Summary

Mrs. Mullinax has over thirty-six years of financial, management and consulting experience. She is President of Blue Ridge. Prior to assuming the role as President, she held the position of Vice President and Chief Financial Officer for the last 20 years and served on various Boards of Directors. She has extensive experience in project management; regulatory and litigation support; financial, administration, and human resource management. She has performed numerous financial, compliance and management audits. She has designed and implemented accounting and business systems and developed policy and procedure manuals to support those systems.

Key Qualifications and Selected Professional Experience

Financial, Administration, and Human Resource Management

As Chief Financial Officer and Vice President she was responsible for all aspects of financial, administration, and human resources. Her responsibilities included accounting, cash management, budgeting, tax planning and preparation, fixed assets, human resources, and employee benefits. Records under her control have been subject to an IRS compliance audit with no findings.

Project Management

Mrs. Mullinax has managed numerous projects controlling cost, schedule, and scope. These projects included management, financial, and compliance audits, M&A due diligence reviews, economic viability studies, prudence reviews, and litigation/regulatory support for construction contract claims and regulatory proceedings.

Financial, Compliance, and Management Auditing

Mrs. Mullinax is a skilled auditor. She has performed numerous financial, compliance, and management audits for governmental entities, businesses, and public utilities. As a CPA and CIA, she is knowledgeable about sound internal control processes and procedures and has made numerous recommendations for modifications to provide reasonable assurance regarding the achievement of objectives related to (1) effectiveness and efficiency of operations; (2) reliability of financial records, and (3) compliance with laws and regulations.

She has also conducted detailed base rates revenue requirements and rider compliance audits. She has analyzed financial information and budget projections, performed risk identification, and evaluated performance against industry benchmarks. Her extensive professional experience allows her to effectively analyze and evaluate methods and procedures and to thoroughly document her findings. She has successfully testified to her audit findings.

- Before the Nebraska Public Service Commission (NEPSC) on behalf of the Public Advocate of Nebraska
 - Application No. NG-0078.03, System Safety and Integrity Rider (SSIR) of SourceGas Distribution, LLC, October 2016 – present
 - Application NG-0078.02, System Safety and Integrity Rider (SSIR) of SourceGas Distribution, LLC, October 2015 – January 2016
 - Application NG-0078.01, System Safety and Integrity Rider (SSIR) of SourceGas Distribution, LLC, November 2014 – February 2015

Project Manager and Lead Auditor. Led the review of the Company's applications for a system safety and integrity rider for compliance to the Commission directives. The reviews included a detailed mathematical verification and validation of support for the revenue requirements model and reviews of proposed plant to be placed in service and the verification of planned versus actually plant placed in service for the prior year. Summarized the transactional testing results and calculated the impact to the customer charge. Drafted the report including documentation of findings, conclusions, and recommendations and coordinated the accumulation of work papers to thoroughly support all work.

- Application NG-0072.01, Infrastructure System Replacement Cost Recovery Charge (ISR Rider) of SourceGas Distribution, LLC May 2014-August 2014.
- Application No. NG-0074, Infrastructure System Replacement Cost Recovery Charge (ISR Rider) of Black Hills/Nebraska Gas Utility Company, LLC, d/b/a Black Hills Energy, July-November 2013.
- Application No. NG-0072, Infrastructure System Replacement Cost Recovery Charge (ISR Rider) of SourceGas Distribution, LLC March 2013-May 2013.

Project Manager and Lead Auditor. Led the review of the Company's applications for an infrastructure system replacement cost recovery charge for compliance to the Nebraska Natural Gas Regulation Act. The reviews included a detailed mathematical verification and validation of support for the revenue requirements model and reviews of plant work order supporting the requested recovery of utility plant in service. Summarized the transactional testing results and calculated the impact to the customer charge. Drafted the report including documentation of findings, conclusions, and recommendations and coordinated the accumulation of work papers to thoroughly support all work.

- On behalf of the Staff of the Public Utilities Commission of Ohio (PUCO)
 - Case No. 16-0021-EL-RDR: Distribution Investment Rider (DIR) Audit of Columbus Southern Power Company and Ohio Power Company, d/b/a AEP-Ohio, March 2016-August 2016. Project Manager and Lead Auditor.
 - Case No. 15-1739-EL-RDR: Delivery Capital Recovery (DCR) Rider Audit of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, Companies), December 2016-March 2016. Project Manager and Lead Auditor.
 - Case No. 14-1929-EL-RDR: Delivery Capital Recovery (DCR) Rider Audit of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, Companies), December 2015-March 2015. Project Manager and Lead Auditor.
 - Case No. 13-2100-EL-RDR: Delivery Capital Recovery (DCR) Rider Audit of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, Companies), December 2013-March 3013. Project Manager and Lead Auditor.
 - Case No. 13-0419-EL-RDR: Distribution Investment Rider (DIR) Audit of Columbus Southern Power Company and Ohio Power Company, d/b/a AEP-Ohio, March-August 2013. Project Manager and Lead Auditor.
 - Case No. 12-2855-EL-RDR: Delivery Capital Recovery (DCR) Rider Audit of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo

Edison Company (collectively, Companies), December 2012-July 2013. Project Manager and Lead Auditor.

 Case No. 11-5428-EL-RDR: DCR Rider Audit of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, Companies), November 2011 - May 2012. Project Manager and Lead Auditor.

Led the review to ensure the accuracy and reasonableness of the Companies' compliance with its Commission-approved infrastructure cost recovery rider filings. The reviews included detailed mathematical verification and validation of the support of the riders' revenue requirements model, development of sensitivity analysis that supported the PPS sampling techniques used to isolate specific plant work order for further testing. Summarized the transactional testing results and calculated the impact to the rider's revenue requirements. Detailed variance analyses of historical data with investigations into any significant changes. Drafted the report including documenting findings, conclusions, and recommendations and coordinated the accumulation of work papers to thoroughly support all work performed.

- Case # 08-0072-GA-AIR Columbia Gas of Ohio for an increase in gas rates, April-August 2008
- Case # 07-0829-GA-AIR Dominion East Ohio for an increase in gas rates, November 2007-July 2008
- Case # 07-0589-GA-AIR Duke Energy Ohio for an increase in gas rates. November 2007-Februrary 2008

Lead Auditor and assistant project manager. Performed a comprehensive rate case audit of companies' gas rate filings to validate the filings, provided conclusions and recommendations concerning the reliability of the information, and supported Staff in its evaluation of the reasonableness of the filing. Drafted the report including documenting findings, conclusions, and recommendations and coordinated the accumulation of work papers to thoroughly document work performed.

- On behalf of the Massachusetts Department of Public Utilities, Case No. D.P.U. 08-110, regarding the Petition and Complaint of the Massachusetts Attorney General for an Audit of New England Gas Company (NEGC), February-August 2010. Lead Auditor and Assistant Project Manager. Conducted a management audit on how NEGC manages its accounting and financial reporting functions and whether sufficient controls are in place to ensure that the information included in the company's filings can be reasonably relied upon for setting rates areas reviewed included general accounting, financial reporting, and internal controls; plant accounting; income tax; accounts receivable; accounts payable; cash management; payroll; cost allocations; and capital structure. Developed the report including documenting findings, conclusions, and recommendations and coordinated the accumulation of work papers to thoroughly document work performed.
- On behalf of the Staff of the Connecticut Public Utilities Regulatory Authority (PURA)
 - Management Audit of Yankee Gas Services Company. June 2014 April 3, 2015. Lead Auditor and Assistant Project Manager. Performed an in-depth investigation and assessment of the company's business processes, procedures, and policies relating to the management operations and system of internal controls of the company's executive management and financial operations.

- Diagnostic Management Audit of Connecticut Light and Power Company, July 2008-June 2009, Lead Auditor and Assistant Project Manager. Performed an in-depth investigation and assessment of the company's business processes, procedures, and policies relating to the management operations and system of internal controls of the company's executive management, system operations, financial operations, marketing operations, human resources, customer service, external relations, and support services. In addition, supported an in-depth review of the development and implementation process of the company's new customer information system. Developed the report including documenting findings, conclusions, and recommendations and coordinated the accumulation of work papers to thoroughly document all findings.
- Before the Oregon Public Utilities Commission (ORPUC), Docket No. UP 205: Examination of NW Natural's Rate Base and Affiliated Interests Issues, Co-sponsored between NW Natural, ORPUC Staff, Northwest Industrial Gas Users, Citizens Utility Board, August 2005-January 2006, Lead Auditor and Assistant Project Manager. Examined NW Natural's Financial Instruments, Deferred Taxes, Tax Credits, and Security Issuance Costs to ensure Company compliance with orders, rules, and regulations of the ORPUC and with Company policies. Developed the report including documenting findings, conclusions, and recommendations and coordinated the accumulation of work papers to thoroughly document work performed.

Partial List of Reports and Publications

- Compliance Audit of the 2015 Distribution Investment Rider (DIR) Ohio Power Company d/b/a AEP Ohio, August 5, 2016
- Compliance Audit of the 2014 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, April 22, 2016
- Examination of SourceGas Distribution LLC Application for Recovery of 2015 Eligible System Safety and Integrity Costs on Behalf of the Nebraska Public Advocate, January 8, 2015
- Compliance Audit of the 2014 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, March 30, 2015
- Management Audit of Yankee Gas Services Company, April 3, 2015
- Examination of the Infrastructure System Replacement Cost Recovery Charge of SourceGas Distribution LLC, June 30, 2014
- Compliance Audit of the 2013 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, April 9, 2014
- Examination of the Infrastructure System Replacement Cost Recovery Charge of Black Hills/Nebraska Gas Utility, LLC d/b/a Black Hills Energy, October 4, 2013
- Compliance Audit of the 2012 Distribution Investment Rider (DIR) of Columbus Southern Power and Ohio Power Company d/b/a AEP-Ohio, June 19, 2013
- Examination of the Infrastructure System Replacement Cost Recovery Charge of SourceGas Distribution LLC, May 16, 2013
- Compliance Audit of the 2012 Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, March 22, 2013

- Compliance Audit of the Delivery Capital Recovery (DCR) Riders of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company, April 12, 2012
- Revenue Requirements Audit of New England Gas Company, May 12, 2011
- Accounting and Financial Reporting Review of New England Gas Company, August 5, 2010
- Management Audit of The Connecticut Light & Power Company, May 29, 2009
- Report of Conclusions and Recommendations on the Financial Audit of the Columbia Gas of Ohio, Inc. in Regards to Case No. 08-0074-GA-AIR, August 13, 2008
- Report of Conclusions and Recommendations on the Financial Audit of the East Ohio Gas Company d/b/a Dominion East Company in Regards to Case No. 07-0829-GA-AIR, April 16, 2008
- Report of Conclusions and Recommendations on the Financial Audit of Duke Energy Ohio, Inc. in Regards to Case No. 07-0589-GA-AIR, December 17, 2007
- Report of Conclusions and Recommendations of NW Natural's Rate Base and Affiliated Interest Issues in Support of Oregon Public Utilities Commission Docket UM1148, December 23, 2005

Regulatory and Civil Litigation

She has provided or supported civil or regulatory testimony in Arizona, Colorado, Connecticut, Delaware, Illinois, Maryland, Michigan, Missouri, New York, North Carolina, North Dakota, South Carolina, Texas, and Utah. She has also served as an advisor to public service commissioners in the District of Columbia and Connecticut. In addition to providing analytical support, she has served as an expert witness and routinely works with other highly specialized expert witnesses. She has developed defendable analyses and testimony in connection with rate cases, audit findings, and other regulatory issues. She has also supported various civil litigations including delay and disruption construction claims and financial fraud. She has supported counsel with interrogatories, depositions, and hearings/trials support.

Regulatory Proceedings

- Sefore the Arizona Corporation Commission on behalf of Staff
 - Docket No. E-01933A-15-0322, Tucson Electric Power Company, general rate case January 2016-present.

Project Manager and Expert Witness. Led the review and testified to Staff's position regarding the rate base, adjusted net operating income, and revenue requirements proposed by UNS Electric, Inc. Testimony was filed on June 3, 2016.

Docket No. E-024204A-15-0142 UNS Electric, Inc. August 2015-present.

Project Manager, Lead Auditor, and Expert Witness. Led the review and testified to Staff's position regarding the rate base, adjusted net operating income, and revenue requirements proposed by UNS Electric, Inc. Testimony was filed on November 6, 2016

- Before the Nebraska Public Service Commission (NEPSC) on behalf of the Public Advocate of Nebraska.
 - Application NG-0084, Black Hills Holdings, Inc. acquisition of SourceGas Holdings, LLC, October 2015 – present.

Project Manager and Expert Witness. Led the analysis of the impact of the proposed acquisition on whether it would be consistent with the public interest and not adversely affect the utility's ability to service its ratepayers. Testimony was filed on November 6, 2015.

• Application NG-0078, SourceGas Distribution, LLC May 2014-December 2014.

