external capital requirements compared to the plan. Based on this monitoring, adjustments to the amount and timing of debt issuances and capital contributions will be made to maintain consistency between Yankee's actual and ratemaking capital structures. Eckenroth PFT, p. 21.

The OCC would seek to impute a 50% equity 50% debt capital structure on to Yankee based on other gas companies capital structures. Woolridge PFT, p. 13; Written Exceptions, pp. 13 and 14. The Department notes that Yankee developed its capital structure based on actual amounts of common equity, long-term debt, future retained earnings, and equity infusions by the parent NU. The Department believes it is more accurate to use actual numbers developed by Yankee rather than impute a capital structure based on a proxy group of companies. The Department takes note that Yankee's has a good history of managing its capital structure based on allowed equity ratios ruled on by the Department.

A review of Yankee's capital structure finds that it is based on the Department's ratemaking allowed capital structure not a rating agency capital structure. The Department finds Yankee's processes to manage to be commendable in setting goals and making the necessary corrections to comply with the Department's approved capital structure ratios for ratemaking purposes. The Department approves the following capital structure for Yankee's regulated gas operations only.

<b>Class of Capital</b>	<b>Amount</b>	<b>Percent of Total</b>
Long-term Debt	\$344,316,000	47.80%
Common Equity	\$376,034,000	52.20%
Total Capitalization	\$720,350,000	100.00%

The Department finds that the above capital structure is consistent with the capital structure of 52.52% common equity, 0.2% preferred stock, and 47.28% debt authorized by the Department for CNG in the Decision dated June 30, 2009 in Docket No. 08-12-06. The Department also finds the above capital structure to be consistent with the capital structure of 52% common equity and 48% debt authorized by the Department for Southern in the Decision dated July 17, 2009 in Docket No. 08-12-07. Yankee's allowed capital structure of 47.80% long-term debt and 52.20% common equity will allow access to the capital markets as well as provide ratepayers with the least cost capital structure on which to base rates.

### **3. Cost of Short-term Debt**

Yankee's capital structure does not include short-term debt as noted in Section G.2. and, therefore, there is no cost rate associated with short-term debt.

#### 4. Cost of Long-term Debt

Yankee calculated an embedded cost on long-term debt, of 6.00% with a balance of \$344,316,000 based on a five quarter average. Response to Updated Interrogatory GA-2, WP D-1.2. The OCC stated that the Series J Bond issuance included an interest rate lock. This is outside of the authorization period, which ended on December 31, 2007 based on the Decision dated May 25, 2005 in Docket No. 05-03-04, Application of Yankee Gas Services Company for Approval of the Issuance of Long-Term Debt and Execution of Hedging Transactions. The OCC declared that this unauthorized interest rate lock transaction increased Yankee's cost of debt and impacted the level of revenue requirements sought in the instant proceeding. Since the Series J – Interest Rate Lock was not authorized, this transaction should be removed from the calculation of the embedded cost of long-term debt. The adjustment for this interest rate lock produces an embedded cost of long-term debt of 5.96%. Brief, pp. 40 and 41.

Yankee took exception to the OCC's assertion that the interest rate lock on the Series J bonds was unauthorized. Yankee argued that the OCC has misconstrued the Department's Decision dated May 25, 2005 in Docket No. 05-03-04 in that it clearly provides the authority for the Series J hedging transaction as confirmed by the related compliance filings. Yankee stated that the language in that Decision authorizes the Company to enter into hedging transactions through the period ended December 31, 2007, this was not only on the \$50 million debt issuance requested in that docket but also on any other prospective debt issuance and any existing debt. Reply Brief, pp. 56 and 57.

Yankee contended that the interest rate lock challenged by the OCC was a forward starting swap that was executed by Yankee on December 4, 2007, this was within the authorized hedging period, which was the process used to hedge the interest rate exposure on the \$100 million of Series J Bonds that were later issued on October 7, 2008. Late Filed Exhibit No. 101. Yankee declared that since it entered into the swap prior to December 31, 2007 and the Series J Bond issuance was then a prospective debt issuance within the meaning of the Decision in Docket No. 05-03-04, the swap was unmistakably authorized by the Department. Reply Brief, p. 57.

In the Decision in Docket No. 05-03-04 Yankee was allowed to "enter into interest rate hedging transactions in connection with the proposed long-term debt issuance and any prospective or outstanding debt of Yankee for the period ending December 31, 2007." Decision, p. 1. In addition, by letter dated January 9, 2008 the Department found Yankee to be in compliance with Order No. 4, of the Decision in Docket No. 05-03-04. Yankee entered into the swap prior to December 31, 2007, which then made the Series J Bonds a prospective debt issuance within the meaning of the Decision in Docket No. 05-03-04. Such swap was authorized, and there is no basis for the OCC's claim that the Series J – Interest Rate Lock was not authorized and should be removed from the calculation of the embedded cost of long-term debt. The Department accepts Yankee's cost of long-term debt of 6.00%.

## 5. Cost of Equity

### a. Introduction

The Company's cost of equity testimony was prepared by George Eckenroth, who recommended 10.10% as an appropriate equity cost rate. This was based on weightings applied to a discounted cash flow (DCF) analysis of 10.30%, an empirical capital asset pricing model (ECAPM) of 11.0%, and a risk premium methodology (RPM) of 10.40%. Mr. Eckenroth also used a comparable earnings methodology (CEM) but only as a test of reasonableness for his recommended 10.10%. Eckenroth PFT, p. 55. OCC's cost of equity testimony was prepared by Dr. J. Randall Woolridge who recommended an 8.50% as an appropriate cost of equity for Yankee. This was based on weightings applied to a DCF methodology of 8.50% and a capital asset pricing model (CAPM) of 7.90%. Woolridge PFT, pp. 35 and 46.

### b. Summary of Mr. Eckenroth's Testimony

#### i. Overview

Mr. Eckenroth evaluated Yankee's cost of equity and determined a fair rate of return on common equity for the Company to be 10.50% for both RY1 and RY2. This was done by applying a DCF methodology, the empirical capital asset pricing model, and a risk premium analysis, using different weights, which is shown in the following table.

Model	Results	Weight	Average
DCF	10.3%	50%	5.2%
ECAPM	11.0%	25%	2.8%
Risk Premium	10.4%	25%	2.6%
			10.5%

Eckenroth PFT, Executive Summary, p. 4.

Mr. Eckenroth's final recommendation to the Department is for Yankee to retain its 10.10% ROE. Using this 10.10% ROE and Yankee's requested capital structure results in an 8.14% overall rate of return to be applied to the Department's authorized rate base for Yankee. Eckenroth PFT, p. 3. As a check of reasonableness, Mr. Eckenroth used a comparable earnings methodology.

#### ii. Selection of a Proxy Group

To determine Yankee's cost of equity, Mr. Eckenroth first recognized that in particular the DCF model requires data that is available for publicly traded companies. Since Yankee is a wholly owned subsidiary of NU, and as such not public traded, Mr. Eckenroth utilized a group of publicly traded companies with similar financial and operational characteristics as Yankee, which is known as the proxy group. Eckenroth PFT, p. 29.

As a result of having to reflect the risk and future prospects associated with Yankee's regulated gas operations, Mr. Eckenroth initially constructed a peer group of the 12 publicly-traded companies included by Value Line in its natural gas utility industry segment. Mr. Eckenroth stated that the use of Value Line industry classification is consistent with the proposals brought forth in the evidence presented in Docket No. 09-10-06, Investigative Inquiry into the Desirability, Need and Feasibility of Establishing a Uniform Methodology for Determining Return on Equity (Generic ROE). It is also consistent with both the consensus proposal presented by the electric, natural gas and large water utilities and the OCC's proposal in Docket No. 09-10-06. Mr. Eckenroth referred to this group as the Value Line Gas Group. Eckenroth PFT, p. 30.

Screening criteria used by Mr. Eckenroth on the Value Line Gas Group were the following:

1. a credit rating screen;
2. eliminate any utility that was a publicly known target of possible takeover or involved in mergers;
3. eliminate any company that did not have the last five years positive earnings, dividend stability, or does not pay a dividend;
4. eliminate any company that is perceived to have future earnings or dividend instability; and
5. a percent of regulated business screen.

Eckenroth PFT, Attachment GJE-3, p. 5.

Mr. Eckenroth noted that most of the participants in the Generic ROE proceeding advocated applying various screens to the initial group of proxy companies which included a credit rating screen and a screen based on the percentage of regulated activities. Two forms of a credit rating screen were discussed in the Generic ROE Proceeding the second being if the credit rating was investment grade. Mr. Eckenroth applied the Utilities Consensus Proposal credit rating screen, from Docket No. 09-10-06, of a credit rating screen within one notch of the subject utility and found that only three of the 12 companies in the Value Line Gas Group remained. Mr. Eckenroth concluded that three companies are not sufficient for a proxy group.<sup>6</sup> Eckenroth PFT, p. 30.

Mr. Eckenroth augmented the three remaining companies from Value Line's gas utilities with combination electric and gas companies from Value Line's electric companies (Combined Utility Proxy Group) on which he based his recommended ROE. For comparison purposes, Mr. Eckenroth presented his analytical methodologies for a ROE determination for the Value Line Gas Group.<sup>7</sup> Eckenroth PFT, p. 32.

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<sup>6</sup> For a sufficient level of regulated activities, two forms of a screen were discussed in the Generic ROE proceeding. Mr. Eckenroth applied the Utilities Consensus proposal screen of a minimum of 70% of regulated revenues to the 12 companies in the Value Line Gas Group and only three companies remained. Mr. Eckenroth stated that it was his decision to augment the three remaining companies from the Value Line Gas Group with combined gas and electric companies. This methodology was supported by CNG and Southern in the Generic ROE proceeding. Eckenroth PFT, p. 31.

<sup>7</sup> Mr. Eckenroth recognized that on December 7, 2010, AGL Resources (AGL) and Nicor announced a merger agreement. In theory, the merger announcement might not disqualify AGL and Nicor because

Mr. Eckenroth reported that when the utilities in the Value Line Gas Group were screened to have a credit rating within one notch of Yankee, only three of the 12 utilities remained, Mr. Eckenroth contended these are not sufficient for a proxy group. The parameter that Mr. Eckenroth used was that if an utility's credit rating by either S&P or Moody's was more than one notch above or below Yankee's, it was determined to fail this screen. Mr. Eckenroth argued that three utilities were too low of a number for a proxy group and as such augmented the three remaining utilities from Value Line's gas utilities with Value Line's electric utilities. Mr. Eckenroth used the following criteria to choose utilities from Value Line's electric utilities for his proxy group:

1. include both gas and electric operations;
2. S&P corporate credit ratings, plus and minus one notch compared to Yankee's BBB corporate credit rating;
3. minimum of 70% regulated revenues; and
4. Have a Value Line Safety Ranking of 1 to 3 and a financial strength rating of B+ or higher.

Eckenroth PFT, Attachment GJE-3, p. 7.

This augmented proxy group had a total of 20 utilities, which Mr. Eckenroth based his DCF analysis on.<sup>8</sup> Mr. Eckenroth stated that consistent with his past practice and Yankee's position in Docket No. 09-10-06, he applied a range of reasonableness criteria to eliminate problematic companies in his analysis. He asserted that academic studies have shown the existence of an equity risk premium. As a result, Mr. Eckenroth required that each utility's calculated ROE exceed the cost of debt by a reasonable amount. Conversely, he excluded a company if its calculated ROE was greater than its cost of debt by an unreasonable amount. Eckenroth PFT, Attachment GJE-3, p. 9.

Mr. Eckenroth testified that the Morningstar 2010 Yearbook publishes, actual market results for the period 1926 – 2009. Based on this data, he calculated the actual historical total equity risk premium between the average annual equity returns and the average annual long-term corporate bonds. To this annual equity spread, he applied the beta for each proxy group, which is .70 beta for the Value Line Gas Group and .75 beta for the Combined Utility Proxy Group, to determine an expected equity risk premium for each proxy group. As a result of adding the expected risk premium to a bond yield, Mr. Eckenroth formed a band of reasonableness around the expected proxy group risk premium. He accepted a calculated DCF ROE only if it was within the reasonableness band. Eckenroth PFT, Attachment GJE-3, p. 9.

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the stock prices that are a part of the Yankee analysis were for the period prior to the merger announcement and as such are unaffected. Due to this, Mr. Eckenroth wanted to ensure that including AGL and Nicor would not unduly influence his result. Therefore, he compared the results with and without AGL and Nicor. Eckenroth PFT, Appendix GJE-3, p. 5, Appendix DCF – 2.0.

<sup>8</sup> The members of this proxy group are Allete, Alliant Energy Corporation, Ameren Corporation, Avista Corporation, Black Hills Corporation, Constellation Energy, DTE Energy Company, Empire Dist. Electric, Entergy Corporation, Exelon Corporation, Integrys Energy Group, Northeast Utilities, PG&E Corporation, Public Service Enterprise Group, Scana Corporation, Sempra Energy, Wisconsin Energy, Nicor Incorporated, Piedmont Natural Gas, and Southwest Gas. Eckenroth PFT, Attachment GJE-3, p. 8 and Appendix DCF 1.0.

### iii. DCF Model

The dividend yield in the DCF model was calculated by Mr. Eckenroth using Value Line data. Mr. Eckenroth provided stock prices using the high and low stock price separately for each utility in the combined utility proxy group and the Value Line gas group for the period June 2010 to November 2010. Eckenroth PFT, Appendix DCF-2.0, p. 32. A further calculation was performed to calculate a monthly stock price by averaging the monthly high and low for each of the Utilities. Eckenroth PFT, Appendix DCF-2.1, p. 33. Finally, Mr. Eckenroth averaged the monthly stock prices into six, three and one month averages for each of the Utilities. Eckenroth PFT, Appendix DCF-2.2, p. 34. To calculate the next period's dividend yield, Mr. Eckenroth used the 2011 Value Line projected dividend for each of the utilities average monthly stock-prices for the last six months, three months, and one month. This calculation produced a next period's dividend yield of 4.37%, which is the  $D_1/P_0$  input in the DCF formula. Mr. Eckenroth calculated a 4.37 adjusted dividend yield for his proxy group.

Mr. Eckenroth noted that the cost of equity is a forward looking concept that focuses on investor expectations in modeling future returns. Due to this, the estimation of such returns must be forward looking. Mr. Eckenroth asserted that to apply the DCF growth rate, the only growth rate that should be considered is the forward looking expectations of investors, which is shown in stock prices. Mr. Eckenroth provided support for this belief stating, "[t]he continued success of investment services such as Institutional Broker Estimation Service (IBES) and Value Line, and the fact that projected growth rates from such sources are widely-referenced, provides strong evidence that investors give considerable weight to analysts' earnings projections in forming their expectations for future growth." Eckenroth PFT, Attachment GJE-3, p. 11.

The dissemination of investment information is carried on through equity analysts getting their views out to investors. Investment firms send out monthly reports with their earnings forecasts to institutional investors and individual investors get these same forecasts from their investment advisors or online. Analysts who do not produce reliable forecasts will not have the same investor franchise as compared to those analysts that produce forecasts that investors find more accurate. Analysts' estimates are widely referenced in the financial media as well as investment advisory publications imply that investors use them as a basis for their decision making. Eckenroth PFT, Attachment GJE-3, p. 11.

Albeit analysts' forecasts are not perfectly accurate, Mr. Eckenroth claimed analysts forecasts are the best available projection of market expectations. He cites published studies that confirm analysts' forecasts are superior to either retention growth rates or historical in predicting stock prices. In his opinion, this is not surprising since analysts have past information plus current information. Mr. Eckenroth used earnings forecasts not dividend growth rates in his DCF analysis stating that most cost of capital experts use earnings not dividends. Eckenroth PFT, Attachment GJE-3, pp. 11 and 12.

Mr. Eckenroth also calculated a sustainable growth rate from the formula  $g = br + sv$  where "b" is the expected retention ratio, "r" is the expected earned return on equity, "s" is the percent of common equity expected to be issued annually as new common stock, and "v" is the equity accretion rate. The DCF theory holds that the sv factor is a

component of the growth rate designed to capture the impact of issuing new common stock at a price above or below book value. For each of his 20 member combined utility proxy group, the expected retention ratio "b" was calculated based on Value Line's projected dividends and earnings per share. Each utility's expected earned rate of return "r" was computed by dividing projected earnings per share by projected net book value. Since Value Line reports end of year book values, Mr. Eckenroth made an adjustment to compute an average rate of return over the year, which he stated is consistent with the theory underlying this approach to estimating investor growth expectations. His "s" factor of the percent of common equity expected to be issued annually was equal to the product of the projected market to book ratio and growth in common shares outstanding. The "v" factor he computed as 1 minus the inverse of the projected market to book ratio. Eckenroth PFT, Attachment GJE-3, pp. 18 and 19; Eckenroth PFT, Attachment GJE-3, Appendix DCF 5.0 – 5.3.

Mr. Eckenroth calculation to obtain the growth figure "g" in the DCF model used long-term earnings growth rates for each of his utilities in his 20 member combined proxy group. He used earnings growth rates from Institutional Brokers Estimate System (IBES), Zacks Investment Research, and Value Line. Mr. Eckenroth's overall growth rate was 5.79%. Eckenroth PFT, Attachment GJE-3, Appendix DCF 7.0, p. 43. Combining his DCF next period's dividend yield of 4.37% with his growth rate of 5.79% yields a DCF cost of equity of 10.16%. He combined his sustainable growth rate calculation for an alternative DCF calculation.

#### iv. Flotation Costs

Mr. Eckenroth testified that a flotation cost adjustment for the expenses of issuing new shares of common stock is appropriate. He takes note that NU sold shares in a public offering on March 20, 2009. Investors paid a price of \$20.20 per share with 18,975,000 shares sold, which produced gross proceeds of \$383,295,000. Total expenses for the underwriting fee and other expenses were \$12,564,402 for net proceeds of \$370,730,598 for a net price of \$19.54 per share. Per share expenses amounted to \$.6622 for a 3.28% of issuance costs. Mr. Eckenroth asserted that due to flotation costs, NU must earn more on the net purchase price of the \$19.54 offering than it would have to earn on the gross purchase price of \$22.20 per share for investors to earn their expected return. Eckenroth PFT, Attachment GJE-3, p. 21; Appendix DCF 8.2, p. 63.

To calculate the flotation cost percent, Mr. Eckenroth used a methodology that calls for multiplying the dividend yield by the percentage of proceeds from a stock sale that are unavailable for utility investment due to flotation costs. Specifically, he multiplied the Value Line dividend yield for each of the companies in the combined utility proxy group by the 3.28% issuance expenses. The average of the Value Line dividend yield for each of the companies in the combined utility proxy group was 4.52%, which when multiplied by 3.28% equals 0.15%. Mr. Eckenroth testified that if Yankee earns an additional 15 basis points on funds obtained from the NU stock issuance, then earnings per share will remain at the previously expected level, the dividend can be maintained, and the stock price will not decline.

**v. Conclusion of Mr. Eckenroth's DCF Methodology**

Mr. Eckenroth reported that his analysis was based on a 20 member combined utility proxy group, employed analysts' earnings forecasts, Value Line's projected 2011 dividends and a six-month average stock price. This yields an allowed ROE of 10.16% before flotation costs of .15. Adding flotation costs of .15% yields an allowed ROE of 10.31% for the combined utility proxy group. As an alternative, Mr. Eckenroth stated that if the Department were to elect to blend analysts' forecasts with the sustainable growth methodology, the result would be approximately 9.77% before flotation costs and 9.92% after flotation costs. For the Value Line Gas Group, using analysts' earnings growth rates this indicates a 9.33% earned ROE, which together with flotation costs of .15% produces a 9.48% allowed ROE. For the Value Line Gas Group, using analysts' forecasts of earnings growth rates and a sustainable growth rate yields a 9.64% allowed ROE, which when combined with flotation costs of .15% produces an allowed ROE of 9.79%. Mr. Eckenroth discounted the use of the Value Line Gas Group since it is his assertion that the Value Line Gas Group is less risky than Yankee and, therefore, not truly comparable. In addition, it contains gas companies with insufficient regulated activities and is not an acceptable proxy group. Mr. Eckenroth's DCF recommendation as an allowed ROE for Yankee is 10.31%. Eckenroth PFT, Attachment GJE-3, p. 23.

**vi. Empirical Capital Asset Pricing Model**

Mr. Eckenroth asserts that the CAPM is a widely referenced methodology for determining the cost of equity both among academicians and expert witnesses. The CAPM is a risk premium based model that recognizes that risk adverse investors will demand higher returns for assuming additional risk. Therefore, higher risk securities are priced to produce higher expected returns than lower risk securities. Mr. Eckenroth stated that there are two short comings of the CAPM. It does not capture the size effect exhibited by stock returns. It understates the portfolio returns for companies with betas less than 1.0 and overstates portfolio returns for companies with betas greater than 1.0. A size adjustment is required to correct for the CAPM's omission of the size effect. In addition, the ECAPM was developed to correct for a low beta bias. Mr. Eckenroth chooses to use the ECAPM rather than the traditional CAPM. Eckenroth PFT, p. 41. Mr. Eckenroth calculated an allowed ROE based on a CAPM methodology as well as an ECAPM methodology.

To determine the risk free rate in the CAPM, Mr. Eckenroth reasoned that this rate should have a term to maturity equal to the security being analyzed and the maturity of the assets being financed. Finance theory tells us that common stock has a perpetual life and, therefore, cash flows to investors last indefinitely regardless of each individual investor's holding period. For the most part, utility assets have very long-term useful lives. Due to the perpetual life of common stock and the long-term useful life of utility assets, Mr. Eckenroth reasons that the best proxy for the risk free rate is the return on the longest term US Treasury bond that is traded, which at present is 30-years. As such, Mr. Eckenroth used the yield on 30-year Treasury for the risk free rate in the ECAPM. Eckenroth PFT, p. 41; Attachment GJE-4, pp. 7 and 8.

To determine an actual interest rate value for the 30-year Treasury risk free rate Mr. Eckenroth used historical, current, and forecasted rates of 30-year Treasuries to evaluate using his judgment as to the correct value for the risk free rate. For the 12 months beginning December 2009 through November 2010, the average of the 30-year Treasury yield was 4.26%. He reported the current yield as 4.40%. Mr. Eckenroth also relied on the recent forecast of the 30-year Treasury yield over the next five years, which shows yields going from 3.65% in 2011 to 5.96% in 2015 as provided by Global Insight. Value Line's projected 30-year Treasuries showed yields going from 4.10% to 5.80% in 2014. Value Line showed a current yield as of December 15, 2010 of 4.60%. Mr. Eckenroth stated that the cost of capital will be higher in the 2011 to 2015 time frame than it is currently. Based on this information, Mr. Eckenroth used a risk free rate of 4.30%. Eckenroth PFT, pp. 42 and 43.

The beta input to the CAPM measures the average change in a security's return relative to the market. Finance theory, relative to the CAPM, tells us that the overall market always has a beta of 1.0. A beta greater than 1.0 indicates that a company is more risky than the market as a whole while a beta less than 1.0 means that the company is less risky than the market.<sup>9</sup>

Mr. Eckenroth commented that the market rate of return (MRR, which is the  $R_m$  factor in the ECAPM, is forward looking and not directly observable. He stated that most cost of capital expert witnesses' estimate the MRR use long-term historical returns. This is an approach that works satisfactorily during periods of normal market conditions. However, at this time, the stock market is still recovering from the lows of early 2009 and is still well below its pre-recession high, which is a reflection of the greater current and prospective risk for investors. As a measure of this, Mr. Eckenroth notes that the VIX Index, which measures market volatility, is still more volatile than it was before the sub-prime crisis. It is now approximately 1.7 times higher than its level in June 2007 that marks the date of the Decision in Yankee's last rate case. These volatile market conditions coupled with higher risk aversion by investors have resulted in a higher MRR. Eckenroth PFT, p. 46.

To measure this significantly higher MRR, Mr. Eckenroth developed a DCF for the S&P 500 to calculate the expected return on the market. Eckenroth PFT, p. 46. Specifically he used a DCF model of the S&P 500 index to directly estimate the prospective MRR at this time. Mr. Eckenroth noted that, for reasons of consistency, the market index used should be the same index used in deriving the estimates of beta. However, the correlation between the S&P 500 and the NYSE index to calculate beta is very high at approximately 0.99, which should eliminate any unease about utilizing different indices. Eckenroth PFT, Attachment GJE-4, p. 5.

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<sup>9</sup> Mr. Eckenroth stated that the calculation of beta calls for a market portfolio of all assets, which would include stocks, bonds, commodities, real estate etc. not just the NYSE composite index. He asserted that rate regulated companies are extremely sensitive to bond market forces. As such, research has shown that not including bonds is a source of error in calculating beta for a utility regulated on a book value basis. This results in an underestimate of the utility beta. Mr. Eckenroth stated that when using ECAPM for utilities, it is appropriate to use a higher beta than a beta developed strictly from a portfolio of stocks which excludes bonds. Despite this critique, he used the current Value Line beta for the Value Line Gas Group of utilities, which he declared understates the true beta. Eckenroth PFT, p. 44; Attachment GJE-4, p. 1.

Values for the inputs of Mr. Eckenroth's DCF were calculated using IBES consensus earnings growth rates and current market weightings for each company, which equates to an 11.9% for the earnings of the S&P 500. Eckenroth PFT, Appendix CAPM-2.2. For the current dividend yield on the S&P 500, Mr. Eckenroth developed a yield of 1.96%. He asserted that the DCF formula is forward looking. Therefore, the appropriate dividend yield to use in the DCF is prospective rather than the current dividend since investors anticipate the dividend yield to grow over the next year. To calculate the anticipated dividend, Mr. Eckenroth multiplied the current dividend by one plus the growth rate. Eckenroth PFT, Attachment GJE-4, p. 6.

In summary, Mr. Eckenroth calculated the prospective MRR using a DCF methodology for the market as a whole with the following inputs:

Dividend Yield	1.96%
Long-term Growth Rate	11.88%
Adjusted Dividend Yield	2.19%
Expected Long-Term Market Return	14.07%

Eckenroth PFT, Attachment GJE-4, p. 6.

Mr. Eckenroth also reasoned that while recommending a forward looking MRR, it is possible that current expectations of investors concerning the amount by which the ROE will exceed a bond yield can be influenced by historical differences in returns to bonds and stock investors. He asserted that the most reliable source for historical earned returns is the annual Morningstar/Ibbotson Yearbook. The 2010 annual Morningstar/Ibbotson Yearbook shows for large company stocks a total return of 11.80% for the period of 1926 through 2009 and for small company stocks a total return of 16.6% for the period of 1926 through 2009. Both of these measures use an arithmetic average, which Ibbotson/Morningstar advocated using and was followed by Mr. Eckenroth. Eckenroth PFT, Attachment GJE-4, pp. 6 and 7.

A size adjustment was made by Mr. Eckenroth based on the relationship between the size of a firm and the return. He asserted that investors require a higher return on small capitalization stocks versus large capitalization stocks all other things being equal. He cited the most likely reason is that the smaller the capitalization of a stock the less liquid it is. Mr. Eckenroth also cited the 2010 Morningstar/Ibbotson Yearbook stating:

One of the most important characteristics not necessarily captured by the Capital Asset Pricing Model is what is known as the size effect. . . . The betas for small companies tend to be greater than those for large companies; however, these higher betas do not account for all of the risks faced by those who invest in small companies.

Eckenroth PFT, Attachment GJE-4, pp. 10 and 11.

Mr. Eckenroth contended that regulation, such as with utilities, cannot influence the liquidity differential between large and small capitalization companies. Rather regulation influences risk but does not affect the liquidity of the regulated companies'

common stock. The differential return for small capitalization companies is 3.03% higher than returns on larger capitalized companies as discussed in the 2008 Morningstar/Ibbotson Yearbook. Mr. Eckenroth reasoned that the CAPM does not take into consideration size as a factor. The CAPM understates the cost of equity for small companies and as such an adjustment should be made for Yankee since it is a small capitalization utility. Eckenroth PFT, Attachment GJE-4, p. 11. The specific size adjustment for Yankee is at 85 basis points determined by the breakdown of the size premiums by capitalization as constructed annually by Morningstar/Ibbotson Associates. Eckenroth PFT, Attachment GJE-4, p. 13; Appendix CAPM 5.0. In summary, Mr. Eckenroth's calculations for the CAPM are as follows:

<b>Prospective Market Return Methodology</b>		<b>Historical Market Risk Premium Methodology</b>	
Risk-Free Rate	4.30%	Risk-Free Rate	4.30%
Beta	0.70%	Beta	0.70%
Market Risk Premium	9.77%	Market Risk Premium	6.60%
CAPM Equity Cost Rate	10.87%	CAPM Equity Cost Rate	8.84%

Eckenroth PFT, Attachment GJE-4, p. 9; Appendix CAPM 4.0 and 4.1.

The ECAPM was calculated by Mr. Eckenroth based on his contention that empirical studies of the CAPM shows a discrepancy between the risk return trade-off predicted by the CAPM and the risk return tradeoff actually observed. It is his contention that studies show that the slope of the capital market line differs from that modeled by the traditional CAPM calculation. Mr. Eckenroth reasons that because of this low beta stocks such utilities should have higher rate of returns than calculated through the CAPM. The ECAPM was designed to correct this bias. Eckenroth PFT, Attachment GJE-4, p. 14.

The ECAPM is calculated using essentially the same inputs as the CAPM except with the addition of the alpha term. The alpha term is estimated econometrically from market data, which has been done by a number of studies. Eckenroth PFT, Attachment GJE-4, p. 18. Mr. Eckenroth cited a study done by Dr. Morin as discussed in his in his 2006 text New Regulatory Finance. He finds Dr. Morin's methods and results typical of the empirical research on the subject. Using empirical market return data for the period 1926-1984, Dr. Morin's regression analysis indicated that the observed expected return on a security is related to its risk by the following equation:

$$K = .0829 + .0520 \text{ Beta}$$

During the study period, the average risk-free rate was 6% and the market risk premium was 8%. Dr. Morin concluded that the "intercept of the observed relationship between return and beta exceeds the risk-free rate by about 2 percent" suggesting a 2% alpha factor. He adjusted the CAPM, with the following approximation:

$$K = \text{Risk Free} + 2\% + \text{Beta} [(\text{Market Return} - \text{Risk Free}) - 2\%]$$

Response to Interrogatory GA-88.

Mr. Eckenroth cited Dr. Morin’s research, which supports values for alpha from 1.0% to 7.0% when using a short-term risk free interest rate. The use of a long-term risk free rate version incorporates some of the desired effect of using a higher intercept and a flatter slope than the short-term risk free version. Eckenroth PFT, Attachment GJE-4, p. 15. Mr. Eckenroth calculated a historical market return CAPM with an alpha adjustment. He stated that as expected the ECAPM produced ROE is slightly higher than the traditional CAPM. Eckenroth PFT, Attachment GJE-4, pp. 15 and 16; Appendix 6.1. In summary, Mr. Eckenroth’s calculations for the ECAPM are as follows:

<b>Prospective Market Return Methodology</b>		<b>Historical Market Risk Premium Methodology</b>	
Risk-Free Rate	4.30%	Risk-Free Rate	4.30%
Alpha	0.50%	Alpha	0.50%
Beta	0.70%	Beta	0.70%
Market Risk Premium	9.27%	Market Risk Premium	6.10%
CAPM Equity Cost Rate	11.03%	CAPM Equity Cost Rate	8.99%

Eckenroth PFT, Attachment GJE-4, p. 9; Appendix CAPM 4.0 and 4.1.

Mr. Eckenroth’s conclusion on his ECAPM is that it showed an 11.01% allowed ROE for ratemaking purposes. This he derived by taking the simple average of the prospective market return ECAPM of 11.03% and the historical market return of ECAPM of 8.99% adjusted for size and flotation costs of 0.85% and 0.15%, respectively, for a 11.01% ECAPM. Eckenroth PFT, Attachment GJE-4, p. 17.

**vii. Risk Premium Model (RPM)**

Mr. Eckenroth provided a third analysis of a RPM, which he used in his weighted average along with the DCF and ECAPM. He stated that the RPM are calculated by adding an appropriate equity premium to a benchmark debt rate of return. RPM differ from one another through the analyst’s use of a particular risk premium and benchmark debt rate. Eckenroth PFT, Attachment GJE-5, p. 1.

Mr. Eckenroth contended that the equity risk premium in the RPM should be based on the historical relationship between allowed ROEs and the yield on public utility bonds. The benchmark debt rate that should be used for the RPM is the yield on a current public utility bond with the same rating as Yankee. Mr. Eckenroth used the following regression equation, in the form  $y = a + bx$ , which resulted in a 4.51% equity risk premium,

$$\begin{matrix} \text{Risk Premium} = & \text{Intercept} & + & \text{Slope} & \times & \text{Current Utility Bond Yield} \\ 4.51\% & 6.87\% & & -0.41624 & & 5.67\% \end{matrix}$$

Eckenroth PFT, Attachment GJE-5, p. 1.