Project Manager, Lead Auditor, and Expert Witness. Led the review of the Companies' applications to replace its infrastructure system replacement (ISR) cost recovery charge with a prospective System Safety and Integrity Rider (SSIR). The review included an analysis of the Company's projected revenue deficiency that lead to the request for the prospective SSIR. The SSIR was subject to a detailed mathematical verification and validation of support for the revenue requirements model and reviews of proposed projects supporting the requested recovery of utility plant in service. Testimony on the analysis was filed in August 2014.

- On behalf of the Commissioners and Staff of the District of Columbia Public Service Commission (DCPSC)
 - Formal Case No. 1139 Pepco base electric rates case, October 2016-present.
 - Formal Case No. 1137 Washing Gas Light Company (WGL) base gas rates case, May 2016-present.
 - Formal Case No. 1103 Potomac Electric Power Company (Pepco) base electric rate case, June 2013-August 2014. Project Manager.
 - Formal Case No. 1093 Washington Gas Light Company (WGL) base gas rates case, July 2011-July 2013. Project Manager.
 - Formal Case No. 1087 Pepco base electric rates case, September 2011-December 2012
 - Formal Case No. 1076 Pepco base electric rates case, July-December 2009
 - Formal Case No. 1053 Pepco base electric rates case, February 2007-June 2008
 - Lead Consultant advising Commissioners and Staff of the Office of Technical and Regulatory Analysis regarding Companies' proposed rate base, net operating income and revenue requirements. Assessed the companies' and Intervenors' positions on various issues and provided defendable recommendations for the Commissioners' consideration. Developed "what if" revenue requirement model used during Commission deliberations to analyze the impact of various adjustments. Supported the drafting of the Commission's Order and supplied the revenue requirement schedules to support the final decision. Supported the Commissioners' legal team in addressing motions for reconsideration.
 - Formal Case No. 1032 Pepco base electric rates case, January-March 2005. Senior Technical Consultant and Assistant Project Manager. Reviewed and evaluated Company's compliance filings for class cost of service and revenue requirements for distribution service pursuit to a settlement approved in May 2002. Provided analysis and recommended adjustments to Staff. Proceeding was settled in anticipation of a full rate case for rates to be effective August 8, 2007.
 - Formal Case No. 1016 WGL natural gas base rates case, June-December 2003. Senior Technical Consultant and Project Manager. Analyzed and recommended adjustments regarding the company's proposed increase to base rates – advised the Commission on party positions during deliberations Review and evaluation of company's depreciation study filed with the Commission.

- Before the Missouri Public Service Commission, Case No. HR-2011-0241, on behalf of the City of Kansas City: Veolia Energy Company 2011 and 2012 electric base rates case, July-September 2011. Senior Technical Consultant. Analyzed Company's proposed net operating income, rate base, and revenue requirements. Supported testifying witness with drafted testimony and development of a model to calculate an alternative revenue requirement incorporating recommended adjustments.
- Before the North Dakota Public Service Commission, Case No. PU-10-657/PU-11-55: Northern States Power Company (NSP) 2011 and 2012 electric base rates case, April-November 2011. On behalf of the Commission Staff, Lead Consultant and Assistant Project Manager. Led the analysis of NSP's rate increase filings and supported adjustments for the Commission's consideration. Developed a model to calculate the appropriate revenue requirements and exhibits to support Staff recommended adjustments.
- Before the Connecticut Public Utilities Regulatory Authority (PURA), Docket 10-02-13: Aquarion Water Company base rates case, on behalf of the PURA, April-August 2010. Senior Technical Consultant and Assistant Project Manager. Reviewed the expense component of the company's revenue requirement and recommended adjustments for Staff consideration.
- Sefore the of the Delaware Public Service Commission on behalf of Staff
 - Docket No. 09-414: Delmarva Power & Light Company (DPL) electric base rates case, September 2009-May 2010. Expert Witness and Assistant Project Manager. Analyzed the company's rate increase filings and provided testimony offering adjustments for the Commission consideration related to the rate base and revenue requirements.
 - Docket No. 06-284: DPL's gas base rates case, October 2006-March 2007. Senior Technical Consultant and Assistant Project Manager. Analyzed the Company's filings, checked the mathematical accuracy of the Company's revenue requirements calculations, and provided analytical support to testifying witness.
- Before the Michigan Public Service Commission (MIPSC) on behalf of the Michigan Attorney General
 - Case No. U-15506: Consumers Energy Company base gas rates case, May-November 2008. Expert Witness and Assistant Project Manager. Analyzed the company's rate increase filings and provided testimony offering adjustments for the Commission consideration related to the rate base and revenue requirements – proceeding was settled through negotiations.
 - Case No U-15244 Detroit Edison electric base rates case, September 2007-October 2008.
 - Case No. U-15245 Consumers Energy Company base gas rates case, July 2007-April 2008.

Senior Technical Consultant and Assistant Project Manager. Analyzed the Company's filings, checked the mathematical accuracy of the Company's revenue requirements calculations, and provided analytical support to testifying witness.

 Case No. U-14547 Consumers Energy Company base gas rates case, December 2005-April 2006. Expert Witness and Assistant Project Manager. Analyzed Company's rate

increase filings and provided testimony offering adjustments for Commission consideration related to the rate base and revenue requirements.

- Before the Maryland Public Service Commission (MDPSC)
 - Case No. 9092 Pepco electric base rates case, on behalf of the Staff of the MDPSC, December 2006-June 2007. Expert Witness and Assistant Project manager. Analyzed Company's rate increases filings and provided direct and rebuttal testimony offering adjustments for the Commission consideration related to the rate base and revenue requirements.
 - Case No. 9062 Chesapeake Utilities Corporation gas base rates case, on Behalf of the Maryland Office of People's Counsel, May-August 2006. Expert Witness and Assistant Project Manager. Analyzed Company's rate increase filings and provided testimony offering adjustments for the Commission consideration related to the rate base and revenue requirements – participated in settlement negotiations that were ultimately accepted by all parties.
- Before the Illinois Commerce Commission, Case No. 05-0597, on behalf of the Illinois Citizens Utility Board, Cook County State Attorney's Office and City of Chicago, November 2005-May 2006. Senior Technical Consultant and Assistant Project Manager. Analyzed the Company's filings, checked the mathematical accuracy of the Company's revenue requirements calculations, and provided analytical support to testifying witness.
- Before the Hawaii Public Utilities Commission (HPUC), Docket No. 05-0075: Instituting a Proceeding to Investigate Kauai Island Utility Cooperative's Proposed Revised Integrated Resource Planning and Demand Side Management Framework, On behalf of the Staff of the HPUC, June-November 2005. Senior Technical Consultant and Assistant Project Manager. Conducted and reported on the results of an industry survey of other cooperatives and Commissions to obtain an overview of how other entities approach the specific issues identified within this docket.
- Before the Public Utilities Commission of the State of Colorado (COPUC), Docket No. 04A-050E: Review of the Electric Commodity Trading Operations of Public Service Company of Colorado (PSCo), On behalf of the COPUC Staff, March-September 2004. Expert Witness and Assistant Project Manager. Performed a transaction audit of PSCo's electric commodity trading operations and submitted testimony describing the process used to conduct the investigation, a summary of the audit findings, and discussion of the significance of the findings.
- Before the New York Public Service Commission, Case No. 00-E-0612: Proceeding on Motion of the Commission to Investigate the Forced Outage at Consolidated Edison Company of New York, Inc.'s Indian Point No. 2 Nuclear Generation Facility, On behalf of Consolidated Edison Company of New York, Inc., October 2000-September 2003. Project Manager. Supervised cross functional teams to assist scheduling and nuclear engineering experts with responses to interrogatories and the development of three comprehensive rebuttal testimonies on the prudence of extended outages at the Indian Point 2 nuclear power plant. The proceeding settled prior to filing of testimony.

Civil Litigation

 ADF Construction vs. Kismet, On Behalf of ADF Construction, December 2003-February 2004. Assistant Project Manager for a delay and disruption construction claim related to

a large hotel complex in North Carolina – worked with scheduling experts to determine schedule delay and disruption and calculated related damages.

- On behalf of New Carolina Construction, July 2002-January 2003
 - New Carolina Construction vs. Atlantic Coast
 - New Carolina Construction vs. Acousti

Project Manager for a delay and disruption claim related to construction of a large high school complex in South Carolina – worked with scheduling experts to determine schedule delay and disruption and calculated related damages. Claim was settled out of court.

- State of Nevada Bureau of Consumer Protection, September-December 2003. Assistant Project Manager for damage assessment project related to potential litigation regarding the Western Market Manipulation.
- Oakwood Homes, On behalf of Oakwood Homes, February 1999-May 2000. Assistant Project Manager for a delay and disruption claim related to the construction of a large manufacturing facility in Texas – worked with scheduling experts to determine schedule delay and disruption and calculated related damages. Dispute was settlement through mediation.
- McMillan Carter, On behalf of McMillan Carter, June-September 2002. Project Manager for a delay and disruption claim related to construction of a large high school complex in North Carolina – worked with scheduling experts to determine schedule delay and disruption and calculated related damages. Claim was settled out of court.
- Fluor Daniel Inc. vs. Solutia, Inc., On behalf of Fluor Daniel, May 2000-August 2001. Assistant Project Manager for a delay and disruption construction claim related to large chemical processing facility in Texas – worked with scheduling experts to determine schedule delay and disruption and calculated related damages. Dispute proceeded through mediation.
- First National Bank of South Carolina vs. Pappas, On Behalf of First National Bank of South Carolina, 1991-1992. Civil litigation, deposed during pre-trial discovery on analytical findings related to check kiting and fraudulent loan applications. Supported counsel and expert witnesses during civil proceeding.
- First Union vs. Pappas, On Behalf of First Union, 1991-1992. Civil litigation, deposed during pre-trial discovery on analytical findings related to check kiting and fraudulent loan applications. Dispute was settled out of court.

Testimony proffered

Before the Arizona Corporation Commission

- UNS Electric, Inc. Docket No. E-04204A-15-0142
- Tucson Electric Power Company Docket No. E-01933A-15-0322

Before the Colorado Public Utilities Commission

Public Service Company of Colorado - Docket No. 04A-050E

Before the Delaware Public Service Commission

Delmarva Power & Light Company - Docket No. 09-414

Before the Maryland Public Service Commission

- Potomac Electric Power Company Case No. 9092
- Chesapeake Utilities Corporation Case No. 9062

Before the Michigan Public Service Commission

- Consumers Energy Company Case No. U-15506
- Consumers Energy Company Case No. U-14547

Before the Public Service Commission of Nebraska

- SourceGas Distribution LLC Docket No. NG-0078
- Black Hills Utility Holdings, Inc. and Source Gas Holdings Inc. Docket No. NG-0084

System Implementation

Mrs. Mullinax has worked with various business and local governmental entities to design and implement accounting and business systems that addressed real world problems and concerns. She has developed accounting policy and procedure manuals for county governments, a library, and a water utility.

Professional Experience

Blue Ridge Consulting Services, Inc.: 2004 - Present

President Vice President and Chief Financial Officer Senior Technical Consultant / Expert Witness

Hawks, Giffels & Pullin, Inc.: 1993 - 2004

Vice President and Chief Financial Officer Executive Consultant Controller

Cherry, Bekaert & Holland, CPAs: 1991 - 1993

Accounting Supervisor Senior Accountant Staff Accountant

Smith, Kline and French Pharmaceutical Company: 1988 - 1991

Professional Sales Representative

Milliken & Company: 1979 - 1988

Quality Assurance Manager Technical Cause Analyst Department Manager

Professional Certification

Certified Public Accountant (CPA), State of South Carolina - 1993 Certified Financial Planner (CFP) - 1994 Certified Internal Auditor (CIA) - 2006 Chartered Global Management Account (CGMA) - 2012

Professional Affiliations

Member of the American Institute of Certified Public Accountants (AICPA) Member of the South Carolina Association of Certified Public Accountants (SCACPA)

Member of the Institute of Internal Auditors (IIA) Member of the Western Carolinas Chapter of the Institute of Internal Auditors (WCIIA)

Education

Clemson University, B.S. Administrative Management with honors, 1978 Clemson University, M.S. in Management, 1979 College for Financial Planning, 1994 NARUC Utility Rate School, 32nd Annual Eastern

Docket No. DE 16-384

Unitil Energy Systems, Inc.