He added the 4.51% equity risk premium to the current bond yield of Baa/BBB found in Value Line for an approximate 10.40% RPM allowed ROE.

### viii. Comparable Earnings Methodology

Mr. Eckenroth used the CEM as a check on his 10.10% requested ROE. His analysis used realized returns on the book equity for companies and to evaluate the investor recognition of these realized returns on book value by using the market indicators of the market to book ratio and price to earnings ratio. He reasoned that using the CEM in this type of analysis one can assess the degree to which a given level of return on book equity equates to the cost of equity capital. Since his CEM utilized market data through the use of market to book ratios and price to earnings ratios, he indicated that his analysis is essentially a market test. Eckenroth PFT, Attachment GJE-6 p. 1. To implement his CEM, Mr. Eckenroth used the following three steps.

1. Selection of a sample of unregulated companies (Unregulated Reference Group) with comparable risk.
2. Choose an appropriate time period over which book rates of return are measured.
3. Adjust the results for the risk differential between the Unregulated Reference Group and the Value Line Gas Group.

Eckenroth PFT, Attachment GJE-6, p. 1.

For his Unregulated Reference Group, Mr. Eckenroth began with the companies in the Fortune 500 and removed all regulated and financial service companies. This he believed developed a reference group of diverse unregulated companies. Further, Mr. Eckenroth screened for comparable risk through the following parameters.

1. Established a screen of .1 around the Value Line Gas Group beta of .70 and eliminated companies outside the .60-.80 beta range.
2. Established a screen based on Value Line safety rating accepting only companies having a 1, 2, or 3 safety rating. This is necessary since the Value Line Gas Group consists entirely of utilities with safety ratings of 1, 2 and 3.
3. Established a screen based on earnings variability. Only companies with a coefficient of variation of book equity returns (CVROE) over ten years that was 20% or lower were accepted since the 10-year Value Line Gas Group CVROE was 14%.
4. Eliminated companies that did not have 10 years of comparable historical earnings data in Value Line.
5. Verified that no single industry was over-represented to ensure a diverse set of unregulated companies. His threshold of over-representation was 10% of the companies in the group belonging to one industry based on standard industrial classification codes.

Eckenroth PFT, Attachment GJE-6, p. 2.

Based on his screens, Mr. Eckenroth was left with 32 companies and their respective industries passed all the screens. Eckenroth PFT, Attachment GJE-6, p. 3; Appendix CEM 2.0.

Mr. Eckenroth testified that to avoid any undue influence by unusual or abnormal conditions that may occur in a single year or shorter period, it is important to examine earnings over a sufficiently long-time period. Projected earnings for 2010, 2011 and 2013 to 2015 are taken from Value Line. He reported that the 10-year average Unregulated Reference Group return on book equity was 20.94%. Eckenroth PFT, Attachment GJE-6 p. 3; Appendix CEM 3.0. He calculated a projected average Unregulated Reference Group return on book equity of 20.92%. Eckenroth PFT, Attachment GJE-6 p. 3; Appendix CEM 4.0. Mr. Eckenroth reported that while the risk screens produced an Unregulated Reference Group that had very similar characteristics to the Value Line Gas Group, the average returns on book equity are too high to be directly transferable to a utility. Eckenroth PFT, Attachment GJE-6, p. 3.

Mr. Eckenroth recognized the need for a conversion factor to adjust the Unregulated Reference Group book return on equity to a comparable Value Line Gas Group return. He based his conversion factor on the historic relationship between market to book ratios (M/B) and price earnings (P/E) ratios between the Value Line Gas Group, and the Unregulated Reference Group. Mr. Eckenroth reasoned that ROE can be broken down into two factors of the M/B ratio and the reciprocal of the PE ratio. The ROE used in the CEM is defined as earnings divided by book value of equity, the M/B ratio as stock price divided by book value of equity per share, and the P/E ratio as stock price divided by earnings per share as shown through the following equation:

$$\frac{\text{Earnings per Share}}{\text{Book Value per Share}} = \frac{\text{Stock Price}}{\text{Book Value Per Share}} \times \frac{\text{Earnings per Share}}{\text{Stock Price}}$$

Eckenroth PFT, Attachment GJE-6, p. 4.

Mr. Eckenroth stated that a book value ROE can be thought of as the M/B ratio multiplied by the E/P where E/P is the reciprocal of P/E. He employed ratios that compared the regulated utility results to unregulated industry results over a complete business cycle. He asserted that this basis was developed to convert the projected Unregulated Reference Group ROE to a Value Line Gas Group equivalent. Eckenroth PFT, Attachment GJE-6, p. 4.

Mr. Eckenroth reported that over the course of the last business cycle, the median P/E ratio of the Value Line Gas Group was just under four-fifths that of the Unregulated Reference Group or 14.9 versus 18.8. Eckenroth PFT, Attachment GJE-6 p. 4; Appendix CEM 5.0 and 5.1. The median M/B ratio of the Value Line Gas was less than half that of the Unregulated Reference Group for 1.8 vs 4.2. Eckenroth PFT, Attachment GJE-6 p. 4; Appendix CEM 6.0 and 6.1. He calculated a conversion factor, for the last business cycle, with the result being 55.10%. The last business cycle ended in November 2001 and as such the information used to develop the conversion factor focused on the eight-year business cycle of 2002 through 2009. Eckenroth PFT, Attachment GJE-6, pp. 4 and 5.

Mr. Eckenroth calculated the average Unregulated Reference Group projected return on book equity to be 20.92%. He used a 55.10% conversion factor. The results estimated a market based expected return on Yankee's book equity over the next five years of 11.53% (20.92% x .5510). Eckenroth PFT, Attachment GJE-6, p. 5.

**c. Summary of Dr. Woolridge's Testimony**

**i. Overview**

Dr. Woolridge evaluated Yankee's cost of equity and determined a fair rate of return on common equity for the Company to be 8.50%. He based his conclusion on applying the DCF methodology calculating an 8.50% ROE and a CAPM analysis calculating a 7.90% ROE. Given these results of Dr. Woolridge concluded the appropriate equity cost for his gas proxy group was in the 7.90% to 8.50% range. However, Dr. Woolridge gave greater weight to the DCF model and as such used the 8.50% equity cost rate for Yankee's allowed ROE. Woolridge PFT, p. 47.

**ii. Selection of a Proxy Group**

As the first process in determining Yankee's cost of equity, Dr. Woolridge formed a proxy group of nine natural gas distributors using the following selection criteria.

1. Listed as a natural gas distribution, transmission, and/or integrated gas company in AUS Utility Reports.
2. Listed as a natural gas utility in the standard edition of the Value Line Investment Survey.
3. At least 50% regulated gas revenues.
4. An investment grade bond rating by Moody's and Standard & Poor's.

Woolridge PFT, pp. 10 and 11.

The gas utilities meeting these criteria are AGL Resources Inc., Atmos Energy Corporation, Laclede Group Inc., Northwest Natural Gas Company, Piedmont Natural Gas Company Inc., South Jersey Industries Inc., Southwest Gas Corporation, and WGL Holdings, Inc. The median operating revenues for this proxy group is \$1,798.1 million and the net plant is \$2,392.0 million. This gas proxy group received 66% of revenues from gas operations, has an A bond rating from Standard & Poors, a common equity ratio of 49.3% and an earned return on common equity of 10.0%. Woolridge PFT, p. 11. Dr. Woolridge dropped one gas company from his proxy group, NICOR, since it was in the process of being acquired. Woolridge PFT, p. 11.

**iii. DCF Model**

Dr. Woolridge used the constant growth stage of the DCF model. He reasoned that the economics of the utility industry indicate the relative stability of the utility business, the maturity of demand for public utility services, and the regulated status of public utilities. His DCF analysis employed three data inputs of stock price  $P_0$ , the current annual dividends  $D_0$ , and estimated dividend growth rates for each of the utilities in his proxy group. He calculated the dividend yield, for his proxy group, using the 6-month period September 2010 through February 2011 and for the month of February 2011. Woolridge PFT, pp. 25 and 26. The median dividend yields are shown in the following table.

<b>Proxy Group</b>	<b>February 2011 Dividend Yield</b>	<b>6-Month Average Dividend Yield</b>	<b>DCF Dividend Yield</b>
Gas Proxy Group	4.0%	4.0%	4.0%

Woolridge PFT, p. 26.

This 4.0% dividend yield was then adjusted since under the traditional DCF model the dividend yield term relates to the dividend yield over the coming period. This is calculated by multiplying the expected dividend over the coming quarter by four and dividing this dividend by the current stock price to determine the appropriate dividend yield for a company that pays dividends on a quarterly basis. Dr. Woolridge reported that some analysts adjust the current dividend over the coming year as opposed to the coming quarter. The complication in this is that companies announce changes in dividends at different times during the year. Considering these differences in methodology, the dividend yield, computed based on presumed growth over the coming quarter as opposed to the coming year, can be quite different. As a result, it is common for analysts to adjust the dividend yield by some fraction of the long-term expected growth rate. In his analysis, Dr. Woolridge adjusted the dividend yield by one-half of the expected growth rate to reflect growth over the coming year. Woolridge PFT, pp. 26 and 27.

For the growth rate used in the DCF, Dr. Woolridge stated that “[t]here is much debate as to the proper methodology to employ in estimating the growth component of the DCF model.” Woolridge PFT, p. 27. Investors use a combination of historical and/or projected growth rates EPS, DPS, and for internal or book value growth to assess the long-term prospective of a company. Woolridge PFT, pp. 27 and 28.

Dr. Woolridge analyzed an array of measures of growth for each of the gas utilities in his proxy group. He reviewed Value Line’s historical and projected growth rate estimates for EPS, DPS, and BVPS. Further, he considered the average EPS growth rate forecasts of Wall Street analysts as published by Yahoo, Reuters, and Zacks, which are services that solicit five-year earnings growth rate projections from securities analysts. These services compile and publish the means and medians of these forecasts. In addition, Dr. Woolridge evaluated prospective growth as measured by prospective earnings retention growth rates and earned returns on common equity. Woolridge PFT, p. 28.

Dr. Woolridge stated that historical growth rates for EPS, DPS, and BVPS are easily obtainable by investors and seemingly a significant component in determining expectations in relation to future growth for a company. However, he warned that the use of historical growth numbers as measures of investors’ expectations must be used with caution. There are some cases where past growth may not reflect probable future growth potential. In addition, using a single growth rate number such as five or ten years is unlikely to accurately measure investors’ expectations. This is due to the sensitivity of a single growth rate figure to fluctuations in individual company performance as well as overall economic fluctuations such as business cycles. However, Dr. Woolridge cautioned that it is necessary to evaluate the background in which the growth rate is being employed. Woolridge PFT, pp. 28 and 29.

By the definition of the conventional DCF formula, the expected growth rate must be appraised in the context in which the growth rate is being used. The conventional DCF model calls for the expected return on a security to be equal to the sum of the dividend yield and the expected long-term growth in dividends. For that reason, the optimal estimate of the cost of common equity using the conventional DCF model requires the analysis to evaluate long-term growth rate expectations. Woolridge PFT, p. 29.

Dr. Woolridge stated that one such long-term growth rate expectation is internally generated growth as a function of the percentage of earnings retained within the firm known as the earnings retention rate and the rate of return earned on those earnings known as the ROE. Internal growth is calculated as the retention rate times the ROE, which is significant in determining long-term earnings and therefore dividends. Investors recognize the importance of internally generated growth and, therefore, pay premiums for stocks of companies that retain earnings and earn high returns on internal investments. Woolridge PFT, p. 29.

Dr. Woolridge did not rely exclusively on the EPS forecasts of Wall Street analysts to develop the growth rate in his DCF analysis for his gas proxy group for several reasons. The appropriate growth rate in the DCF model is the dividend growth rate not the earnings growth rate. However, he stated that dividend and earnings would grow at a similar growth rate over the very long-term. Therefore, he concluded that other indicators of growth including prospective dividend growth, internal growth, and projected earnings growth should also be considered. In addition, and very significant, is Dr. Woolridge's contention that long-term EPS growth rate forecasts of Wall Street securities analysts are overly optimistic and upwardly biased. He drew this conclusion based on a number of academic studies over the years. Stock prices reflect this upward bias of Wall Street securities analysts since investors are aware of the bias in analysts' EPS growth rate forecasts. Woolridge PFT, pp. 32 and 33.

Dr. Woolridge collected historical growth data for his proxy group from Value Line earnings, dividends, and book value for the past ten years and the past five years. Due to the presence of outliers in the historic growth figures, he used both the mean and median in his analysis. These outliers are data points that are much larger or smaller than the majority of the data points that are being analyzed. The historic growth measures in EPS, DPS, and BVPS, for his gas proxy group, as measured by the means and medians, range from 2.0% to 7.8% with an average of 4.8%. Woolridge PFT, p. 33, Exhibit JRW-10, p. 3.

For projected growth rates Dr. Woolridge used Value Line's projections of EPS, DPS, and BVPS for each of the utilities in his proxy group. Due to the presence of outliers, he used both the means and medians in his analysis, which show a central tendency measures that range from 3.3% to 4.0% with an average of 3.8%. Another measure of growth employed by Dr. Woolridge is prospective internal growth for the proxy group as measured by Value Line's average projected retention rate and return on stockholders' equity. This is an important measure since internal growth is a primary driver of long-run earnings growth. The average projected internal growth rate for his proxy group is 4.6%. Woolridge PFT, p. 34, Exhibit JRW-10, p. 4.

Lastly, Dr. Woolridge assessed his gas proxy group growth rate, as measured by analysts' forecasts of projected five-year EPS growth. The primary services that collect, summarize, and publish Wall Street analysts' five-year EPS growth rate forecasts for his proxy group is Yahoo!/First Call, Zacks, and Reuters. The median of analysts' projected EPS growth rates for his proxy group is 4.4%. There is considerable overlap in analyst coverage between the three services, and not all of the companies have forecasts from the different services. Consequently, he averaged the expected five-year EPS growth rates from the three services for each utility to arrive at an expected EPS growth rate by utility, which calculated to 4.5%. Woolridge PFT, p. 34, and Exhibit JRW-10, p. 5.

Dr. Woolridge analyzed these various growth rates for his gas proxy group. The average of the growth rate indicators for his proxy group is 4.40%. The average of the projected and prospective internal growth rate indicators is 4.30%. He gave greater weight to the projected and prospective internal growth rate indicators. He found that an expected, DCF growth rate in the 4.40% range is reasonable for the gas proxy group. Woolridge PFT, p. 35, Exhibit JRW-10, p. 6. A summary of Dr. Woolridge's growth rates is as follows:

<b>Growth Rate Indicator</b>	<b>Gas Proxy Group</b>
Historic Value Line Growth in EPS, DPS, and BVPS	4.8%
Projected Value Line Growth in EPS, DPS, and BVPS	3.8%
Sustainable Growth Rate (ROE x Retention Rate)	4.6%
Projected EPS Growth from First Call, Zacks, and Reuters	4.4%
Average of Historic and Projected Growth Rates	4.4%
Average of Sustainable and Projected Growth Rates	4.3%

Woolridge PFT, Exhibit JRW-10, p. 6.

In summary, Dr. Woolridge combines these various elements of the dividend yield, adjustment to the dividend yield and growth rate to calculate a DCF allowed return on common equity of 8.5%. This is shown in the following summary:

Dividend Yield	4.00%
Adjustment Factor	1.022
Adjusted Dividend Yield	4.10%
Growth Rate	4.40%
DCF Equity Cost Rate	8.50%

Exhibit JRW-10, p. 1.

#### iv. **CAPM**

As a second method to calculating an allowed ROE, Dr. Woolridge used the CAPM, which is a risk premium approach to estimating a company's cost of equity capital. According to the CAPM, the expected return on a company's stock, which is also the equity cost rate (K), is equal to:

$$K = (R_f) + B \times [E(R_m) - (R_f)]$$

Where:

1.  $K$  represents the estimated rate of return on the stock.
2.  $E(R_m)$  represents the expected return on the overall stock market. Frequently, the market refers to the S&P 500.
3.  $(R_f)$  represents the risk free rate of interest.
4.  $[E(R_m) - (R_f)]$  represents the expected equity or market risk premium which is the excess return that an investor expects to receive above the risk free rate for investing in risky stocks.
5.  $(B)$  Beta is a measure of the systematic risk of an asset.

Woolridge PFT, p. 37.

The calculation of the required return or cost of equity using the CAPM requires three inputs: the risk-free rate of interest ( $R_f$ ), the beta ( $B$ ), and the expected equity or market risk premium  $[E(R_m) - (R_f)]$ . The risk free interest rate in the CAPM has long been the yield on long-term U.S. Treasury bonds. The long-term yield on Treasury bonds has long been thought of as the yield on U.S. Treasury bonds with 30-year maturities. However, when the Treasury interrupted the issuance of 30-year bonds for a period of time in recent years, the yield on 10-year U.S. Treasury bonds replaced the yield on 30-year U.S. Treasury bonds as the benchmark long-term Treasury rate. In mid-2007, 10-year Treasury yields began to decline due to the beginning of the current financial crisis. They have fallen below 3.0% as the housing and sub-prime mortgage crisis have led to an overall credit crisis and economic recession. These 10-year rates bottomed out in December 2008 and as prospects for an economic recovery have increased, these rates have gradually increased. For the last several months, the yield on 30-year Treasury bonds has been between 4.00% to 4.75%. On February 10, 2011, the rate on 30-year Treasury bonds was 4.78%. Dr. Woolridge reasoned that given the current and recent range of yields, he used 4.75% as the risk free rate or  $R_f$  in his CAPM analysis. Woolridge PFT, pp. 37 and 38, Exhibit JRW-11, p. 2.

For the measure of beta ( $B$ ), Dr. Woolridge used the betas for each of the utilities in his gas proxy group as published by Value Line. Beta is a measure of the systematic risk of a stock. The calculation of beta is performed through a linear regression of a stock's return on the market return. The market is generally defined as the S&P 500, which has a beta of 1.0. A stock exhibiting price movement greater than that of the market is considered riskier than the market and has a beta greater than 1.0. A stock with price movement less than the market is considered less risky than the market and has a beta less than 1.0. Dr. Woolridge stated that there are numerous online investment services such as Yahoo and Reuters that supply stock betas, which often times report different betas for the same stock. The reason for these differences are the time period over which the beta is measured and any adjustments that are done to reflect that betas tend to regress to 1.0 over time. The betas for his gas proxy group taken from Value Line are at an average of .65. Woolridge PFT, pp. 38 and 39, Exhibit JRW-11, p. 3.

The equity or market risk premium was calculated by Dr. Woolridge using the formula  $[E(R_m) - (R_f)]$ , which is equal to the expected return on the stock market using

the proxy of the S&P 500 [ $E(R_m)$ ] minus the risk free rate of interest ( $R_f$ ). The equity premium is the difference in the expected total return between investing in equities and investing in “no risk” or “safe” fixed income assets such as long-term government bonds. He asserted that the equity risk premium is easily defined conceptually but the difficult task is to measure it since this requires an estimate of the expected return on the market. Woolridge PFT, pp. 39 and 40.

Dr. Woolridge measured the equity risk premium using the following methodologies.

1. Historic Ex Post Returns – This traditional methodology to measure the equity risk premium uses the difference between historical average stock and bond returns. These historical stock and bond returns also known as ex post returns were used as measures of the market’s expected return which is also known as the ex ante or forward-looking expected return. Dr. Woolridge used the Ibbotson Study, using both an arithmetic and geometric average, to obtain a 5.20% equity risk premium.
2. Ex Ante Models – This methodology is forward looking and computes ex ante expected returns using market data such as expected earnings and dividends to arrive at an expected equity risk premium. Dr. Woolridge used the Damodoran model to obtain a 4.48% equity risk premium.
3. Surveys – This methodology uses estimates equity risk premium through the use of surveys of investors and financial professionals. Dr. Woolridge used several surveys to calculate a median of 5.00% equity risk premium.
4. Building Block – This ex ante methodology combines variables which include inflation, real EPS and DPS growth, ROE and book value growth, and price earnings ratios. Dr. Woolridge combined a historic supply model building block done by Ibbotson and Chan and also developed his own current supply model building block and calculated a median 3.35% equity risk premium. Woolridge PFT, Appendix B.

Woolridge PFT, pp. 40-46, Exhibit JRW-11, pp. 4-6.

He combined these various methodologies to produce an equity risk premium of 4.87%. Combining this with his other CAPM inputs in the formula  $K = (R_f) + B \times [E(R_m) - (R_f)]$  or  $K = 4.75(R_f) + .65 (B) \times 4.87\% [E(R_m) - (R_f)]$  produces a 7.90% cost of equity. Woolridge PFT, p. 46 and Exhibit JRW-11, p. 1.

#### **v. Flotation Costs**

Dr. Woolridge stated that an adjustment for selling and issuance costs, also known as flotation costs, is not necessary for Yankee. These flotation costs are incurred when a company sells securities to investors. Any out-of-pocket issuance costs that were incurred by NU through a stock offering should be allocated to NU subsidiaries as a cost of service. Woolridge PFT, p. 85.

Dr. Woolridge provided the basis for not including flotation costs in Yankee's case. His reasoning is that if an equity flotation cost adjustment is similar to a debt flotation cost adjustment then, since the market-to-book ratios for gas distribution companies are in excess of 1.50, this suggests that there should be a flotation cost reduction and not an increase to the equity cost rate. The reason behind this is that when a bond is issued at a price in excess of face or book value and the difference between market price and the book value is greater than the flotation or issuance costs, the cost of that debt is lower than the coupon rate of that debt. He observed that the amount by which market values of gas distribution companies are in excess of book values is much greater than flotation costs. Therefore, Dr. Woolridge reasoned that if common stock flotation costs were exactly like bond flotation costs and if an explicit flotation cost adjustment was made to the cost of common equity, the adjustment would be downward. Woolridge PFT, p. 85.

Further, Dr. Woolridge stated that it is commonly argued that a flotation cost adjustment should be performed to prevent dilution of existing stockholders' investment. He argued that this reduction in a stockholders' investment can only occur when a company's stock is selling at a market price at or below its book value. In this instance, gas companies are selling at 1.50 market-to book ratio, which is well in excess of book value. Due to this, when new shares are sold, existing shareholders realize an increase in the book value per share of their investment and not a decrease. Woolridge PFT, pp. 85 and 86.

Dr. Woolridge stated flotation costs are made up primarily of the underwriting spread or fee and not out-of-pocket expenses. On a per share basis, this underwriting spread is equal to the difference between the price the investment banker receives from investors and the price the investment banker pays to the company. He argued that because of this, underwriting expenses should not be recovered through the regulatory process. In addition, the underwriting spread is known to investors who are purchasing the new issue of stock and are aware of the difference of the price they are paying to purchase the stock and the price the Company is receiving. When investors decide to buy a stock, it is the offering price that they pay that is important to them because their decision making is based on expected return and risk prospects. A company should not be entitled to an adjustment to the allowed return to account for these costs. Woolridge PFT, p. 86.

**d. Department Analysis of Cost of Equity**

**i. Overview**

The analyses undertaken by Mr. Eckenroth and Dr. Woolridge to determine the investor required ROE contained differences within the accepted methodologies. The principal issues between the studies performed by the two cost of capital witnesses concerned the yield calculation and growth rate used in the DCF model and the risk premium assigned to Yankee's common equity. Specifically, Mr. Eckenroth employed the ECAPM while Dr. Woolridge used the traditional CAPM. The Department carefully reviewed and considered the testimony of the two consultants, noting the compelling testimony of each, and performed its own cost of capital calculations using data in the record from the instant proceeding.

## ii. Selection of a Proxy Group

The Department considered both proxy groups developed by Mr. Eckenroth and Dr. Woolridge. The Department finds the criteria that should be analyzed to determine risk comparability included the following items.

1. Predominantly in the same utility industry as the subject utility.
2. Publicly traded and reported by Value Line and augmented with AUS Utility Industry Reports.
3. Consistently paid dividends for eight quarters and expected to continue.
4. Not involved in any acquisition or merger activity.
5. Not in financial distress.
6. Credit ratings should be at least investment grade as determined by Standard & Poors (BBB- and above) and/or Moodys (Baa3 and above).
7. Not projected to have negative earnings growth.

Data proving comparability for the Department's proxy group companies is shown by the following:

Gas Utility	Operating Revenue(\$mil)	Percent Gas Revenue	Net Plant (\$ mil)	S&P Bond Rating	Moody's Bond Rating	Common Equity Ratio
AGL Resources Inc.	2,346.0	66	4,293.0	A-	A3	41.8%
Atmos Energy Corporation	4,789.7	65	4,793.1	BBB+	Baa2	48.7%
Laclede Group, Inc.	1735.0	50	884.1	A	A2	50.8%
Northwest Natural Gas Company	369.0	100	1,817.7	A+	A1	45.9%
Piedmont Nat. Gas Co. Inc.	1,552.3	100	2,437.7	A	A3	49.8%
South Jersey Industries Inc.	863.3	51	1,132.4	A	A2	46.9%
Southwest Gas Corporation	1,861.1	84	3,050.2	BBB	Baa2	51.0%
WGL Holdings, Inc.	2,708.9	49	2,346.2	AA-	A2	65.0%
Mean	2,028.2	71	2594.3	A	A3	50.4%
Yankee Gas Services, Inc.	434.1	100%	846.5	BBB	Baa2	45.4%

Woolridge PFT, Exhibit JRW-4, p. 1 and Response to Interrogatory GA-477.

The Department determines that the proxy group offered by Dr. Woolridge is comparable to Yankee since all proxy group members are listed by AUS Consulting as gas distribution companies. This is the same industry as Yankee. All of these gas companies are publicly traded and reported by Value Line and AUS Utility Industry Reports. These gas companies have consistently paid dividends for eight quarters and expected to continue. The Department's adopted proxy group of gas companies is not involved in any acquisition or merger activity. Credit ratings are at least investment grade as determined by Standard & Poors (BBB- and above) and/or Moodys (Baa3 and above). Lastly these gas companies are not in financial distress. The Department recognizes that in forming a proxy group it is more important that as a whole it be a

suitable proxy for Yankee than for each of the individual companies, in the group, be a perfect proxy. The results of the proxy group stems from an average of that group and are not distorted if less suitable members of the group cancel each other out. The Department decided to use Dr. Woolridge's eight-member proxy group consisting of the utilities AGL Resource, Atmos Energy, Laclede Group, Northwest Natural Gas Company, Piedmont Natural Gas Company, South Jersey Industries, Southwest Gas, and WGL Holdings. Mr. Eckenroth's combined utility proxy group also included two utilities from Dr. Woolridge's group, which are Piedmont Natural Gas and Southwest Gas.

Yankee objected to the Department's use of the OCC's proxy group. Written Exceptions, pp. 9-13. The choice of a proxy group is the first step in calculating an allowed ROE. Financial theory states that the riskier the proxy group as compared to the subject company, such as Yankee, then the higher the calculated ROE. The Department considered Mr. Eckenroth's proxy group, which is predominately made up of combined electric and gas companies. The Department finds Mr. Eckenroth's proxy group is riskier than Yankee's which is a stand alone LDC. The Department based this on Dr. Woolridge's assessment of proxy group risk using standard financial measures. Dr. Woolridge assessed the riskiness of his gas proxy group compared to Mr. Eckenroth's using the risk measures published by Value Line of beta, safety, financial strength, stock price stability, and earnings predictability. His analysis shows that all of these five measures indicate that his proxy group is less risky than Mr. Eckenroth's proxy group. In particular, Dr. Woolridge's proxy group has a lower beta (0.66 vs. 0.74), higher safety (1.88 vs. 2.50), better financial strength (B++ vs. B+), better stock price stability (89 vs. 70), and higher earnings predictability (100 vs. 95) imply his proxy group is less risky than Mr. Eckenroth's. Woolridge PFT, pp. 51 and 52; Exhibit JRW-12, p. 2. The Department concluded that due to this variance in risk Dr. Woolridge's proxy group is a closer match to Yankee Gas than is Mr. Eckenroth's.

### iii. DCF Model

The Department performed its own DCF calculation using the traditional DCF methodology. To develop the next period's dividend yield of  $D_1/P_0$ , the Department used the stock price for the latest 30-day period on the adopted proxy group from Dr. Woolridge. In a DCF calculation, the Department finds a 30-day average to be preferable since it is a long enough period to smooth out any aberrations but short enough to bring current information into the calculation. The Department finds a spot yield should not be used since it is given to aberrations in that one day, which may not truly reflect investor stock price expectations. The Department stated this fact in the Decision dated October 13, 1995 in Docket No. 95-02-07 "[a] three month and a spot yield are too short a duration to be as useful as a six month average." Decision, p. 75. The next period's dividend yield was developed by using Value Line's forecasted dividend for the next 12-months. The calculation involved dividing the Value Line forecasted dividend by the 30-day stock price average, which is shown in the following table.

<b>Gas Utility</b>	<b>2011 Dividend</b>	<b>30-Day Stock Price</b>	<b>Dividend Yield</b>
AGL Resources Inc.	\$1.80	\$37.80	4.8%
Atmos Energy Corporation	\$1.36	\$33.52	4.1%
Laclede Group, Inc.	\$1.61	\$38.31	4.2%
Northwest Natural Gas Co.	\$1.72	\$45.94	3.7%
Piedmont Nat. Gas Co. Inc.	\$1.15	\$28.95	4.0%
South Jersey Industries Inc.	\$1.48	\$53.77	2.8%
Southwest Gas Corporation	\$1.05	\$38.22	2.7%
WGL Holdings, Inc.	\$1.53	\$37.57	4.1%
Mean			3.8%

## Response to Interrogatory GA-462.

The growth rate is the second component in the DCF calculation. In choosing the growth rate for the DCF model, the Department considered the record evidence in the instant proceeding. Growth in the DCF can be calculated using historical earnings per share, dividends per share, or book value per share. Projections of EPS, DPS, and BVPS, from a number of sources are frequently used and/or a combination of historical and projections. This record is replete with evidence on historical and projected growth rates. Based on record evidence, the Department finds that analysts whose job is to produce projected growth numbers base their projections, in part, on historical numbers. See, Eckenroth PFT, Appendix GJE-3, pp. 11 and 12.

The Department used a combination of projected financials for each member of the proxy group. The Department also included the long-run sustainable growth rate or equivalently the retention growth rate as an estimate of the long-term growth rate in the DCF model. The sustainable growth rate/retention growth rate is a common method used to estimate company growth. The concept is simple: a company's growth is equal to the earnings it retains or the difference between what the company earns and what it pays out to shareholders in the form of dividends. The financial literature is replete with the concept of retention growth, and it is typically depicted in financial texts as an example in how to obtain an estimate for growth for the DCF model. Value Line provides projections for the inputs needed for the sustainable growth equation at the far right hand portion of the company sheet. The sustainable growth rate is calculated using the formula  $(b \times r) + (s \times v)$  where  $b$  is the expected retention ratio,  $r$  is the expected return on equity,  $s$  is the percent of new equity expected, and  $v$  is the book-to-market ratio. The 'sv' portion relates to future sales of stock above book value prices, which adds to external growth. Value Line has already effectively accounted for that external growth by including projected BVPS. The biggest factor, driving sustainable growth is the  $b \times r$  figure, not the 'sv'. Value Line's projections take into account external growth. Likewise, the 'sv' portion is only applicable when a company is in the process of issuing stock. The following table depicts Value Line projections.

Gas Utility	Value Line	Projected	Growth	Value Line		
	Est'd 07-09 to 13-15. EPS	Est'd 07-09 to 13-15. DPS	Est'd 07-09 to 13-15 BVPS	Internal ROE	Growth Retention Rate	Rate Internal Growth
AGL Resources Inc.	4.5%	2.5%	5.5%	12.5%	50.0%	6.3%
Atmos Energy Corporation	5.5%	2.0%	4.5%	9.5%	47.0%	4.5%
Laclede Group, Inc.	2.5%	2.5%	4.0%	11.0%	43.0%	4.7%
Northwest Natural Gas Company	3.0%	4.0%	43.0%	11.0%	40.0%	4.4%
Piedmont Nat. Gas Co. Inc.	3.5%	3.5%	2.5%	13.0%	33.0%	4.3%
South Jersey Industries Inc.	7.0%	8.5%	4.5%	15.5%	47.0%	7.3%
Southwest Gas Corporation	8.0%	5.0%	4.0%	9.5%	57.0%	5.4%
WGL Holdings, Inc.	1.5%	3.0%	4.0%	10.0%	35.0%	3.5%
Mean	4.4%	3.9%	4.1%	11.5%	44.0%	5.0%

Woolridge PFT, Exhibit JRW-10, p. 4.

The following table displays analysts EPS growth rate estimates from three different services as of February 2011.

Gas Utility	Yahoo First Call	Zack's	Reuters	Average
AGL Resources Inc.	5.2%	4.0%	5.1%	4.8%
Atmos Energy Corporation	3.6%	4.5%	4.0%	4.0%
Laclede Group, Inc.	3.5%	3.0%	5.0%	3.8%
Northwest Natural Gas Company	3.6%	4.4%	3.6%	3.9%
Piedmont Nat. Gas Co. Inc.	3.5%	4.5%	3.0%	3.7%
South Jersey Industries Inc.	6.5%	6.5%	6.3%	6.4%
Southwest Gas Corporation	6.0%	6.0%	2.7%	4.9%
WGL Holdings, Inc.	5.3%	5.3%	3.7%	4.7%
Mean	4.6%	4.8%	4.2%	4.5%

Woolridge PFT, Exhibit JRW-10, p. 5.

There are many sources of different growth rates to be considered. The Department finds that EPS is the primary growth rate that should be considered given that stocks trade on earnings. In addition, without earnings there can be no DPS or BVPS since these flow out of EPS. Consequently, the Department finds that EPS should be more heavily weighted in the determination of the overall growth rate than DPS and BVPS. Therefore, the Department calculated the DCF growth weighted more heavily towards EPS in developing a composite growth rate. The composite growth rate

was developed as a weighted average consisting of the following: 50% of an average of all of the EPS growth rates and 50% of the average of the DPS, BVPS and Retention/Sustainable growth.

The Department used the following calculation for the weighted average growth rate:

1. 50% x average [(Value Line 4.4% EPS) + (Yahoo, Zacks, and Reuters 4.5% EPS)] = 4.45% x .50 = 2.23%
2. 50% x average (Value Line 3.9% DPS + 4.1% BVPS + 5.0% retention growth rate) = 4.33% x .50 = 2.17%

The weighted average growth rate, used in the DCF, is 4.40%. Combining the next periods dividend yield of  $D_1/P_0$  of 3.80% and the growth rate of  $g = 4.40\%$  yields a DCF return on equity of 8.20%. The Department finds a DCF developed equity cost rate of 8.20% to be fair and reasonable for Yankee.

#### iv. CAPM

The CAPM is based on the theory that the relevant risk of any asset is its relative contribution to the total variability of the market portfolio held by all investors. That is to say, investors are able to invest in a variety of portfolios of different risks and made up of various combinations of assets including a risk free asset. This risk free asset has no chance of default and so no default risk and has a guaranteed real rate of return. Under these parameters, a rational investor would only invest in market portfolios yielding a return comparable to a similar risky combination of a perfectly diversified market portfolio and the risk free asset. In this situation, an investor would only need to be compensated for a company's non-diversifiable risk since any other risk could be eliminated in a properly balanced portfolio. The formula for the CAPM is as follows:

$$K = R_f + B (R_m - R_f)$$

where:      K = required return on equity  
                $R_f$  = return required on the risk free asset  
                $R_m$  = return on the perfectly diversified portfolio  
               B = common equity beta risk measure or the non-diversifiable risk relative to the perfectly diversified portfolio

The Department applied the CAPM to its proxy group using the standard formula of  $K = R_f + B (R_m - R_f)$ . The Department used the most up to date risk free rate using a 30-year Treasury Bond showing a coupon rate of 4.75% as for the  $R_f$  value as was used by Dr. Woolridge. The Department concludes that the CAPM calls for a long-term risk free rate, which would be the 30-year Treasury. The beta (B) variable from Value Line was used for each of the utilities in the proxy group taken from Value Line, which shows a simple average of .66. This is shown in the following table.

<b>Gas Utility</b>	<b>Beta</b>
AGL Resources Inc.	0.75%
Atmos Energy Corporation	0.65%
Laclede Group, Inc.	0.60%
Northwest Natural Gas Company	0.60%
Piedmont Nat. Gas Co. Inc.	0.65%
South Jersey Industries Inc.	0.65%
Southwest Gas Corporation	0.75%
WGL Holdings, Inc.	0.65%
Mean	0.66%

Woolridge PFT, Exhibit JRW-11, p. 3.

The risk premium was calculated using the  $R_f$  variable of the return required on a risk free asset and the  $R_m$  variable that is the return on a perfectly diversified portfolio, which is the  $(R_m - R_f)$  variable in the CAPM formula. The Department considered both Mr. Eckenroth and Dr. Woolridge's approaches to calculating an equity risk premium. The Department finds that Dr. Woolridge's methodology better captures a forward looking investor perceived equity risk premium in the market place.

The survey method estimates equity risk premium through the use of surveys of investors, economists, academicians, and financial professionals. The Department looked to Dr. Woolridge's compilation of surveys which are as follows:

<b>Study</b>	<b>Publication Date</b>	<b>Time Period of Study</b>	<b>Methodology</b>	<b>Equity Risk Premium</b>
Survey of Financial Forecasters	2011	10 year projection	About 50 financial forecasters.	2.87%
Duke – CFO Magazine Survey	2010	10 year projection	Approximately 500 CFOs.	3.40%
Fernandez – Academics	2010	Long-Term	Survey of academics.	6.00%
Fernandez –Analysts	2010	Long-Term	Survey of analysts.	5.00%
Fernandez –Companies	2010	Long-Term	Survey of companies.	5.00%
Median				5.00%

The Department finds that an ERP of 5.00% based on survey evidence found in the record is one methodology that adequately captures investor's expectations of the ERP in the future. The Department used the median of the surveys since the median is a positional average and as such not affected by extreme values. The Department also employed historical market returns as a proxy for investor expected market returns in the future. The Ibbotson Study from 1926 to 2009 with a publication date of 2011 showed a historical risk premium of 6.00% using an arithmetic average.

There is debate on the use of arithmetic versus geometric averages to calculate historical market returns. An arithmetic average or mean is the sum of each value in a

series divided by the total number of values. A geometric average or mean is the  $n$ th root of the product arrived at by multiplying the values of a series by each other where  $n$  is the number of observations. The Department used an arithmetic average since it is recommended by the 2010 Morningstar Ibbotson Yearbook, which stated:

The equity risk premium data presented in this book are arithmetic average risk premium as opposed to geometric average risk premium. The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. For use as a expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic mean of stock return and riskless rates is the relevant number. This is because both the CAPM and the building block approach are additive model, in which the cost of capital is the sum of its parts. 2010 Morningstar Yearbook, p. 56.

Eckenroth PFT, Attachment GJE-4, p. 7.

The Department finds that since investors using the 2010 Morningstar Ibbotson Yearbook for historical risk premiums would by virtue of the book's instruction be inclined to use the arithmetic average. Then, it is logical for the Department to use the arithmetic average when using historical risk premiums as published in the Morningstar Yearbook. This particular use of the arithmetic versus the geometric average should not be construed as the Department favoring either methodology. Rather the Department recognizes the instructions by the Morningstar Yearbook, which has to affect on investor perceptions and as such investors would, by in large, use the arithmetic average.

In addition, the Department considered Mr. Eckenroth's argument for the use of the DCF expected S&P 500 market return due to the greater current and prospective risk for investors. The OCC argued not to use Mr. Eckenroth's DCF expected S&P 500 market return. Written Exceptions, pp. 15 and 16. The Department used the DCF return on the S&P 500 and based this decision on the Chicago Board of Options Exchange Volatility Index, or VIX index, being an indicator of the volatility in the market. A high VIX index value indicates substantial uncertainty among investors. Although volatility has decreased from the height of the financial crisis, it remains higher than it was prior to the crisis. The relatively high level of the VIX index demonstrates that financial markets remain more volatile than in the past. Since the financial markets remain more volatile than in the past the Department finds a forward looking market required return should be used in order to estimate future investor expectations. Eckenroth PFT, p. 5. Mr. Eckenroth used a DCF model to directly estimate the prospective market required return (MRR) as applied to the S&P 500 market index. Employing the Institutional Brokers Estimate System (IBES) consensus earnings growth rates and current market weightings for each company Mr. Eckenroth calculated a long-term growth rate of 11.9% for the earnings of the S&P 500. Eckenroth PFT, Attachment GJE-4 p. 4 and 5; Appendix CAPM – 2.2. The current annual dividend on the S&P 500 is 1.96%. Since the DCF model is based on future expected cash flows this 1.96% current dividend yield should be adjusted because an investor expects it to grow over the next year. Mr. Eckenroth calculated the dividend for the next year as being equal to

the current dividend, times one plus the growth rate. Eckenroth PFT Attachment GJE-4, pp.5 and 6. This calculation is shown in the following table:

**DCF of the Expected S&P 500 Market Return**

Dividend Yield	1.96%
Long-term Growth Rate	11.88%
Adjusted Dividend Yield	2.19%
Expected Long-Term Market Return	14.07%

Eckenroth PFT Attachment GJE-4, p. 6.

Mr. Eckenroth to evaluate the reasonableness of this 14.07% prospective MRR compared this to the 2010 Morningstar/Ibbotson Valuation Yearbook that reports the actual annual realized returns on large company stocks since 1926. This data shows that the actual annual total return exceeded the 14.07% forward looking estimate in more than half of the 84 years. Eckenroth PFT Attachment GJE-4, p. 6. This the Department finds gives creditability to the 14.07% expected long-term market return. The Department took this 14.07% and subtracted the risk free rate of the 30-year Treasury of 4.75% to derive a 9.32% ERP which is equivalent to the  $(R_m - R_f)$  variable.

For the ERP variable, in the CAPM calculation of  $(R_m - R_f)$ , the Department used a simple average of the Ibbotson historical risk premiums of 6.0%, the survey approach of 5.00%, and the DCF of the expected S&P 500 market return of 9.32% for a 6.77% ERP or  $(R_m - R_f)$ . Combining this with the other elements of the CAPM produces the equation  $4.75\% + (.66 \times 6.77\%) = 9.22\%$  where  $R_f = 4.75\%$ ,  $\beta = .66$ , and  $(R_m - R_f) = 6.77\%$ . The Department finds a CAPM developed equity cost rate of 9.22% to be fair and reasonable for Yankee.

**v. Flotation Costs**

When a company issues common stock, certain costs are incurred that are the underwriting spread and other issuance costs incurred by the issuer such as for legal, accounting, and printing fees. There are two methodologies for these expenses to be recovered by the issuer. One of which is to expense them or use as a perpetual adder to the ROE.

There was debate among the OCC and Yankee as to whether flotation costs should be a part of the cost of equity. The OCC argued that NU's equity issuance costs should not be recovered by an adjustment to Yankee's equity cost rate. However any out of pocket issuance costs that were incurred should be allocated to NU subsidiaries as a cost of service. Dr. Woolridge noted that an adjustment for selling and issuance costs, also known as flotation costs, is not necessary for Yankee. These flotation costs are incurred when a company sells securities to investors. It is argued that if a company issues securities, a flotation cost adjustment is necessary to prevent dilution of the existing shareholders. This treatment is often justified by reference to bonds where issuance costs are recovered by including the amortization of bond flotation costs in annual financing costs. Woolridge PFT, p. 85.

The rationale for Dr. Woolridge not including flotation costs in Yankee's case is his reasoning that an equity flotation cost adjustment is similar to a debt flotation cost adjustment. Since the market-to-book ratios for gas distribution companies are in excess of 1.50, this suggests that there should be a flotation cost reduction and not increase to the equity cost rate. Woolridge PFT, p. 85.

Further, Dr. Woolridge stated that it is commonly argued that a flotation cost adjustment should be performed to prevent dilution of existing stockholders' investment. He argued that this reduction in a stockholders' investment can only occur when a company's stock is selling at a market price at or below its book value. In this instance, gas companies are selling at 1.50 market-to book ratio, which is well in excess of book value. Due to this, when new shares are sold, existing shareholders realize an increase in the book value per share of their investment and not a decrease. Woolridge PFT, pp. 85 and 86.

As an example of flotation costs, in its March 2009 common stock issuance NU incurred over \$12 million of issuance costs. The price paid by investors was \$20.20 per share but NU received only \$19.54 per share. The \$.6622 per share difference or 3.28% was the cost to offer the new common shares. For NU to earn the ROE required by investors based on NU's \$20.20 share price, NU must earn a higher return on the \$19.54 per share it actually received. Eckenroth PFT, p. 37.

Yankee argued that even though it is a subsidiary whose equity is obtained from its parent, it does not eliminate the cost to issue equity but rather centralizes issuance costs at the parent level, which is NU. Therefore, appropriate cost recovery requires that NU's equity issuance costs should be apportioned to its operating subsidiaries, just as other costs incurred by the parent (or centralized service company), are allocated. In addition, if Yankee were a standalone company, it would have incurred its own flotation costs. Without NU's economies of scale, Yankee's costs as a standalone company would have been substantially higher than its share of NU's cost. Eckenroth PFT, p. 38.

The Department recognizes that flotation costs are real. Therefore, it must be recognized for a utility that issues common stock or from a parent that issues common stock and then infuses those dollars as a capital contribution to a utility subsidiary. The Department allows issuance costs for debt offerings of utilities and expenses these costs over the life of the bond. The Department reasons that the costs of a common stock issuance should be included for as long as the stock is outstanding, which is permanently. Therefore, flotation costs should be recognized through a perpetual adder to the ROE.

The OCC was against the granting of flotation costs stating that for the most part the Department has rejected flotation cost adjustments in the past. Written Exceptions, p. 16. The AG also objected to the flotation cost adjustment stating that the Department has rejected flotation cost adjustments in the past and in particular in CL&P's last rate case citing the Decision dated June 30, 2010 in Docket No. 09-12-05, Application of The Connecticut Light and Power Company to Amend Its Rate Schedules. The Department is aware of the treatment of flotation costs in past Decisions. The Department takes note that in the Decision dated June 30, 2010 in Docket No. 09-12-05, it stated that "[i]n reviewing the evidence related to the practice of flotation

costs, the Department concludes that practice is reviewed on a case by case basis. While the Department has awarded CL&P flotation costs in the past, it is uncertain in this proceeding how much, if any, new equity would be issued before the rate plan period ending June 30, 2012." Decision, p. 112.

The Department does review flotation costs on a case by case basis and finds that in the instant proceeding a flotation cost adjustment should be given. This is because NU reported that since the 2007 rate case, it has invested \$46.5 million of equity in Yankee, which the Company has used to maintain or improve its gas infrastructure in Connecticut. Mr. Eckenroth asserted that these equity investments have considerably strengthened Yankee's balance sheet and its rating agency metrics, which enables Yankee to continue to have access to reasonably priced, long- and short-term capital. In addition, NU is forecasted to make approximately \$72 million of capital contributions into Yankee in the 2011-2013 periods. Eckenroth PFT, p. 17. The Department finds that since NU has invested funds into Yankee and that these funds are a benefit to Yankee ratepayers, then Yankee's ratepayers should pay for the flotation costs associated with these funds. The Department granted a flotation cost adjustment of .20% in the CL&P Decision dated December 7, 2003 in Docket No. 03-07-02, Application of The Connecticut Light and Power Company to Amend Its Rate Schedules. Decision, p. 145. In addition, the Department granted a flotation cost adjustment of .13% in the United Illuminating Company Decision dated September 26, 2002 in Docket No. 01-10-10, DPUC Review of The United Illuminating Company's Rate Filing and Rate Plan Proposal. Decision, p. 28.

Flotation costs were calculated by Mr. Eckenroth by multiplying the Value Line dividend yield for each of the companies in his combined utility proxy group by 3.28% actual issuance costs incurred by NU. The calculation is  $4.52\% \times .0328 = .15\%$ . Eckenroth PFT, p. 22, Attachment GJE-3, p. 64. The Department agrees with this methodology however chooses to apply the calculation to the Department's proxy group having a Value Line dividend yield of 3.80%. The calculation is  $3.80\% \times .0328 = .12\%$ . The Department finds a flotation cost of .12% is justified, not .15%, and should be added on to the ROE calculated through applying the DCF and CAPM methodologies. The reason for a reduced flotation cost adjustment is the differences in the dividend yields from the proxy group offered Mr. Eckenroth and the proxy group of Dr. Woolridge which was adopted by the Department. Yankee's current financial projections forecast that NU will make its next equity issuance in 2012. Eckenroth PFT, p. 18.

#### vi. Summary of ROE

The Department calculated its own allowed ROE, for ratemaking purposes, of 8.20% using a DCF methodology and 9.22% using a CAPM methodology. Using a 50% / 50% weighting produces the following:

Methodology	Dept Calculation	Weight	Weighted result
DCF	8.20%	50.0%	4.10%
CAPM	9.22%	50.0%	4.61%
		100.0%	8.71%

Adding the .12% flotation cost adjustment to the 8.71% calculated ROE produces an 8.83% allowed ROE. The Department's 8.83% ROE is within the range established by the OCC's expert witness of an 8.50% allowed ROE and Yankee's expert witness of a 10.10% allowed ROE.

Yankee made note of the Department's allowed ROE of 8.83% relative to the reporting of allowed ROEs by Regulatory Research Associates (RRA). Written Exceptions, p. 8. The Department looked to make a comparison of the 8.83% allowed ROE with other allowed ROE's of LDCs throughout the country as a methodology to test the reasonableness of the Department's calculation. The publication RRA lists allowed ROE's from various jurisdictions around the country. Response to Interrogatory GA-121. These ROE's due to reporting lag tend to be at least a year old or older and therefore not comparable to a recently requested ROE such as in the instant proceeding due to the volatility in the financial markets. In addition, measures of comparability are not included such as credit metrics and therefore it is hard to determine which utilities are comparable. In the instant proceeding, the Department finds that RRA's published ROEs are not comparable to Yankee.

In addition, Yankee took note of the higher ROEs awarded by the Department to CNG of 9.31% in the Decision dated June 30, 2009 in Docket No. 08-12-06 and the 9.26% ROE in the Decision dated July 17, 2009 in Docket NO. 08-12-07. Written Exceptions, p. 8. The Department finds this is an erroneous comparison since financial markets are volatile and as such the ROEs set at the time of the CNG and Southern rate case are not comparable to the cost of capital at present.

#### **vii. Overall Rate of Return**

Yankee requested an overall rate of return of 8.14% reflecting a ROE of 10.10%. Response to Interrogatory GA-2SP01, Schedule D-1.0. After diligent study and deliberation of all issues presented in this rate proceeding, the Department finds that 8.83% is a fair ROE, which calculates to a 7.48% overall rate of return on rate base. This return is calculated for gas-regulated operations only, using the approved capital structure and capital costs, as follows:

<b>Class of Capital</b>	<b>Amount</b>	<b>Percent of Total</b>	<b>Cost</b>	<b>Weighted Cost</b>
Long-term Debt	\$344,316,000	47.80%	6.00%	2.87%
Common Equity	\$376,034,000	52.20%	8.83%	4.61%
Total Capitalization	\$720,350,000	100.00%		7.48%

The Department finds that these rates, when applied to the rate base found reasonable for the Company, should produce operating income sufficient for Yankee to operate successfully and serve its ratepayers, maintain its financial integrity, and compensate its investors for the risk assumed. For purposes of Conn. Gen. Stat. §16-19(g), the Department will monitor Yankee's monthly filed ROEs for overearnings based on the allowed ROE of 8.83%.

**H. PROPOSED NU/NSTAR MERGER EXPECTED BENEFITS**

On April 8, 2011, the OCC filed a motion requesting that the Department allow discovery, hold a hearing and allow cross-examination on the potential impacts of the proposed NU and NSTAR merger on Yankee's operations and costs. Motion No. 47. On April 12, 2011, the Department granted the OCC's request. On April 13, 2011, Yankee filed its supplemental response to Interrogatory OCC-4, which included OCC-4SP01 as a bulk filing. OCC-4SP01 contained the supplemental testimony (Exhibit JP-1 Supplemental) and net benefit analysis (Exhibit JP-3) that NU and NSTAR filed with the Massachusetts Department of Public Utilities (MA DPU) in connection with their petition for approval of merger. On April 19, 2011, the Department held a hearing on OCC-4SP01 and the potential impacts of the cost savings discussed in net benefits analysis on Yankee's proposed revenue requirements in RY1 and RY2.

Yankee testified that OCC-4SP01 was developed by NU and NSTAR to meet a new standard of review adopted by the MA DPU for the evaluation of proposed merger. The new standard requires a "net benefits" test as opposed to the previous requirement of "no net harm" test. OCC-4SP01 is a quantification of the economic benefits of the proposed merger of NU and NSTAR developed to prove to MA DPU that the merger would, over the long run, provides net benefits to customers. Supplemental Brief, pp. 2 and 3. The calculations of the estimated savings depicted in OCC-4SP01 are based on a net benefit analysis methodology accepted by the MA DPU (DTE 99-19 Study) in the merger of Boston Edison and Commonwealth Energy, which were NSTAR's predecessor companies. The Company stated that the net benefit analysis is not an operating company forecast for ratemaking purposes because it is a "tops down" review of achievable cost savings. Tr. 04/19/11 pp. 2642-2653; Late Filed Exhibit No. 39. The total estimated net merger savings over a ten-year period is approximately \$784 million, which is the total cost savings of approximately \$948.2 million less the total merger related costs of approximately \$164.3 million. Response to Interrogatory OCC-4SP01, Exhibit JP-3, pp. 5, 6 and 49.

The Company testified that if the NU/NSTAR merger closed and the forecasted savings are achieved as calculated in the net benefit analysis, Yankee's share of the total is approximately 7%. The 7% allocation is based on Yankee's approximate percentage of the combined overall O&M costs for each of the NU and NSTAR companies not including costs that are not expected to be impacted by integration efforts. The Company stated that, for the calculation of the O&M allocations, O&M costs such as purchased power costs, transmission O&M for other companies, demand-side management costs and bad debt accruals were excluded. Tr. 04/19/11, pp. 2653-54, 2670-2766. Based on this allocation percentage, the Company testified that, assuming the merger closes on October 1, 2011, Yankee's net savings are approximately \$697,000 for RY1 and \$1,848,000 for RY2. Tr. 04/19/11, pp. 2680 and 81. The testimony on page 12 of the Response to Interrogatory OCC-4SP01, Exhibit JP-1 supplemental, stated that the total actual net savings for the three years 2000 to 2002 was approximately 147% of the amount forecasted in the DTE 99-19 Study. In its response to the Department's cross examination, Yankee testified that based on the actual savings in 2000 to 2002 for NSTAR and excluding the favorable variances from labor and energy sourcing, actual savings were 117% of the amounts forecasted. Tr. 04/19/11, pp. 2714-16, 2763-65.

The OCC recommended that the Department set rates for only one year instead of the Company's proposed two-year rate plan. It would be inappropriate to establish rates beyond RY1 because Yankee's Application did not reflect the impact associated with the proposed NU/NSTAR merger. The proposed NU/NSTAR merger is expected to be completed in RY1 and the resulting operational changes at Yankee are not known and any synergies that may arise may not be quantifiable. Also, the OCC recommended that the Department disallow \$750,000 of compensation for Yankee's president or disallow 43% of that amount because following the merger, Yankee president would be responsible for both the Company and NSTAR Gas. The OCC calculated cost savings of \$1.561 million for RY1 using the Company's proposed 7% allocation. However, the OCC recommended that, based on Yankee's testimony regarding NUSCO's payroll allocation, 9% allocation should be used to determine merger related savings attributable to the Company. Supplemental Brief, pp. 1-4.

Additionally, the OCC stated that the merger-related costs of approximately \$164 million included costs for items that are not appropriate for ratemaking and have been disallowed by the Department in past rate cases and acquisition Decisions. The merger related costs should not be charged to ratepayers directly or indirectly netted against the expense savings. Furthermore, the OCC recommended that the Department approves an earnings sharing mechanism (ESM) for Yankee. The OCC stated that Conn. Gen. Stat. §16-19(g) does not retrospectively protect ratepayers from overearnings for periods between rate cases unless an ESM is in place. Therefore, beginning in RY1, all Yankee's earnings that exceed the authorized return should be split 50/50 between ratepayers and shareholders. *Id.*, pp. 6 and 7.

The Department's position is that all costs proposed for recoverability in a rate case are budgeted costs based on some projections. The Company stated that it is too early to determine if the NU/NSTAR merger will be approved, but Yankee testified that it believes that the merger will be approved. See, Tr. 04/19/11, p. 2754. No evidence was provided indicating that the MA DPU would not approve the NU/NSTAR merger petition. On the contrary, the net benefit analysis depicted in response to Interrogatory response to Interrogatory OCC-4SP01 suggested that the merger petition would most likely be approved. Therefore, the Department determines that the forecasted savings from the pending merger of NU and NSTAR would more likely than not impact Yankee's costs of operations for the proposed rate years in this proceeding. Based on the testimonies and exhibits provided in this proceeding, the Department calculated estimated the cost savings for Yankee in 2011 through 2013 using the annual total projected savings reported on page 6 of the response to Interrogatory OCC-4SP01, Exhibit JP-3, Detailed Ten-Year Net Benefits Summary. For this proceeding, the Department concluded that the annual total savings are better proxies of achievable cost saving during the proposed rate years.

Yankee took exceptions to the Department's judgment to increase the expected NU/NSTAR merger cost savings by 17% in the Draft. The Company acknowledged that the savings in 1999 BEC-CES merger exceeded the amounts forecast. However, Yankee stated that there are differences between these mergers that make it illogical and unfair to assume that the savings forecast in the NU/NSTAR's net benefits analysis would similarly be exceeded by the actual amounts relative to the BEC-CES Merger.

Yankee stated that the NSTAR/NU is substantially different from BEC-CES merger because it does not including contiguous service territories. Additionally, BEC-CES Merger savings was achieved because NSTAR offered a heavily subscribed voluntary severance package to employees. This resulted in labor savings that were greater than expected and that had a ripple effect on other savings achieved. The Company declared that there is no evidence to suggest that the merger savings in the NU/NSTAR's net benefits analysis were understated by 17%. Yankee confirmed that 7% allocation is the most reasonable estimate of the potential savings from the estimated net merger savings applicable to it. However, the Company argued against using the 7% allocation percentage to set rates because the NU/NSTAR merger still depends on various approvals and assumes a closing date of October 1, 2011. Written Exceptions, pp. 6 and 7.

Yankee also took exceptions to the Department removal of merger related costs incurred prior to 2011 from the calculation of the estimated merger cost savings. Particularly, the Company stated that "without the costs to achieve the merger, there would be no merger-related savings." Yankee requested that the Department removes the merger savings adjustment or at least a reduced it by the 17% gross-up and add and include all costs as estimated in the net benefits analysis. This would assure Yankee's customers of early savings and excess savings exceed calculated would be returned to customers in future rate proceedings. Written Exceptions, pp. 7 and 8.

The \$16.4 million 10-year average merger related costs are transaction costs that traditionally the Department does not allow to impact customer rates. See, Response to Interrogatory OCC-4SP01, Exhibit JP-3, p. 49. The Company testified that

"in each case, the adjustments made to develop the NSTAR/NU Net Benefits Analysis had the effect of reducing the estimate of savings, which therefore creates a conservative savings forecast. The result of this conservative approach is that there is little likelihood that actual merger-related savings will be materially less than calculated in the NSTAR/NU Net Benefits Analysis, although, of course, those savings could be greater."

Tr. 4/19/11, p. 2694.

Likewise, the Department was very conservative in its determinations of the expected cost savings from the NU/NSTAR merger. The actual O&M savings in the BEC-CES merger was approximately 181% (235 / 130) of the forecast amount. See, Response to Interrogatory OCC-4SP01, Exhibit JP-3, p. 11. The Company testified that the actual savings are more like than not to exceed the amount projected in the net benefit analysis. Also, the Company testified that excluding the favorable variances, due to labor and energy savings, the actual savings in the 1999 NSTAR/BEC-CES merger would be 117% of the forecast amount, which meant 17% higher than forecast. Therefore, the Department used the 17% as a proxy, recognizing the differences between the NU/NSTAR and the BEC-CES mergers, to represent the average level by which various estimated cost savings are understated when subsequently compared to actual achieved cost savings. Notwithstanding the Company's Written Exceptions, the Department reconsidered and calculated Yankee's expected cost savings from the

NU/NSTAR merger using the gross saving amounts as detailed below. These amounts were not grossed-up for 17% to reflect actual savings exceeding the forecast amounts.

#### Calculations of Yankee's NU/NSTAR Merger Savings

		2011	2012	2013
A	Total Savings (Million)	\$5.900	\$32.800	\$52.900
B	Yankee's Allocation at 7% (B= A x 7%)	\$0.413	\$2.296	\$3.703

Based on the summary above, the Department concludes that NUSCO's expenses to be allocated Yankee will be reduced by approximately \$1.561 [ $\$0.413 + (\$2.296) / 2$ ] million in RY1 and \$3 [ $(\$2.296 + \$3.703) / 2$ ] million in RY2. Accordingly, the Department will reduce proposed NUSCO's expenses by \$1.561 million in RY1 and \$3 million in RY2. The Department reserves the right to review the actual cost savings achieved and merger related costs incurred during the Company's future rate proceedings subsequent to the close of the merger.

Yankee will be directed to file with the Department a status report to specifically state whether or not the MA DPU has approved the NU/NSTAR merger petition and if so, the closing date of the merger. Additionally, Yankee will be directed to file with the Department an exhibit detailing the annual cost savings generated due to the NU/NSTAR merger.

#### I. WATERBURY TO WALLINGFORD DISTRIBUTION LINE

Yankee's rate case application indicated the projected capital expenditures for the WWL would be about \$62.5 million. Application, pp. 3 and 4. Yankee updated and reduced the capital expenditures associated with the WWL to \$57.6 million. Tr. 3/22/11, p. 1938. Yankee stated that the WWL project is the best cost solution to meet its growing firm peak day requirements. This project also addresses distribution system reinforcement issues in the Cheshire and Meriden service areas. Specifically, the project consists of building a 16 mile, 16 inch steel, 199 psi distribution main from the Waterbury LNG facility to the interconnection with Yankee's existing distribution system in Meriden. Yankee testified that the Waterbury LNG was built with the anticipation that a future expansion of the facility could occur in the future. Additionally, the LNG facility was built with the ability to add a fourth vaporizer and a third LNG pump to increase the output of the facility from 60,000 MMBtus/day to 105,000 MMBtu. Yankee's original testimony indicated that the WWL project would provide the necessary incremental capacity and supply to meet its peak day demands for the 2012/2013 and 2013/2014 winter seasons in addition to future demand. Specifically, Yankee can add up to 38,000 MMBtus of incremental capacity and supply to meet its peak day loads as a result of the project. Response to Interrogatory GA-6.

Yankee testified that the first phase of the WWL project would be completed and in-service by November 1, 2010. The construction of the first phase would connect the Cheshire low pressure system to the 60 psi Wallingford distribution system. The second phase would begin during the spring of 2011 and is expected to be in-service by November 1, 2011. This portion of the project would connect Cheshire to the Waterbury

gate station and would include the installation of the LNG pump and vaporizer. Response to Interrogatory GA-6. However, the Company testified that the WWL is only a temporary solution to its capacity short fall issues. As soon as the winter of 2013/2014, Yankee will need to add 3,851 MMBtus of capacity to its portfolio to meet peak day demands. The Company testified it is participating in future pipeline capacity projects to meet its peak day requirement in the future. Tr. 3/22/11, pp. 1924-1926.

The OCC argued that the WWL peak day supply source was compared to other alternatives of supply that either were not available at the time of the Company's analysis or that might not be built. Further, Yankee should have made a direct comparison of the WWL to peaking contracts. The OCC's opinion is that peaking contracts are a more economical method to meet peak day demand compared to the WWL project. Brief, pp. 123 and 124.

The Department does not agree with the OCC regarding the WWL project and the use of peaking contracts. Currently, Yankee uses peaking contracts to meet a portion of its peak day demand. Some of these contracts do not have firm delivery rights, while other peaking contracts do have these rights. Historically, the Department has recommended that Yankee eliminate non-firm peaking contracts from the Company's gas supply portfolio to meet peak day requirements because of their questionable reliability.

The Department analyzed the WWL project and the other proposed options that were submitted in the response to Interrogatory GA-6. The WWL appears to be the most reliable source of peak day supply for the Cheshire, Meriden and Wallingford distribution systems. Further, the WWL and the LNG facility work together to provide peak day supply to these distribution systems. Moreover, the WWL and LNG facility can be used to meet intraday issues regarding balancing and delivery of supply from third party suppliers. The Department finds that the WWL is the best alternative to meet the Company's peak day requirements in the near future and, therefore, approves its construction. Based on the above, Yankee will be allowed to include the capital cost of \$57.6 million in its rate base for RY1 and RY2.