List of Schedules

Line #	Schedule #	Description								
1	Schedule 1	Summarv Com	parison of Computation of Revenue Requirement and Revenue Deficiency							
2	Schedule 1.1	• •	rements and Revenue Deficiency with Staff's Recommended Adjustments							
3	Schedule 1.2	•	Gross Up for Income Taxes							
4	Schedule 2	Rate of Return	te of Return Calculation							
5	Schedule 2.1	Impact of Staff's	pact of Staff's Recommended Rate of Return on Company's Revenue Deficiency							
6	Schedule 3	Ratemaking Ad	temaking Adjustments							
7	Schedule 3.1	Adjustment 1	Adjust Cash Working Capital for Expense Adjustments							
8	Schedule 3.2	Adjustment 2	Remove Prepayments Also Included in Cash Working Capital							
9	Schedule 3.3	Adjustment 3	Audit Issue #2 Kingston Substation Video - Non-Recurring Expense							
10	Schedule 3.4	Adjustment 4	Audit Issue #5 Below the Line Amounts Not Removed in Update							
11	Schedule 3.5	Adjustment 5	Eliminate Inflation Allowance for 2017 Expenses							
12	Schedule 3.6	Adjustment 6	Eliminate 2017 Wage Increase							
13	Schedule 3.7	Adjustment 7	Eliminate Increase to 401(k) Associated with 2017 Increase to Payroll							
14	Schedule 3.8	Adjustment 8	Eliminate 2017 Increase in Medical and Dental Insurance							
15	Schedule 3.9	Adjustment 9	Eliminate Restricted Stock Plan and EPS Component of Incentive Compensation							
16	Schedule 3.10	Adjustment 10	Eliminate 2017 Increase to Insurance Premiums							
17	Schedule 3.11	Adjustment 11	Modification to Property Taxes							
18	Schedule 3.12	Adjustment 12	Sharing of Directors and Officers Liability Insurance							
19	Schedule 3.13	Adjustment 13	Modifications to Depreciation and Amortization							
20	Schedule 3.14	Adjustment 14	True-Up Payroll Taxes for Other Adjustments							
21	Schedule 3.15	Adjustment 15	Interest Synchronization							

Docket No. DE 16-384 Schedule 1

Unitil Energy Systems, Inc.

Twelve Months Ending December 31, 2015

Summary Comparison of Computation of Revenue Requirement and Revenue Deficiency

Line	Description	 Company Application	9/	Company 16/16 Update	Re	Staff commended	Difference		
		(A)		(B)		(C)		(D)	
1	Rate Base	\$ 152,951,401	\$	153,674,471	\$	151,729,540	\$	(1,944,931)	
2	Rate of Return	 8.75%		8.75%		7.91%		-0.84%	
3	Return Requirement	13,383,248		13,446,516		12,001,807		(1,444,710)	
4	Adjusted Net Operating Income	 9,605,687		9,470,010		10,500,730		1,030,720	
5	Deficiency	3,777,561		3,976,506		1,501,076		(2,475,430)	
6	Income Tax Effect	 2,477,715		2,608,204		984,561		(1,623,643)	
7	Revenue Deficiency	\$ 6,255,276	\$	6,584,710	\$	2,485,637	\$	(4,099,073)	

8 Percent of Original Request

39.74%

Unitil Energy Systems, Inc. Twelve Months Ending December 31, 2015 Revenue Requirements and Revenue Deficiency with Staff's Recommended Adjustments

Line	Description			Company Application	Company 9/16/16 Update			Staff djustments		Staff Total
				(A)		(B)		(C)		(D)
1	Rate Base									
2	Utility Plant in Service		\$	282,666,854	\$	283,047,968	\$	(470,444)	\$	282,577,524
3	Less: Reserve for Depreciation			(98,980,036)		(98,527,476)		43,350		(98,484,126
4	Net Utility Plant			183,686,818		184,520,492		(427,094)		184,093,398
5	Plus: M&S Inventories			1,410,324		1,410,324		-		1,410,324
6	Plus: Cash Working Capital			2,659,151		2,698,099		(73,717)		2,624,382
7	Plus: Prepayments			7,616,460		7,616,460		(1,444,119)		6,172,34
8	Plus: SFAS 109 Net Regulatory Asset			558,673		558,673		-		558,673
9	Sub-Total			12,244,608		12,283,556		(1,517,836)		10,765,720
10	Less: Net Deferred Income Tax			(41,720,083)		(41,869,635)		-		(41,869,635
11	Plus: Deferred Income Tax Debit			220,997		220,997		-		220,997
12	Less: Customer Deposits			(923,011)		(923,011)		-		(923,01
13	Less: Customer Advances			(557,928)		(557,928)		-		(557,928
14	Total Rate Base		\$	152,951,401	\$	153,674,471	\$	(1,944,931)	\$	151,729,540
15	Rate of Return		Ť	8.75%	Ŷ	8.75%	Ť	(1,011,001)	Ť	7.919
16	Return Requirement		\$	13,383,248	\$	13,446,516	\$	(1,444,710)	\$	12,001,807
17	Operating Revenues									
18	Distribution Revenue		\$	51,600,877	\$	51,600,877	\$		\$	51,600,877
10			φ	51,000,077	φ	51,000,077	φ	-	φ	51,000,07
	Flow-Through Revenue		\$	-	\$	- F1 COO 977	\$		\$	- F1 C00 97
20	Electric Service Revenue		Φ	51,600,877	Φ	51,600,877	Þ	-	Φ	51,600,877
21 22	Other Operating Revenue Total Operating Revenues		\$	<u>1,237,136</u> 52,838,013	\$	<u>1,237,136</u> 52,838,013	\$		\$	<u>1,237,13</u> 52,838,013
			_Ψ	02,000,010	<u> </u>	02,000,010	Ψ		Ψ	02,000,010
23	Operating Expenses		•	004 400	•	004 400	•		•	004.404
24	Purchased Power		\$	281,438	\$	281,438	\$	-	\$	281,438
25	Transmission			199,387		199,387		-		199,38
26	Distribution			9,222,823		9,214,223		(62,701)		9,151,52
27	Customer Accounting			3,594,095		3,596,131		-		3,596,13
28	Customer Service			1,438		1,438		-		1,43
29	Administrative & General			8,609,949		9,081,821		(1,612,068)		7,469,75
30	Depreciation			10,185,915		9,953,613		(7,501)		9,946,112
31	Amortization			1,680,347		1,680,347		(35,849)		1,644,49
32	Taxes Other Than Income			6,367,137		6,375,354		(33,187)		6,342,16
33	Federal Income Taxes			(315,463)		(398,360)		565,954		167,594
34	State Income Taxes			577,861		555,212		154,632		709,84
35	Deferred Federal & State Income Taxes			2,822,623		2,822,623		-		2,822,62
36	Interest on Customer Deposits			4,777		4,777				4,777
37	Total Operating Expenses		\$	43,232,327	\$	43,368,004	\$	(1,030,720)	\$	42,337,284
38	Net Operating Income		\$	9,605,687	\$	9,470,010	\$	1,030,720	\$	10,500,730
39	Income Deficiency		\$	3,777,561	\$	3,976,506	\$	(2,475,430)	\$	1,501,076
40	Revenue Conversion Factor			1.65590		1.65590				1.6559
41	Revenue Deficiency		\$	6,255,276	\$	6,584,710	\$	(4,099,073)	\$	2,485,637
42	Percent of Original Request	Check		6,255,276		6,584,710				39.74%
Notes	and Sources									
	nns A and B, Lines 1-14: Unitil Schedule Rev	Reg-4								
Colur	nns A and B, Lines 17-38: Unitil Schedule Rev 15: Schedule 2	•								

Line 40: Schedule 1.1 Column C: Schedule 3

Distribution Revenue	\$ 51,600,877	\$ 51,600,877
Revenue Deficiency	\$ 6,255,276	\$ 6,584,710
% Increase over Test Year Distribution Revenue	12.1%	12.8%

Unitil Energy Systems, Inc.

Twelve Months Ending December 31, 2015 Computation of Gross Up for Income Taxes

Line	Description	Company Proposed	Staff Adjustments	Staff Total
		(A)	(B)	(C)
1	NH Tax Rate	8.50%		8.50%
2	Federal Statutory Tax rate	34.00%		34.00%
3	Federal Effective Tax rate (1-State rate*Federal rate)	31.110%		31.11000%
4	Total Composite Tax rate	39.610%		39.61%
5	Revenue Requirement Gross-Up Factor	60.390%		60.390%
6	Revenue Conversion Factor	1.6559		1.6559

Notes and Sources

Column A: Unitil Schedule RevReq-1-1

Unitil Energy Systems, Inc.

Twelve Months Ending December 31, 2015 Rate of Return Calculation

				Capital		Weighted
Line	Description		Balance	Structure	Cost %	Cost %
		_	(A)	(B)	(C)	(D)
1	Company Proposed Rate of Return					
2	Common Stock	\$	77,284,950	50.97%	10.30%	5.25%
3	Prefered Stock Equity		189,800	0.13%	6.00%	0.01%
4	Long-Term Debt		74,000,000	48.80%	7.15%	3.49%
5	Short-Term Debt		161,783	0.11%	1.54%	0.00%
6	Total	\$	151,636,533	100.00%		8.75%
7						
7 8	Staff Recommended Rate of Return	\$	77 294 050	E0 070/	9 650/	1 110/
	Common Stock	Φ	77,284,950	50.97%	8.65%	4.41%
9	Prefered Stock Equity		189,800	0.13%	6.00%	0.01%
10	Long-Term Debt		74,000,000	48.80%	7.15%	3.49%
11	Short-Term Debt		161,783	0.11%	1.54%	0.00%
12	Total	\$	151,636,533	100.00%		7.91%

Notes and Sources

Column A and C, lines 2-5: Unitil Schedule RevReq-5

Staff Recommended Rate of Return: See Testimony of J. Randall Woolridge

Docket No. DE 16-384 Schedule 2 Page 1 of 1

Unitil Energy Systems, Inc.

Twelve Months Ending December 31, 2015

Impact of Staff's Recommended Rate of Return on Company's Revenue Deficiency

Line	Description	9/	Company 16/16 Update	А	Staff djustments	Staff Total
			(A)		(B)	(C)
1	Total Rate Base	\$	153,674,471			\$ 153,674,471
2	Rate of Return		8.75%		-0.84%	 7.91%
3	Return Requirement	\$	13,446,516	\$	(1,290,866)	\$ 12,155,651
4	Net Operating Income	\$	9,470,010			\$ 9,470,010
5	Income Deficiency	\$	3,976,506			\$ 2,685,641
6	Revenue Conversion Factor		1.65590			 1.65590
7	Total Revenue Deficiency	\$	6,584,710	\$	(2,137,549)	\$ 4,447,161
8	Percent of Request					68%
Notes a	and Sources					

Column A: Summary Totals from Schedule 1 Line 2: Schedule 2 Docket No. DE 16-384 Schedule 2.1 Page 1 of 1

Unitil Energy Systems, Inc.

Twelve Months Ending December 31, 2015 Ratemaking Adjustments

Line	Description	Company I6/16 Update		Staff stment 1	Ad	Staff justment 2	Ad	Staff justment 3	Ad	Staff ljustment 4	Ad	Staff justment 5		Staff ustment 6	Adj	Staff ustment 7	Adj	Staff justment 8	djustment Subtotal
	Reference Schedule	(A)	Sche	(B) dule 3.1	Sc	(C) hedule 3.2	Sc	(D) hedule 3.3	Sch	(E) nedule 3.4	Sc	(F) hedule 3.5	Sche	(G) dule 3.6	Scl	(H) hedule 3.7	Sc	(I) hedule 3.8	 (J)
1	Rate Base																		
2	Utility Plant in Service	\$ 283,047,968																	\$ -
3	Less: Reserve for Depreciation	 (98,527,476)																	
4	Net Utility Plant	184,520,492		-		-		-		-		-		-		-		-	-
5	Plus: M&S Inventories	1,410,324																	-
6	Plus: Cash Working Capital	2,698,099		(73,717)				-		-		-		-		-		-	(73,717)
7	Plus: Prepayments	7,616,460				(1,444,119)													(1,444,119)
8	Plus: SFAS 109 Net Regulatory Asset	 558,673																	 -
9	Sub-Total	12,283,556		(73,717)		(1,444,119)		-		-		-		-		-		-	(1,517,836)
10	Less: Net Deferred Income Tax	(41,869,635)																	-
11	Plus: Deferred Income Tax Debit	220,997																	-
12	Less: Customer Deposits	(923,011)																	-
13	Less: Customer Advances	 (557,928)																	 -
14	Total Rate Base	\$ 153,674,471	\$	(73,717)	\$	(1,444,119)	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ (1,517,836)
15	Rate of Return	 8.75%		7.91%		7.91%		7.91%		7.91%		7.91%		7.91%		7.91%		7.91%	 7.91%
16	Return Requirement	\$ 13,446,516	\$	(5,831)	\$	(114,230)	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ (120,061)
17	Operating Revenues																		
18	Distribution Revenue	\$ 51,600,877	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
19	Flow-Through Revenue	 -																	 -
20	Electric Service Revenue	\$ 51,600,877	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
21	Other Operating Revenue	 1,237,136																	 -
22	Total Operating Revenues	\$ 52,838,013	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
23	Operating Expenses																		
24	Purchased Power	\$ 281,438																	\$ -
25	Transmission	199,387																	-
26	Distribution	9,214,223								(538)				(62,163)					(62,701)
27	Customer Accounting	3,596,131																	-
28	Customer Service	1,438																	-
29	Administrative & General	9,081,821						(18,567)		(10,471)		(136,731)		(202,409)		(13,931)		(110,799)	(492,908)
30	Depreciation	9,953,613																	-
31	Amortization	1,680,347																	-
32	Taxes Other Than Income	6,375,354																	-
33	Federal Income Taxes	(398,360)						5,776		3,425		42,537		82,308		4,334		34,470	172,850
34	State Income Taxes	555,212						1,578		936		11,622		22,489		1,184		9,418	47,227
35	Deferred Federal & State Income Taxes	2,822,623																	-
36	Interest on Customer Deposits	 4,777							_										 -
37	Total Operating Expenses	\$ 43,368,004	\$	-	\$	-	\$	(11,213)	\$	(6,648)	\$	(82,572)	\$	(159,775)	\$	(8,413)	\$	(66,911)	\$ (335,532)
38	Net Operating Income	\$ 9,470,010	\$		\$	<u> </u>	\$	11,213	\$	6,648	\$	82,572	\$	159,775	\$	8,413	\$	66,911	\$ 335,532
39	Income Deficiency	\$ 3,976,506	\$	(5,831)	\$	(114,230)	\$	(11,213)	\$	(6,648)	\$	(82,572)	\$	(159,775)	\$	(8,413)	\$	(66,911)	\$ (455,592)
40	Revenue Conversion Factor	 1.65590	·	1.65590		1.65590		1.65590		1.65590		1.65590		1.65590		1.65590		1.65590	 1.65590
41	Revenue Deficiency	\$ 6,584,710	\$	(9,656)	\$	(189,154)	\$	(18,568)	\$	(11,008)	\$	(136,731)	\$	(264,572)	\$	(13,930)	\$	(110,798)	\$ (754,417)
42	Check Percent of Total	6,584,710		0.1%		2.9%		0.3%		0.2%		2.1%		4.0%		0.2%		1.7%	
74		0		0.170		2.070		0.070		0.270		2.170		4.070		0.270		1.7 /0	

Adjustment 1 Adjust Cash Working Capital for Expense Adjustments

Adjustment 2 Remove Prepayments Also Included in Cash Working Capital

Adjustment 3 Audit Issue #2 Kingston Substation Video - Non-Recurring Expense

Adjustment 4 Audit Issue #5 Below the Line Amounts Not Removed in Update

Adjustment 5 Eliminate Inflation Allowance for 2017 Expenses

Adjustment 6 Eliminate 2017 Wage Increase

Adjustment 7 Eliminate Increase to 401(k) Associated with 2017 Increase to Payroll

Adjustment 8 Eliminate 2017 Increase in Medical and Dental Insurance

Docket No. DE 16-384 Schedule 3

Page 2 of 2

NEW HAMPSHIRE PUBLIC SERVICE COMMISSION

Unitil Energy Systems, Inc.

Twelve Months Ending December 31, 2015 Ratemaking Adjustments

Line	Description	1	Carry Forward	Ad	Staff justment 9	Sta ⁻ Adjustm		Adj	Staff justment 11	Adj	Staff ustment 12	Adjı	Staff ustment 13	taff tment 14	Adj	Staff ustment 15	A	djustment Subtotal	Staff Totals	
	Reference Schedule		(A)	Sc	(B) hedule 3.9	(C Schedul		Sch	(D) edule 3.11	Sch	(E) edule 3.12	Sch	(F) nedule 3.13	(G) Iule 3.14	Sch	(H) nedule 3.15		(I)	(K)	
1	Rate Base																			
2	Utility Plant in Service	\$	-	\$	(450,844)					\$	(19,600)						\$	(470,444)	\$ 282,577,	524
3	Less: Reserve for Depreciation		-	_				_		_			43,350					43,350	(98,484,	126)
4	Net Utility Plant		-		(450,844)		-		-		(19,600)		43,350	-		-		(427,094)	184,093,	398
5	Plus: M&S Inventories		-															-	1,410,3	
6	Plus: Cash Working Capital		(73,717)		-		-		-		-		-	-		-		(73,717)	2,624,3	
7	Plus: Prepayments		(1,444,119)															(1,444,119)	6,172,3	341
8	Plus: SFAS 109 Net Regulatory Asset		-											 				-	558,6	
9	Sub-Total		(1,517,836)		-		-		-		-		-	-		-		(1,517,836)	10,765,7	20
10	Less: Net Deferred Income Tax		-															-	(41,869,6	
11	Plus: Deferred Income Tax Debit		-															-	220,9) 97
12	Less: Customer Deposits		-															-	(923,	J11)
13	Less: Customer Advances		-											 				-	(557,	
14	Total Rate Base	\$	(1,517,836)	\$	(450,844)	\$	-	\$	-	\$	(19,600)	\$	43,350	\$ -	\$	-	\$	(1,944,931)	\$ 151,729,	540
15	Rate of Return		7.91%	_	7.91%		7.91%		7.91%		7.91%		7.91%	 7.91%		7.91%		7.91%	7.9	91%
16	Return Requirement	\$	(120,061)	\$	(35,662)	\$	-	\$		\$	(1,550)	\$	3,429	\$ -	\$	-	\$	(153,844)	\$ 12,001,8	307
17	Operating Revenues																			
18	Distribution Revenue		-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-	51,600,8	377
19	Flow-Through Revenue		-											 			\$	-		
20	Electric Service Revenue	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-	\$ 51,600,8	
21	Other Operating Revenue		-											 				-	1,237,	
22	Total Operating Revenues	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	- 0	\$ 52,838,0	013
23	Operating Expenses																	0		0
24	Purchased Power		-														\$	-	\$ 281,4	
25	Transmission																		199,3	
26	Distribution		(62,701)															(62,701)	9,151,	
27	Customer Accounting		-															-	3,596,	
28	Customer Service		-															-		438
29	Administrative & General		(492,908)		(673,110)		(2,955)		(430,150)		(12,945)							(1,612,068)	7,469,	
30	Depreciation		-										(7,501)					(7,501)	9,946,	
31	Amortization		-										(35,849)					(35,849)	1,644,4	
32	Taxes Other Than Income		-											(33,187)				(33,187)	6,342,	
33	Federal Income Taxes		172,850		209,404		919		133,820		4,027		13,487	10,324		21,123		565,954	167,	
34	State Income Taxes		47,227		57,214		251		36,563		1,101		3,684	2,821		5,771		154,632	709,8	
35	Deferred Federal & State Income Taxes		-															-	2,822,	
36	Interest on Customer Deposits		-	_	(100,100)		(4 30.5)		(050 707)		(2.0.17)	_	(00.470)	 (00.040)				-		777
37	Total Operating Expenses	\$	(335,532)	\$	(406,492)	\$	(1,785)	\$	(259,767)	\$	(7,817)	\$	(26,179)	\$ (20,042)	\$	26,894	\$	(1,030,720)	\$ 42,337,2	:84
38	Net Operating Income	\$	335,532	\$	406,492	\$	1,785	\$	259,767	\$	7,817	\$	26,179	\$ 20,042	\$	(26,894)	\$	1,030,720	\$ 10,500,7	/30
39	Income Deficiency	\$	(455,592)	\$	(442,154)		(1,785)	\$	(259,767)	\$	(9,367)	\$	(22,750)	\$ (20,042)	\$	26,894	\$	(1,184,564)	\$ 1,501,0	
40	Revenue Conversion Factor		1.65590		1.65590	1	1.65590		1.65590		1.65590		1.65590	 1.65590		1.65590		1.65590	1.65	590
41	Revenue Deficiency	\$	(754,417)	\$	(732,164)	\$	(2,956)	\$	(430,150)	\$	(15,511)	\$	(37,672)	\$ (33,188)	\$	44,534	\$	(1,961,524)	\$ 2,485,	337
42	Percent of Total				11.1%		0.0%		6.5%		0.2%		0.6%	0.5%		-0.7%				

Adjustment 9 Eliminate Restricted Stock Plan and EPS Component of Incentive Compensation

Adjustment 10 Eliminate 2017 Increase to Insurance Premiums

Adjustment 11

Modification to Property Taxes Sharing of Directors and Officers Liability Insurance Adjustment 12

Modifications to Depreciation and Amortization Adjustment 13

Adjustment 14 True-Up Payroll Taxes for Other Adjustments

Adjustment 15 Interest Synchronization

Unitil Energy Systems, Inc.

Adjustment 1

Adjust Cash Working Capital for Expense Adjustments

Line	Description	Company Proposed	A	djustment	Adjusted Amount			
		 (A)		(B)		(C)		
1	O&M Expenses							
2	Purchased Power	\$ 281,438			\$	281,438		
3	Transmission	199,387				199,387		
4	Distribution	9,214,223		(62,701)		9,151,522		
5	Customer Accounting	3,596,131				3,596,131		
6	Customer Service	1,438				1,438		
7	Administrative & General	9,081,821		(1,612,068)		7,469,753		
8	Less: Bad Debt	(173,326)				(173,326)		
9	Less: Protected Receivables	(344,439)				(344,439)		
10	Less: Non-Cash Bad Debt Accounts	(223,389)				(223,389)		
11	Total O&M Expense for CWC Calculation	\$ 21,633,285	\$	(1,674,768)	\$	19,958,515		
12	Taxes and Interest Expense							
13	Taxes Other Than Income	\$ 6,375,354	\$	(33,187)	\$	6,342,167		
14	Federal Income Taxes	(398,360)		544,831		146,471		
15	State Income Taxes	555,212		148,861		704,073		
16	Test Year Interest Charges (427-432)	5,975,034				5,975,034		
17	Interest Synchronization	(610,398)		26,894		(583,504)		
18	Income Tax Effect of Gross Up	2,608,204				2,608,204		
19	Total Taxes and Interest Expense	\$ 14,505,045	\$	687,398	\$	15,192,445		
20	Total O&M Expense and Taxes and Interest	\$ 36,138,330			\$	35,150,960		
21	Other O&M Expense Days Lag / 365	 7.47%				7.47%		
22	Total Cash Working Capital	\$ 2,698,099	\$	(73,717)	\$	2,624,382		
23	Impact to Rate Base	\$ 2,698,099	\$	(73,717)	\$	2,624,382		

Notes and Sources

Column A, Lines 1-10: Staff Data Request 1_4_Att 1, Tab 4-2, Formula Dissection

Column A, Lines 2-7: Schedule RevReq-2

Column A, Line 8: Schedule RevReq-3, line 8

Column A, Line 9: Schedule RevReq-3, line 9

Column A, Line 10: Staff Data Request 1_4_Att 1, Tab 4-2, Formula Dissection, Staff 8-19

Column A, Lines 12-18: Staff Data Request 1_4_Att 1, Tab 4-2, Formula Dissection

Column A, Lines 13-15: Schedule RevReq-2

Column A, Line 16: Schedule RevReq-3-12

Column A, Line 17: Schedule RevReq-3-12

Column A, Line 18, Schedule RevReq-1

Column B, Schedule 3

	w/o Int Sync	w/ Int Sync	Int Sync
Federal Income Taxes	544,831	565,954	21,123
State Income Taxes	148,861	154,632	5,771
			26,894

Check \$ 26,894

Unitil Energy Systems, Inc.

Adjustment 2

Remove Prepayments Also Included in Cash Working Capital

		C	Company				Adjusted
Line	Description	F	Proposed	A	djustment	_	Amount
			(A)		(B)		(C)
1	Prepayments						
2	Insurance:						
3	Prepaid Property Insurance	\$	17,768	\$	(17,768)	\$	-
4	Prepaid Injuries and Damages Insurance		24,083		(24,083)		-
6	Prepaid Property Insurance-Capital		2,257		(2,257)		-
7	Prepaid Workers' Comp. Insurance-Capital		8,463		(8,463)		-
8	Prepaid Property Insurance-Seacoast		3,010		(3,010)		-
9	Prepaid Worker's Comp. Insurance-Seacoast		9,483		(9,483)	_	-
10	Subtotal Insurance		65,064		(65,064)		-
11	Prepaid Property Tax		1,293,561		(1,293,561)		-
12	Prepaid Postage		67,244		(67,244)		-
5	Prepaid Line Maintenance		18,250		(18,250)		-
13	Prepaid Relvolver		15,027				15,027
14	FASB 87-Prepaid Pension		6,157,314				6,157,314
15	Total		7,616,460		(1,444,119)		6,172,341
13	Impact to Rate Base	\$	7,616,460	\$	(1,444,119)	\$	6,172,341

Notes and Sources

Column A, Line 1: Commission Audit of UES dated August 5, 2016, page 12

Docket No. DE 16-384 Schedule 3.2 Page 1 of 1

Unitil Energy Systems, Inc.