## **J. SALES FORECAST**

According to Yankee, total normalized firm sales volumes have grown significantly since 2006, between 3% and 5% per year for a total of almost 16% through 2010. Most of this growth is associated with: (1) the installation of gas fueled Distributed Generation (DG) projects; (2) customer switches to firm service from interruptible service; and (3) customer conversions to gas heating. Without these non-recurring sales gains, the cumulative growth in total firm volumes from 2006 through 2010 would have been about 2%. Yankee's proposed forecasted sales growth is significantly lower than recent historical growth. This is because most of the DG projects would be installed and significant switches to firm service and gas heating conversions would be completed by early 2011. Additionally, the effect of Company sponsored conservation programs would negatively impact future sales growth. Goodwin PFT, pp. 7-9.

Having taken all the above factors into consideration, Yankee's proposed firm sales, net of special contracts, are forecasted to grow 4.9% in 2011, weather normalized. Including special contracts, the firm growth rate is forecasted to be only 1.3% because one special contract customer reduced its usage in 2010. In 2012 and 2013, total firm sales, including special contracts, is forecasted to grow by 0.9% and 1.1%, respectively. Goodwin PFT, p. 8.

## 1. Development

The overall sales forecast is composed of both firm and non-firm gas volumes. Total firm gas volumes include sales and transportation volumes for residential, commercial, and industrial customer classes as well as volumes for five special contract customers. The residential customer class consists of three rate classes: Residential Non-Heating Service (Rate 1); Residential Heating Service (Rate 2); and Residential Multi-Dwelling Firm Service (Rate 3). The C&I customer classes also consist of three rate classes: Small General Firm Service (Rate 10); Medium General Firm Service (Rate 20); and Large General Firm Service (Rate 30). Development of the firm sales forecasts is discussed in greater detail below. The special contract forecast was developed by examining the recent behavior of those customers, adjusted for any known or anticipated changes in their contracts. Non-firm sales include the non-heating Seasonal Gas Service (Rate 36) and Interruptible Service (Rate IS) to commercial, industrial, and electric generation customers. The Rate IS forecast was developed by examining the recent history of the sector and the outlook for the relationship between the competing prices of oil and natural gas, adjusted for movement to firm or seasonal rates. Response to Interrogatory GA-146, p. 3.

The forecasts were independently developed using class-specific forecasting models for each of the three firm customer classes (residential, commercial and industrial). The firm forecast process produced a forecast for the number of customers by customer class and use per customer (UPC) by customer class. The results of the two forecasts were multiplied together to derive each customer class's forecast of volumes, otherwise known as the trend forecast. The trend forecast was adjusted out-of-model for known sales impacts. Response to Interrogatory GA-146, p. 3. These out of model adjustments are for a reduction in sales due to conservation and load management (C&LM) programs; and additional load due to: 1) interruptible to firm service switches; (2) new conversions (large); and (3) DG facilities. Response to Interrogatory GA-1, AR-DPUC-1, p. 13.

The Company's forecasting process described above adjusted the actual test year total sales of 51,979,645 Mcf for: (1) a test year interruptible adjustment of negative 607,846 Mcf; (2) a weather normalization adjustment of 2,175,747 Mcf; and (3) a growth adjustment of 30,586 Mcf, to arrive at the Company's total proposed RY1 sales forecast of 53,578,133 Mcf. This is an increase over the test year sales of 1,598,488 Mcf (53,578,133 Mcf – 51,979,645 Mcf). Of that, test year firm sales of 33,118,384 Mcf (13,175,958 Mcf + 13,053,733 Mcf + 6,888,693 Mcf)<sup>10</sup> were adjusted for normal weather and growth to arrive at the proposed RY1 firm sales forecast of

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<sup>10</sup> The Department added the three test year figures for residential, commercial and industrial to arrive at total firm test year sales volumes.

38,679,749 Mcf (13,827,492 Mcf + 16,929,384 Mcf + 7,922,873 Mcf).<sup>11</sup> To arrive at the total proposed RY2 sales forecast, the RY1 sales forecast was adjusted for total growth of 391,682 Mcf to arrive at the RY2 total sales forecast of 53,969,814 Mcf. Of that, the proposed RY2 firm volumes are 39,105,323 Mcf for a total growth over RY1 of 425,576 Mcf (204,147 Mcf + 283,325 Mcf – 61,896 Mcf).<sup>12</sup> Response to Interrogatory GA-2SP03, pp. 13 and 16.

## **2. Rate Class Allocations**

### **a. Process**

Because the forecast models were developed on a customer class basis, the results must be allocated to the rate classes and between sales and transportation service. The Company's allocation process shows that the customer class volumes in the trend forecast were first allocated to sales and transportation service based on averages of historical shares. Next, the out-of-model adjustments were applied to the sales and transportation volumes, except for the DG volumes, which were directly allocated to Rate 30. Response to Interrogatory GA-209; Tr. 3/14/11, p. 813. While the rate classes were known for the customers in the interruptible to firm and new conversions out-of-model categories, these customers were not directly allocated to their respective rate classes as were the DG customers. Response to Interrogatory GA-216; Tr. 3/14/11, p. 813. Lastly, the sales and transportation volumes were allocated to the rate classes based on historical shares. The monthly firm service customer counts were allocated to the rate classes by taking the sum of the rate class customer counts from the two-year period (ended June 2010) and dividing it by the total customer counts in the same period. Response to Interrogatory GA-209.

The Department finds that it would be more accurate to allocate the results of the trend forecast directly to rate classes prior to sharing between sales and transportation service. Additionally, when specific rate classes are known for any of the out-of-model adjustments, the associated volumes and customer counts should be directly allocated to their respective rate classes, similar to how the DGs were allocated. The Company will be directed to allocate sales and customer counts in this manner when developing future sales forecasts.

### **b. Rate 1 and Rate 3**

The first table below shows that there has been a decline in the Rate 1 normalized sales for three of the last five years. It also shows a steady decline in the average number of customers for Rate 1 since 2005. On average for the last five years, Rate 1 sales decreased by 4,201 Mcf. While over the last six years, the customer count averaged an annual decrease of 641. The second table below shows that during the same period, Rate 3 had significant increases in normalized sales and number of

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<sup>11</sup> The Department added the three RY1 figures for residential, commercial and industrial to arrive at total firm RY1 sales volumes.

<sup>12</sup> The Department added the three growth adjustment figures for residential, commercial and industrial to arrive at total firm RY2 growth adjustment volumes.

customers. Over the last five years, Rate 3 experienced an average annual volume increase of 114,264 Mcf. While over the last six years, the average annual customer count increased by 68 customers. Response to Interrogatory GA-360, pp. 2 and 5.

#### Rate 1

Year	Normalized Sale			Number of Customers		
	Mcf	Change	% Change	Customers	Change	% Change
2004	N/A	N/A	N/A	28,825		
2005	498,898			28,131	-695	-2.4
2006	496,827	-2,071	-0.4	27,442	-689	-2.4
2007	505,838	9,012	1.8	27,224	-218	-0.8
2008	514,709	8,871	1.8	26,845	-379	-1.4
2009	500,579	-14,130	-2.7	25,958	-886	-3.3
2010	477,890	-22,869	-4.5	24,977	-982	-3.8
Avg.	499,123	-4,201	-0.8	27,057	-641	-2.3

Response to Interrogatory GA-360, pp. 2 and 5.

#### Rate 3

Year	Normalized Sales			Number of Customers		
	Mcf	Change	% Change	Customers	Change	% Change
2004	N/A	N/A	N/A	363		
2005	396,237			464	101	27.9
2006	493,084	96,847	24.4	589	126	27.1
2007	577,641	84,557	17.1	601	11	1.9
2008	684,134	106,493	18.4	622	22	3.6
2009	835,373	151,239	22.1	714	91	14.6
2010	967,556	132,183	15.8	774	60	8.4
Avg.	659,004	114,264	19.6	589.6	68	13.9

Response to Interrogatory GA-360, pp. 2 and 5.

Despite the trend of the above historical data for Rate 1 and Rate 3, Yankee's proposed forecast as originally filed increased Rate 1 customer counts and sales volumes from the test year to RY1 and then again in RY2. Specifically, Rate 1 test year normalized volumes of 495,097 Mcf (483,424 Mcf + 11,673 Mcf)<sup>13</sup> increased by 25,812 Mcf for RY1 volumes of 520,909 Mcf. Rate 1 volumes were further increased by 7,760 Mcf in RY2 to 528,669 Mcf. The Rate 1 test year customer count of 25,441 was increased by 1,124 for total RY1 customers of 26,565. Rate 1 customers for RY2 were further increased by 377 for total RY2 customers of 26,942. Response to Interrogatory GA-215, pp. 10, 11, 13 and 14.

Yankee's proposed RY1 forecast for Rate 3 decreased the test year customer count and sales volumes. Rate 3 normalized test year volumes of 929,580 Mcf (889,501 Mcf + 40,079 Mcf) were decreased by 196,446 Mcf, for a RY1 total of 733,134 Mcf. RY2 volumes increased by 10,789 Mcf over RY1 volumes for a RY2 total of

<sup>13</sup> To compute the normalized test year amount, the normalization adjustment was added to the actual test year amount.

743,923 Mcf. Rate 3 test year customer count of 744 was decreased by 16 to 728 in RY1. In RY2, the customer count was increased by 10 for a RY2 total of 738. Response to Interrogatory GA-215, pp. 10, 11, 13 and 14.

In response to inquiries by the Department regarding its observation that Yankee's proposed sales and customer allocations to Rate 1 and Rate 3 do not reflect the historical trend, Yankee acknowledged that adjustments may be warranted. Specifically, allocate less to Rate 1 and more to Rate 3. However, the net result of this reallocation would be a reduction in current distribution revenues and an increase to the Company's overall rate request. This is because the sales would be reallocated to rate classes with substantially lower rates. Yankee stated that the total residential sales and customer forecasts remain valid. Response to Interrogatory GA-358.

Yankee agreed to revise the allocations and file the affected schedules and exhibits with the general rate case updates in Response to Interrogatory GA-2. In that filing, Yankee revised the sales allocations for the residential rate classes but did not revise the customer count allocations. The residential rate class sales were reallocated based on the proportionate share of Rates 1, 2 and 3 normalized 2010 volumes to the total residential volumes. Total residential volumes remain the same as originally filed. Response to Interrogatory GA-2, p. 2. In the table below, Yankee's revised sales allocations for the residential rate classes are compared with normalized test year sales and the originally proposed volumes.

#### Sales (Mcf)

Rate	TY Normalized	RY1 Original	RY1 Revised	Change	RY2 Original	RY2 Revised	Change
Rate 1	495,097	520,909	453,756	-67,153	528,669	460,456	-68,213
Rate 2	12,768,676	12,573,449	12,402,931	-170,518	12,759,045	12,586,046	-172,999
Rate 3	929,580	733,134	970,804	237,670	743,923	985,137	241,214
Total	14,193,353	13,827,492	13,827,492	0	14,031,638	14,031,638	0

Response to Interrogatories GA-215, pp. 10 and 13 and GA-2, Schedule E-3.4(A) and (B), p. 2.

The revised volumes for Rate 1 show a decrease from the normalized test year volumes as well as a decrease to the volumes originally proposed. The volumes for RY2 were slightly increased from RY1, but decreased from the original proposal. Rate 2 was also adjusted in both rate years due to the revised allocation methodology. It shows a decrease in both rate years from what was originally proposed and a decrease from the normalized rate year. Rate 3 is increased in both rate years from the normalized test year and from the Company's original proposal.

### 3. Department Adjustments to Sales Forecast

#### a. Residential

##### i. Rate Class Customer Allocations

As stated above, when Yankee revised the sales allocation for the residential rate classes, it did not revise the customer allocations. The proposed residential

customer forecast and rate class allocations remain the same as originally filed for both rate years. They are shown in the table below.

#### Yankee Proposed Customer Counts

	Rate 1	Rate 2	Rate 3	Total
RY1	26,565	158,355	728	185,848
RY2	26,942	160,603	738	188,283

See, Response to Interrogatory GA-2SP03, pp. 14 and 17.

The Department disagrees with Yankee's proposed customer allocations to the residential rate classes for both rate years as they do not reflect the historical trend. Consequently, the Department determines that adjustments to the residential rate class customer allocations are necessary.

To reallocate the proposed residential customer count, the Department tested the methodology used by Yankee when it reallocated the sales. In this instance, the proportionate share of 2010 year-end average residential rate class customers to the 2010 year-end average total residential customers. The 2010 year-end average residential customer count was 180,930 (24,977 + 155,179 + 774) for Rates 1, 2 and 3, respectively. See, Response to interrogatory GA-360, p. 2. The resulting proportionate share for Rates 1, 2 and 3 are as follows: 13.80% (24,977 / 180,930), 85.77% (155,179 / 180,930) and 0.43% (774 / 180,930). Using these percentages for Yankee's proposed residential customer count of 185,647 for RY1, it would result in the following rate class customer counts: 25,619 (185,647 x 13.80%) for Rate 1; 159,229 (185,647 x 85.77%) for Rate 2; and 798 (185,647 x 0.43%) for Rate 3. The 2010 allocation percentages resulted in an increase to Rate 1 of 642 customers over the 2010 year-end average customer count (25,619 – 24,977). Again, this is not reflective of the historical trend for Rate 1.

To ensure that residential rate class customer counts better reflect the historical trend over the last six years, the Department adjusts the 2010 allocation percentages for each rate class, while maintaining Yankee's proposed customer count for the residential customer class as a whole for each rate year. The adjustment results in a decreased allocation to Rate 1 and increased allocation to Rates 2 and 3. The Department adjusted allocation percentages and residential rate class customers counts are shown in the table below.

#### Adjusted Customer Counts\

	Allocation % RY1	# Customers RY1	Allocation % RY2	# Customers RY2
Rate 1	13.00%	24,134	12.50%	23,535
Rate 2	86.55%	160,678	87.03%	163,863
Rate 3	0.45%	835	0.47%	885
Total	100.00%	185,647	100.00%	188,283

**ii. Use per Customer**

To determine the proposed rate class UPC, the proposed rate class sales is divided by the proposed rate class customer count. For Rate 1, the proposed UPC is 17.1 for both rate years, (453,756 Mcf / 26,565) and (460,456 Mcf / 26,942) for RY1 and RY2, respectively. For Rate 2, the proposed UPC is 78.3 Mcf (12,402,931 Mcf / 158,355) and 78.4 Mcf (12,586,046 Mcf / 160,603) for RY1 and RY2, respectively. For Rate 3, the proposed UPC is 1,333.5 Mcf (970,804 Mcf / 728) and 1334.9 Mcf (985,137 Mcf / 738) for RY1 and RY2, respectively. Response to Interrogatory GA-2SP03, pp. 16 and 17.

The Department’s reallocation of the residential customers among the rate classes resulted in some changes to the rate class UPCs (Reallocated UPCs). See, Section II.J.3.a.i. Rate Class Customer Allocations. The Reallocated UPCs are as follows: Rate 1 = 18.8 Mcf (453,756 Mcf / 24,100 Mcf) and 19.6 Mcf (460,456 Mcf / 23,536 Mcf) for RY1 and RY2, respectively; Rate 2 = 78.2 Mcf for RY1 and RY2 (12,402,931 Mcf / 160,771) and (12,586,046 Mcf / 160,972), respectively; and Rate 3 = 1,135.5 Mcf (970,804 Mcf / 856) and 1,074.0 Mcf / 917) for RY1 and RY2, respectively. Response to Interrogatory GA-2SP03, p. 16. The Reallocated UPCs are compared with the proposed UPCs, below.

**Residential Rate Class UPCs (Mcf)**

	<b>Proposed RY1</b>	<b>Proposed RY2</b>	<b>Reallocated RY1</b>	<b>Reallocated RY2</b>
Rate 1	17.1	17.1	18.8	19.6
Rate 2	78.3	78.4	78.2	78.2
Rate 3	1,333.5	1,334.9	1,135.5	1,074.0

Response to Interrogatories GA-223, p. 2 and GA-40SP01, p. 2.

The reallocated UPCs for Rate 1 exceed the proposed Rate 1 UPCs for both rate years, especially in RY2. The Reallocated UPCs for Rate 2 remained nearly identical to the proposed UPCs. The Reallocated UPCs for Rate 3 decreased significantly from the proposed UPCs.

Historical 12-month rolling year-end UPCs on a normalized basis for 2006 through 2010 as well as the test year are compared with the Reallocated RY1 and RY2 UPCs in the table below.

**Residential Rate Class Normalized UPCs (Mcf)**

	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>TY</b>	<b>Reallocated RY1</b>	<b>Reallocated RY2</b>
Rate 1	18.1	18.6	19.2	19.3	19.1	19.5	18.8	19.6
Rate 2	81.5	84.7	82.6	79.1	82.6	82.3	78.2	78.2
Rate 3	836.6	961.9	1,099.3	1,170.8	1,250.6	1,249.3	1,135.5	1,074.0

Response to Interrogatories GA-223, p. 2 and GA-40SP01, p. 2.

The data above shows that the historical UPCs for Rate 1 have trended upward, reaching the 19-plus Mcf range in 2008. The above table also shows that since 2006, there has been a steady upward trend in the UPC for Rate 3, with a low of 836.6 Mcf in 2006 topping off at a high of 1,250.6 Mcf in 2010. The UPCs for Rate 2 have fluctuated some since 2006 but have been above 81.5 Mcf with the exception of 2009. The 2009 figure was the only 12-month period out of 60 12-month periods since 2006 in which the UPC dipped below 80 Mcf. In 2010, the monthly 12-month rolling average UPC for Rate 2 ranged from 80.2 Mcf to 83.0 Mcf. See, Response to Interrogatory GA-223, p. 2.

The Department finds that while the proposed residential customer counts were reallocated among the rate classes, dividing those customer counts into the Company proposed rate class forecast still results in UPCs that do not properly reflect the historical trend. As stated earlier, the Department's reallocation of customers among the rate classes better reflects the historical customer count growth. Yet, most of the resulting UPCs are significantly lower than what history suggests. If the UPCs are increased using the same customer count, then the sales forecast will increase. Because the Department finds that the overall customer count as proposed by Yankee is reasonable, the Department must then increase the rate class UPCs.

Using the Reallocated UPCs as a starting point, all of the UPCs should be increased with the exception of Rate 1 in RY2, which should be decreased. The UPCs for each residential rate class will be adjusted using a more recent historical period as it is more representative of the current UPC trend. The Department finds that the average of the 2-year rolling average UPC for 2009 and 2010 is appropriate. The same UPC will be assigned for both rate years. The adjusted UPCs are as follows:

$$\begin{aligned} \text{Rate 1} &= 19.2 \text{ Mcf } (19.3 \text{ Mcf } + 19.1 \text{ Mcf } / 2) \\ \text{Rate 2} &= 80.9 \text{ Mcf } (79.1 \text{ Mcf } + 82.6 \text{ Mcf } / 2) \\ \text{Rate 3} &= 1,210.7 \text{ Mcf } (1,170.8 \text{ Mcf } + 1,250.6 \text{ Mcf } / 2) \end{aligned}$$

Compared with many off the monthly 12-month rolling average UPCs in recent history, the adjusted UPCs are conservative to preclude over estimating rate class sales.

### iii. Sales Volumes

Due to the adjustments to the residential rate class customer count allocations and UPCs, (see, Section II.J.3. Department Adjustments to Sales Forecast), the overall residential sales forecast is adjusted. As stated earlier, to calculate the rate class sales volumes, the customer count is multiplied by the UPC. Below are the Department approved rate class sales, using the Department adjusted customer counts and UPCs. These rate class sales are also adjusted for the negative impacts of Yankee's proposed out-of-model adjustments related to conservation. See, Late Filed Exhibit No. 75.

#### Rate Year 1

$$\begin{aligned} \text{Rate 1} &= 462,169 \text{ Mcf } [(19.2 \text{ Mcf } \times 24,134 \text{ customers}) - 1,204 \text{ Mcf}] \\ \text{Rate 2} &= 12,966,851 \text{ Mcf } [(80.9 \text{ Mcf } \times 160,678 \text{ customers}) - 31,999 \text{ Mcf}] \\ \text{Rate 3} &= 1,009,150 \text{ Mcf } [(1,210.7 \text{ Mcf } \times 835 \text{ customers}) - 1,785 \text{ Mcf}] \\ \text{Total RY1 Residential Sales} &= 14,438,170 \text{ Mcf} \end{aligned}$$

Rate Year 2

Rate 1 = 449,254 Mcf [(19.2 Mcf x 23,535 customers) – 2,618 Mcf]  
 Rate 2 = 13,190,379 Mcf [(80.9 Mcf x 163,863 customers) – 66,138 Mcf]  
 Rate 3 = 1,067,719 Mcf [(1,210.7 Mcf x 885 customers) – 3,751 Mcf]  
 Total RY2 Residential Sales = 14,707,352 Mcf

The adjusted RY1 residential sales forecast of 14,438,170 Mcf is an increase of 244,817 Mcf (14,438,170 Mcf – 14,193,353 Mcf) over the normalized test year sales and an increase of 610,678 Mcf (14,438,170 Mcf – 13,827,492 Mcf) to Yankee's proposed residential sales forecast of 13,827,492 Mcf. For RY2, the adjusted residential sales forecast is an increase of 269,182 Mcf over the adjusted RY1 sales forecast (14,707,352 Mcf – 14,438,170 Mcf) and an increase of 675,714 Mcf (14,707,352 Mcf – 14,031,638 Mcf) to Yankee's proposed residential forecast.

In its written exceptions, Yankee noted that its residential weather normalized sales for the 12-month period ended April 2011 has dipped to about 14.0 Bcf. Comparing this recent sales figure with the Department's adjusted RY1 sales of 14.438 Bcf, Yankee determined that actual residential sales would need to grow by over 3% in only a 14-month period. Yankee argued that this outcome is unreasonable and unsubstantiated. Further, that its economic-based forecast modeling process is a superior method to the Department's "simple trend line algebraic approach" for projecting rate year sales. Written Exceptions, pp. 51 and 52.

The Department notes that the variance between the approved RY1 sales forecast and the recent sales data introduced by Yankee in its written exceptions is comparable to the variance of that data to Yankee's proposed RY1 residential sales, albeit, in a different direction. Regarding Yankee's dissatisfaction of the Department's residential sales forecasting approach, the Department fully explained the rationale behind its methodology. While the Department's approach may not appear to be as complex as Yankee's, complexity does not guarantee accuracy.

**b. Commercial & Industrial**

Yankee's proposed C&I sales forecast for RY1 is 24,852,257 Mcf (16,929,384 Mcf + 7,922,873 Mcf). This figure includes a normalization adjustment of 1,158,352 Mcf (925,303 Mcf + 233,049 Mcf) and a growth adjustment of 3,751,479 Mcf (2,950,348 Mcf + 801,131 Mcf). Of that, the proposed rate class sales for RY1 are as follows: Rate 10 = 3,230,332 Mcf for Rate 10 (3,087,747 Mcf + 196,376 Mcf); Rate 20 = 4,197,222 Mcf (3,849,141 Mcf + 413,868 Mcf); Rate 30 = 17,424,701 Mcf (10,275,820 Mcf + 7,250,733 Mcf). For RY2, the proposed C&I sales forecast is 25,073,685 Mcf (17,212,708 Mcf + 7,860,977 Mcf). This is an increase of 221,428 Mcf (25,073,685 Mcf – 24,852,257 Mcf) over the proposed RY1 sales forecast. Specifically, the proposed rate class sales for RY2 is as follows: Rate 10 = 3,284,123 Mcf (3,087,747 Mcf + 196,376 Mcf); Rate 20 =

4,263,009 Mcf (3,849,141 Mcf + 413,868 Mcf); and Rate 30 = 17,526,553 Mcf (10,275,820 Mcf + 7,250,733 Mcf).<sup>14</sup> Response to Interrogatory GA-2SP03.

Yankee expects that 10 customers will switch from interruptible service to firm service (two to Rate 20 and eight to Rate 30) in 2011. These customers were not included in the RY1 or RY2 forecast. Tr. 3/14/11, p. 860. Yankee estimated that the annual volumes and maximum daily quantity (MDQ) for the customers expected to switch to Rate 20 would total 3,193 Mcf and 48 Mcf, respectively. For Rate 30 the estimated annual volumes and MDQ would total 594,008 Mcf and 3,632 Mcf, respectively. The Company expects that one of the Rate 30 customers would receive a distribution discount on the Economic Development Rider (Rider ED). In total, the expected switches to firm would increase annual C&I volumes by 597,201 Mcf and the associated MDQ by 3,680 Mcf. Late Filed Exhibit No. 88, p. 2.

Because Yankee believes these customers will switch to firm service during RY1, the Department makes the following adjustments to the Company's proposed C&I sales forecast, MDQ and customer counts for both RY1 and RY2.

#### Expected Switches to Firm

	Sales (Mcf)	MDQ (Mcf)	Customer Count
Rate 20	3,193	48	2
Rate 30	594,008	3,632	8
Total	597,201	3,680	10

With the above adjustments to Rate 20 and 30, the Department approved C&I sales by rate class for each rate year are as follows.

#### Rate Year 1

Rate 10 = 3,230,332 Mcf  
 Rate 20 = 4,200,415 Mcf (4,197,222 Mcf + 3,193 Mcf)  
 Rate 30 = 18,018,709 Mcf (17,424,701 Mcf + 594,008 Mcf)  
 Total RY1 C&I Sales = 25,449,456 Mcf

#### Rate Year 2

Rate 10 = 3,284,123 Mcf  
 Rate 20 = 4,266,202 Mcf (4,263,009 Mcf + 3,193 Mcf)  
 Rate 30 = 18,120,561 Mcf (17,526,553 Mcf + 594,008 Mcf)  
 Total RY2 C&I Sales = 25,670,886 Mcf

#### **4. Weather Normalizing Test Year Sales**

In Yankee's initial filing, it failed to provide a breakout of normalized sales and growth sales at the rate class level as required by the SFRs. See, Schedules E-3.4(A)

<sup>14</sup> Because Yankee presented the commercial figures separate from the industrial figures in its exhibits, to determine total C&I rate class numbers, the commercial figure must be added to the industrial figure.

and (B). In the process of making revisions, it became apparent to the Department that the Company's overall approach made it impossible to directly calculate normalized sales at the rate class level. Response to Interrogatory GA-211. Essentially, sales normalization and growth are forecasted at the customer class level simultaneously within the Company's econometric models used to determine total sales by customer class. Customer class sales are then allocated among the rate classes using historical rate class consumption patterns. Response to Interrogatory GA-209. In an interrogatory, the Company was asked to normalize test year sales outside of its model and provide a more accurate breakout of normalization and growth by rate class. In its response, Yankee stated that it intended to conduct a more thorough examination of alternative methodologies in the future. Response to Interrogatory GA-215. Additionally, the Company calculated a usage per degree-day coefficient at the individual customer level to establish a billing demand for customers who do not have demand meters installed. The calculation is performed monthly using a regression formula. Response to Interrogatory OCC-57.

The Department is concerned that any future normalization process be applied directly and accurately to actual test year sales as a way of confidently isolating anticipated rate class sales growth, which is defined as growth equals forecasted sales minus normalized sales. To that end, the Department will direct the Company to normalize at the individual customer level by employing a per customer annual use per degree-day coefficient when normalizing monthly sales. This approach will also allow the Company to establish accurate normalizations at the rate class level by aggregating individual customer adjustments by billing code. While the total sales forecast may continue unchanged, the accepted definition of normalized sales going forward will be the new approach applied to the test year.

#### **K. REVENUE AND REVENUE ADJUSTMENTS**

Yankee stated that actual test year revenue, including firm and non-firm rate and ancillary revenues/discounts, totaled \$422,823,399. Proforma adjustments reflecting normal weather, annualized customers, growth, PGA revenues and the removal of revenues related to its interruptible line extension policy and conservation totaled \$27,926,502 for RY1 at present rates. This results in a total proforma revenue at present rates of \$450,749,903. Goodwin PFT, p. 5 and Exhibit 3.4A; Response to Interrogatory GA-356. Subsequently, Yankee revised its rate year revenue at present rates to \$449,372,803 to reflect updated billing determinants and error corrections. In RY1, Yankee is seeking \$29,139,057 in rate relief to meet its revenue requirement, resulting in proposed revenues of \$478,511,860. Yankee proposed a two-year rate plan in which its RY2 revenue at RY1 proposed rates totaled \$497,556,920 and seeks additional rate relief of \$9,887,387, resulting in \$507,444,307 in proposed revenue recovery. Response to Interrogatory GA-2, Supplemental 2, Exhibit 3.4A.

As discussed in Section II.J.3. Department Adjustments to Sales Forecast, the Department made various proforma adjustments to Yankee's sales forecast. The adjusted billing determinants would increase firm rate revenue at present rates by

\$7,231,905 for RY1 and \$7,702,002 for RY2<sup>15</sup>. Additionally, part of the Department's adjustment to the firm rate revenue cited above reflects the expectation that 10 interruptible customers will switch to firm service during RY1. This will result in a loss of margin relative to these non-firm sales, and a corresponding increase in PGA revenues that will be charged to firm customers. Yankee estimates it will earn approximately \$9.68M in non-firm margin in RY1 and approximately \$8.9M in RY2. Response to Interrogatory GA-2, Supplemental 2, Schedule WPC-3.1. The Department calculated that the margin loss associated with these customers would be \$1.61M for RY1 and \$1.49M for RY2. The margin loss estimate is based on unit-margin rates of \$.2700 (9.68M / 35,857,399 ccf) for RY1 and .2490 (\$8.9M / 35,747,236) for RY2 times the adjusted volume of 5,972,000 ccf for each rate year. The breakdown of the revenue adjustments for RY1 and RY2 is presented below<sup>16</sup>.

	<b>RY1 at Current Rates</b>	<b>Department Adjusted RY1 at Current Rates</b>	<b>Difference</b>	<b>Proposed RY1 Revenue</b>	<b>Adjusted Rate Relief</b>
<b>Rate 1</b>	\$13,753,194	\$13,447,040	(\$306,154)	\$15,973,236	\$2,526,196
<b>Rate 2</b>	\$199,638,544	\$207,929,037	\$8,290,493	\$217,573,713	\$9,644,676
<b>Rate 3</b>	\$6,086,346	\$6,362,656	\$276,310	\$6,444,937	\$82,281
<b>Rate 10</b>	\$48,546,500	\$48,546,500	\$0	\$50,684,062	\$2,137,562
<b>Rate 20</b>	\$40,727,829	\$40,748,023	\$20,194	\$42,473,813	\$1,725,790
<b>Rate 30</b>	<u>\$71,855,623</u>	<u>\$73,398,776</u>	<u>\$1,543,153</u>	<u>\$76,806,721</u>	<u>\$3,407,945</u>
Other*	\$0	(\$2,592,091)	(\$2,592,091)	\$0	\$2,592,091
	<b>\$380,608,036</b>	<b>\$387,839,941</b>	<b>\$7,231,905</b>	<b>\$409,956,482</b>	<b>\$22,116,541</b>
Non-firm revenues	\$30,148,068	\$28,535,625	(\$1,612,443)	\$30,148,068	<u>\$1,612,443</u>
Special Contracts	\$22,778,499	\$22,778,499	\$0	\$22,778,499	\$0
Other Revenue	\$3,082,879	\$3,082,879	\$0	\$3,082,879	\$0
Other Fuel Reconciliation	\$24,035,453	\$25,647,896	\$1,612,443	\$24,035,453	(\$1,612,443)
Credits/discounts	(\$5,437,777)	(\$6,004,465)	(\$566,688)	(\$5,637,369)	\$367,096
CAM + Base C&LM	(\$5,842,356)	(\$5,842,356)	\$0	(\$5,852,152)	(\$9,796)
<b>Total</b>	<b>\$449,372,803</b>	<b>\$456,038,020</b>	<b>\$6,665,218</b>	<b>\$478,511,861</b>	<b>\$22,473,840</b>

<sup>15</sup> On pp. 52-54 of its written exceptions, Yankee argued the PGA revenues were high relative to the gas cost increase allowed in Section II.L. Amended Gas Costs. Since gas costs are a pass through, this produces a higher than appropriate net-income adjustment. The Department adjusted firm rate revenue accordingly by \$2,592,091 in RY1 and \$2,548,148 for Rate Year 2 to bring non-distribution related revenues in line with the gas cost adjustment, and removed PGA revenues previously included under Rate 20 and 30.

<sup>16</sup> On p. 54 of its written exceptions and during oral arguments, Yankee requested a delineation of all revenue adjustment components related to interruptible, PGA, CAM and other credits/discounts.

	<b>RY2 at Current Rates</b>	<b>Department Adjusted RY2 at Current Rates</b>	<b>Difference</b>	<b>Proposed RY2 Revenues</b>	<b>Adjusted Rate Relief</b>
<b>Rate 1</b>	\$13,953,430	\$13,085,605	(\$867,825)	\$16,762,118	\$3,676,513
<b>Rate 2</b>	\$202,571,614	\$211,568,134	\$8,996,520	\$225,957,734	\$14,389,600
<b>Rate 3</b>	\$6,176,022	\$6,732,897	\$556,875	\$6,688,021	(\$44,876)
<b>Rate 10</b>	\$49,350,194	\$49,350,194	\$0	\$52,709,907	\$3,359,713
<b>Rate 20</b>	\$41,361,216	\$41,381,676	\$20,460	\$44,029,206	\$2,647,530
<b>Rate 30</b>	\$72,488,745	\$74,032,865	\$1,544,120	\$79,426,248	\$5,393,383
Other*		(\$2,548,148)	(\$2,548,148)	\$0	\$2,548,148
	<b>\$385,901,221</b>	<b>\$393,603,223</b>	<b>\$7,702,002</b>	<b>\$425,573,234</b>	<b>\$31,970,011</b>
Non-firm revenues	\$29,276,201	\$27,789,171	(\$1,487,030)	\$29,276,201	(\$1,487,031)
Special Contracts	\$22,709,687	\$22,709,687	\$0	\$22,709,687	\$0
Other Revenue	\$3,175,249	\$3,175,249	\$0	\$3,175,249	\$0
Other Fuel Reconciliation	\$38,337,675	\$39,824,705	\$1,487,030	\$38,337,675	\$1,487,030
Credits/ discounts	(\$5,669,889)	(\$6,236,577)	(\$566,688)	(\$5,752,060)	\$484,517
CAM + Base C&LM	(\$5,875,679)	(\$5,875,679)	\$0	(\$5,875,679)	\$0
<b>Total</b>	<b>\$467,854,464</b>	<b>\$474,989,779</b>	<b>\$7,135,314</b>	<b>\$507,444,307</b>	<b>\$32,454,526</b>

\*See, Footnote 14 on p. 158.

As indicated above, the total revenue adjustments for RY1 and RY2 are \$6,665,218 and \$7,135,314, respectively.

If there were no adjustments to Yankee's proposed revenue requirements, the adjustments to the rate year revenues at current rates would reduce the requested rate relief. All else equal, the revised rate relief figures total \$22,473,840 for RY1 and \$32,454,526 for RY2. The rate relief for RY2 represents an additional \$9,980,686 over the rate relief amount in RY1 (\$32,454,526 - \$22,473,840). Actual adjustments to Yankee's revenue requirements, such as the increase in purchased gas costs related to the increase in residential sales, will change the required rate relief. The Department has included the approved billing determinants used in developing its revenue estimates as an appendix to the Decision.

#### **L. AMENDED GAS COSTS**

For RY1, Yankee estimated it would incur \$219,782,230 in gas cost expenses based on total customer requirements of 54,402,644 Mcf<sup>17</sup>. Of the total gas cost expense, \$63,280,040 is demand-related and \$156,502,190 is related to variable commodity costs. For RY2, Yankee estimated it would incur \$234,889,210 in gas cost expenses based on total customer requirements of 54,800,272 Mcf. Of the total gas

<sup>17</sup> Inclusive of firm, interruptible, seasonal and special contract customer requirements

cost expense, \$62,855,040 is demand-related and \$172,034,170 is related to variable commodity costs. Application, Schedules E-3.0(A), E-3.0(B), E-3.1(A), E-3.1(B)<sup>18</sup>.

Due to the adjustments made to Yankee's sales forecast estimate in Section II.J.3, Department Adjustments to Sales Forecast, an adjustment to its proposed gas cost expense for each rate year is necessary. The gas cost adjustment will be based on the sales increase related only to the residential rate classes, since the increase in the C&I sales relate to a shift of interruptible sales over to firm service, and interruptible sales are already included in the gas cost forecast. Schedule E-3.3(A) and E-3.3(B). The table below shows the adjustments to the approved residential sales forecast.

#### RY1 Throughput (Mcf)

	RY1 Proposed	Department Adjusted**	Additional Sales Volumes
Rate 1	520,909	462,169	-58,740
Rate 2	12,573,449	12,966,851	393,402
Rate 3	733,134	1,009,150	276,016
Total	13,827,492	14,438,170	610,678

#### RY2 Throughput (Mcf)

	RY2 Proposed	Department Adjusted**	Additional Sales Volumes
Rate 1	528,669	449,254	-79,415
Rate 2	12,759,045	13,190,379	431,334
Rate 3	743,923	1,067,719	323,796
Total	14,031,638	14,707,352	675,714

\* Application, Schedule E-3.4(a) and (b).

\*\* Section II.J.3, Department Adjustments to Sales Forecast.

The Department increases Yankee's gas cost expense by \$1,756,737 for RY1 and \$2,121,269 for RY2. This represents the variable commodity costs associated with the 610,678 Mcf and 675,714 Mcf increase in residential sales for the respective rate years. The Department calculated each rate year's increase to the cost of gas (COG) as follows.

#### RY1 Increase to Cost of Gas

A	Total COG	\$219,782,230
B	Less Fixed Demand Charges	\$63,280,040
C	Total Variable COG (C=A-B)	\$156,502,190
D	Total Sales Volume (Mcf)	54,402,644
E	Unit Variable COG (E=C/D)	\$2.8767
F	Additional Sales Volumes (Mcf)	610,678
G	Additional Variable COG (G=E x F)	\$1,756,737

<sup>18</sup> Yankee did not revise its gas cost projections during the proceeding.

**RY2 Increase to Cost of Gas**

A	Total COG	\$234,889,210
B	Less Fixed Demand Charges	<u>\$62,855,040</u>
C	Total Variable COG (C=A-B)	\$172,034,170
D	Total Sales Volume (Mcf)	54,800,272
E	Unit Variable COG (E=C/D)	\$3.1393
F	Additional Sales Volumes (Mcf)	675,714
G	Additional Variable COG (G=E x F)	\$2,121,269

The amended total cost of gas for RY1 is \$221,538,967 (\$219,782,230 + \$1,756,737) and \$237,010,479 (\$234,889,210 + \$2,121,269) for RY2.

**M. COST OF SERVICE STUDY**

In general, a cost of service study (COSS) is a mathematical business model that systematically assigns cost responsibility among customer classes for the assets and expenses incurred by a gas company to serve customers. Since the COSS culminates in summarizing customer, energy, demand and total costs by customer class, it is an invaluable tool for documenting equity and establishing revenue requirements and tariff charges by customer class.

In developing its COSS for RY1, the Company followed extensive cost allocation and apportionment rules established in the Decision dated August 9, 2000 in Docket No. 99-03-28, DPUC Review of Natural Gas Companies Cost of Service Study Methodologies (COSS Decision) and in the Decision dated September 5, 2007 in Docket No. 06-04-04, DPUC Review of Cost Allocation Issues Related to Natural Gas Transportation Services (Cost Allocation Decision). All revenue and expense data used in the COSS replicates the same data used in the Company's proposed accounting and financial exhibits. The Sales Services Charge (SSC) and the Transportation Services Charge (TSC) costs and investments were allocated among rate classes so as to earn the overall Company requested ROR from each rate class. Goodwin PFT, p. 25. Each of the following accounts were allocated using overhead proxy allocators: Account 487 Forfeited Discounts, Account 488 Reconnection Fees, and Account 493 Rent from Gas Property. Response to Interrogatory OCC-62. When installing distribution mains, the Company's operations department estimates trenching cost, also known as customer component cost, to be approximately 2/3 of the total installation cost of mains. Since historical trenching costs as a percentage of total costs have been much less, the overall historical cost of trenching calculated by the Company is approximately 13% of the total cost of main installations. Late Filed Exhibit No. 80. The Company did not perform a COSS for RY2 because it proposed to increase rates by applying an equal increase across the board.

The OCC hired a COSS witness to address several allocation methodologies that they argue improperly impacts the two smallest residential rate classes. Their most financially significant conclusion was that the Company's investment in mains should be allocated exclusively on the basis of peak day demand. Rubin PFT, p. 6. The OCC's expert applied a statistical regression formula, referred to as a power function, to the

Company's historical investment in mains to reach the conclusion that a reliable customer component of mains could not be statistically isolated. Rubin PFT, p. 11. In addition, the OCC criticized the allocation of other expenses in the area of: (1) collections; (2) sales; (3) regulatory authority; and (4) amortization, aggregating to \$69,630,000. Rubin PFT, p. 6. During cross examination, the OCC's witness acknowledged that he did not review the Department's long established COSS standards set forth in the COSS Decision. Tr. 3/15/11, p. 1153.

The CIEC submitted a brief in support of the Company's allocation of distribution mains and uncollectible expense. CIEC contended that the Company's allocation of mains into customer and demand components is consistent with established Department policy as well as the 1981 and 1989 National Association of Regulatory Utility Commissioners Gas Rate Design Manual. Concerning uncollectible expense, CIEC supports the Department's standard allocation methodology, which the Company followed. Brief, pp. 7 and 8.

While the Department finds that the Company complied correctly with the vast majority of COSS allocation rules, several minor allocation enhancements are discussed below. The OCC's conclusion that trenching costs, 2/3 of current installation costs, should be allocated on peak day demand because of some statistical result defies common sense. Trenching costs are real and highly influenced by customer dispersion, not peak day demand. Peak day demand concerns determine only the size of main inserted in the trench opened to reach customers. Allocating trenching costs on peak day demand is inappropriate. The Company allocated its investment in distribution mains correctly. The question of allocating cost responsibility for uncollectible expense has been raised many times before. In each case, the Department has reaffirmed the existing allocation methodology, and hereby does so again. Similarly, the other expenses of interest to the OCC have been allocated in accordance with account specific Department standards or correctly applied logical extensions of those standards. No allocation changes are warranted. The Department does not enjoy the luxury of advocating for a single class of customer. It must seek to balance equitable treatment among all customer classes, and does so best by honoring cost models that replicate fundamental engineering design.

The aforementioned accounts, Account 487 Forfeited Discounts, Account 488 Reconnection Fees, and Account 493 Rent from Gas Property were each allocated using overhead proxy allocators. During cross examination however, the Company admitted that direct cost assignment would be possible, since these activities are identifiable at the customer specific level. The Company will be directed to use direct assignment for these accounts, and all other accounts specifically known at the customer level in all future COSS submissions.

In its written exceptions, the OCC requested at a minimum that the draft Decision be revised to take into account the following cost aspects: (1) all applicable sections of the COSS should account for the changed customer and usage counts; (2) allocations from Accounts 487, 488, and 493, which can be identified at the customer level, should be directly assigned in a revised COSS in this proceeding rather than a future proceeding; and (3) that \$312,000 in Account 916, Miscellaneous Sales Expenses not be allocated to residential non-heating customers. Additionally, the OCC called for a

reopening of the COSS Decision to examine allocation issues in light of the many changes that have taken place in gas distribution over the last 11 years. Written Exceptions, pp. 22 and 23.

While the Department shares the OCC's concern that the compliance COSS filing be as accurate as possible, it does recognize the immateriality of several of OCC's suggestions. The Decision already requires that the COSS be updated for adjusted billing determinants. Incorporating the new allocation directives ordered for future COSS submissions in the compliance COSS, will have such a diminutive affect upon cost assignment among rate classes and ultimate customer costs that the Department ordered rate design will not be altered. Existing residential heating and non-heating customer costs are in the \$50.00 per customer range while approved customer charges are \$20.00 and less. Reopening a generic COSS investigation to reexamine allocations is not warranted. Gas distribution engineering hasn't changed in 100 years, never mind the last 11. The COSS Decision was hammered out between three gas utilities, their consultants, the OCC and other interested parties. Rate payers are best served by applying a consistent rate formula over time. The constant reshuffling of cost responsibility among customer classes, which tends to be the case absent a COSS standard, benefits no one.

## **N. RATE DESIGN**

### **1. Introduction**

Yankee did not propose any major alterations to its tariff rates, except for the required introduction of a demand charge for Rate 3. The Company's firm tariffs consist of delivery and commodity service segments. The delivery segment for all firm tariffs consists of a Customer Service Charge (CSC) and Delivery Charge with one or two declining block charges (DB1 and DB2). Demand and daily demand meter (DDM) charges exist for all but the smallest two residential tariffs. The commodity segment of all tariffs consists of a SSC and gas supply charges for customers taking standard service. Tariffs with a transportation option have a TSC consisting of a shifted cost volumetric charge and on-site TSC demand charge. The gas supply charge represents the cost of gas calculated monthly in the PGA. All charges except for the shifted cost TSC and PGA are under review in the instant distribution rate increase application. The Company performed a COSS in support of its proposed RY1 rate design. Since the Company proposed a simple across-the-board increase for RY2 rates, no COSS was performed for RY2. Goodwin PFT, p. 34.

### **2. SSC and TSC**

In the Company's initial filing, the SSC and TSC were allocated among rate classes based on the overall system average ROR. Goodwin PFT, p. 25. In the Decision dated April 1, 2009 in Docket No. 06-12-02PH02, Application of Yankee Gas Services Company for a Rate Increase – Rate Design, the Company was directed to allocate the SSC and TSC among the rate classes based on the overall ROR assigned to the rate class. The Company's filing ignored this directive. When asked to resubmit a corrected version of the filing, the Company stated that they interpreted the directive to apply to only the rate design in Docket No. 06-12-02PH02. Response to

Interrogatory GA-307. During a field audit on February 10, 2011, the Company explained that they experience technical, essentially rounding, difficulties when attempting to earn the same class-level ROR from merchant and distribution assets. Nonetheless, they can get to within approximately 0.25% of equalized RORs for both merchant and distribution assets within the same rate class. The Department will accept this level of rounding error.

The Company is directed to file all future COSS and SSC/TSC rate designs setting all rate base assets, whether merchant or distribution, equal to the class ROR in question. Further, the Company's initial filing will incorporate this approach and include legible, detailed workpapers with full explanation. If the Company wants to introduce a different concept or approach, they are free to do so in the form of a supplemental filing.

### **3. Supply Charge**

The gas supply charge used in all rate revenue calculations reflects the zero-based November 2010 PGA rates by customer class. Goodwin PFT, p. 21. The Company was hesitant to change PGA rates as part of their final rates compliance filing. This is because rate comparisons would, in part, reflect a change in PGA gas costs that are not being considered as part of this distribution only rate application. It is the Company's experience that combining market condition PGAs with distribution rate bill impacts has proved confusing to the public. Tr. 3/14/11, pp. 1014 and 1015.

While the Department shares the Company's concern, the fundamental change in gas expense made by the Department in Section II.L, Amended Gas Costs necessitates a change in supply charges presented on all compliance revenue calculations. When submitting compliance revenue proof exhibits, supply charges must be correctly calculated for each rate class and in aggregate balance to the gas expense approved in the instant case.

### **4. Rate Class RORs**

The Company established different revenue target increases for the merchant and delivery components of each rate class. Target revenues for the merchant component were designed to set merchant ROR equal to the overall system ROR for each rate class. Goodwin PFT, p. 17. This proposal is discussed in Section II.N.2. SSC and TSC, above.

The Company proposed different revenue increases for the delivery component of each rate class. While all rate classes received a revenue increase, classes with the lowest ROR at present rates received the largest revenue increases. Id.

	<b>Current ROR</b>	<b>Current Revenue</b>	<b>Proposed Revenue</b>	<b>\$ Change</b>	<b>% Change</b>	<b>Proposed ROR</b>
Rate 1	0.3%	\$11,426,332	\$13,610,527	\$2,184,195	19.1%	5.1%
Rate 2	2.5%	\$100,005,797	\$119,801,405	\$19,795,608	19.8%	6.5%
Rate 3	8.5%	\$2,893,035	\$3,079,153	\$186,118	6.4%	10.0%
Rate 10	8.1%	\$24,157,878	\$25,832,127	\$1,674,249	6.9%	9.8%
Rate 20	9.1%	\$16,994,814	\$18,521,620	\$1,526,806	9.0%	11.1%
Rate 30	7.3%	\$36,368,231	\$41,142,812	\$4,774,581	13.1%	9.8%
Total Firm		\$191,846,087	\$221,987,644	\$30,141,557	15.7%	
Seasonal		\$1,419,258	\$1,419,258	0	-	
Total	5.0%	\$193,265,345	\$223,406,902	\$30,141,557	15.6%	8.1%

## Response to Interrogatory GA-2SP03, p. 3.

The Department fully endorses the Company's target revenue strategy. Increasing rate class revenues to improve the relative relationship of class RORs, improves inter-class equity. Customers should pay for the level of distribution system and expenses incurred by the Company to satisfy their load characteristics. Since it is impractical to design individualized rates for each customer, rates are developed for classes of customers. Nonetheless, rate classes with 100% COSS designed demand charges do, for all practical purposes, deliver customer-specific rates. Demand charges, which carry COSS derived interclass equity through to individual customers, are valued highly by the Department.

## 5. RY1 Proposed Rates

### a. Rate 1

Current and proposed charges for Rate 1 are presented below:

<b>Charges</b>	<b>Current</b>	<b>Proposed</b>	<b>\$ Change</b>	<b>% Change</b>
CSC	\$16.00	\$19.50	\$3.50	21.9%
DB1 (per ccf)	\$1.3821	\$1.6152	\$0.2331	16.9%
SSC	\$0.0342	\$0.0421	\$0.0079	23.1%
Revenue <sup>19</sup>	\$13,753,194	\$15,973,236	\$2,220,042	16.1%

## Response to Interrogatory GA-2SP03, p. 18.

The Company proposed the greatest overall revenue increase for Rate 1 in recognition that it is currently providing an ROR of only 0.3%, which is the lowest ROR of all firm rate classes. The relative increases in CSC and DB1 result in slightly lower bill increases for the larger customers in this rate class. Goodwin PFT, pp. 25 and 26.

The Department agrees with the rate design philosophy proposed by the Company for Rate 1.

<sup>19</sup> Revenue includes a cost of gas and conservation adjustment charge not shown above.

**b. Rate 2**

Current and proposed charges for Rate 2 are compared below:

<b>Charge</b>	<b>Current</b>	<b>Proposed</b>	<b>\$ Change</b>	<b>% Change</b>
CSC	\$13.50	\$18.40	\$4.90	36.3%
DB1 (per ccf)	\$0.7523	\$0.8544	\$0.1021	13.6%
DB2 (per ccf)	\$0.4974	\$0.5688	\$0.0714	14.6%
Revenue	\$199,638,544	\$217,573,712	\$17,935,168	9.0%

Response to Interrogatory GA-2SP03, p. 18.

In the last rate application, the Company set the Rate 2 CSC slightly less than the Rate 1 CSC for rate continuity and made a similar proposal in the instant case. As with Rate 1, the relative increases in CSC and DB1 result in slightly lower bill increases for the larger customers in this rate class. The smaller increase in total revenue, in comparison to Rate 1, reflects the fact that distribution revenue is a smaller percentage of total revenue than for Rate 1. Goodwin PFT, pp. 26 and 27.

The OCC recommended that an approximately equal increase be applied to customer and distribution charges for Rate 1 and Rate 2. They argue that since their COSS analysis showed customer costs to be overstated, lower customer charges are warranted. Brief, p. 141.

The Department accepts the Company's rate plan except that it will adjust customer charges when designing final rates. Since the RY1 revenue requirement is actually a reduction to present rates, proposed customer charges will be reduced. The Rate 1 customer charge will be reduced less because it generates approximately 44% of total distribution revenue. The Rate 2 customer charge was set to generate approximately 33% of customer costs, similar to the increase granted in the Company's last rate filing. The overstated customer cost argument presented by OCC was denied in Section II.M. Cost of Service Study. Customer charges that are under 50% of customer identified costs are reasonable. Customer costs introduce a form of budget billing that mitigates winter period bills. OCC's proposal of increasing volumetric charges to compensate for reduced customer charges makes customer bills more sensitive to weather induced usage.

**c. Rate 3**

Current and proposed charges for Rate 3 are presented below:

Charge	Current	Proposed	\$ Change	% Change
CSC	\$38.00	\$41.00	\$3.00	0.8%
DB1 (per ccf)	\$0.2922	\$0.2979	\$0.0057	2.0%
DB2 (per ccf)	\$0.2139	\$0.2171	\$0.0032	1.5%
SSC (per ccf of Billing)	\$0.0686	N/A		
SSC (per ccf of Demand)	N/A	\$0.7634		
TSC (per ccf of Billing)	\$0.0509	N/A		
TSC (per ccf of Demand)	N/A	\$0.7634		
DDM	\$23.56	\$27.96	\$4.40	18.7%
Demand	N/A	\$0.0977		
Revenue	\$6,086,346	\$6,444,937	\$358,592	5.9%

Response to Interrogatory GA-2SP03, p. 18.

While the Company was ordered to introduce a distribution demand charge in its last rate case, it also introduced full COSS demand-based SSC and TSC charges. Given the substantial level of the SSC and TSC, they chose to introduce only a modest distribution demand charge at this time. Yankee believes that customers should be given an opportunity to understand demand charges and respond accordingly before a more cost-based distribution demand is implemented. The Company sampled approximately 85% of the total Rate 3 customer population to develop the demand billing determinants used in this case. In light of the new introduction of demand charges, the Company performed bill impact analysis over a wide range of consumption levels. Goodwin PFT, pp. 27 and 28.

The Department will follow closely the Company's overall rate plan when designing compliance rates. Although the introduction of a demand charge abruptly shifts customer cost recovery from a volumetric to demand recovery mechanism, demand revenues represent only 13% of total revenues. An examination of bill impacts shows that bill increases are approximately evenly distributed across both consumption and load factor levels.

**d. Rate 10**

Current and proposed charges for Rate 10 are presented below:

Charge	Current	Proposed	\$ Change	% Change
CSC	\$42.00	\$45.00	\$3.00	0.7%
DB1 (per ccf)	\$0.4896	\$0.4545	(\$0.0351)	(7.2%)
DB2 (per ccf)	\$0.2770	\$0.2644	(\$0.0126)	(4.5%)
SSC (per ccf of Demand)	\$0.9748	\$1.1057	\$0.1309	13.42%
TSC (per ccf of Demand)	\$0.9748	\$1.1057	\$0.1309	13.42%
DDM	\$23.56	\$27.96	\$4.40	18.7%
Demand	\$0.2500	\$0.7328	\$0.4828	193.1%
Revenue	\$48,546,500	\$50,684,062	\$2,137,562	4.4%

Response to Interrogatory GA-2SP03, p. 19.

The Company's proposed increase in the distribution demand charge accounts for the majority of the revenue increase sought from this rate. Consequently, the CSC was altered slightly to balance the revenue requirement while the DB1 and DB2 unit charges were reduced slightly. The Department supports the Company's design goal of continuously increasing demand charges and will follow a similar plan when designing final rates.

**e. Rate 20**

Current and proposed charges for Rate 20 are presented below:

Charge	Current	Proposed	\$ Change	% Change
CSC	\$63.00	\$73.00	\$3.00	15.9%
DB1 (per ccf)	\$0.2326	\$0.1782	(\$0.0544)	(23.4%)
DB2 (per ccf)	\$0.0577	\$0.0564	(\$0.0013)	(2.3%)
SSC (per ccf of Demand)	\$0.9499	\$0.9999	\$0.0500	5.3%
TSC (per ccf of Demand)	\$0.9499	\$0.9999	\$0.0500	5.3%
DDM	\$23.56	\$27.96	\$4.40	18.7%
Demand	\$1.0840	\$1.6248	\$0.4828	49.9%
Revenue	\$40,727,829	\$42,473,813	\$1,745,984	4.3%

Response to Interrogatory GA-2SP03, p. 19.

The increase in the demand charge represents the most significant change proposed for this rate class. Even though the increase is significant, it produces reasonably consistent bill impacts according to the Company. A full COSS demand charge is approximately \$2.27. When reducing the delivery charges, the Company applied the greatest reduction to the first block in recognition of the potential cross-over with Rate 30. Goodwin PFT, pp. 30 and 31.

The Department's review of bill impacts finds them to be reasonable. It supports moving the demand charge closer to true cost and mainly adjusting the first delivery charge block to mitigate the bill impact of Rate 30 crossovers. The Department will implement a similar plan when designing final rates.

**f. Rate 30**

Current and proposed charges for Rate 30 are presented below:

Charge	Current	Proposed	\$ Change	%Change
CSC	\$147.00	\$240.00	\$93.00	63.3%
DB1 (per ccf)	\$0.0694	\$0.0751	\$0.0057	8.2%
DB2 (per ccf)	\$0.0118	\$0.0128	\$0.0010	8.5%
SSC (per ccf of Demand)	\$0.7878	\$0.8014	\$0.0500	6.3%
TSC (per ccf of Demand)	\$0.7878	\$0.8014	\$0.0500	6.3%
DDM	\$23.56	\$27.96	\$4.40	18.7%
Demand	\$2.0357	\$2.2007	\$0.1650	8.1%
Revenue	\$71,855,623	\$76,806,721	\$4,951,098	6.9%

Response to Interrogatory GA-2SP03, p. 19.

The Company proposed setting both the customer and demand charges very close to true COSS levels, which are approximately \$269 for the Customer Charge and \$2.26 for the Demand Charge. Both blocks of the delivery charge were also increased to satisfy the total revenue target. Goodwin PFT, p. 32. The Department supports this proposal. The large increase in the customer charge has only a modest impact on customer bills because of the large level of consumption exhibited by customers in this rate class. The Department will follow a similar plan when designing final rates.

## 6. Rate Design Directives

The Company will be directed to perform a new COSS for RY1 reflecting the billing determinants and financial profile approved by the Department herein. The COSS will also incorporate the new COSS directives discussed in Section II.M. Cost of Service Study, above. Relying on this COSS, rates will be established as follows:

1. For Rate 1 and Rate 2, Customer Charges of \$18.50 and \$15.00 are approved for Rate 1 and Rate 2, respectively. Rate 2 delivery rates will be adjusted to maintain the proposed inter-block relationship.
2. For Rate 3, a customer charge of \$41.00 and a Demand Charge of \$0.10 are approved for Rate 3. Delivery rates will be adjusted to maintain the proposed inter-block relationship.
3. For Rate 10, a customer charge of \$46.00 and a demand charge of \$0.75 are approved for Rate 10. Delivery rates will be adjusted to maintain the proposed inter-block relationship.
4. For Rate 20, a customer charge of \$73.00 and a Demand Charge of \$1.66 are approved for Rate 20. Delivery rates will maintain the proposed inter-block relationship as best possible to mitigate potential customer cross over with Rate 30.
5. For Rate 30, the customer and demand charge for Rate 30 will both be set at 100% COSS rates. Delivery rates will maintain the proposed inter-block relationship as best possible to mitigate potential customer cross over with Rate 20.
6. A DDM charge of \$28.00 is approved for all appropriate rate classes.
7. Seasonal rates will not be increased.
8. Supply charges will be adjusted to match the new gas cost approved by the Department.
9. SSC and TSC will reflect the ROR of their respective rate class. New class revenue targets will maintain the same delivery class ROR to system average ROR as proposed by the Company in Response to Interrogatory GA-2SP03, p. 3.

The RY1 compliance filing will consist of:

1. Testimony,
2. Exhibit CRG-9 through CRG-13 and CRG-15,
3. Exhibits E-1.0 and E-1.1,
4. Schedule E-3.6 and E-3.7, and
5. Schedule E-6.0, all Sections A through G.

Additionally, the Company will be directed to perform a new COSS reflecting the billing determinants and financial profile approved for RY2 herein. New class revenue targets will maintain the same delivery class ROR to system average ROR as proposed by the Company in Exhibit CRG-10 (A) in the Company's response to Interrogatory GA-2SP03. The SSC and TSC will reflect the ROR of their respective rate class. The customer and demand charge for Rate 30 will be set at 100% COSS rates. Rate 30 delivery rates will maintain the proposed inter-block relationship as best possible to mitigate potential customer cross over with Rate 20. Customer charges will remain the same for all rate classes and demand charges will be increased as follows:

#### Demand Charges

	RY1	RY2
Rate 3	\$0.10	\$0.25
Rate 10	\$0.75	\$1.00
Rate 20	\$1.66	\$2.00

Delivery charges will be adjusted to satisfy class revenue targets. Seasonal rates and the DDM charge will not change. The RY2 compliance filing will include the same exhibits and schedules as is required for the RY1 compliance filing.

#### **O. ECONOMIC DEVELOPMENT TARIFF RIDER**

By Decision dated April 16, 1992, Docket No. 90-05-11, Application of Yankee Gas Services Company to Increase its rates and Charges, et. al., (ED Decision) the Department established economic development programs for the 10 largest regulated utilities in Connecticut in response to Public Act 91-248, An Act to Encourage the Development and Implementation of Economic Development Programs and Conservation and Load Management Technologies. For each of the three gas companies, the Department established a Manufacturing Economic Development Rider (Rider MED) and an Economic Development Rider (Rider ED, together Riders). The purpose of the economic development riders was to "launch an ambitious effort to retain and attract manufacturers and other businesses" to the state of Connecticut. ED Decision, p. 7. The Riders discount firm rates for C&I customers who locate, retain or expand within the State of Connecticut.

By Decision dated April 23, 2003 in Docket No. 01-05-19PH02, Application of Yankee Gas Services Company for a Rate Increase – Rate Design, the Department approved proposed language that extends the applicability of Yankee's Riders MED and ED to existing, nonresidential customers who demonstrate to Yankee that they have a viable bypass plan of Yankee's distribution system (Bypass Provision). Viability of the bypass plan would be reviewed by Yankee for validation based on distance to the alternate source and economics. Tr. 3/30/11, pp. 2469 and 2470. CNG and Southern do not have a bypass provision in their economic development riders.

Currently, Yankee has three customers that receive a discounted distribution rate under Rider ED. One of these customers, Mashantucket Pequot Tribal Nation (MPTN or Foxwoods) receives the Rider ED discount under the Bypass Provision. Response to Interrogatory GA-286; Tr. 3/30/11, pp. 2470 and 2471. Yankee provides two major

services to MPTN. One service, which became operational in June 2010, is a 199 PSI line that serves the gas load for a new DG facility. The second service, which became operational in September 2010, is a 60 PSI line that serves space heating, water heating, cooking and other natural gas end uses. Yankee served the facilities of MPTN until 1997 at which time it began receiving service from another gas provider. Response to Interrogatory GA-270SP01.

The OCC expressed concerns with two aspects of Rider ED. First, the OCC argues that Yankee violated the terms of the Bypass Provision which to be eligible, the potential Rider ED customer must be an existing Yankee customer. The OCC, citing Yankee's testimony, argued that MPTN was not an existing Yankee customer at the time it was given a distribution discount under Rider ED. Therefore, Yankee was in violation of its tariffs. Brief, p. 144. Second, the OCC argues that the Bypass Provision does not belong in an economic development tariff because it lacks any economic development requirement. *Id.*, p. 145. During cross-examination, the Department asked Yankee if the Bypass Provision was like having a "special contract" within the firm rate. See, Tr. 3/30/11, p. 2476. The OCC agrees with the "special contract" description, likening it to a special "special contract" discount rate within Rider ED that has no need for an economic development aspect. Brief, p. 145.

Yankee contends that MPTN was an existing customer at that time it began providing service to MPTN's reservation under Rider ED in September 2010. Yankee began providing service to MPTN's DG facility in June 2010. Therefore, MPTN was an existing Yankee customer in accordance with the terms in Rider ED. Brief, p. 61.

Yankee defines economic development as something that has an overall benefit for the state of Connecticut, its citizens and its ratepayers. In this context, according to Yankee, its ratepayers are the beneficiaries of an anti-bypass. In Yankee's opinion, having a bypass risk is no different than having a viable relocation plan. Tr. 3/30/11, pp. 2475 and 2476. Yankee argues that the Bypass Provision should remain in Rider ED. Brief, p. 62.

The Department finds that MPTN was an existing customer of Yankee's when it began receiving service under Rider ED. Therefore, Yankee did not violate its tariffs in providing service to MPTN under Rider ED as argued by the OCC.

Regarding the appropriateness of the Bypass Provision in Yankee's Riders ED and MED, in the Department's view, the Riders were established to help achieve public benefits through increased jobs and capital investments. The Department disagrees with Yankee's opinion that having a bypass risk is no different than having a viable relocation plan, at least in terms of economic development. While the Bypass Provision does provide benefits to Yankee and its ratepayers through added sales and expansion of customer base, it does not necessarily retain or create jobs in the state. The Department agrees with the OCC that there is no economic development aspect to the Bypass Provision in return for the discounted rate. Additionally, it appears that Rider ED is being used in place of a special contract but without Department oversight and approval. This makes the Department very uncomfortable.