Adjustment 3

Audit Issue #2 Kingston Substation Video - Non-Recurring Expense

Line	Description	Company Proposed Adjustment				Adjusted Amount		
		(A)		(B)			(C)	
1	Customer Communications (930)	\$	18,567	\$	(18,567)	\$	-	
2	NH Income Tax		8.50%				8.500%	
3	Effect on NH income tax expense	\$	(1,578)	\$	1,578	\$	-	
4	Federal Taxable	\$	16,989			\$	-	
5	Federal Income Tax Rate		34%				34%	
6	Effect on Federal income tax expense	\$	(5,776)	\$	5,776	\$	-	
7	Total Taxes	\$	(7,354)	\$	7,354	\$	-	
8	Impact to Operating Income	\$	11,213	\$	(11,213)	\$		

Notes and Sources

Column A, Line 1: Schedule RevReq-3, Updated September 16, 2016, Line 12

Docket No. DE 16-384 Schedule 3.3 Page 1 of 1

Unitil Energy Systems, Inc.

Adjustment 4

Audit Issue #5 Below the Line Amounts Not Removed in Update

Line	Description	Company Proposed		Ad	Adjustment		Adjusted Amount	
			(A)	(B)			(C)	
1	Food for Staff meetings (184)	\$	76	\$	(76)	\$	-	
2	Donuts for Safety meetings (580)		267		(267)		-	
3	Hampton Rotary Poinsettias (580)		38		(38)		-	
4	Exeter Flower Shop Inc (580)		47		(47)		-	
5	Hampton Rotary Poinsettias (580)		38		(38)		-	
6	Employee of the Quarter, cake, ice cream (590)		72	-	(72)		-	
7	Sub-total Distribution Expenses		538		(538)		-	
8	The Exeter Inn (923)		1,897		(1,897)		-	
9	Liberty Lane Catering (926)		835		(835)		-	
10	Milk N It (926)		58		(58)		-	
11	Washington Street Catering (930)		740		(740)		-	
12	Calypso Communications (930)		6,881		(6,881)		-	
13	Travel and Expense Reimbursement (930)		60	-	(60)		-	
14	Sub-total A&G		10,471		(10,471)		-	
15	Total	\$	11,009	\$	(11,009)	\$	-	
16	NH Income Tax		8.50%				8.500%	
17	Effect on NH income tax expense	\$	(936)	\$	936	\$	-	
18	Federal Taxable	\$	10,073			\$	-	
19	Federal Income Tax Rate		34%				34%	
20	Effect on Federal income tax expense	\$	(3,425)	\$	3,425	\$	-	
21	Total Taxes	\$	(4,361)	\$	4,361	\$	-	
22	Impact to Operating Income	\$	6,648	\$	(6,648)	\$	-	

Notes and Sources

Column A, Line 1: Schedule RevReq-3, Updated September 16, 2016, Line 12 Column B, Lines 1-13: Commission Audit of UES dated August 5, 2016, page 86 Docket No. DE 16-384 Schedule 3.4 Page 1 of 1

Unitil Energy Systems, Inc.

Adjustment 5

Eliminate Inflation Allowance for 2017 Expenses

Line	Description	Company Proposed Adjustment				Adjusted Amount		
			(A)		(B)		(C)	
1	A&G - Inflated O&M Expenses	\$	136,731	\$	(136,731)	\$	-	
2	NH Income Tax		8.500%	_			8.500%	
3	Effect on NH income tax expense	\$	(11,622)	\$	11,622	\$	-	
4	Federal Taxable	\$	125,109			\$	-	
5	Federal Income Tax Rate		34%				34%	
6	Effect on Federal income tax expense	\$	(42,537)	\$	42,537	\$	-	
7	Total Taxes	\$	(54,159)	\$	54,159	\$	-	
8	Impact to Operating Income	\$	82,572	\$	(82,572)	\$		

Notes and Sources

Column A, Line 1: Schedule RevReq-3-7, Updated September 16, 2016, Line 16

Docket No. DE 16-384 Schedule 3.5 Page 1 of 1

Docket No. DE 16-384 Schedule 3.6 Page 1 of 1

Unitil Energy Systems, Inc.

Adjustment 6

Eliminate 2017 Wage Increase

		С	ompany		Adjusted		
Line	Description	P	roposed	Ac	djustment		Amount
			(A)	(B)			(C)
1	2017 Payroll Increases						
2	UES Non-Union	\$	21,126	\$	(21,126)	\$	-
3	UES Union		41,037	_	(41,037)		-
	Total Distribution			\$	(62,163)		
4	USC		202,409	\$	(202,409)		-
5	Total 2017 Payroll Increase	\$	264,572	\$	(264,572)	\$	-
6	NH Income Tax		8.500%				8.500%
7	Effect on NH income tax expense	\$	(22,489)	\$	22,489	\$	-
8	Federal Taxable	\$	242,083			\$	-
9	Federal Income Tax Rate		34%				34%
10	Effect on Federal income tax expense	\$	(82,308)	\$	82,308	\$	-
11	Total Taxes	\$	(104,797)	\$	104,797	\$	
12	Impact to Operating Income	\$	159,775	\$	(159,775)	\$	

Notes and Sources

Column A, Lines 1-4: Schedule RevReq-3-1, Updated September 16, 2016, Line 8

Unitil Energy Systems, Inc.

Adjustment 7

Eliminate Increase to 401(k) Associated with 2017 Increase to Payroll

			ompany				Adjusted
Line	Description	Pr	oposed	Adj	ustment		Amount
			(A)		(B)		(C)
1	UES						
2	401(k) Expense Adjusted fro 2017 Wage Increase		6,418		(6,418)		-
3	Chargeable to Captial (63.02%)		4,045		(4,045)		-
4	Chargeable to O&M		2,373		(2,373)		-
5	<u>USC</u>						
6	401(k) Expense Adjusted fro 2017 Wage Increase		16,182		(16,182)		-
7	Chargeable to Captial (28.58%)		4,625		(4,625)		-
8	Chargeable to O&M		11,557		(11,557)		-
9	Total UES and USC 2017 Increase Charged to O&M	\$	13,931	\$	(13,931)	\$	-
10	NH Income Tax		8.500%				8.500%
11	Effect on NH income tax expense	\$	(1,184)	\$	1,184	\$	-
12	Federal Taxable	\$	12,747			\$	_
13	Federal Income Tax Rate	Ŧ	34%			Ŧ	34%
14	Effect on Federal income tax expense	\$	(4,334)	\$	4,334	\$	-
		<u> </u>		^		<u></u>	
15	Total Taxes	\$	(5,518)	\$	5,518	\$	-
16	Impact to Operating Income	\$	8,413	\$	(8,413)	\$	-
		_					

Notes and Sources

Column A, Lines 1-8: Unitil Workpaper 3.3, Updated September 16, 2016

Unitil Energy Systems, Inc.

Adjustment 8

Eliminate 2017 Increase in Medical and Dental Insurance

Docket No. DE 16-384 Schedule 3.8 Page 1 of 1

Line	Description	Company Proposed			Adjustment		Adjusted Amount	
			(A)		(B)		(C)	
1	Medical and Dental Benefits	\$	705,413	\$	(110,799)	\$	594,614	
2	NH Income Tax		8.500%				8.500%	
3	Effect on NH income tax expense	\$	(59,960)	\$	9,418	\$	(50,542)	
4 5	Federal Taxable Federal Income Tax Rate	\$	645,453 34%			\$	544,072 34%	
6	Effect on Federal income tax expense	\$	(219,454)	\$	34,470	\$	(184,984)	
7	Total Taxes	\$	(279,414)	\$	43,888	\$	(235,526)	
8	Impact to Operating Income	\$	425,999	\$	(66,911)	\$	359,088	

Notes and Sources

See the Direct Testimony of Jim Cunningham

Unitil Energy Systems, Inc.

Adjustment 9

Eliminate Restricted Stock Plan and EPS Component of Incentive Compensation

Line	Description	Company Proposed				Adjusted Amount	
			(A)		(B)		(C)
1	Restricted Stock Plan Charged to UES (O&M)	\$	370,760	\$	(370,760)	\$	-
2	Incentive Compensation Charged to UES (O&M)	\$	755,876	\$	(302,350)	\$	453,526
3	Total Restricted Stock and Incentive Comp	\$	1,126,636	\$	(673,110)	\$	453,526
4	NH Income Tax		8.500%				8.500%
5	Effect on NH income tax expense	\$	(95,764)	\$	57,214	\$	(38,550)
6	Federal Taxable	\$	1,030,872			\$	414,976
7	Federal Income Tax Rate		34%				34%
8	Effect on Federal income tax expense	\$	(350,496)	\$	209,404	\$	(141,092)
9	Total Taxes	\$	(446,260)	\$	266,618	\$	(179,642)
10	Impact to Operating Income	\$	680,376	\$	(406,492)	\$	273,883.52
11	Restricted Stock Plan Charged to UES (Capital)	\$	148,366	\$	(148,366)	\$	-
12	Incentive Comp Charged to UES (Capital)		302,477		(302,477)		-
13		\$	450,844	\$	(450,844)	\$	-
14	Impact to Rate Base	\$	450,844	\$	(450,844)	\$	

Notes and Sources

Column A, Line 1: Unitl Response to Staff 8-20

Column A, Line 2: Derived from Unitil Response to Staff 5-38 (see below)

Restricted Stock Plan - 2015 Charged to UES (28.32%)	\$	1,833,073 519,126
Capitalized (28.58%)		148,366
Charged to UES O&M	\$	370,760
Incentive Compensation-2015	\$	3,737,123
Charged to UES (28.32%)	_	1,058,353
Capitalized (28.58%)		302,477
Charged to UES O&M		755,876
Total Restricted Stock and Incentive Comp (Capital) Total Restricted Stock and Incentive Comp (O&M)		450,844 1,126,636

Per Unitil response to Staff 8-20, Restricted Stock was not adjusted for annual payroll increases.

Docket No. DE 16-384 Schedule 3.9 Page 1 of 1

Unitil Energy Systems, Inc.

Adjustment 10

Eliminate 2017 Increase to Insurance Premiums

Docket No. DE 16-384 Schedule 3.10 Page 1 of 2

Line	Description	Company Proposed			justment	Adjusted Amount	
			(A)		(B)		(C)
1	Total Property & Liability Insurance-UES	\$	24,216	\$	(1,112)	\$	23,104
2	Total Property and Liability - USC		30,012		(1,843)		28,169
3	Total Property & Liability Insurance	\$	54,228	\$	(2,955)	\$	51,273
4	NH Income Tax		8.500%				8.500%
5	Effect on NH income tax expense	\$	(4,609)	\$	251	\$	(4,358)
6 7	Federal Taxable	\$	49,619			\$	46,915
-	Federal Income Tax Rate		34%		0.4.0	-	34%
8	Effect on Federal income tax expense	\$	(16,870)	\$	919	\$	(15,951)
9	Total Taxes	\$	(21,479)	\$	1,170	\$	(20,309)
10	Impact to Operating Income	\$	32,749	\$	(1,785)	\$	30,964

Notes and Sources

See Workpaper for adjusted amounts

<u>Unitil Energy Systems, Inc.</u> Adjustment 10

Eliminate 2017 Insurance Premiums - Workpaper

Line	Description	Company Proposed	2016 Amounts	Difference
		(A)	(B)	(C)
1	UES Property and Liability Insurance			
2	Property:			
3	All Risk	55,969	55,969	-
4	Crime	1,932	1,932	-
5	K&E	341	341	-
6	Transit	5,267	5,267	-
7	Total Property	63,509	63,509	-
8	Liability			
9	Workers' Compensation	121,986	119,636	(2,350)
10	Excess	336,048	329,573	(6,475)
11	Automobile	26,296	25,789	(507)
12	Directors and Officers	59,809	59,809	-
13	Fiduciary	4,714	4,714	-
14	Total Liability	548,852	419,884	(6,983)
15	Total Property and Liability - UES	612,361	483,393	(6,983)
16	Charged to Captial	354,598	348,727	(5,871)
17	Charged to O&M	257,763	134,666	(1,112)
18	USC Property and Liability Insurance			
19	Property:			
20	All Risk	6,313	6313	-
21	Crime	655	655	-
22	K&E	116	116	-
23	Total Property	7,084	7,084	-
24	Liability			
25	Workers' Compensation	130,058	125,058	(5,000)
26	Excess	115,769	111,811	(3,958)
27	Automobile	4,502	4,348	(154)
28	Directors and Officers	18,648	18,648	-
29	Fiduciary	1,465	1,465	-
30	Total Liability	270,442	261,330	(9,112)
31	Total Property and Liability - USC	277,526	268,414	(9,112)
32	Allocator Factor to UES	28.32%	28.32%	28.32%
33	Total Property and Liability - Allocated to UES	78,595	76,015	(2,581)
34	Charged to Capital	22,463	21,725	(738)
35	Charged to O&M	56,133	54,290	(1,843)

Notes and Sources

Unitil Schedule RevReq-3-4, Updated September 16, 2016 and Workpaper 4.1-4.4

Docket No. DE 16-384 Schedule 3.10 Page 2 of 2

Unitil Energy Systems, Inc.

Adjustment 11 Modification to Property Taxes Docket No. DE 16-384 Schedule 3.11 Page 1 of 2

Company Adjusted Line Description Proposed Adjustment Amount (A) (B) (C) 1 Assessed Value \$ 360,710,597 360,710,597 \$ 2 Property Taxes 5,397,120 5,397,120 \$ \$ 3 Less Property Tax Abatement (367, 492)(367, 492)4 Total Test Year Property Tax Expense 5,029,628 5,029,628 \$ 5 Property Taxes 5,397,120 5,397,120 \$ \$ 7.97% -7.97% 6 Property Tax Increase 0.00% 7 Total Adjusted Property Taxes \$ 5,827,031 \$ 5,396,881 8 Kingston Substation Addition 232,678 232,678 9 Total Adjusted Property Taxes with Kingston Substation 6,059,709 \$ \$ 5,629,559 10 \$ 1,030,081 (430,150) \$ 599,931 Increase to Property Taxes \$ <u>8.5</u>00% 11 NH Income Tax 8.500% 12 Effect on NH income tax expense \$ (87,557) \$ 36,563 \$ (50, 994)13 Federal Taxable \$ 942,524 \$ 548,937 14 Federal Income Tax Rate 34% 34% (320,458) 133,820 \$ 15 Effect on Federal income tax expense \$ \$ (186,638) 170,383 (237,632) 16 **Total Taxes** \$ (408,015) \$ \$ 17 Impact to Operating Income \$ 622,066 \$ (259,767) \$ 362,299

Not 2017

Notes and Sources

Column A, Lines 1-10: Unitil Workpaper 3.10, Updated September 16, 2016

	٦	Fotal UES	Increase in		
	Pro	Property Taxes		perty Taxes	% Change
2015	\$	5,397,120	\$	195,421	3.76%
2014		5,201,699		551,648	11.86%
2013		4,650,051		421,754	9.97%
2012		4,228,297		256,189	6.45%
2011		3,972,108			
Average Increase			\$	356,253	
7.97% Increase in Property Taxes			\$	429,911	

Unitil Energy Systems, Inc.

Adjustment 12

Sharing of Directors and Officers Liability Insurance

Line	Description			Adj	Adjustment		djusted Amount
			(A)		(B)		(C)
1	Directors and Officers-UES		59,809		(29,905)		29,905
2	Charged to Capital		37,692		(18,846)		18,846
3	Charged to O&M		22,117		(11,059)		11,059
4	Directors and Officers-USC		18,648		(9,324)		9,324
5	Directors and Officers-USC allocated to UES		5,281		(2,641)		2,641
6	Charged to Capital		1,509		(755)		755
7	Charged to O&M		3,772		(1,886)		1,886
8	Director and Officers Charged to O&M	\$	25,889	\$	(12,945)	\$	12,945
9	NH Income Tax		8.500%				8.500%
10	Effect on NH income tax expense	\$	(2,201)	\$	1,101	\$	(1,100)
11	Federal Taxable	\$	23,688			\$	11,845
12	Federal Income Tax Rate	Ψ	34%			Ψ	34%
13	Effect on Federal income tax expense	\$	(8,054)	\$	4,027	\$	(4,027)
14	Total Taxes	\$	(10,255)	\$	5,128	\$	(5,127)
15	Impact to Operating Income	\$	15,634	\$	(7,817)	\$	7,818
16	Director and Officers Charged to Capital	\$	39,201	\$	(19,600)	\$	19,600
17	Impact to Rate Base	\$	39,201	\$	(19,600)	\$	19,600

Notes and Sources

Unitil Schedule RevReq-3-4, Updated September 16, 2016 and Workpaper 4.1-4.4

Docket No. DE 16-384 Schedule 3.12 Page 1 of 1

Unitil Energy Systems, Inc.

Adjustment 13

Modifications to Depreciation and Amortization

Docket No. DE 16-384 Schedule 3.13 Page 1 of 1

Line	Description	Company Proposed	Adjustment	Adjusted Amount		
		(A)	(B)	(C)		
1	Depreciation Expense	\$ 9,943,800	\$ (7,501)	\$ 9,936,299		
2	Amortization Expense	541,123	(35,849)	505,274		
3	Total Depreciation and Amortization	\$ 10,484,923	\$ (43,350)	\$ 10,441,573		
4	NH Income Tax	8.500%		8.500%		
5	Effect on NH income tax expense	\$ (891,218)	\$ 3,684	\$ (887,534)		
6	Federal Taxable	\$ 9,593,705		\$ 9,554,039		
7	Federal Income Tax Rate	34%		34%		
8	Effect on Federal income tax expense	\$ (3,261,860)	\$ 13,487	\$ (3,248,373)		
9	Total Taxes	\$ (4,153,078)	\$ 17,171	\$ (4,135,907)		
10	Impact to Operating Income	\$ 6,331,845	\$ (26,179)	\$ 6,305,666		
44	Accurated Depresiation	¢ (40,404,000)	¢ 40.050	ф (40.444 БZO)		
11	Accumulated Depreciation	\$ (10,484,923)	\$ 43,350	\$ (10,441,573)		
12	Impact to Rate Base	\$ (10,484,923)	\$ 43,350	\$ (10,441,573)		

Notes and Sources

See the Direct Testimony of Jim Cunningham

Unitil Energy Systems, Inc.

Adjustment 14

True-Up Payroll Taxes for Other Adjustments

Line	Description	Company Proposed			Adjustment		Adjusted Amount	
			(A)		(B)		(C)	
1	Payroll Taxes							
2	Social Security	\$	24,967	\$	(24,967)	\$	-	
3	Medicare		8,220	_	(8,220)		-	
4	Total Payroll Taxes	\$	33,187	\$	(33,187)	\$	-	
5	NH Income Tax		8.500%				8.500%	
6	Effect on NH income tax expense	\$	(2,821)	\$	2,821	\$	-	
7	Federal Taxable	\$	30,366			\$	-	
8	Federal Income Tax Rate		34%				34%	
9	Effect on Federal income tax expense	\$	(10,324)	\$	10,324	\$	-	
10	Total Taxes	\$	(13,145)	\$	13,145	\$	-	
11	Impact to Operating Income	\$	20,042	\$	(20,042)	\$	-	

Notes and Sources

Column A, Lines 2-3: Schedule RevReq-3-11, Updated September 16, 2016, Line 6

12		Soc	ial Security	Ν	ledicare	
13	Excluded Incentive Compensation within Test Year	\$	(302,350)	\$	(302,350)	
14	2017 Payroll Increases		(264,572)		(264,572)	
15	Total Payroll Amounts Excluded	\$	(566,922)	\$	(566,922)	
16	UES 2017 Increase in Excess of Taxable Limit (4.5%)		25,468			See below
17	USC 2017 Increase in Excess of Taxable Limit (24.5%)		138,764			See below
			(402,690)		(566,922)	
18	Payroll Tax Rate	_	6.20%	_	1.45%	
19	Total Excluded Payroll Taxes		(24,967)		(8,220)	
20	Estimate of Payroll in Excess of Taxable Limit	Pei	Company		Ratio	
21	Increase in O&M Payroll/Compensation		543,810			
22	UES in Excess of Taxable Limit		24,430		4.5%	
23	USC in Excess of Taxable Limit		133,107		24.5%	

Docket No. DE 16-384 Schedule 3.14 Page 1 of 1

Docket No. DE 16-384 Schedule 3.15

Page 1 of 1

NEW HAMPSHIRE PUBLIC SERVICE COMMISSION

Unitil Energy Systems, Inc.

Adjustment 15

Interest Synchronization

"Change in Interest Expense Applicable to Income Tax Computation"

Line	Description	Company Proposed	Staff Adjustments	Staff Total	
		(A)	(B)	(C)	
1	Rate Base	\$ 153,674,471	(1,944,931)	151,729,540	
2	Interest Component of Rate of Return	3.49%		3.49%	
3	Interest Attributable to Rate Base	5,364,776		5,296,878	
4	NH Income Tax	8.500%		8.500%	
5	Effect on NH income tax expense	\$ (456,006)	\$ 5,771	\$ (450,235)	
6	Federal Taxable	\$ 4,908,770		\$ 4,846,643	
7	Federal Income Tax Rate	34%		34%	
8	Effect on Federal income tax expense	\$ (1,668,982)	\$ 21,123	\$ (1,647,859)	
9	Total Taxes	\$ (2,124,988)	\$ 26,894	\$ (2,098,094)	
10	Impact to Operating Income	\$ 2,124,988	\$ (26,894)	\$ 2,098,094	
11	Weighted Cost				
12	Long-Term Debt	3.49%		3.49%	
13	Short-Term Debt	0.00%		0.00%	
14	Interest Component of Rate of Return	3.49%		3.49%	

Notes and Sources

Column A, Lines 1-3: Schedule RevReq-3-12, Updated September 16, 2016, Column B, line 1: Schedule 1.1

Unitil Energy Systems, Inc. Docket No. DE 16-384 Petition for Rate Increase NHPUC Staff Set 7 Information Requests

Received: August 4, 2016 Request No. Staff 7-3 Date of Response: August 18, 2016 Witness: David L. Chong

Request

Reference response to Staff 2-37 and 2-38, RevReq-3 and Workpaper 3.3. The adjustment in revenue requirements for 401K expense is stated as being \$44,100 (RevReq-3, line 6). This adjustment includes a 2017 wage increase. Given the test year is 2015, why is the company including a wage increase for 2017?

Response:

From Chong testimony page 5 of 32:

"All adjustments to the test year cost of service are based upon known and measurable changes to revenues and expenses, or upon changes that will become known and measurable during the course of this proceeding. As a practical matter, the Company has limited all pro forma adjustments to those that will be known and measurable through May 1, 2017, which is the date permanent rates are expected to go into effect for this proceeding."

Without known and measurable adjustments extending through the pendency of this proceeding, the Company will experience earnings attrition and immediately under-earn coming out of this rate case. Mr. Collin presented testimony on earnings attrition at pages 9-14 of 28. Mr. Collin notes that earnings attrition occurs when a utility's costs rise faster than its revenues over time. Unitil Energy's revenues and costs are no longer matched. Since the last rate case in 2010, Unitil Energy's unit sales have been essentially flat, while its rate base has grown from \$130.8 mm to \$153.0 mm.

Unitil Energy Systems, Inc. Docket No. DE 16-384 Petition for Rate Increase (Temporary Rates) NHPUC Staff Set 1 Information Requests

Received: June 2, 2016 Request No. Staff 1-4 Date of Response: Witness: David L. Chong

Request

Please provide Attachments of Filing Requirement Schedules pages 1 through 12 (Bates pages 113 through 124) in live excel format.

Response:

Please see excel file Staff 1-4 Attachment 1.

Unitil Energy Systems, Inc. Docket No. DE 16-384 Petition for Rate Increase NHPUC Staff Set 8 Information Requests

Received: August 11, 2016 Request No. Staff 8-19 Date of Response: August 23, 2016 Witness: David Chong

Request

Cash Working Capital: Reference Staff DR 1-4, Attachment 1, Tab 4-2, Cell G12. The formula to derive the O&M Expense Test Year Actual used in the Company's Cash Working Capital Adjustment includes a hard coded number, \$223,388.67. Please explain the number and why it was deleted.

Response:

The hard coded amount of \$223,388.67 reflects four non-cash bad debt expense accounts listed below that were removed to correctly calculate the Company's cash working capital.

10-20-10-00-9040000 PROVISION FOR DOUBTFUL ACCTS	\$	(141,862.00)
10-20-10-00-9040027 PROVISION FOR DOUBTFUL ACCCTS-NON-DIST		(144,840.00)
10-20-21-00-9040000 PROVISION FOR DOUBTFUL ACCTS		500,854.92
10-20-21-00-9040100 PROVISION FOR DOUBTFUL ACCTS-SUNDRY	_	9,235.75
Total	\$	223,388.67

ACCOUNTING FOR PUBLIC UTILITIES

Volume 1

ROBERT L. HAHNE

GREGORY E. ALIFF

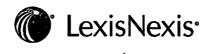
DELOITTE & TOUCHE LLP

Contributing Authors: The following were the original contributing authors of Accounting for Public Utilities. While much of what these individuals originally wrote has been removed or replaced through the annual update process, we wish to continue to recognize their contributions in the creation of this book.