For the above reasons, the Company will be directed to remove the Bypass Provision from Riders ED and MED. Customers currently on Rider ED or MED under the Bypass Provision will be grandfathered in until the term of the current Rider contract with Yankee expires. Additionally, in the event a viable bypass plan is on the table, Yankee has the opportunity to negotiate a special contract. With the termination of the Bypass Provision, the Riders among the three gas companies will again be consistent.

In addition, upon reviewing Rider ED, the Department noted that under the Availability section of the tariff, the language does not specify that it is available to "firm" customers as does Rider MED. Because the Riders are available only to firm customers, Yankee will be directed to add the word "firm" under the Availability section to read "any nonresidential firm customer."

#### **P. CAM RECONCILIATION MECHANISM**

Yankee made an out-of-model adjustment to its sales trend forecast to capture the negative impact on sales growth related to the dramatic increase in its company sponsored conservation programs over recent years. Since 2007, the traditional low-income residential conservation program was expanded and is now available to virtually all residential customers. Also, there has been a significant ramp-up in efforts to develop conservation programs for the commercial and industrial sectors. Response to Interrogatory GA-146, Attachment, pp. 3-8. As a result, Yankee adjusted its Trend Forecast to reflect lost sales of 92,626 Mcf for RY1 and lost sales of 194,500 Mcf for RY2. The out-of-model adjustment assumes lost sales related to approximately \$4.832 million in conservation spending and reflects the cumulative impact of lost sales for each rate year. Late Filed Exhibit No. 73; Tr. 3/14/11, p. 956.

The Company was asked how its proposal may affect the existing policy of reimbursing lost sales and associated margin through the conservation adjustment mechanism (CAM). Yankee discussed three approaches to handling the sales/revenue impacts of conservation and associated lost margin within the rate case. The first approach is to ignore the impacts of projected incremental conservation activity within each rate year in the sales and revenue forecast. This would result in a higher forecast level than what is truly expected, and thus result in a lower level of authorized revenue. The actual impact of the lost margin related to each rate years' conservation would be accounted for in CAM calculations. A second approach would be to include in the rate case forecast a projection of conservation and its related lost sales/margin impacts, and then in subsequent rate year's CAM calculations, reconcile the difference between the projected rate case conservation impacts and the actual conservation impacts based on the reported conservation activities during each rate year. A third approach is for the sales and revenue forecast in the rate case to include projections of lost sales and margin, and include no lost margin true-up in the subsequent rate year's CAM calculations. Under this approach, the authorized rate case revenues would have already accounted for the incremental rate year(s) impacts of conservation; thus, the subsequent rate year's CAM calculation would not include any incremental lost margin. The CAM calculation would begin accounting for incremental conservation related activities and lost margin impacts in the period of time immediately following the conclusion of the rate year. This is the approach being proposed by Yankee in this case. Response to Interrogatory GA-224.

Upon further discussion, Yankee indicated that if it assumed the lost margins from conservation effectively in the sales forecast, that level of reduced sales and revenue for the two rate years would be embedded in the approved rates of the Company. Consequently, it would not seek any additional lost margins in the CAM rates related to the rate years. A reasonable alternative would be to reconcile the assumed lost margin in the rate case going forward. While Yankee indicated it would not object to the Department wanting to reconcile lost margins, it would be a lot more challenging administratively. However, there would be no equity issue with Yankee refunding customers if it assumed too much in the sales forecast or recovering from customers if it did not assume enough. Tr. 3/14/11, pp. 956-960.

The Department finds that using a reconciliation mechanism to adjust actual lost sales and associated margins to what was assumed in the forecast is reasonable and appropriate at this time. This is in light of the changing dynamic of conservation and load management activities Yankee has and continues to undertake. The Department notes that that conservation program activity has ramped up significantly as a result of increased awareness and specific actions taken by Yankee and the other CT gas companies in recent years. However, depending on actual program demand, Yankee might not be able to achieve its desired spending and associated savings, which happens occasionally. Late Filed Exhibit No. 72. A reconciliation mechanism would best serve to credit Yankee in the event that its actual conservation activities and associated savings exceed those forecasted in the rate case and/or credit back to customers if the forecasted sales reductions are not achieved. This would remove any disincentives to reaching and/or exceeding its conservation program goals. The Department notes that Yankee's approved conservation budget for 2011 is higher than the \$4.832 million conservation spending level used in developing the out-of-model adjustment to the sales forecast. Meeting or exceeding the allowed budget could place Yankee in a situation where it loses more sales than anticipated and under-recovers its revenue requirement absent reconciliation in the CAM. The Department will review the proposed reconciliation mechanism in its annual CAM review performed in the semi-annual PGA filings.

Since Yankee is treating company sponsored conservation savings as an out-of-model adjustment to its sales forecast based on projected expenditures and associated savings, the assumed lost sales are easily quantifiable in this case. To the extent the programs mature in the next several years and/or the trend of increased activity is contained in several years of historical data, the trend forecast will capture future impacts of lost sales from company sponsored conservation. In that case, an out-of-model adjustment will no longer be necessary. At the time of Yankee's next rate case, it will need to quantify the specific effect its conservation programs had and will continue to have on the trend forecast to find a baseline in which to reconcile its actual lost sales in the CAM. The Department will direct Yankee to provide this analysis in its next rate case. A disproportionate increase relative to recent history and/or decline in company-sponsored conservation activity at the time of Yankee's next rate case may necessitate an out-of-model adjustment to future sales forecasts.

**Q. NEW/CONVERSION CUSTOMER TRACKING PROGRAM**

The Company was requested to provide new or converted customer information by rate class. Yankee stated that it does not track such information. According to Yankee, it is only generally aware of the net change in total customers by rate class. It has no means of identifying with certainty when equipment changes are made for individual customers, unless the customer notifies Yankee of the change. Responses to Interrogatories GA-14 and GA-338; Tr. 3/30/11, pp. 2462 and 2463.

As a result of the Department's inquiry in this matter, Yankee has begun tracking new sales activity by type (e.g., technology, rate class, new customer, conversions) within its sales activity tracking system (Saratoga CRM). It also has begun to categorize each sales call in an effort to project the direction of new business. As meters are set for these accounts, Yankee stated that it would be able to draw queries from the tracking system to analyze the number of new customers and conversions and / or expansion of existing customers. While this tracking system would be able to track new accounts coming into the system, it would be unable to track customers who leave the system. Yankee stated that it would continue to develop a better tracking system that would be more sophisticated in tracking actual customer migrations on and off the system. Late Filed Exhibit No. 70; Tr. 3/30/11, p. 2462.

Yankee will be directed to develop a customer tracking system that will track and maintain information on the number and load size of new customers, conversions, and expanded load as accurately as possible. This information will be tracked monthly on a rate class basis and by other customer types, such as end-use, where possible.

**R. DECOUPLING**

Yankee did not propose a formal decoupling mechanism in the instant case. While it believes it will benefit customers, it did not pursue the issue because of recent Department Decisions. Powell PFT, p. 8. Yankee contended that it has satisfied the decoupling requirement stated in Conn. Gen. Stat. §16-19tt through its proposed rate design. More specifically, proposed rates in both RY1 and RY2 exhibit a slight increase in fixed cost recovery. Response to Interrogatory GA-483. The Company stated that full decoupling<sup>20</sup> through rate design is, practically speaking, impossible. Since the majority of overall revenue is generated from residential rate classes that lack demand charges, volumetric rates will always exist, lest customer charges encircle the \$50.00 per month level. The Company stated that full decoupling would align the corporate culture in support of energy efficiency, conservation and possibly fuel switching away from natural gas. While the Company and shareholders continue to maintain a financial interest in increased sales under proposed rates, the Company does not consider increased gas consumption to be a bad thing. As long as gas is used in an economically efficient manner, the Company sees sales growth as benefitting itself, customers, society and Connecticut. Tr. 3/15/11, pp. 1115-1123.

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<sup>20</sup> In general, full decoupling refers to a revenue true-up mechanism that effectively severs the link between revenue and sales.

ENE's intervenor involvement in the instant proceeding was limited to the issue of decoupling. In short, ENE believes that full decoupling must be implemented. This is because only full decoupling is capable of breaking the link between distribution revenue and sales. ENE also argued that decoupling through rate design, an alternative to full decoupling under §16-19tt(2), is detrimental to small residential customers who would be required to pay minimum monthly customer charges in the \$50.00 per month range. Just as importantly, recovering all revenue through fixed charges would weaken price signals for increasing conservation and efficiency. According to ENE, full decoupling removes financial disincentives Yankee has for not supporting conservation while also supporting worthy social goals such as, reduced emissions and increased energy independence, as well as supporting green-jobs and improving the local economy. Brief, pp. 2-5.

In their respective written exceptions, most parties raised concerns with the Department's draft Decision regarding decoupling. See, Written Exceptions of the OCC pp. 2-7; AG pp. 4-5; CIEC pp.1-2; and ENE 1-4. Upon review of the issue, the Department determined to leave the resolution of the matter for a future proceeding and does not express an opinion in this case.

## **S. PIPELINE SAFETY**

### **1. Gas Odor Complaint Response Time**

The Companies' gas odor complaint response time (GOC Response Time) can affect the potential safety of the public and gas customers. The GOC Response Time is the elapsed time between when the Company receives a gas odor complaint and when a competent, trained and qualified gas company person in evaluating gas odors, arrives at the scene. A potential gas odor hazard cannot reliably be evaluated unless investigated by a competent, trained and qualified person. The more rapid a response, the less likely a true emergency will develop. The Department has previously established the following guidelines to evaluate the GOC Response Time of gas companies: 30 minutes during normal business hours and 45 minutes at all other times. Tr. 3/21/11, p. 1560. These guidelines were initially established in the form of monitoring reports of Class 1 and Class 2 leaks filed by the gas companies under Conn. Agencies Regs. §16-11-12. Recently, Yankee revised its leak response procedures to include the use of local fire departments in situations where Yankee does not believe it will meet the Department guidelines. Tr. 3/21/11, pp. 1560 and 1561.

Yankee is to be commended for establishing this new procedure that will help to ensure public safety. The Department, however, notes that these GOC Response Times measure the time it takes for a competent, trained and qualified gas company employee to arrive, not the time it takes the local fire department or other emergency officials to arrive. Consequently, the GOC Response Times reported to the Department must be based on the arrival of the gas company employee; however, if Yankee exceeds the guidelines, it should include in its explanation whether or not the local fire department was utilized and if so, its associated response time. Yankee will be directed to file its GOC Response Times and detailed explanations for exceeding the guidelines through an associated order.

## **2. Class 2 Leak Backlog**

Yankee, like most gas companies, classifies gas leaks as Class 1, Class 2 or Class 3. Class 1 leaks represent an existing or probable hazard to persons or property, and require immediate repair or continuous action until the conditions are no longer hazardous. Class 2 leaks are recognized as being non-hazardous at the time of detection, but justify scheduled repair based on a probable future hazard. Class 3 leaks are considered non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous. Tr. 3/21/11, pp. 1564 and 1565.

The Department has expressed its concern with regard to class 2 leak backlogs through both Gas Pipeline Safety Unit (GPSU) audits and Department decisions. The most recent notable decision is Docket No. 09-09-08, DPUC Investigation into the Contemplated Workforce Reductions by Connecticut Natural Gas Corporation and The Southern Connecticut Gas Company, dated February 11, 2010, where the Department set the maximum number of outstanding Class 2 leaks at the end of each calendar year at no greater than 60. Because a Class 2 leak is a leak that justifies scheduled repair based on a probable future hazard, it is a leak that must be repaired. Therefore, deferring repair of a Class 2 leak through the winter, when frost would tend to cap any leakage and potentially increase the migration area, is not desirable. The Department notes that Yankee reduced its Class 2 leak backlog to 141 at the end of 2009; however, as of the end of 2010 that number had increased to 263. Response to Interrogatory GPS-009-SP01.

The Department is committed to ensuring that the Company does not incur a significant backlog of Class 2 leaks and, therefore, will limit the maximum allowable backlog of Class 2 leaks. Based on the size and composition of Yankee's distribution system in comparison to the other Connecticut gas companies, the Company will be directed to reduce the backlog of Class 2 leaks to no greater than 90 by December 31, 2012. Thereafter, the Company will have a backlog of Class 2 leaks no greater than 90 at the end of each calendar year. Yankee also will be directed to file a tabulation of Class 2 leak status through an associated order.

## **3. Inside Leak Survey**

Historically, the Company has performed inside leak surveys and meter set inspections on an opportunity basis. This means that when the Company responds to a Gas Odor Complaint call or performs service maintenance, the inside gas piping upstream of the outlet of the meter is inspected. The Company will continue to perform and document these opportunity based inspections. Tr. 3/21/11, p. 1583.

The Company has also instituted a new program for performing inside meter set inspections and leak surveys. In conjunction with their walking leak survey, the Company will perform inside leak surveys and inspections. The inspections will be performed starting in the second quarter of each year, and tracked and documented in a database. Any follow-up work will be tracked in the Company's work order system. Response to Interrogatory GPS-006.

After the inspection systems are established, the Company will move toward incorporating the opportunity based inspections as part of the inside leak survey and inspection database. Response to Interrogatory GPS-006. The Company and the GPSU will continue to work together on this issue to ensure efficiencies and proper documentation of these activities.

#### **4. Distribution Integrity Management Program**

The United States Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) has implemented integrity management regulations of gas distribution systems (DIMP), intended to help ensure pipeline integrity and improve pipeline safety. The purpose of these regulations is to require that pipeline operators analyze their particular pipeline systems, circumstances and programs to identify potential weaknesses that could result in high consequence accidents and to address those weaknesses before accidents occur. The DIMP regulations became effective February 2, 2010 and require gas companies to have a plan implemented by August 2, 2011. The Department, through the GPSU, has been involved with this rulemaking since its inception. The GPSU has also been working with the Northeast Gas Association (NGA) and the Connecticut gas companies to ensure proper implementation of what is considered the largest set of new regulations affecting distribution companies since the Natural Gas Pipeline Safety Act of 1968. Tr. 3/21/11, pp. 1590-1600.

It is important to note here that the DIMP regulations promulgated by PHMSA are the minimum federal pipeline safety standards. The DIMP regulations, just as all of the other regulations contained in Title 49 of the Code of Federal Regulations Part 192, are set as a baseline minimum safety level for the entire country. Due to the significant variances between gas companies, their infrastructure and their respective geographic regions, the DIMP regulations are mostly performance based in nature. The DIMP regulations do not specifically state that the replacement of cast iron or bare steel pipe is required. The DIMP regulations also do not explicitly state that gas companies must perform additional leak surveys during winter months because of frost concerns. What the regulations do say is that gas companies must have knowledge of their systems, identify threats to their systems, evaluate and rank those risks, identify and implement measures to address these risks, measure performance, monitor and report results, evaluate effectiveness and periodically evaluate and improve the program. These new regulations are performance based to allow each individual company to tailor the plan based on its system and associated threats. Tr. 3/21/11, pp. 1590-1600.

The two largest threats to Yankee's system integrity are third party damage and old distribution infrastructure, such as cast iron and bare steel piping. Tr. 3/21/11, pp. 1596 and 1597. An extensive system of procedures, training and qualifications exists to minimize the threat of third party damage. In addition, Yankee works closely with the GPSU and Call Before You Dig (CBYD) to further diminish this threat. The Department will continue to closely track the Company's third party damage rates through an associated order. With respect to Yankee's distribution system, the Department recognizes that Yankee has substantial infrastructure with which to provide service to its customers. Some of that infrastructure is new, made of modern materials (e.g., coated and cathodically protected steel and plastic), installed using the most current

construction practices, and operated and maintained in a manner designed to provide high levels of reliability and safety. However, some of the infrastructure is old and made of materials and installed with construction practices no longer considered state of the art (e.g., cast iron and bare steel). All agree that the only way to reduce the threat of cast iron and bare steel pipe leaks is replacement. Tr. 3/21/11, pp. 1602, 1603, 1711, and 1712. While traditionally Yankee has had programs designed to address the ongoing operation and maintenance requirements, as the infrastructure has aged the Department finds the need for a more extensive integrity management program.

One of the key elements of DIMP is the need to show improvement in the safety of the companies' systems. Tr. 3/21/11, pp. 1599 and 1600. The DIMP regulations do not require companies to measure their safety level against a national average or against any other company. Instead, the Company must show internal safety improvement. In addition, comparing Yankee's safety levels to national averages is not comparing apples to apples. There are gas companies that do not have cast iron or bare steel replacement programs, not all gas companies experience frost conditions and very few places in the United States are as densely populated as Connecticut. Tr. 3/21/11, pp. 1684-1687, 1696, and 1697. Yankee and the other Connecticut gas companies are necessarily held to a higher standard due to the considerable consequences of accidents in our state. Cast iron and bare steel piping are considered threats to safety because of leaks. These leaks are caused by several factors including cracking of cast iron and corrosion of bare steel. The cracking of cast iron is particularly disconcerting in that there is no clear trend in the number of cracks per year. Tr. 3/21/11, pp. 1609 and 1610.

For Yankee to show the required safety improvement, it would be necessary to remove a significant portion of the cast iron piping from their system. Yankee currently has 446 miles of cast iron pipe and 90 miles of bare steel pipe. Response to Interrogatory OCC-106SP01. If Yankee continues at its current replacement rate, it would take approximately 67 years to complete replacement of the cast iron pipe. Yankee proposes to increase its capital spending on cast iron and bare steel replacement by approximately \$13 million in RY1, and approximately \$25 million in RY2. Subsequent to RY2, Yankee plans to maintain this \$40 million capital spending level (i.e., \$15 million authorized in 06-12-02PH01 plus an incremental \$25 million) in each subsequent year. Andrukiewicz PFT, p. 9. The Department finds that the level of capital spending proposed for replacement of cast iron mains, bare steel mains, and bare steel services is reasonable to adequately provide for the integrity of Yankee's pipeline system and it anticipates that this level of replacement will reflect the improvement required by the DIMP regulations. Yankee will be directed to spend approximately \$28.0 million during RY1, \$40.0 million during RY2 and no less than \$40.0 million over each subsequent calendar year through an associated order.

The DIMP regulations are brand new for all gas companies even though Yankee and the other Connecticut gas companies have had many pieces of the DIMP requirements in place for many years. Yankee is the first company to come before the Department in a rate proceeding since the DIMP regulations became effective. It is expected that CNG and Southern will work closely with the GPSU and Yankee prior to their next rate application(s) to ensure that they are prepared to request the necessary funding for their DIMP programs. Although Yankee has not requested additional

employees for its DIMP program in this rate application, Yankee is reminded that it must determine the best mix of the use of contractors versus Company employees to ensure the lowest costs for rate payers. Because this is just the beginning of the DIMP process, the Department, through the GPSU, will be actively reviewing the progress and will work with Yankee to determine if an adequate level of safety improvement is being attained. In addition to the on-going review provided by the GPSU, Yankee will be directed to file a pipe replacement program report through an associated order.

The Department acknowledges the OCC and AG position for the need to ensure the risk-based approach for pipe replacement is fully justified within the Yankee Gas DIMP program. OCC Written Exceptions, p. 18; AG Written Exceptions, p. 3. The Department, through the GPSU, will be fully reviewing the Yankee Gas DIMP program and will ensure that the appropriate risk-based approaches are in place.

## **T. CUSTOMER SERVICE**

### **1. Customer Service Document Review**

As part of the review of Yankee's original Application, the Department examined numerous aspects of the Company's customer service policies and procedures. Yankee's standard bill form was reviewed and found in compliance with Conn. Agencies Regs. §16-11-34. Schedule H-2.0A. Yankee's termination notice and customer rights notice also were reviewed and found to be in compliance with the requirements of Conn. Agencies Regs. §16-3-100. Application, Schedule H-2.0B, Response to Interrogatories CSU-1 through CSU-3. The Department also reviewed Yankee's policies and procedures for estimating bills as well as the bill form and found these to be in compliance with the requirements of Conn. Agencies Regs. §16-3-102. Schedule H-2.0C; Response to Interrogatory CSU-4. The Department also notes that Yankee issues a very low amount of estimated bills to its customers. On an annual basis since 2008, less than 1% of the bills issued by the Company are estimated. Response to Interrogatory CSU-5.

The Department also reviewed the current policies and procedures Yankee utilizes to administer the collection of security deposits from commercial/industrial customers and found them to be in compliance with Conn. Agencies Regs. §16-11-32a and §16-262j-1. Application, Schedule H-2.0F (Customer Service Policy No. Y150.1). Along with these policies, the Department also reviewed the Company's policies and procedures to administer the collection of security deposits from residential customers and found them to be in compliance with the aforementioned regulations. Application Schedule H-2.0F (Customer Service Policy No. Y350.1). However, according to Yankee, it has not yet begun to collect security deposits from residential customers, but is considering the implementation of such a policy. Response to Interrogatory CSU-14. While the imposition and collection of security deposits from residential customers is not prohibited by regulations, Yankee's intent to initiate this program represents a significant modification to its current policies and procedures. Yankee is therefore reminded of its responsibility to keep the Department apprised of when and how it plans on implementing this change to its security deposit procedures and will be so ordered.

Yankee's policies and procedures for scheduling service appointments were also reviewed. Service appointments are normally scheduled between the hours of 8 a.m. and 4:30 p.m., Monday through Friday. However, all emergency calls are responded to 24 hours a day. Application, Schedule H-2.0D. Outside of these normal time frames, Yankee will provide services to customers with a service contract during the 24-hour day and up to 4:30 p.m. to customers who do not have a service contract. Response to Interrogatory CSU-6. If it cannot keep a scheduled service appointment, the Company will contact the customer to advise them and reschedule a new appointment. Response to Interrogatory CSU-7. Yankee tracks and measures the percentage of service appointments kept within a two-hour window. The Company's goal is to keep 87.6% of scheduled service calls. For calendar year 2010, Yankee's monthly performance for this metric indicated that between 90.5% and 95.5% of its scheduled appointments were successfully kept. Response to Interrogatory CSU-8. This information represents customers that have entered into service contracts with the Company and those customers that have not. For those customers that have not entered into service contracts, Yankee has successfully kept 93% of scheduled appointments. Late Filed Exhibit No. 14.

## **2. Call Center Operations**

Yankee maintains a customer service call center in Windsor, CT that has the capability to accept up to 576 incoming calls at one time. Yankee also shares<sup>21</sup> 288 Interactive Voice Response (IVR) ports that offer customers automated self-service options. Response to Interrogatory CSU-19. Yankee's telephone system offers customers the opportunity to request a Spanish speaking Customer Service Representative (CSR) as well as to offer its automated self-service options in Spanish. Response to Interrogatory CSU-20. The hours of operation at the call center, for customer service, credit and collections are from 7 a.m. to 7 p.m. Monday through Friday, and from 10 a.m. to 3:30 p.m. Saturday. Response to Interrogatory OCC-266. Gas emergencies are responded to 24 hours a day, seven days a week. During normal business hours, gas emergency calls are answered by the call center and immediately transferred to the Company's Gas Dispatch Center. After normal call center hours, emergency calls are handled directly by the Gas Dispatch Center. Response to Interrogatory OCC-283.

As part of the review of Yankee's customer service activities, the Department also sought information on the telephone answering performance of the Company's call center operations. Data for calendar years 2008 through 2010 was provided to the Department on areas such as the average speed of answer (ASA), the percent of calls abandoned (abandoned call rate or ACR), and average handle time (AHT). During calendar year 2008, Yankee's call center performance varied. For example, its ASA ranged from 76 seconds to 234 seconds, while the ACR ranged from 5.4% to 12.6%. The call center's performance did not improve during calendar year 2009. Yankee's ASA ranged from 119 seconds to 325 seconds, while the ACR ranged from 6% to 15.3%. Response to Interrogatory CSU-18.

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<sup>21</sup> The IVR ports are shared between the four Northeast Utilities operating companies; Yankee, Western Massachusetts Electric, Public Service of New Hampshire and CL&P.

The data for Yankee's customer service call center during calendar year 2010 indicated a continuing decline in performance until the end of the year:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>ASA</b> <sup>22</sup>	373	440	424	742	603	423	132	147	132	153	80	21
<b>ACR</b> <sup>23</sup>	24.3	29.0	25.9	40.9	37.5	29.5	9.7	10.2	9.0	9.3	5.9	1.8
<b>AHT</b> <sup>24</sup>	412	413	410	411	400	385	366	372	369	360	373	354

Response to Interrogatory OCC-120.

For the first two months of calendar year 2011, data indicated that Yankee's call center was maintaining its improved performance:

	January	February
<b>ASA</b>	51.8	47.0
<b>ACR</b>	2.3	2.2
<b>AHT</b>	357	369

Late Filed Exhibit No. 1.

In its Application, Yankee acknowledged that its call center operations needed to improve. The Company cited many reasons for the call center's decline in performance since calendar year 2007: high employee turnover, the implementation of its new C2 billing system, the attempt to utilize a "virtual" approach where Yankee CSR's were expected to be able to assist customers of other Northeast Utilities (NU) operating companies, and increased gas commodity prices which produced an increase in customer telephone calls. Comer, Eberman PFT, pp. 4 and 5. However, Yankee recognized calendar year 2010 as an opportunity to improve upon its call center performance as many of the aforementioned factors were having less impact.

The Company embarked upon a number of initiatives to improve call center performance. According to Yankee, these initiatives focused on three primary areas: people, processes and technology changes. Some examples of these initiatives included adjusting CSR shifts to better match staffing levels to call volumes, lowering the supervisor-to-employee ratio, installing speech technology on the IVR to improve self-service options, and new automation that allows Community Action Agencies and physicians to input required customer data into the customer service system via the Internet in lieu of a telephone call to the call center. Comer, Eberman PFT, pp. 4-10. Besides these new approaches, Yankee claimed that two initiatives were most effective in improving the call center's performance. The first initiative, begun in May of 2010, was to segment calls to the specific NU operating company, instead of utilizing the "virtual" approach. The second initiative was the implementation of new Queue Optimization technology in December of 2010. Response to Interrogatory OCC-333. Queue Optimization technology allows customers the option to receive a call back from

<sup>22</sup> Measured in seconds.

<sup>23</sup> Measured as a percent of total calls abandoned.

<sup>24</sup> Measured in seconds.

Yankee in lieu of waiting in the telephone system queue. The technology can intercept the customer's call before they enter the queue and provide information regarding the estimated waiting time and offers the customer the choice of receiving a call back in the same amount of time as if they had waited on hold. Comer, Eberman PFT, pp. 9 and 10. Yankee also approved the hiring of additional CSR's to support each of the four NU operating companies and implemented a plan called "90 in 90," which was intended to reduce the average ASA to a level below 90 seconds within 90 days. Id.

However, Yankee contended that to maintain call center performance levels, approval of additional staffing is required. In particular, the Company requested 12 additional CSR's, eight of which would be assigned to the call center. Yankee asserts that all of the people, process and technology initiatives alone will not be sufficient to improve call center performance without the additional requested CSR's. Comer, Eberman PFT, pp. 19 and 20. Further, the Company testified that if the Department did not approve the eight additional call center CSR's, call center performance would degrade from its recent improved level. Tr. 3/8/11, pp 26-29. According to Yankee, the eight additional CSR's were hired and began their training in November of 2010. The initial training period for a Yankee CSR is eight weeks before the representative takes his first live call. Comer, Eberman PFT, pp. 20 and 21. However, after that eight-week period, the new CSR would still receive considerable amounts of coaching from other experienced representatives and supervisors before the Company would feel confident to have that CSR working on his own. Yankee stated that it is reasonable to expect that it can take a year or two before that new CSR is 99% on his own and not relying upon his supervisors. Tr. 3/8/11, pp. 23 and 24.

As demonstrated above, Yankee's call center began to show signs of improvement in its telephone answering performance beginning in November of 2010. Yankee testified that the new CSR's hired in that same month did not finish their initial phase of training until some time in February of 2011. The Company also stated that any contribution that these new CSR's would have had to the call center's improved performance during February 2011 would have been minimal. Also, the new CSR's would have had no impact upon Yankee's "90 in 90" initiative as the program ended in December of 2010, prior to the end of the initial training period. Tr. 3/8/11, p. 25. Based upon the number of initiatives that it undertook, it is apparent that Yankee has taken the task of improving the telephone answering performance of its call center very seriously.

At this time though, the Department considers the approval of additional CSR staff to be premature. Admittedly, it has only been a short time frame in which Yankee's call center has shown improved performance. This improvement occurred after institution of numerous Company initiatives and without the benefit of the additional CSR's hired by Yankee in November of 2010. Also, Yankee itself has stated that the time that it takes for a newly hired CSR to be expected to function independently can take from 12 to 24 months. In the Decision dated June 30, 2010 in Docket No. 09-12-05, the Department found that prior to approving any expansion to the employee call center count the effects of all the new initiatives should first be experienced. Decision, pp. 181 and 182. It is in this same context that the Department does not approve the expense for the proposed eight additional CSR staff.

As mentioned above, the Company initially sought approval for 12 additional CSR staff, eight of which would be assigned to call center duties. The remaining four CSR staff would primarily be assigned to collections functions. In its Application, Yankee stated that from 2007 through 2010, the Company faced increased difficulties from delinquent receivables and collection costs. Similar to the efforts put forth to address the problems with the call center, Yankee commenced a number of improvements that focused on its people, processes and technologies to achieve a higher level of collections performance. Examples of some of the initiatives put forth by Yankee included the creation of the "Can't Get In" team which worked with owners and landlords to access difficult inside meter locations, increased efforts to reduce fraud by obtaining positive identifications for new customers, tighter monitoring and enforcement of payment arrangements, and automating the process that selects delinquent residential accounts that have received termination notices for disconnection. Comer, Eberman PFT, pp. 12-18.

Yankee also described future efforts that it was planning to undertake to improve its collections processes. Some of these initiatives include improvements to the Company's collections software, which will improve employee productivity, process improvements to better identify and resolve theft of service disputes, system improvements to implement collection strategies based on an analysis of customer payment history, and enhancing its Collections Department's ability to perform tasks such as variance analysis, performance reporting and bad debt forecasting. Response to Interrogatory OCC-50. The Department recognizes the efforts and initiatives that Yankee has or is planning to put into operation to mitigate its collections difficulties. However, similar to its position on additional staffing levels in the call center, the Company should allow for the effects of its current and planned initiatives prior to approving additional staffing for the collections department.

### **3. Customer Service Summary**

During the course of its review of Yankee's customer service policies and procedures, the Department found no areas of regulatory non-compliance. Besides the topics discussed previously in this section, the Department's review encompassed other areas such as Yankee's Rules and Regulations, bill inserts, late payment charges and customer education. On the whole, the Department found that Yankee is offering its customers very good customer service and expects that this level of service will continue into the future.

### **III. FINDINGS OF FACT**

1. On December 31, 2001, Yankee entered into a special contract to construct a 4.4 miles long 16-inch main and other facilities to interconnect with and provide firm transportation service to MGT, which was an affiliate of NRG.
2. On October 9, 2002, MGT directed Yankee to stop construction of MGT Project even though Yankee already had purchased equipment and materials and constructed a substantial portion of the MGT Project.

3. On November 12, 2002, MGT filed a lawsuit against Yankee alleging the breach of the special contract due to an unauthorized \$16 million draw down of the LOC by Yankee.
4. On February 15, 2008, Yankee and NRG reached a settlement in which the former received approximately \$17.5 million for capital costs and expenses incurred during the construction of the ceased MGT Project.
5. The outside litigation costs of \$432,000 were expensed in 2004 and not deferred.
6. The Company did expense the \$184,363 in Account 182 MG in 2008 following the settlement of the MGT lawsuit.
7. The \$17.5 million recovered from the MGT lawsuit was recouped in two phases, which included \$16 million from a draw down LOC and \$1.5 million received as a settlement payment from NRG.
8. Yankee neither placed in service nor formally abandoned the MGT Project for tax purposes.
9. For tax purposes, Yankee treated the \$16 million LOC as a return of capital and the \$1.5 million as taxable in the year it was received.
10. Yankee recognized a current tax liability for the \$1.5 million and established a deferred tax asset for the tax effect of the future deductions.
11. Yankee recovered more than its investment in the MGT Projects.
12. NU's billing system was placed in service in 2008.
13. The C2 system implementation costs net beginning and ending deferred balances included in rate base for RY1 were approximately \$146,000 and \$110,000, respectively, and for RY2 were approximately \$110,000 and \$73,000, respectively.
14. The settlement agreement approved in the 2006 Rate Case did not direct Yankee to defer costs related to the implementation of the C2 System.
15. NU's billing system was placed in service in 2008.
16. The deferred litigation costs were incurred for legal actions against the former owners/operators of the MGP sites.
17. Yankee and CL&P do not plan to appeal the Second Circuit's order to the United States Supreme Court; therefore, the UGI litigation for the 12 sites has come to a close.

18. The total beginning balance for deferred asset of \$13.66 million that the Company used to calculate the rate base for RY1 included \$3.182 million of deferred coal tar remediation costs.
19. Deferred assets are increased by including capitalized carrying charges that are calculated based on the Company's allowed ROR.
20. Due to the Acts, Yankee will no longer be able to deduct the Tax Subsidy in its calculation of income tax expense.
21. GAAP accounting requires employers to recognize as a liability the cost of providing post-retirement benefits over the course of the employees' service periods.
22. The Company failed to specifically address how the IRS Revenue Procedure 2011-26 significantly changed its assumptions for the calculations of bonus tax depreciations for 2010 to 2013.
23. The NOL was generated mostly due to the bonus tax depreciations.
24. Yankee's reduction of the mostly plant related ADITs by the tax impact of the NOL essentially negates the tax effect of the timing differences between tax and book depreciation.
25. Yankee significantly reduced the amounts related to the retired propane plants to be afforded deferred regulatory treatment.
26. Yankee provided no information that would suggest that it would garner proceeds from the impending sales of the propane plants, which would be significantly in excess of the \$4.106 million amount.
27. The proceeds from the sales of the propane plants would more than offset the related deferred balance as of the beginning of RY1.
28. The amortization expense of approximately \$115,000 proposed for the proforma period is significantly less than the \$394,000 originally proposed as the ongoing amortization expense for the rate years.
29. The deferred propane plant assets at the beginning of the proforma period is approximately \$4.051 million, which is the June 30, 2010 \$4.484 million retired propane facilities deferred balance minus the \$0.433 million proceeds from sale of propane.
30. The proceeds from the pending sales of the retired propane facilities would reduce the related deferred regulatory asset to below zero.
31. The average deferred hardship/MMP balances included in rates are a derivative of the beginning and ending balances for the applicable periods.

32. The total deferred hardship balance as of the beginning of RY1 was overstated.
33. Yankee failed to update the deferred hardship balances to reflect the amounts as of December 31, 2010.
34. Yankee did not make any attempt to recover the recapture penalties from the 14 contractors.
35. The Company numbered the same accounts differently in Schedule B-2.1 and in the Depreciation Study.
36. Most municipal and state highway projects are the result of block grants from the Federal government.
37. The Federal stimulus spending is ending and the municipal and state governments have significant budget issues.
38. Spending for highway projects will significantly decrease from the dollars spent in 2009 and 2010 thereby reducing the number of main relocations.
39. Most of the replacements related to municipal and state relocations are cast iron and bare steel pipe and would qualify under the increased spending for this program.
40. The change in the costs associated with the WWL only affects the total rate base for RY1 and RY2.
41. The Company did not provide any unit cost information regarding the MPA units in the instant proceeding.
42. The record in the instant proceeding only included the proposed capital additions associated with the MPA units for the proforma period, RY1 and RY2.
43. Yankee over-estimated the total capital additions and the rate base necessary to complete the MPA replacement program by \$2,792,300.
44. ERTs sit on top of the meter for small residential and commercial customers and report data to Yankee on a monthly basis.
45. The ERT replacement program is an on-going program and that the ERTS are removed and reinstalled on a rotating basis.
46. The Company did not update its actual capital additions for the proforma period after December 31, 2010 for the remaining months of that year.
47. The capital additions for 2007 included an unexplained negative expenditure.
48. The capital additions for Account 390 vary annually during the period of 2003 to 2008.

49. Yankee used a statistical sample of retail customers and calculated a weighted average of the time between the bill date and the payment date plus one-half the time between the current bill date and the previous bill date for the sample to determine a revenue lag of 42.37 days for the period July 1, 2009 through June 30, 2010.
50. The Company calculated a cash working capital requirement of \$6,117,000 based on a net lag of 4.66 days for RY1 and a requirement \$6,467,000 based on a net lag of 4.65 days for RY2.
51. When non-cash expenses reduce rate base, the Company is deprived of the return that investment in rate base affords.
52. Actual revenue requirements consist of a number of expenses; some just beginning, others ending and many continuing as before.
53. The Company uses billing cycles that range from 27 to 33 days and there are 12 months in a year.
54. Unlike other revenues, gas cost related revenues are trued-up and recovered through the PGA, which recovers purchased gas costs based on sales billed during the month, not on sales accrued or delivered during the month.
55. For purchased gas cost related revenues, meter reads are centered on the midpoint of the month or billing cycle for service centered on the midpoint of the month or billing cycle.
56. Revenues collected through the PGA differ depending on whether billed or accrued revenues are used.
57. Changing from using accrued sales to using billed sales changes the timing of the defined accounting recovery pattern for the PGA, which in turn changes the defined PGA over/under recovery (revenues vs. expenses).
58. The Company's PGA recovers accrued purchased gas costs based on billed revenues.
59. Relative to accrued revenues, billed revenues are approximately 15.21 days closer to being received by Yankee than accrued revenues.
60. Yankee used only the invoice date and the payment date to determine the expense lead for other O&M expense.
61. Expense leads are generally calculated from the rendering of service until payment and include a service period lead.
62. Yankee used an allocation procedure to separate the plant-in-service for Account 37600 into plastic, steel and cast iron plant vintages.

63. The Depreciation Study is based on the straight line method, vintage group procedure and a remaining life technique.
64. The Depreciation Study is divided into a number of different accounts that use statistical analyses to determine average life expectancies, net salvage and accrual rate for assets included in the plant balances for each account. The discussion below is centralized on each of the major accounts included in the Depreciation Study.
65. Southern's former affiliate Total Peaking Services has a LNG facility that was built in the early 1970's.
66. Yankee does not maintain sub-accounts for Account 376 – Mains by material type.
67. The data included in the Supplemental Depreciation Study Workpapers show that plastic pipe was included the 1900 vintage.
68. Plastic pipe has only been in existence since the 1970's.
69. Any capital investments associated with cast iron mains between 2001 and 2009 can only be related to joint sealing.
70. Yankee's current plant-in-service associated with cast iron and bare steel will decrease.
71. The investment associated with plastic pipe will increase significantly over the next few years.
72. The Company did not provide an average remaining life for plastic mains in the Supplemental Depreciation Study and an accrual rate cannot be calculated.
73. The Company provided two different 2010 annualized depreciation accruals for Account 38189 ERTs.
74. The battery in the ERT has a limited life of 20 years.
75. As the ERTs age and the battery's usefulness declines, the Company removes the units then sends the units back to the manufacture to "refurbish the battery" and the Company re-installs the unit on a rotating basis as needed.
76. The record is clear that Yankee is not purchasing a new ERT; it is simply having the manufacture replace the battery and then re-installing the ERT as needed.
77. The battery is the limiting factor in how long an ERT can operate and the Company is not purchasing a new ERT, the life expectancy of the ERT must be greater than the life of the battery.

78. Yankee did not provide any information regarding its calculation of its combined accrual rate for Account 38100 included in the Depreciation Expense Schedule.
79. Fifty-seven percent of the net salvage is derived from Account 38000 Services and 20% of the net salvage is related to Account 37600 Mains.
80. All distribution plant assets as a whole have a negative net salvage of 20%.
81. Yankee's Depreciation Study has limited data to develop the appropriate depreciation rates.
82. It is unclear when Yankee ramps up its Cast Iron and Bare Steel Replacement Program how the Company will determine which assets will be properly retired from rate base.
83. It is questionable as to whether the 1900 vintage of asset on the Company's books exist.
84. Yankee does not have plant records regarding material types before 2001.
85. Yankee offers qualified both union and non-union pension plans to its employees.
86. Pension expense is calculated based on ASC 715-30, which was previously referred to as FAS 87.
87. Yankee's requested pension expense is an estimate of the current year's cost to Yankee's employees.
88. For each employee covered under the Plans, costs are accrued over the employee's working careers and payments to employees and are used to pay benefits to employees after their retirement.
89. Benefits are determined for each eligible employee based on years of service, age at retirement, and final pay before retiring.
90. Pension benefits are administered through a pension plan that is sponsored by NUSCO.
91. There are approximately 17,900 retirees, current and former employees and surviving spouses covered by the NUSCO plan.
92. Yankee receives an allocation of NUSCO's Plan costs based on an allocator of Yankee's gas percentage of NUSCO of 8.01% for the interim year June 30, 2011, 7.97% for the first rate year ended June 30, 2012 , and 7.91% for the second rate year ending June 30, 2013.

93. The mechanism for calculating total NU Companies pension expense is to calculate the pension expense for each NU Company participating in the NUSCO Plan and each business segment within each company.
94. Benefits payable under the Plan are based on final average earnings.
95. The salary increase assumption is used to estimate the retirement payments participants are entitled to at the time of retirement based on final average pay.
96. The salary increase assumption used to determine pension expense for the Plan is determined by the actuary in consultation with the NUSCO human resources department.
97. Yankee offers a 401(k) plan to all its employees.
98. Yankee's 401(k) expense includes both the traditional 401(k) and also the K-Vantage plan Yankee is now offering in lieu of a qualified defined benefit plan.
99. Yankee's costs for its 401(k) plan have been increasing due to participation rates, numbers of employees, and salary growth.
100. An added influence on the cost of the 401(k) is the introduction in 2006 of the 401(k) based K-Vantage benefit, which takes the place of Yankee's defined benefit pension plan.
101. Effective January 1, 2006, Yankee closed its defined benefit pension plan to newly hired nonbargaining employees who now participate in an enhanced 401(K) match benefit called K-Vantage.
102. Under K-Vantage, Yankee contributes an amount equal to a percentage of the employee's covered plan their 401(K) account.
103. The K-Vantage program also includes a non-qualified benefit payable to officers hired after January 1, 2006 that restores benefits lost as a result of the Internal Revenue Service limits on qualified plan benefits under the NUSCO 401(k) plan.
104. In the summer of 2006, NU and thus Yankee offered non union employees hired prior to 2006 the opportunity to choose between continuing to earn benefits in the traditional defined pension plan or to choose to become part of the K-Vantage plan.
105. In 2008 the bargaining unit employees of Yankee voted to participate in the K-Vantage program as a result of collective bargaining.
106. As of January 1, 2009, all newly hired bargaining unit employees participate in the K-Vantage program and are not eligible to participate in the defined benefit retirement plan or the Company paid retiree life insurance.

107. In 2007, NU implemented a new retire medical savings program called Med-Vantage that supplements benefits offered to employees that participate in K-Vantage.
108. Under the Med-Vantage plan, the Company deposits \$1,000 annually into a tax advantaged health reimbursement account for participants 40 years or older, which is earmarked for post-employment health care premiums or expenses.
109. Yankee offers a SERP to provide certain executives with a supplemental retirement benefit in addition to the benefit provided under the non-union pension plan.
110. Yankee's actuary Hewitt Associates analyzes NU's SERP participant information for purposes of an actuarial valuation to determine the appropriate pension expense under the ASC 715-30 Defined Benefit Plans – Pension accounting standard.
111. Officers hired before January 1, 2006, with the title of Vice President or higher, have been eligible for the SERP.
112. Officers hired after January 1, 2006, participate in the K-Vantage program.
113. At present, there are 5 current or former Yankee participants in the SERP and 50 current or former NUSCO participants in the SERP.
114. The SERP provides post-retirement pension benefits to officers above and beyond the level of benefits they would otherwise receive from the NU retirement plan.
115. The SERP expense includes 38 prior officers and only 17 active officers.
116. The SERP expense applies to a select few group of Yankee employees that are so highly compensated they fall outside of the IRS salary cap of \$240,000 for qualified pension plans.
117. State jurisdictions that have not allowed SERP expense are the Oklahoma Corporation Commission, the Arizona Corporation Counsel, and the Oregon Public Service Commission.
118. Due to accrual accounting, Yankee will accrue the SERP expense each year and set up a liability for payment of that expense when the payments are made.
119. In the past, the SERP expenses have been included in rates charged to Yankee's customers.
120. Historically, on an overall basis Yankee has expended a higher amount than the annual level of payout, which has resulted in a deferred credit related to the SERP plan.

121. Ratepayers have advanced payments to Yankee because the accruals have exceeded the overall cash payouts.
122. Yankee offers Non-SERP, which is an account used to record expenses for specially negotiated post-employment benefits including pension enhancements not covered by the NUSCO Plan or the SERP.
123. Non-SERP enhancements are provided in some employment agreements for mid-careers hires to make up for benefits forgone at previous employers or as a part of a separation agreement with NU.
124. At present, there is 1 former Yankee employee and 49 current or former NUSCO employees whose expense is recorded in the non-SERP account.
125. The Non-SERP benefits are additional benefits above and beyond the regular retirement benefits and the supplemental executive retirement plan benefits received by officers.
126. Yankee included an offset to rate base for the Non-SERP reserve net of accumulated deferred income taxes.
127. Due to accrual accounting, Yankee will accrue the Non-SERP expense each year and set up a liability for payment of that expense when the payments are made.
128. Yankee expended a higher amount than the annual level of payout, which has resulted in a deferred credit related to the Non-SERP plan.
129. Yankee provides retiree medical benefits under ASC 715-60-20.
130. Yankee is required to recognize FAS 106 benefits during the working career of employees, not after they retire.
131. The total postage expense of \$1,752,000 proposed for the proforma period is comprised of \$1,226,000 for postage and \$526,000 for lease, permits and other delivery services.
132. The total postage expenses of proposed for RY1 is comprised of \$1,326,000 for postage and \$566,000 for lease, permits and other delivery services.
133. The total postage expenses of proposed for RY2 comprised of \$1,403,000 for postage and \$572,000 for lease, permits and other delivery services.
134. The postage service expense adjustment of \$78,000 proposed for the proforma period included \$57,000 based on the assumption that the first class postage rate would increase from \$0.44 to \$0.46, and \$21,000 for increases in the number of customer bills mailed.

135. The postage service expense increase of \$100,000 proposed for RY1 consists of the proforma period adjustment of \$78,000 and \$22,000 for increases in the number of customer bills mailed.
136. An escalation rate of 1.7% was used to project increases in the number of customer bills mailed for both the proforma period and RY1.
137. The postage service expense increase of \$77,000 proposed for RY2 consists of \$58,000, which is based on the assumption that the first class postage rate would increase from \$0.46 to \$0.48; and \$19,000 for increases in the number of customer bills mailed.
138. An escalation rate of 1.4% was used to project increase in the number of customer bills mailed for RY2.
139. In the Postal News dated July 6, 2010, the USPS recommended to the PRC a two-cent increase for the price of a first class stamp effective January 2, 2011.
140. In the Postal News dated January 13, 2011, the USPS reported that the first class rate will continue to be \$0.44.
141. The USPS filed an appeal of the PRC's rejection of its proposal to increase the rate with the United States Court of Appeals for the District of Columbia Circuit.
142. The United States Court of Appeals has not issued its decision on the USPS' appeal of the PRC decision.
143. The telecommunication expense for the test year was \$938,000.
144. The latest proposed payroll tax expenses are \$3.126 million for RY1 and \$3.142 million for RY2.
145. The employer's combined payroll tax combined effective rate for social security and Medicare taxes is 7.65%.
146. The total hardship deferred balance of \$11,364,000 as of June 3, 2010 consisted of \$6,425,662 for hardship write-offs and \$4,937,531 for MPP.
147. The total hardship deferred balance of \$8,438,865 as of December 31, 2010 consisted of \$5,169,237 for hardship write-offs and \$3,269,628 for MPP.
148. The currently allowed annual amortization of the total deferred hardship balances is \$8,890,000.
149. Yankee did not update and revise the proposed annual amortization expense to reflect the deferred balances in Accounts 182HM and 182HW as of December 31, 2010.

150. Yankee used an uncollectible expense rate of 1.7381% to calculate the GRCFs proposed for both rate years, which was determined by dividing the average net bad debt write-offs of \$8,381,000 by the average billed revenue of \$482,209,000.
151. The average net bad debt write-off and billed revenue amounts were 4.75 year averages of their corresponding amounts from calendar year ended 2006 through September 30, 2010.
152. The non-hardship uncollectible expense increased by \$11.7 million in 2009 over the 2008 level.
153. The Company recognized an additional \$5 million in bad debt expense due to increased net write-offs in 2009.
154. Yankee increased its bad debt reserve in 2009 by approximately \$6.7 million.
155. The average uncollectible rate from 2004 through 2007 was approximately 1.05%.
156. The uncollectible expenses for 2009 and 2010 were \$20,997,033 and \$5,256,383, respectively.
157. The account receivable balances were approximately \$54 million and \$52.2 million for calendar year ended 2009 and 2010, respectively.
158. The account receivable balance in 2008 was approximately \$88.2 million.
159. The total cost of purchased gas in Account 80499 declined from approximately \$340.9 million in calendar year ended 2008 to approximately \$200.3 million in 2010.
160. The commodity natural gas inventory costs declined to approximately \$43.7 million as of December 2010 compare to \$93.2 million in 2008.
161. The total healthcare expense for the test year was approximately \$4.227 million.
162. The total healthcare expenses included allocations from NUSCO of approximately \$1.313 million, \$1.673 million and \$1.806 million for the test year, RY1 and RY2, respectively.
163. Yankee's employee contributions for healthcare expenses, based on 18%, were \$1,214,847 for RY1 and \$1,318,405 for RY2.
164. Since 2004, all nonunion employees who selected health benefits only for themselves have contributed 10% of the monthly medical benefit costs.
165. For the monthly medical benefit costs, non-union employees who selected family coverage contributed 20% in 2004 and 2005, 22.5% in 2006 and 25% from 2007 to the present.

166. Based on labor negotiations in 2008, union employees are also on the 10% or 25% cost sharing structure for the monthly medical benefit costs.
167. For 2010, Towers Watson survey estimated the average employer/employee health care cost per active employee of \$10,094.
168. Yankee's gross healthcare expenses were \$4,036,184, \$4,303,068, \$4,430,237 and \$5,636,844 for calendar years ending 2007, 2008, 2009 and 2010, respectively.
169. Yankee's employee contribution percentages were 21.4%, 19.57%, 22.78% and 20.1% for calendar years ending 2007, 2008, 2009 and 2010, respectively.
170. The rent expense for the test year is approximately \$1.4 million.
171. NU's acquisition of 56 Prospect Street in Hartford added 96,109 square feet of office space.
172. The upgrade and expansion the South Building in Berlin increased space available on the Berlin campus by 19,045 square feet.
173. The total square footage of the corporate office facilities increased from 1,091,609 square feet to 1,206,790 square feet.
174. The total square footage at the Berlin facilities direct charged to Yankee is 24,741 square feet for 63 employees.
175. The total rent expense allocated to Yankee associated with the space it and NUSCO use at the Berlin facilities was \$822,397 in 2010 and \$974,580 was proposed for RY1.
176. The total external rent expenses allocated to the Company declined in 2010 as compared to 2009 and are projected to decline further during the proposed rate years.
177. The total rent expenses reported under CCC 141 included depreciation, interest, property tax, actual rent and ROR expenses for the internal facilities.
178. For 2010, the total depreciation, interest, property tax, and actual rent and ROR expenses for the CCC141, subject to rate code 9C allocations, were \$3,265,563, \$1,735,712, \$1,752,779, \$908,530 and \$5,981,778, respectively.
179. In 2009, the total square footage for the South Building in Berlin was 68,276 of which 35,242 was allocated to CL&P distribution, 10,144 to Yankee and 22,890 to NUSCO.
180. In 2010, the footage for the South Building in Berlin declined to 41,144 of which 10,960 was allocated to CL&P Distribution, 24,741 to Yankee and 5,443 to NUSCO.

181. The total regulatory assessment cost of \$1.406 million proposed for the interim proforma period consists of the Department assessment of \$1.025 million and consultant fees for the 2008 PGA of \$18,000.
182. The total regulatory assessment expense of \$1.324 million proposed for RY1 consists of the Department assessment of \$1.054 million, 2008 PGA proceeding consultant fees of \$19,000, and 2009 COC of \$251,000.
183. The total regulatory assessment expense of \$1.314 million proposed for RY2 consists of the Department assessment of \$1.084 million, 2008 PGA proceeding consultant fees of \$20,000, and 2009 COC cost of \$210,000.
184. The 2009 COC is currently pending final approval before the Connecticut legislature.
185. Administrative costs are salaries and related overhead costs
186. The revised property tax expense of \$15.580 million proposed for RY2 included \$2,050,839, which was calculated based on the proposed net plant additions of \$81,285,722 multiplied by composite mill rate of 25.23.
187. Pursuant to the compliance filings in Docket No. 09-09-21, the Department approved the sales of the four propane facilities in Danbury, Shelton Vernon and Berlin.
188. For RY1, the total proposed property tax expense for the City of Waterbury of \$3,430,261 consists of \$2,206,522 and was calculated based on the net assessment of \$52,762,370 times the mill rate of 41.82 and \$1,233,739 for the 40% of the property tax assessment for the LNG facility that would not be abated.
189. For RY2, the total proposed property tax expense for the City of Waterbury of \$4,040,961 included \$1,834,439 for the 60% of the property tax assessment for the LNG facility that would not be abated.
190. Yankee exempted 80% of the LNG property tax assessment in fiscal year 2010.
191. Fiscal year 2010 is the same as grand list year 2009 or the interim period between the end of the test year and beginning of RY1.
192. The net real estate assessment for the City of Waterbury for FY2010 was \$15,081,190, which is the total real estate assessment less the 80% that was abated.
193. The \$4,787,340 or 20% of the personal property assessment not abated was not included in the Company's assessment estimates for RY1 and RY2.

194. The \$4,787,340 is the difference between the \$57,549,710 total net assessment for FY2010 and the Company's proposed total assessment of \$52,762,370 for the City of Waterbury.
195. The propane plants were retired and removed from plants in service prior to start of RY1.
196. The total payroll expense for the test year of approximately \$37.539 million consisted of \$25.005 million for Yankee and \$12.534 million allocated to it by NUSCO.
197. The proposed payroll adjustment of \$3.370 million for RY1 consisted of approximately \$809,000 for the proforma period adjustment, \$1,848,000 for payroll escalation and \$712,000 in salary for additional FTE requests for the customer experience (CE).
198. The proposed payroll adjustment \$1.371 million for RY2 is due to payroll escalation.
199. The additional payroll expense request of \$711,540 for 17.7 FTEs for the CE in RY1 consisted of \$482,400 estimated payroll expense for 12 new FTEs and \$229,140 for the additional 5.7 FTEs requested for the call center and the credit and collection centers.
200. The total non-union escalation adjustments included impacts of promotions, turnovers and lump sum payments of approximately \$90,000, \$64,000 and \$81,000 for the interim proforma period, RY1 and RY2, respectively.
201. For calendar year ended December 31, 2009, the approximately \$14.262 million for the Windsor call center's CCC 12X consisted of \$394,000 and \$13.868 million of directly and indirectly allocated charges, respectively.
202. For the Windsor call center's CCC 12X, for calendar year ended December 31, 2009, Yankee was allocated approximately \$7,000 and \$1.701 million for direct and indirect charges, respectively.
203. As of June 30, 2010, NUSCO's allocation rates for Yankee for rate codes A2 and CP under CCC 12X were 16.83% and 12.54%, respectively.
204. The rate code A2 allocation formula is based on handle time for each operating company and it only has allocation ratios for Yankee and CL&P.
205. The rate code CP allocation formula is based on the number of customers in each operating company and has allocation ratios for Yankee, CL&P and WEMCO.
206. The total incentive plan expense for the test year of approximately \$3.041 million consisted of \$1.532 million for Yankee employees and \$1.509 million allocated to it for NUSCO employees.

207. All employees, union and non-union, are eligible for the annual incentive payments upon meeting certain goals.
208. Employee incentive payments are tied to the performance of their business units as well as to individual performances.
209. Performance goals involve such metrics as reliability, operational efficiency, safety, financial, organizational, strategic and stewardship.
210. The total incentive compensation expense requested for each of the proposed rate years is significantly less than test year amount.
211. The sales tax expenses reported in Account 40815 for 2007, 2008, 2009 and 2010 were approximately -\$104,583, \$283,922, -\$897,569 and \$500,734, respectively.
212. The total of the sales tax expenses from 2007 to 2010 was approximately negative \$217,496.
213. The GET rate of 3.613% was proposed to calculate the GRCF and GET expense.
214. The GET rate of 3.613% was calculated by the Company by dividing the test year's GET expense of \$15,245,000 by the billed revenue of approximately \$421,986,000.
215. All billed and unbilled revenues are grossed up to include uncollectibles and their class specific statutory GET expenses.
216. Revenue deficiencies are calculated as the differences between the total test year revenue and the proposed rate year revenues at present rates.
217. The total test year revenue at present rates was \$ 422,823,399.
218. The total test year unbilled revenue at present rates was approximately \$870,586.
219. The statutory GET rates applicable to residential and C&I customers are 4% and 5%, respectively.
220. The CCBT rate of 8.25% was to calculate the GRCF for the test year.
221. CCBT rates of 7.67785% and 7.3167% were used to GRCFs for RY1 and RY2, respectively.
222. The CCBT rates for RY1 and RY2 are averages of composite rates based on the statutory rates for calendar years 2011 through 2013 for Connecticut, Maryland, Pennsylvania, and West Virginia.

223. The composite effective state income rates of 8.039% for 2011 and 7.3167% for both 2012 and 2013.
224. The proposed CCBT rate for RY1, 12 months ended June 30, 2012, is the sum of halves of the calculated composite rates for calendar years 2011 and 2012.
225. The proposed CCBT rate for RY2, 12 months ended June 30, 2013, is the sum of halves of the calculated composite rates for calendar years 2012 and 2013.
226. Yankee had income tax apportionments to other states in 2009 and 2010.
227. The total revenue for the test year is the actual results for the 12 months.
228. The test year revenue does not affect the revenue requirements for RY1 and RY2.
229. This is the first rate case where the Company applied a composite state income tax rate reflecting corporate income tax rates from other states.
230. Connecticut customers will pay for the revenue request in this proceeding.
231. Yankee pays franchise and corporate income taxes to other states.
232. The income taxes payable to other jurisdictions are very small compared to income taxes payable to Connecticut.
233. State income tax apportionment factors are calculated based on allocations of revenues, wages and tangible property to applicable jurisdictions.
234. Yankee used an uncollectible expense rate of 1.7381% to calculate the GRCFs proposed for both rate years.
235. The 1.7381% was determined by dividing the average net bad debt write-offs of \$8,381,000 by the average billed revenue of \$482,209,000.
236. The average net bad debt write-off and billed revenue amounts were 4.75 year averages of their corresponding amounts from calendar year ended 2006 through September 30, 2010.
237. The non-hardship uncollectible expense increased by \$11.7 million in 2009 over the 2008 level.
238. The Company recognized an additional \$5 million in bad debt expense due to increased net write-offs in 2009.
239. Yankee increased its bad debt reserve in 2009 by approximately \$6.7 million.

240. The average uncollectible rate from 2004 through 2007 was approximately 1.05%.
241. The uncollectible expenses for 2009 and 2010 were \$20,997,033 and \$5,256,383, respectively.
242. The account receivable balances were approximately \$54 million and \$52.2 million for calendar year ended 2009 and 2010, respectively.
243. The account receivable balance in 2008 was approximately \$88.2 million.
244. The total cost of purchased gas in Account 80499 declined from approximately \$340.9 million in calendar year ended 2008 to approximately \$200.3 million in 2010.
245. The commodity natural gas inventory costs declined to approximately \$43.7 million as of December 2010 compare to \$93.2 million in 2008.
246. Yankee did not include short-term debt in its capital structure.
247. Yankee's financing plan maintains an average level of short-term debt that is approximately equal to the average level of CWIP.
248. When applying the AFUDC formula, almost all short-term debt interest costs will be capitalized to construction.
249. The risk free asset, in the CAPM, has no chance of default and has a guaranteed real rate of return.
250. Yankee's embedded cost of long-term debt is 6.00% with a balance of 344,316,000 based on a 5 quarter average.
251. Yankee is a wholly owned subsidiary of NU.
252. Yankee is not publicly traded.
253. Mr. Eckenroth calculated the next period's dividend yield of 4.37%, which is the D1/P0 input in the DCF formula.
254. Four out of five cost of capital experts use earnings not dividends.
255. The Ibbotson study from 1926 to 2009 with a publication date of 2011 showed a historical risk premium of 6.00% using an arithmetic average.
256. OCC-4SP01 was developed by NU and NSTAR to meet a new standard of review adopted by the MA DPU for the evaluation of the proposed merger.

257. The calculations of the estimated savings are based on a completed net benefit analysis accepted by the MA DPU (DTE 99-19 Study) in the merger of Boston Edison and Commonwealth Energy.
258. Yankee's share of the total estimated savings is approximately 7%.
259. The WWL is a 16 mile, 16 inch steel distribution main.
260. The WWL is a peaking resource and is directly connected to the LNG facility.
261. The WWL and the LNG facility must function as one asset to meet peak day demand and supply requirements.
262. Total normalized firm sales volumes have grown significantly since 2006, between 3% and 5% per year for a total of almost 16% through 2010.
263. Yankee's proposed forecasted sales growth is significantly lower than recent historical growth.
264. The residential customer class is made up of three rate classes: Rate 1; Rate 2; and Rate 3 and the C&I customer classes of three rate classes: Rate 10; Rate 20; and Rate 30.
265. The forecasts were independently developed using class-specific forecasting models for each of the three firm customer classes.
266. The firm forecast process produced a forecast for the number of customers by customer class and UPC by customer class.
267. The results of the customer and UPC forecasts were multiplied together to derive each customer class's forecast of volumes, otherwise known as the trend forecast.
268. The trend forecast was adjusted out-of-model for known sales impacts.
269. The results of the customer class forecasts must be allocated to the rate classes and between sales and transportation service.
270. While the rate classes were known for the customers in the interruptible to firm and new conversions out-of-model categories, these customers were not directly allocated to their respective rate classes as were the DG customers.
271. There has been a decline in the Rate 1 normalized sales for three of the last five years.
272. There has been a steady decline in the average number of customers for Rate 1 since 2005.
273. On average for the last five years, Rate 1 sales decreased by 4,201 Mcf.

274. Over the last six years, the customer count for Rate 1 averaged an annual decrease of 641.
275. Over the last six years, Rate 3 had significant increases to its normalized sales and an increase in the average annual customer count increase of customers.
276. Over the last five years, Rate 3 experienced an average annual volume increase of 114,264 Mcf.
277. Yankee revised the sales allocations for the residential rate classes but did not revise the customer count allocations.
278. To determine the proposed rate class UPC, the proposed rate class sales is divided by the proposed rate class customer count.
279. The Department's reallocation of the residential customers among the rate classes resulted in some changes to the rate class UPCs.
280. Historical UPCs for Rate 1 have trended upward, reaching the 19-plus Mcf range in 2008.
281. There has been a steady upward trend in the UPC for Rate 3, with a low of 836.6 Mcf in 2006 topping off at a high of 1,250.6 Mcf in 2010.
282. The UPCs for Rate 2 have bounced around some since 2006 but have been above 81.5 Mcf with the exception of 2009.
283. The 2009 Rate 2 UPC figure was the only 12-month period out of 60 12-month periods since 2006 in which the UPC dipped below 80 Mcf.
284. In 2010, the monthly 12-month rolling average UPC for Rate 2 ranged from 80.2 Mcf to 83.0 Mcf.
285. Yankee expects that 10 customers not included in either rate year's proposed firm sales forecast will switch from interruptible service to firm service in 2011.
286. In Yankee's initial filing, it failed to provide a breakout of normalized sales and growth sales at the rate class level as required by the SFRs.
287. Yankee's test year revenues totaled \$422,823,399
288. The Department-adjusted billing determinants increase expected firm rate revenue at present rates by approximately \$7,231,905 for RY1 and \$7,702,002 for RY2.
289. All revenue and expense data used in the COSS replicates the same data used in the Company's proposed accounting and financial exhibits.