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2015

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MATTHEWOBENDER

(Rei. 32-12/2015 Pub.016)

1

Docket No. DE-16-384 Attachment DHM-6 Page 3 of 6

CHAPTER 5

Working Capital Component of Rate Base

SYNOPSIS

§ 5.01 Fuel Inventory

- § 5.02 Materials and Supplies
- § 5.03 Prepayments

transformation with

that to lovel of that

§ 5.04 Cash Working Capital

- [1] Formula Approach
- [2] Lead-Lag Study
 - [a] Revenue Lag
 - [b] Expense Lag
 - [i] Operating and Maintenance Lag
 - [ii] Depreciation and Deferred Tax Lag
 - [iii] Current Income Tax Lag
 - [iv] Taxes Other Than Income Tax Lag
 - [v] Total Expense Lag
 - [vi] Net Operating Income
 - [vii] Other Cash Working Capital Requirements in Lead-Lag Studies

[3] Balance Sheet Approach

The financial analyst's perspective of working capital reflects a measure of financial liquidity (i.e., the availability of cash on hand and other current assets that are readily convertible to cash that may be used to meet liabilities that must be paid in the current business cycle). This financial liquidity measure is based on a comparison of current assets to current liabilities at a point in time.

The ratemaking perspective of working capital is quite different. For ratemaking purposes, working capital is a measure of the amount of funding needed to satisfy the level of the daily operating expenditures and a variety of non-plant investments that are necessary to sustain ongoing operations of the utility. The ratemaking measure of working capital is designed to identify these ongoing average funding requirements over a test period.

Regulatory commissions vary as to the identification of individual components of working capital; however, in general, the components are:

(1) fuel inventory;

(2) materials and supplies (M&S);

(3) prepayments; and

5-1

(4) cash working capital.

These components are discussed in the sections below, with particular attention given to cash working capital as this is often the most controversial item.

§ 5.01 Fuel Inventory

Determination of the fuel inventory component of working capital often parallels the method used for determining the plant investment component of rate base. For example, average balances during the year may be used in the case of an average-year rate base, and year-end balances may be used in the case of a year-end rate base. If the monthly balances are volatile, however, an average balance may be used in either situation. Also, the balance may be based on historic data or on forecasted data, depending on the test period.

On occasion, some regulatory commissions restrict the level of fuel inventory to a set number of days of supply. As an example, a commission may conclude that the level of coal inventory should be limited to 75 days of supply even though the actual quantity is 90 days of supply. Such a restriction would be made only if the commission concludes the additional inventory supply is an imprudent management decision. Levels of fuel inventory are affected by a variety of conditions, including purchase contracts, alternative generating sources, weather, transportation conditions, and a host of other factors. The investment in these fuel inventories is most often substantial. Prudent management, therefore, will not maintain a larger fuel inventory investment than that required to assure a dependable fuel supply.

A commission should have to be absolutely convinced that a lower level of fuel inventory could be maintained without affecting the assured supply of fuel before it reduces the amounts allowed in the rate base from that which is actually maintained. A disallowance would almost certainly force the utility to lower its level of fuel inventory. If such a reduction is not consistent with sound operating conditions, the regulatory decision is contrary to the public's interest.

At the other end of the spectrum, some argue that the anticipated quantities of fuel stocks needed during the period the rates will be in effect should be allowed in the rate base. This position is theoretically valid on the basis that rates should be designed to recover costs as incurred (including the cost of financing fuel inventory). An even better theoretical measure would be to value the anticipated inventory level at a projected price throughout the period that the rates are anticipated to be in effect.

§ 5.02 Materials and Supplies

A 13-month average of materials and supplies is used if the balances are volatile, and forecasted amounts are typically used when the test period is based on projected data. One issue raised by regulatory commissions from time to time in the determination of materials and supplies inventory to be included in working capital is to request that M&S inventories be segregated into the portion to be used for construction and the portion to be used for operations. It is argued that M&S inventory to be used for construction is similar to construction work in progress (CWIP) and, where CWIP investment is not allowed to earn a current return, M&S inventory for construction activities should also not be allowed to earn a current return. The problem

WORKING CAPITAL-RATE BASE

with this approach is the potential loss of the utility's ability to recover the carrying costs on the construction related M&S inventories. It is generally recognized that any dollar of investment should earn either a current return through inclusion in the rate base or that the financing cost of the investment should be allowed to be capitalized for future recovery through allowance for funds used during construction (AFUDC). However, if a regulatory commission disallows the materials and supply investment in construction-related materials, the commission should specifically prescribe that the financing costs of such investment be capitalized. Implementation of such a policy would be unduly burdensome, however, because it would require applying the carrying cost to the many individual supply items that may end up in construction or in operation. In addition, accounting problems exist because the controlling uniform system of accounts does not permit the capitalization of inventory carrying costs. Also, accounting principles generally accepted in the United States of America (GAAP) do not permit the capitalization of any equity component of inventory carrying costs. From a practical and theoretical standpoint, all M&S inventory, including the construction-related items, should be included in the rate base.

§ 5.03 Prepayments

Prepayments as a component of working capital represent an investment of funds that is generally included in the rate base if that investment has not been recognized elsewhere, such as in cash working capital. Prepayments represent cash payments that are made in advance of the period to which they apply and include items such as prepaid rents, insurance, and taxes. The amounts normally allowed are based on the same standards outlined above for fuel inventories and M&S inventories.

From a theoretical standpoint, the average measurement period should encompass more than a single test year review, since certain prepayments (such as prepayments for insurance coverage) often are made for periods in excess of one year. Therefore, one approach would be to measure the prepaid balances over whatever the longest cycle of any individual component of the prepayment item. In a period of continuing inflation or price increases, it is inequitable to make such a measurement based solely on prior years. Thus, prepayments are best measured by averaging the amount of prepayments over the period that rates will be in effect. For a three-year prepayment period, for example, it would seem to be a fair measurement of the average investment required for prepaid expenses to use the most recent historical year as well as the test year and one year into the future.

§ 5.04 Cash Working Capital

The determination of cash working capital is one of the most controversial elements in ratemaking. Even though cash working capital generally represents a small portion of the total investment in the rate base, it often consumes a significant portion of the hearing time in a regulatory proceeding.

One of the first problems in determining cash working capital is to agree on its definition. Many practitioners consider that cash working capital represents the investment requirement for cash to pay for operating expenses, to maintain compensating cash balances, and to provide for similar needs. If the usual definition of total

working capital as provided at the beginning of this chapter is accepted, the important criterion is that the total of all components of working capital equal that definition. Therefore, if a commission chooses to use the typical working capital components (materials and supplies inventories, fuel inventories, and prepayments), cash working capital will have a different meaning than if accrued taxes or other offsets to working capital are identified as separate components of total working capital. The important point to remember is that the commonly used phrase "cash working capital" may be defined differently in different cases depending on the extent to which a commission segregates the individual components of the total working capital.

The following definition should produce an appropriate measure of cash working capital in all circumstances and will accommodate a broad range of treatment of other rate base components:

The average amount of capital provided by investors, over and above the investment in plant and other specifically measured rate base items, to bridge the gap between the time expenditures are required to provide services and the time collections are received for such services.

Regardless of the precise definition rendered, there are basic principles that should govern the measure of the cash working capital component of the rate base. The rate base consists of various components, the combined total of which is to function as a measure of the amount of investor supplied capital required to provide service. If the rate base is to be correctly measured, the cash working capital component must be compatible with the other rate base components. If this principle is not recognized and applied, the rate base will not function as intended. To the extent that plant or other rate base components are not explicitly (or accurately) included as a rate base allowance, the individual components may be identified and corrected. Alternatively, the correcting amounts may be recognized in the cash working capital allowance.

In Smyth v. Ames,¹ the Supreme Court recognized a need for an investment in working cash in the operation of a regulated utility. Subsequently, in the first 40 years of the 20th century, most of the methods now used to determine estimates of cash working capital were developed.

Although many methods have been used by various regulatory bodies, nearly all are variations of one of three approaches discussed below. These are as follows:

(1) the 45-day standard formula approach;

(2) the lead-lag study approach; and

(3) the balance sheet approach.

[1] Formula Approach

As its name implies, the 45-day formula approach uses a simple, "rule-of-thumb" formula for the calculation of cash working capital requirements. For an electric utility, the formula, for example, could calculate $\frac{1}{8}$ (45/365 days) of operating expenses

¹ 171 US 361 (1898).

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: August 5, 2016 AT (OFFICE): NHPUC

FROM: The NH Public Utilities Commission Audit Staff

- SUBJECT: Unitil Energy Systems, Inc. DE 16-384 Final Audit Report
 - TO: Tom Frantz, Director, Electric Division Les Stachow, Assistant Director Rich Chagnon, Utility Analyst IV

INTRODUCTION

As noted in the testimony of Mark Collin in DE 16-384, Unitil Corporation (Unitil) is a public utility holding company, with a principal business of retail distribution of electricity and natural gas throughout its service territories in New Hampshire, Massachusetts and Maine. Unitil Corporation is the parent company of three distribution utilities: Unitil Energy Systems, Inc., (Unitil Energy, UES) which provides electric service in the southeastern seacoast and state capital regions of New Hampshire, Fitchburg Gas and Electric Light Company (Fitchburg, FG&E), which provides both electric and natural gas service in the greater Fitchburg area of north central Massachusetts; and, Northern Utilities, Inc. (Northern, NU) which provides natural gas service in southeastern New Hampshire and portions of southern and central Maine. In addition, Unitil Corporation is the parent company of Granite State Gas Transmission, Inc., (Granite, GSG) an interstate natural gas pipeline company in New Hampshire and Maine.

Unitil Service Corp., (USC) a subsidiary of Unitil Corporation provides shared business functions to its utility affiliates on an "at-cost" basis.

Unitil Corporation's other subsidiaries are Unitil Power Corp., Unitil Resources, Inc. and Unitil Realty Corp. Unitil Power Corp. has divested all of its long- term power supply contracts, but has stranded costs associated with the transmission contracts which are not scheduled to end until 2021. The Company indicated that the stranded costs associated with the contracts from UPC are passed on to UES each month through the UPC Power Bill. UES pays this bill within the month it is processed. The costs are recorded in Stranded Cost Charge reconciliation model. The account used is 10-29-13-33-555-01-00 and reflected a total of \$177,556 for the year. Unitil Resources, Inc. is a wholly-owned non-regulated subsidiary with two additional subsidiaries: Usource, Inc. and Usource, LLC, collectively Usource, which provides electric and natural gas energy Audit was told that the account generally represents the labor, transportation, allocated building costs, etc. incurred to operate the stock room.

Clarification was requested for a variety of monthly journal entry types noted in account 10-20-50-00-163-00-00, although the same types of entries were noted in the 60 division. Specifically the Company identified the journal entries as follows:

CMS804 Salvage Operations – reflects stock overages and shortages CPA820 Transportation Journal Entry –applies transportation clearing charges CPR800 Payroll St Plant – direct payroll related to Stockroom employees SGA720 Bank by Mail –manual miscellaneous non-customer check deposits SGA770 Monthly USC Service Bill-USC allocated charges

UEGA791C Capitalize Service Center Building/Telephone/Overhead represents capitalization of a portion of service center expenses, including phone and security system costs. 84% of the expenses are capitalized, based on square footage. Audit requested clarification of one entry and was provided with the journal entry and support. \$24,801 of the \$94,010 was traced to capitalization of expenses, or 26% of the balance. Refer to the <u>Intercompany Services</u> portion of this report.

UEGAR Stock Area Building Overheads is a recurring monthly entry used to capitalize a portion of property insurance and general liability insurance, based on square footage. Audit requested clarification of where within the FERC chart of account the capitalization of these types of regular, recurring expenses is authorized. The Company provided Electric Plant instructions, item 3, A, (14). Audit reviewed the entire Electric Plant instructions, and agrees that *while construction is in progress*, certain expenses may be capitalized. Refer to the Intercompany Services portion of this report.

Prepayments - Account #165 \$7,616,460

Audit verified the reported Prepayments on the FERC Form 1 to the following general ledger accounts:

10-20-00-00-165-01-00 Prepaid Property Insurance	\$	17,768
10-20-00-00-165-01-01 Prepaid Injuries and Damages Insurance	\$	24,083
10-20-00-00-165-04-01 FASB 87-Prepaid Pension		57,314
10-20-00-00-165-11-00 Prepaid Property Tax		293,561
10-20-00-00-165-12-00 Prepaid Postage	\$	67,244
10-20-00-00-165-14-00 Prepaid Revolver	\$	15,027
10-20-00-00-165-25-00 Prepaid Line Maintenance	ŝ	18,250
10-20-50-00-165-01-00 Prepaid Property Insurance-Capital	\$	2,257
10-20-50-00-165-01-04 Prepaid Workers' Comp. Insurance-Capital	\$	8,463
10-20-60-00-165-01-00 Prepaid Property Insurance-Seacoast	\$	3,010
10-20-60-00-165-01-04 Prepaid Workers' Comp. Insurance-Seacoast	\$	9,483
	\$7.6	516,460
	+1,00	

Please refer to the <u>Expense</u> portion of this audit report for additional information regarding the Insurance, Injuries and Damages, Postage, Line Maintenance, Property

Insurance and Workers' Compensation Insurance. Please refer to the <u>Debt</u> portion of this report for additional information regarding the Revolver. Refer to the <u>Payroll</u> portion of this report for information regarding the Pension. Refer to the <u>Tax</u> portion of this report for information regarding the Property Tax. The Prepaid Postage balance was unchanged during the test year.