290. The SSC and TSC costs and investments were allocated among rate classes so as to earn the overall Company requested ROR from each rate class.
291. The Company did not perform a COSS for RY2 because it proposed to increase rates by applying an equal increase across the board.
292. All charges except for the shifted cost TSC and PGA are under review in the instant distribution rate increase application.
293. The Company performed a COSS in support of its proposed RY1 rate design but did not perform a COSS for RY2.
294. In the Company's initial filing, the SSC and TSC were allocated among rate classes based on the overall system average ROR.
295. The Company experienced technical or rounding difficulties when attempting to earn the same class-level ROR from merchant and distribution assets.
296. Yankee can get to within approximately 0.25% of equalized RORs for both merchant and distribution assets within the same rate class.
297. The gas supply charge used in all rate revenue calculations reflects the zero-based November 2010 PGA rates by customer class.
298. Rate 1 is currently providing an ROR of only 0.3%.
299. Riders ED and MED discount firm rates for C&I customers who locate, retain or expand within the state of Connecticut.
300. Yankee's Riders ED and MED have a Bypass Provision, which extends the applicability to existing, nonresidential customers who demonstrate to Yankee that they have a viable bypass plan of Yankee's distribution system.
301. CNG and Southern do not have a Bypass Provision in their economic development riders.
302. Yankee currently has three customers that receive a discounted distribution rate under Rider ED.
303. One customer, MPTN, receives a discount under the Rider ED Bypass Provision.
304. Yankee provides two major services to MPTN: one service, which became operational in June 2010, is a 199 PSI line that serves the gas load for a new DG facility; and the second service, which became operational in September 2010, is a 60 PSI line that serves space heating, water heating, cooking and other natural gas end uses.
305. Yankee served the facilities of MPTN until 1997 at which time it began receiving service from another gas provider

306. Since 2007, there has been a significant ramp-up in efforts to develop conservation programs for the residential, commercial and industrial sectors.
307. The out-of-model adjustment Yankee made to its trend forecast assumes lost sales related to approximately \$4.832 million in conservation spending and reflects the cumulative impact of lost sales for each rate year.
308. Yankee is only generally aware of the net change in total customers by rate class.
309. Yankee has no means of identifying with certainty when equipment changes are made for individual customers, unless the customer notifies Yankee of the change.
310. The Company's GOC Response Time can affect the potential safety of the public and gas customers.
311. Gas leaks are classified as Class 1, representing an existing or probable hazard to persons or property, and requiring immediate repair or continuous action until the conditions are no longer hazardous; Class 2, as being non-hazardous at the time of detection, but justifying scheduled repair based on probable future hazard; or Class 3, considered non-hazardous at the time of detection and being reasonably expected to remain non-hazardous.
312. The physical facilities of Yankee include a large amount of underground plant, some of which is modern and state-of-the-art piping (e.g., coated, cathodically protected steel and plastic) and some of which is non-state-of-the-art (e.g., bare steel, cast iron).
313. It will take approximately 67 years for Yankee to replace its entire remaining cast iron pipe at the current expenditure rate of approximately \$15 Million per year.
314. As cast iron and bare steel ages, the leak rate tends to increase over time.
315. Since 2008, less than 1% of the bills issued by Yankee are estimated.
316. Yankee intends to begin collecting security deposits from residential customers.

#### **IV. CONCLUSION AND ORDERS**

##### **A. CONCLUSION**

Based on the evidence presented in this proceeding, the Department finds allowed revenues of \$455,503,344 for RY1 to be appropriate for Yankee. This is an overall reduction of \$23,008,656 to the Company's proposed revenue requirement of \$478,512,000 and a reduction of \$534,874 from the Department adjusted revenue at present rates of \$456,038,218. For RY2, the Department finds allowed revenues of

\$481,350,330 to be appropriate for Yankee. This is an overall reduction of \$26,087,670 to the Company's proposed RY2 revenue requirement of \$507,438,000 and an increase of \$6,180,016 to the Department adjusted revenue at present rates of \$475,170,314. The Department allows the Company a rate base for RY1 in the amount of \$699,064,877 and a rate base in the amount \$753,640,703 for RY2. The Department approves an allowed ROE of 8.83% for a weighted cost of capital of 7.48%. This cost of capital is based on an allowed capital structure containing a 52.20% common equity component and a 47.80% debt capitalization component.

The revenue requirement adjustments as authorized herein will be sufficient to enable Yankee to operate successfully, maintain its financial integrity, attract capital, compensate its investors for the use of their money and the risks assumed, and maintain high quality service. New rates will become effective for usage on and after July 20, 2011.

## **B. ORDERS**

For the following Orders, submit one original of the required documentation to the Executive Secretary, 10 Franklin Square, New Britain, CT 06051, and file an electronic version through the Department's website at [www.ct.gov/dpuc](http://www.ct.gov/dpuc). Submissions filed in compliance with Department Orders must be identified by all three of the following: Docket Number, Title and Order Number.

1. No later than July 11, 2011, Yankee shall file with the Department for approval five copies of its RY1 compliance filing as detailed in Section II.N.6. Rate Design Directives. The proposed tariffs in the compliance filing shall include the following items.
  - a. the Bypass Provision in Yankee's Riders ED and MED shall be eliminated; and
  - b. Rider ED shall specify in the Availability section that it is available to "any nonresidential firm customer."
2. No later than July 15, 2011 and monthly thereafter until the Department issues its final Decision in Yankee's next rate application, the Company shall submit to the Department a tabulation of suspected Gas Odor Complaint responsiveness for the prior month. The submittal shall include all available data for the current calendar year up to and including the prior month. The submittal shall include a detailed timeline (time call received, time call dispatched, time of arrival onsite) and a detailed explanation for any response time in excess of 30 minutes during normal business hours and 45 minutes at all other times.
3. No later than July 15, 2011 and quarterly thereafter until the Department issues its final Decision in Yankee's next rate application, the Company shall submit to the Department a tabulation of the Class 2 leak status (beginning balance, leaks detected, leaks repaired, other disposition, ending balance) for the prior quarter.
4. No later than July 15, 2011 and quarterly thereafter until the Department issues its final Decision in Yankee's next rate application, the Company shall submit to

the Department a tabulation of third-party damages for the prior quarter. The submittal shall include all available data for the items listed below for the current calendar year.

- a. total number of Call Before You Dig tickets;
  - b. total number of damages;
  - c. total number of damages/1,000 tickets;
  - d. number of contractor at fault (not including no notice) damages;
  - e. number of contractor at fault damages/1,000 tickets;
  - f. number of no notice damages;
  - g. number of no notice damages/1,000 tickets;
  - h. number of Company markout person at fault damages;
  - i. number of Company markout person at fault damages/1,000 tickets;
  - j. number of Company records at fault damages; and
  - k. number of Company records at fault damages/1,000 tickets.
5. No later than August 1, 2011, Yankee shall acknowledge in writing that it will submit for the Department's approval any changes to its customer service practices, procedures or policies in writing at least ten (10) business days prior to the effective date of such changes, including implementation of the Company's Residential Security Deposit Program.
  6. No later than August 1, 2011, the Company shall file with the Department worksheets detailing how the total monthly depreciation, interest and ROR expenses for the calculation of rent expense in CCC 141 were derived.
  7. No later than August 1, 2011 and annually thereafter until its next rate case, the Company shall file for the Department's approval an exhibit for the 12 months ended June 30, showing the deferred environmental litigation cost balances and the calculations of the accrued carrying charges to date.
  8. No later than August 1, 2011 and annually thereafter until its next rate case, the Company shall file for the Department's approval an exhibit for the 12 months ended June 30, showing the deferred coal tar environmental remediation cost balances and the calculations of accrued carrying charges to date.
  9. No later than August 1, 2011, starting with the second quarter of 2011 and quarterly thereafter until its next rate case, the Company shall file worksheets showing the quarterly charges and credits recorded in the applicable CCCs for Accounts 90303 and 90304 for the Department review and approval.
  10. No later than August 15, 2011 and every six months thereafter until the Department issues its final Decision in Yankee's next rate application, the Company shall submit to the Department a pipe replacement program report for the preceding six months. The submittal shall be formatted and contain the same information as shown below:

Facility	Material	Pressure	Size	Mileage on 1/1/11	Miles (to nearest 1/10 mile) replaced between 1/1/11 and 6/30/11	Mileage on 6/30/11
Mains	Cast Iron	High Pressure	4" or less			
			Over 4" thru 6"			
			Over 6" thru 8"			
			Over 8"			
		Low Pressure*	4" or less			
			Over 4" thru 6"			
			Over 6" thru 8"			
			Over 8"			
	Bare Steel	High Pressure	All			
		Low Pressure*	All			

	Material	Pressure	Size	Number of Services on 1/1/11	Services Replaced Between 1/1/11 and 6/30/11	Number of Services on 6/30/11
Services	Bare Steel	High Pressure	All			
		Low Pressure*	all			
<b>Capital Expenditures for Cast Iron and Bare Steel Main replacement - 1/1/11 - 6/30/11</b>						\$
<b>Capital Expenditures for Bare Steel service replacement - 1/1/11 - 6/30/11</b>						\$
* Low pressure means a gas distribution system in which the gas pressure in the main is substantially the same as the pressure provided to the customer.						

11. No later than September 1, 2011, Yankee shall file with the Department for approval five copies of its RY2 compliance filing as detailed in Section II.N.6. Rate Design Directives.
12. No later than September 1, 2011, Yankee shall have a fully developed customer tracking system as described in Section II.Q. New/Conversion Customer Tracking Program.
13. No later than September 15, 2011, following the Company's filing of its 2010 Federal income tax return with the IRS, Yankee shall file with the Department copies of Form 4562, Depreciation and Amortization, and all related schedules supporting the calculations of the plant asset tax depreciations deducted. Annually thereafter, the Company shall file the same form and information for 2011 and 2012. The filings shall include exhibits comparing the total plant tax depreciations reported in each year tax return to the final estimated final tax

depreciations reported on page 2 of the 17-page "Depreciation Calculations" attachment to its final updates to the SFR schedules.

14. No later than October 31, 2011, Yankee shall file with the Department a status report specifically stating whether or not the MA DPU has approved the NU/NSTAR petition to merger, and if so, the date of the merger closing.
15. No later than November 1, 2011, Yankee shall request a technical meeting in conjunction with the other two gas utilities to discuss the depreciation issues discussed in Section II.C. Depreciation.
16. Beginning in calendar year 2012, Yankee shall achieve a Class 2 leak backlog of 90 or less leaks at the end of each calendar year.
17. No later than January 2, 2012, Yankee shall complete and file with the Department an audit of its plant-in-service records to determine which assets remain on the Company's books what data is available prior to 2001 regarding the types of materials installed and included in rate base, and a report of Yankee's plant accounting records along with the proposed solutions.
18. No later than January 31, 2012, and annually thereafter until the next rate case, Yankee shall file with the Department an exhibit detailing the annual cost savings generated during the prior year, due to the NU/NSTAR merger.
19. Yankee shall spend approximately \$28.0 million during RY1, and approximately \$40.0 million in RY2 on system integrity projects, following a risk based system replacement methodology, targeting cast iron mains, bare steel mains, and bare steel services. Yankee shall continue to spend no less than \$40.0 million over each calendar year, effective January 1, 2013, on such integrity projects until the Department approves any alternative following Yankee's next rate application. In its next rate case, Yankee shall quantify the specific effects its company sponsored conservation programs have on its sales trend forecast for use as a baseline in which to reconcile potential lost margins in the CAM. In its next rate case, Yankee shall file a Depreciation Study that conforms to the Uniform System of Accounts as discussed in Section II.C. Depreciation that separates the types of pipes included in its distribution territory into sub-categories.
22. In the forecast development for all future rate applications, the total customer class sales and customer forecasts shall be allocated directly to the rate classes prior to sharing between sales and transportation service.
23. In the forecast development for all future rate applications, when specific rate classes are known for any out of model adjustment, the associated volumes and customer counts shall be directly allocated to the known rate class.
24. In all future rate applications, Yankee shall normalize test year sales at the individual customer level as discussed in Section II.J.4. Weather Normalizing Test Year Sales.

25. In all future COSS submissions, Yankee shall use direct cost assignment for all accounts identifiable in its computer files at the customer level.
26. In all future rate applications, the Company shall use the same numbering system for the same account titles in both the Depreciation Study and other schedules.
27. In all future rate applications, the Company shall set all rate base assets, whether merchant or distribution, equal to the class ROR in question for the COSS and SSC/TSC rate designs. Further, the Company's initial filing shall incorporate this approach and include legible, detailed workpapers with full explanation.

Appendix A – page 1

Calculation of RY1 Firm Revenue at Present Rates<sup>25</sup>

Rate		Number of Bills	Volumes (ccf)	Current Rates	Current Revenues
<b>R1</b>	<b>Residential Non-Heating</b>				
	Service Charge	289,608		\$16.00	\$4,633,728
	All Ccf - Delivery Charge		4,621,688	\$1.3821	\$6,387,635
	All Ccf - Sales Services Charge		4,621,688	\$0.0342	\$158,062
	All Ccf – Conservation Adjustment Mechanism		4,217,868	\$0.0132	\$55,676
	All Ccf - Supply Charge		4,621,688	\$0.4786	\$2,211,940
	<b>Subtotal</b>				<b>\$13,447,040</b>
<b>R2</b>	<b>Residential Heating</b>				
	Service Charge	1,928,136		\$13.50	\$26,029,836
	All Ccf - Delivery Charge		129,668,512		
	1st 30 ccf		45,435,847	\$0.7523	\$34,181,387
	Over 30 ccf		84,232,665	\$0.4974	\$41,897,328
	All Ccf - Sales Services Charge		129,668,512	\$0.0973	\$12,616,746
	All Ccf – Conservation Adjustment Mechanism		125,588,682	\$0.0132	\$1,657,771
	All Ccf - Supply Charge		129,668,512	\$0.7060	\$91,545,969
	<b>Subtotal</b>				<b>\$207,929,037</b>
<b>R3</b>	<b>Residential Multi-Dwelling</b>				
	Service Charge	10,020		\$38.00	\$380,760
	All Ccf – Delivery		10,091,495		
	1st 1000 ccf		4,786,396	\$0.2922	\$1,398,585
	Over 1000 ccf		5,305,099	\$0.2139	\$1,134,761
	Demand Charge		1,003,095	\$0.0000	\$0
	Daily Demand Meter Charge			\$23.5600	\$0
	Sales Ccf - Sales Services Charge		4,117,330	\$0.0686	\$282,449
	FT Ccf - Transportation Services Charge		5,974,165	\$0.0509	\$304,085
	Sales Ccf - Sales Services Demand Charge		408,962	\$0.0000	\$0
	FT Ccf - Transportation Services Demand Charge		594,133	\$0.0000	\$0
	All Ccf – Conservation Adjustment Mechanism		9,782,925	\$0.0132	\$129,135
	FT Ccf - Transportation Services Charge		5,974,165	\$0.0112	\$66,911
	Sales Ccf - Supply Charge		4,117,330	\$0.6475	\$2,665,971
	<b>Subtotal</b>				<b>\$6,362,656</b>

<sup>25</sup> For purposes of adjusting Block Rate, SSC/TSC and Supply volumes, the Department held constant Yankee's proposed ratio to total sales or demand volumes out to 2 decimal places. CAM volumes for C&I customers adjusted by Yankee's proposed ratio to total sales.

## Appendix A – page 2

Rate		Number of Bills	Volumes (ccf)	Current Rates	Current Revenues
<b>R10</b>	<b>Small Commercial &amp; Industrial</b>				
	Service Charge	237,237		\$42.00	\$9,963,954
	All Ccf – Delivery		32,303,323		
	1st 200 ccf		18,525,956	\$0.4896	\$9,070,308
	Over 200 ccf		13,777,367	\$0.2770	\$3,816,331
	Demand Charge		3,539,443	\$0.2500	\$884,861
	Daily Demand Meter Charge			\$23.5600	\$0
	Sales Ccf - Sales Services Demand Charge		3,148,335	\$0.9748	\$3,068,997
	FT Ccf - Transportation Services Demand Charge		391,108	\$0.9748	\$381,253
	All Ccf – Conservation Adjustment Mechanism		31,537,734	\$0.0134	\$422,606
	FT Ccf - Transportation Services Charge		5,236,369	\$0.0113	\$59,171
	Sales Ccf - Supply Charge		27,066,630	\$0.7714	\$20,879,198
	<b>Subtotal</b>				<b>\$48,546,500</b>
<b>R20</b>	<b>Medium Commercial &amp; Industrial</b>				
	Service Charge	47,399		\$63.00	\$2,986,137
	All Ccf – Delivery		42,004,154		
	1st 1000 ccf		29,629,730	\$0.2326	\$6,891,875
	Over 1000 ccf		12,374,424	\$0.0577	\$714,004
	Demand Charge		4,389,313	\$1.0840	\$4,758,015
	Daily Demand Meter Charge	47,399		\$23.5600	\$1,116,720
	Sales Ccf - Sales Services Demand Charge		2,854,658	\$0.9499	\$2,711,640
	FT Ccf - Transportation Services Demand Charge		1,534,655	\$0.9499	\$1,457,769
	All Ccf - Conservation Adjustment Mechanism		40,479,403	\$0.0134	\$542,424
	FT Ccf - Transportation Services Charge		13,853,200	\$0.0113	\$156,541
	Sales Ccf - Supply Charge		28,150,953	\$0.6896	\$19,412,897
	<b>Subtotal</b>				<b>\$40,748,022</b>
<b>R30</b>	<b>Large Commercial &amp; Industrial</b>				
	Service Charge	18,978		\$147.00	\$2,789,766
	All Ccf - Delivery		180,187,099		
	1st 2500 ccf		44,326,026	\$0.0694	\$3,076,226
	Over 2500 ccf		135,861,073	\$0.0118	\$1,603,161
	Demand Charge		13,415,021	\$2.0357	\$27,308,958
	Daily Demand Meter Charge	18,978		\$23.5600	\$447,122
	Sales Ccf - Sales Services Demand Charge		3,418,208	\$0.7878	\$2,692,864
	FT Ccf - Transportation Services Demand Charge		9,996,813	\$0.7878	\$7,875,489
	All Ccf - Conservation Adjustment Mechanism		169,826,341	\$0.0134	\$2,275,673
	FT Ccf - Transportation Services Charge		142,845,960	\$0.0113	\$1,614,159
	Sales Ccf - Supply Charge		37,341,139	\$0.6351	\$23,715,357
	<b>Subtotal</b>				<b>\$73,398,776</b>
	<b>SUBTOTAL</b>				<b>\$390,432,032</b>
	Non-distribution pass-through adjustment				<b>(\$2,592,091)</b>
	<b>TOTAL</b>				<b>\$387,839,941</b>

Appendix A – page 3

Calculation of Rate Year 2 Firm Revenue at Present Rates<sup>26</sup>

Rate		Number of Bills	Volumes (ccf)	Current Rates	Current Revenues
<b>R1</b>	<b>Residential Non-Heating</b>				
	Service Charge	282,420		\$16.00	\$4,518,720
	All Ccf - Delivery Charge		4,492,540	\$1.3821	\$6,209,140
	All Ccf - Sales Services Charge		4,492,540	\$0.0342	\$153,645
	All Ccf - Conservation Adjustment Mechanism		4,088,720	\$0.0132	\$53,971
	All Ccf - Supply Charge		4,492,540	\$0.4786	\$2,150,130
		<b>Subtotal</b>			<b>\$13,085,605</b>
<b>R2</b>	<b>Residential Heating</b>				
	Service Charge	1,966,356		\$13.50	\$26,545,806
	All Ccf - Delivery Charge		131,903,787		
	1st 30 ccf		46,166,325	\$0.7523	\$34,730,927
	Over 30 ccf		85,737,462	\$0.4974	\$42,645,813
	All Ccf - Sales Services Charge		131,903,787	\$0.0973	\$12,834,238
	All Ccf - Conservation Adjustment Mechanism		127,823,957	\$0.0132	\$1,687,276
	All Ccf - Supply Charge		131,903,787	\$0.7060	\$93,124,074
		<b>Subtotal</b>			<b>\$211,568,134</b>
<b>R3</b>	<b>Residential Multi-Dwelling</b>				
	Service Charge	10,620		\$38.00	\$403,560
	All Ccf - Delivery		10,677,185		
	1st 1000 ccf		5,064,189	\$0.2922	\$1,479,756
	Over 1000 ccf		5,612,996	\$0.2139	\$1,200,620
	Demand Charge		1,061,312	\$0.0000	\$0
	Daily Demand Meter Charge			\$23.5600	\$0
	Sales Ccf - Sales Services Charge		4,356,334	\$0.0686	\$298,845
	FT Ccf - Transportation Services Charge		6,320,851	\$0.0509	\$321,731
	Sales Ccf - Sales Services Demand Charge		433,020	\$0.0000	\$0
	FT Ccf - Transportation Services Demand Charge		628,293	\$0.0000	\$0
	All Ccf - Conservation Adjustment Mechanism		10,368,615	\$0.0132	\$136,866
	FT Ccf - Transportation Services Charge		6,320,851	\$0.0112	\$70,794
	Sales Ccf - Supply Charge		4,356,334	\$0.6475	\$2,820,726
		<b>Subtotal</b>			<b>\$6,732,897</b>

<sup>26</sup>For purposes of adjusting Block Rate, SSC/TSC and Supply volumes, the Department held constant Yankee's proposed ratio to total sales or demand volumes out to 2 decimal places. CAM volumes for C&I customers adjusted by Yankee's proposed ratio to total sales.

## Appendix A – page 4

Rate			Number of Bills	Volumes (ccf)	Current Rates	Current Revenues
<b>R10</b>	<b>Small Commercial &amp; Industrial</b>					
	Service Charge		241,039		\$42.00	\$10,123,623
	All Ccf - Delivery			32,841,232		
	1st 200 ccf			18,839,829	\$0.4896	\$9,223,980
	Over 200 ccf			14,001,403	\$0.2770	\$3,878,389
	Demand Charge			3,597,450	\$0.2500	\$899,363
	Daily Demand Meter Charge				\$23.5600	\$0
	Sales Ccf - Sales Services Demand Charge			3,200,403	\$0.9748	\$3,119,753
	FT Ccf - Transportation Services Demand Charge			397,048	\$0.9748	\$387,042
	All Ccf - Conservation Adjustment Mechanism			32,065,082	\$0.0134	\$429,672
	FT Ccf - Transportation Services Charge			5,322,134	\$0.0113	\$60,140
	Sales Ccf - Supply Charge			27,519,098	\$0.7714	\$21,228,232
		<b>Subtotal</b>				<b>\$49,350,194</b>
<b>R20</b>	<b>Medium Commercial &amp; Industrial</b>					
	Service Charge		48,073		\$63.00	\$3,028,599
	All Ccf - Delivery			42,662,025		
	1st 1000 ccf			30,110,857	\$0.2326	\$7,003,785
	Over 1000 ccf			12,551,168	\$0.0577	\$724,202
	Demand Charge			4,453,219	\$1.0840	\$4,827,289
	Daily Demand Meter Charge		48,073		\$23.5600	\$1,132,600
	Sales Ccf - Sales Services Demand Charge			2,897,496	\$0.9499	\$2,752,331
	FT Ccf - Transportation Services Demand Charge			1,555,723	\$0.9499	\$1,477,781
	All Ccf - Conservation Adjustment Mechanism			41,113,393	\$0.0134	\$550,919
	FT Ccf - Transportation Services Charge			14,058,035	\$0.0113	\$158,856
	Sales Ccf - Supply Charge			28,603,990	\$0.6896	\$19,725,312
		<b>Subtotal</b>				<b>\$41,381,676</b>
<b>R30</b>	<b>Large Commercial &amp; Industrial</b>					
	Service Charge		19,162		\$147.00	\$2,816,814
	All Ccf - Delivery			181,205,605		
	1st 2500 ccf			44,812,146	\$0.0694	\$3,109,963
	Over 2500 ccf			136,393,459	\$0.0118	\$1,609,443
	Demand Charge			13,513,212	\$2.0357	\$27,508,846
	Daily Demand Meter Charge		19,162		\$23.5600	\$451,457
	Sales Ccf - Sales Services Demand Charge			3,455,567	\$0.7878	\$2,722,296
	FT Ccf - Transportation Services Demand Charge			10,057,645	\$0.7878	\$7,923,413
	All Ccf - Conservation Adjustment Mechanism			170,786,283	\$0.0134	\$2,288,536
	FT Ccf - Transportation Services Charge			143,445,946	\$0.0113	\$1,620,939
	Sales Ccf - Supply Charge			37,759,659	\$0.6351	\$23,981,159
		<b>Subtotal</b>				<b>\$74,032,865</b>
		<b>SUBTOTAL</b>				<b>\$396,151,371</b>
	Non-distribution pass-through adjustment					<b>\$2,548,148</b>
		<b>TOTAL</b>				<b>\$393,603,223</b>

Appendix B – Rate Year 1 Income Statement

YANKEE GAS SERVICES COMPANY - DN 10-12-02		June 30, 2011		PER CENT REVENUE INCREASE ALLOWED =	
INCOME STATEMENT				6.484%	
GAS - RATE YEAR ENDED JUNE 30, 2012				-0.1173%	
AS IN APPLICATION FILED 1/7/11					
	REVISED PRO FORMA RATE YEAR	AUTHORITY ADJUSTMENTS	TABLE II	FINAL CHANGES	TABLE III
OPERATING REVENUES	\$449,373,000	\$6,665,218	\$456,038,218		\$456,038,218
OPERATING REVENUES - OTHER	0	0	0		0
RATE REQUEST	29,139,000	0	29,139,000	(29,673,874)	(534,874)
TOTAL REVENUES	478,512,000	6,665,218	485,177,218	(29,673,874)	455,503,344
OPERATION & MAINTENANCE EXPENSE	\$97,062,000	(3,195,144)	\$83,866,856	(473,002)	83,393,854
OTHER O&M	10,000,000	(4,055,886)	5,944,114		5,944,114
GAS PURCHASED & PRODUCED	219,782,000	1,756,737	221,538,737		221,538,737
DEPRECIATION EXPENSE	29,887,000	(2,384,944)	27,502,056		27,502,056
AMORTIZATIONS IN O&M	15,999,000	(2,274,286)	13,724,714		13,724,714
MISC. EXPENSE	0	0	0		0
TAXES, SALES & PAYROLL	3,467,000	(307,049)	3,159,951		3,159,951
GROSS EARNINGS TAXES	17,289,000	208,188	17,497,188	(1,070,159)	16,427,030
PROPERTY TAXES	12,962,000	(459,366)	12,502,634		12,502,634
PROVISION FOR DEF. INCOME TAXES, NET	19,734,000	834,730	20,568,730	0	20,568,730
STATE TAXES	2,054,498	1,189,957	3,244,455	(2,159,834)	1,084,621
FEDERAL TAXES (CURRENT)	1,777,502	5,008,016	6,785,517	(9,089,808)	(2,304,291)
INVESTMENT TAX CREDIT	(377,000)	0	(377,000)		(377,000)
TOTAL OPERATING EXPENSES	\$419,637,000	(3,679,047)	\$415,957,953	(12,792,802)	\$403,165,151
ADDITIONAL ADJUSTMENT	0	0	0		0
OPERATING INCOME	\$58,875,000	\$10,344,265	\$69,219,265	(16,881,072)	52,338,193

Appendix B – Rate Year 1 Rate Base

YANKEE GAS SERVICES COMPANY - DN 10-12-02

RATE BASE

LAST REVIEW DATE

June 28, 2011

GAS - RATE YEAR ENDED JUNE 30, 2012

	REVISED PROFORMA	AUTHORITY ADJUSTMENTS	TABLE I
UTILITY PLANT IN SERVICE	\$1,224,518,000	(\$5,874,051)	\$1,218,643,949
PLANT 2	0	0	0
LESS: CONS. WORK IN PROGRESS	0	0	0
LESS: ACCUM DEP AND AMORT	364,416,000	(1,192,472)	363,223,528
NET PLANT	860,102,000	(4,681,579)	855,420,421
PLUS:			
MATERIALS AND SUPPLIES	\$3,014,000	0	3,014,000
WORKING CAPITAL	6,117,000	(10,927,363)	(4,810,363)
PREPAYMENTS	1,079,000	834,000	1,913,000
FUEL ALLOWANCE	36,424,000	0	36,424,000
DEFERRED ASSETS	10,736,000	(4,557,000)	6,179,000
REGULATORY ASSET - FAS 109	22,195,000	0	22,195,000
CONSERVATION EXPENDITURES	0	0	0
LESS:			
DEFERRED INCOME TAXES	\$179,314,000	4,422,365	183,736,365
CUST. ADVANCES FOR CONSTRUCTION	296,000	0	296,000
DEFERRED INCOME TAXES - FAS 109	22,195,000	0	22,195,000
CUSTOMER DEPOSITS	2,886,000	1,503,000	4,389,000
RESERVES	9,023,000	0	9,023,000
IERM	0	0	0
CIAC FOR 59 PROJECTS	0	1,630,816	1,630,816
MISCELLANEOUS	0	0	0
RATE BASE	725,953,000	(26,888,123)	699,064,877
RETURN ON RATE BASE	8.14%	7.48%	7.48%
OPERATING INCOME	59,092,574	(6,802,521)	52,290,053
IERM SETTLEMENT & OTHER ADJUSTMENT	(217,000)	265,140	48,140

Appendix B – Rate Year 2 Income Statement

	June 28, 2011		PER CENT REVENUE INCREASE ALLOWED =	
		8.419%		1.3006%
REVISED PRO FORMA RATE YEAR	AUTHORITY ADJUSTMENTS	TABLE II	FINAL CHANGES	TABLE III
\$468,035,000	\$7,135,314	\$475,170,314		\$475,170,314
0	0	0		0
39,403,000	0	39,403,000	(33,222,984)	6,180,016
-----	-----	-----	-----	-----
507,438,000	7,135,314	514,573,314	(33,222,984)	481,350,330
\$88,866,000	(3,678,252)	\$85,187,748	(529,574)	84,658,174
10,000,000	(5,468,258)	4,531,742		4,531,742
234,889,000	2,121,269	237,010,269		237,010,269
31,559,000	(2,758,527)	28,800,473		28,800,473
15,899,000	(2,166,286)	13,732,714		13,732,714
0	0	0		0
3,485,000	(341,092)	3,143,908		3,143,908
18,333,000	223,506	18,556,506	(1,198,154)	17,358,352
15,580,000	(442,042)	15,137,958		15,137,958
17,805,000	965,484	18,770,484	0	18,770,484
2,163,104	1,286,136	3,449,240	(2,304,413)	1,144,827
5,391,896	5,702,183	11,094,079	(10,216,795)	877,284
(377,000)	0	(377,000)		(377,000)
-----	-----	-----	-----	-----
\$443,594,000	(4,555,879)	\$439,038,121	(14,248,937)	\$424,789,185
-----	-----	-----	-----	-----
0	0	0		0
-----	-----	-----	-----	-----
\$63,844,000	\$11,691,193	\$75,535,193	(18,974,048)	56,561,145
=====	=====	=====	=====	=====

Appendix B – Rate Year 2 Rate Base

YANKEE GAS SERVICES COMPANY - DN 10-12-02  
 RATE BASE  
 GAS - RATE YEAR ENDED JUNE 30, 2013

LAST REVIEW DATE

June 28, 2011

	REVISED PROFORMA	AUTHORITY ADJUSTMENTS	TABLE I
UTILITY PLANT IN SERVICE	\$1,322,592,000	(\$13,060,785)	\$1,309,531,215
PLANT 2	0	0	0
LESS: CONS. WORK IN PROGRESS	0	0	0
LESS: ACCUM DEP AND AMORT	380,768,000	(3,764,208)	377,003,793
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NET PLANT	941,824,000	(9,296,578)	932,527,423
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PLUS:			
MATERIALS AND SUPPLIES	\$3,071,000	0	3,071,000
WORKING CAPITAL	6,467,000	(11,561,735)	(5,094,735)
PREPAYMENTS	998,000	882,000	1,880,000
FUEL ALLOWANCE	37,605,000	0	37,605,000
DEFERRED ASSETS	6,474,000	(2,182,000)	4,292,000
REGULATORY ASSET - FAS 109	22,503,000	0	22,503,000
CONSERVATION EXPENDITURES	0	0	0
LESS:			
DEFERRED INCOME TAXES	\$199,696,000	5,385,168	205,081,168
CUST. ADVANCES FOR CONSTRUCTION	296,000	0	296,000
DEFERRED INCOME TAXES - FAS 109	22,503,000	0	22,503,000
CUSTOMER DEPOSITS	2,886,000	1,503,000	4,389,000
RESERVES	9,243,000	0	9,243,000
IERM	0	0	0
CIAC FOR 59 PROJECTS	0	1,630,816	1,630,816
MISCELLANEOUS	0	0	0
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RATE BASE	784,318,000	(30,677,297)	753,640,703
	=====	=====	=====
RETURN ON RATE BASE	8.14%	7.48%	7.48%
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OPERATING INCOME	63,843,485	(7,471,161)	56,372,325
IERM SETTLEMENT & OTHER ADJUSTMENT	0	188,820	188,820
	=====	=====	=====

**DOCKET NO. 10-12-02 APPLICATION OF YANKEE GAS SERVICES COMPANY  
FOR AMENDED RATE SCHEDULES**

This Decision is adopted by the following Commissioners:

\_\_\_\_\_  
Amalia Vazquez Bzdyra

\_\_\_\_\_  
Kevin M. DelGobbo

\_\_\_\_\_  
Anna M. Ficeto

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Department of Public Utility Control, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.

\_\_\_\_\_  
Kimberley J. Santopietro  
Executive Secretary  
Department of Public Utility Control

\_\_\_\_\_  
Date