The total \$7,616,460 was also verified to the Filing Requirement Schedules-Schedule 2, page 6 of 12.

Accrued Utility Revenue – Account #173 \$14,246,081

Audit verified the Accrued Utility Revenue figure noted in the FERC Form 1 and the Filing Requirement Schedules, Schedule 2, page 6 of 12 to the following general ledger accounts:

10-20-00-1073-10-00 Accrued Rev-Major Storm Reserve	\$ 800,000
10-20-00-1073-11-00 Accrued Rev-VMP	\$ (452,441)
10-20-00-00-173-13-0x Accrued Rev-System Benefits Charge	\$ (993,937)
10-20-00-1073-22-00 Accrued Rev-Base	\$ 4,422,918
10-20-00-1073-42-00 Accrued Rev-Current Portion PPC	\$ 341,577
10-20-00-00-173-44-00 Accrued Rev-RPS Current Portion	\$ 1,597,643
10-20-00-00-173-90-0x Accrued Rev- Reclass and Accrual	\$ 4,945,516
10-20-00-4x-173-00-00 Accrued Rev-Renewable Port Standard	\$ (3,293,246)
10-20-00-44-173-0x-00 Accrued Rev-RGGI	\$ (191,233)
10-20-00-47-173-00-00 Accrued Rev-Storm Recovery Adj.	- \$ 2,635,539
10-20-00-32-173-00-00 Accrued Rev-External Delivery	\$ 584,591
10-20-00-33-173-00-00 Accrued Rev-Stranded Costs	\$ (659)
10-20-00-3x-173-00-00 Accrued Rev-Default Service	<u>\$ 3,849,812</u>
Total Accrued Revenue	\$14,246,081

Within the Accrued Revenue Reclass and Accrual balance is account Accrued Revenue-Credit Balance Re-class, 10-20-00-00-173-90-00 in the amount of \$4,931,516. The amount is directly offset to account 10-20-00-00-242-90-00, Regulatory Liabilities-Current. Audit requested clarification of the interaction between the 173 and 242 account and was told that "the over or under collections from customers for particular flow through mechanisms is tracked in FERC 173 accounts. For GAAP accounting, if a flow through mechanism is in a credit (over collected) position it is reclassed to account 10-20-00-00-242-90-00 with the offset to 10-20-00-00-173-90-00". Also within the Accrued Revenue Reclass and Accrual is account #10-20-00-00-173-90-01, Accrued Revenue Year-end FT AP Accrual \$14,000. The amount represents one entry which was offset to 10-20-00-00-242-32-10, Accounts Payable Accrual.

Audit requested and was provided with the unbilled revenue calculations for the months of December 2015 and January 2016. Each entry reflected the debit and credit offsets calculated for External Delivery, Stranded Costs, Default Service G1 and Non-G1, Renewable Portfolio Standard G1 and Non-G1. The debits posted to #173 and the credits were booked to account #449. The net December 2015 entry was \$2,599,290. The

Audit Issue #2

Expense Item in CWIP 107

Background

Only expenses that provide a public benefit and are prudently incurred are allowed to be capitalized and recovered from ratepayers. Audit reviewed the Kingston substation project in the CWIP account 107.

<u>Issue</u>

UES included costs in a capital project which provide no tangible benefit to the project or the customers of UES. Within the files for the Kingston Substation Work Order (WO), there were several invoices from Calypso Communications, LLC. Specifically, Audit noted Calypso invoiced Unitil \$6,500 for a two minute time lapse video of the construction of the substation. A second set of invoices totaling \$49,277 was for a three part video series detailing the three year project. The two videos have a combined total of \$55,700. These videos, while they may present historical significance and possible future learning opportunities, should be classified as marketing expenses rather than capitalized with the substation itself.

Recommendation

As discussed in the Report, Audit understands that the Kingston Substation work order is currently considered "closed" but still in Account 107 and has not been through the final review of expenses to be capitalized to the proper plant accounts, and that these costs have been incurred past the past 3 years, rather than just the test year. Therefore Audit recommends the \$55,700 worth of expenses be removed from CWIP and booked to marketing expenses.

Company Comment

The Company agrees with the recommendation. The cost of the video documentation of \$55,700 will be removed from the Kingston Substation capital project, and will adjust the filing to reflect \$39,400 of expense incurred in the test year as Operating Expenses under customer communications / public relations.

Audit Comment

Audit concurs with the Company comment, but reminds the reader that the expenses were incurred over a three year period. Thus, the filing should be adjusted based on an amortized expense, rather than included as a regular recurring annual expense item.

Customer Communication (930)
$$55,700/3 = 15,507$$

81

- non-recurring -

1007

Audit Issue #5

Below the Line

Background

Audit reviewed approximately 106 O&M Expense invoices in detail.

Issue

During Audit's review it was determined that some expenses that should be booked below the line.

Recommendation

The following expe	nses should be booked below the line:			
a)10-20-00-00-184-00-01	Food for Staff meetings	\$	76	
b) 10-20-50-00-580-00-00 c)	Donuts for Safety meetings Hampton Rotary Poinsettias	\$ \$	267 38	
d) 10-20-60-00-580-00-00 e)	Exeter Flower Shop Inc Hampton Rotary Poinsettias	\$ \$	47 38	
f) 10-20-50-00-590-00-00	Employee of the Quarter, cake, ice cream	\$	72	
g) 10-28-29-00-923-32-03	The Exeter Inn	\$	1,897	
h) 10-20-30-00-926-06-00 i) j)	Liberty Lane Catering Donations Milk N It	\$ \$ \$	835 150 58	excluded in update
k) 10-20-24-00-930-60-00 l)	Washington Street Catering Calypso Communications	\$ \$	740 6,881	
m) 10-20-24-00-930-53-00	Travel & Expense Reimbursement	<u>\$</u> \$1	<u>60</u> 1,159	

The filing should be reduced by the \$11,159 noted.

Company Comment

a) Petty Cash Food for Staff meetings (\$76): The Company believes that prudently incurred expenses for refreshments for meetings are a normal and customary operating expense.

b) Petty Cash: Donuts for Safety meetings (\$267): The Company believes that prudently incurred expenses for refreshments for meetings are a normal and customary operating expense.

c) Hampton Rotary Poinsettias (\$38): The Company believes these costs are normal and customary costs associated with operating its facilities.

d) Exeter Flower Shop Inc. (\$47): This expense was for flowers sent to an employee who was hospitalized. The company believes this is a prudently incurred expense, but would be more appropriately classified as miscellaneous employee expense.

e) Hampton Rotary Poinsettias (\$38): The Company believes these costs are normal and customary costs associated with operating its facilities.

f) Employee of the Quarter, cake, ice cream (\$72): The Company believes that de minimus expenses for refreshments for employee recognition events and milestones are a normal and customary operating expense.

g) The Exeter Inn (\$1,897): This expense is related to an annual meeting held by the Company with local emergency responders. The Company believes this is a prudently incurred expense.

h) Liberty Lane Catering (\$835): This expense is for company information and recognition meetings, which are attended by a member of senior management to review company operations and results, provide updates to the company's strategic plan, and recognize employment milestones within the company. The Company believes these are prudently incurred expenses.

i) Donations (\$150): The Company agrees and will remove this item from O&M expense in this filing.

j) Milk N It (\$58): The company provides milk and cream for its coffee stations in the Company's break rooms. The company believes this is a prudently incurred expense.

k) Washington Street Catering (\$740): This expense is for company information and recognition meetings, which are attended by a member of senior management to review company operations and results, provide updates to the company's strategic plan, and recognize employment milestones within the company.

1) Calypso Communications (\$6,881): The Company believes that prudently incurred expenses for employee recognition items are a normal and customary operating expense.

m) Travel & Expense Reimbursement (\$60): The Company believes that prudently incurred expenses for refreshments for meetings are a normal and customary operating expense.

Audit Comment

Audit appreciates that refreshments and flowers are expenses that a company may typically incur. Audit however, reiterates the below the line nature of each.

Request

Payroll: Reference Schedule RevReq-3-1. Please provide the management and/or Board approval documentation that supports the non-union payroll increases for 2016 and 2017.

Response:

Please see the Unitil Corporation Compensation Committee Meeting Minutes dated December 10, 2015, Staff 5-33 Attachment 1, which reflect approval of the 2016 compensation program. The 2017 compensation program has not yet been approved.

Docket No. DE 16-384 Staff 5-33 Attachment 1 Page 1 of 2

Unitil Corporation Compensation Committee Meeting – Minutes December 10, 2015

Docket No. DE-16-384 Attachment DHM-8 Page 2 of 3

The Compensation Committee (the "Committee") of the Board of Directors of Unitil Corporation (the "Company") met via conference call on December 10, 2015 beginning at 9:00 a.m. In attendance at this meeting were committee members: Eben S. Moulton, David P. Brownell, Sarah P. Voll, and Lisa Crutchfield. Robert G. Schoenberger, President, Chairman and Chief Executive Officer of the Company; and George E. Long, VP of Administration, also attended the meeting.

<u>Meeting Minutes</u> – The Committee approved the minutes from the October 21, 2015 meeting and December 1, 2015 meeting.

2016 Compensation Program – The Committee reviewed the summary of the distribution of the 3.7% merit/market adjustment increase pool and approved the 2016 compensation program. Mr. Long discussed the method used to distribute market adjustment dollars to each department based upon each employee's time in grade and position within their salary range, with a goal of moving employees to their salary range midpoints over a period of 5 years within a grade. Mr. Long also discussed the distribution of the Company's promotion pool, which will be finalized by senior management and will stay within the 0.3% budget previously approved by the Committee. The Committee inquired about the distribution of the salary increases between departments and between grade levels, and Mr. Long will distribute reports to the Committee showing these two distributions.

<u>Executive Salaries</u> – The Committee approved the salary increases for executives as recommended by Mr. Schoenberger. The Committee will meet again prior to the January Board Meeting to discuss Mr. Schoenberger's 2015 performance with the Executive Committee, and to determine a 2016 base salary increase for Mr. Schoenberger. Salary increases for the top five executive will be approved by the full Board at the January 27, 2016 meeting.

There being no further items to discuss, Mr. Moulton adjourned the meeting at 9:30 a.m.

A True Record,

Eben S. Moulton - Committee Chairman

Docket No. DE 16-384 Staff 5-33 Attachment 1 Page 2 of 2

> Docket No. DE-16-384 Attachment DHM-8 Page 3 of 3

2016 Salary Administration

Rating	# of Employees (% of Total)	Average Increase Amount	Average Increase Percent
1	49 (14.9%)	\$4,752	4.7%
2	168 (51.2%)	\$3,031	3.8%
3	110 (33.5%)	\$2,304	3.3%
4	1 (0.3%)	\$0	0
5	0	0	0
Total	328	\$3,035	3.7%

Total Dollars Spent on Merit Increases:	\$995,536
Total Dollars Spent on Lump Sums:	\$0
Total Merit Program	\$995,536
Less: Original Merit Budget:	\$998,053
Variance:	\$2,517

1

Unitil Energy Systems, Inc. Docket No. DE 16-384 Petition for Rate Increase NHPUC Staff Set 5 Information Requests

Received: July 28, 2016 Request No. Staff 5-38 Date of Response: August 11, 2016 Witness: George E. Long, Jr.

Request

Incentive Awards:

- a) Please provide complete copies of any bonus programs or incentive award programs in effect at the Company for the most recent three years for senior management, non-union, and union employees.
- b) Provide the performance objectives and their weighting that must be met prior to award of any incentive compensation for the last three years. If not clearly delineated, please indicate the goals for senior management, nonunion, and union employees.
- c) Identify all incentive and bonus program expense incurred in 2012-2015. Identify the accounts charged.
- d) Identify all incentive and bonus program expense charged or allocated to the Company from affiliates and shared services in 2012-2015.

Response:

- Attached please find the Unitil Corporation Management Incentive Plan and the Unitil Corporation Incentive Plan, labeled Staff 5-38 Attachment 1 and Staff 5-38 Attachment 2, respectively. Also attached as Staff 5-38 Attachment 3 is the Unitil Corporation Second Amended and Restated 2003 Stock Plan.
- b) Please see the Company's response to Staff 2-24, which reflects the performance objectives (goals), the results and the weightings for 2010 2015. The goals are the same for both senior management and non-union employees. Union employees are not eligible for incentive compensation.
- c & d) Please see Staff 5-38 Attachment 4 which reflects all incentive and bonus program expense incurred by UES and charged to UES from USC in 2012 2015.

Docket No. DE 16-384 Staff 5-38 Attachment 1 Page 1 of 5

> Docket No. DE-16-384 Attachment DHM-9 Page 2 of 26

UNITIL CORPORATION MANAGEMENT INCENTIVE PLAN (amended and restated as of June 5, 2013)

The purpose of the Unitil Corporation Management Incentive Plan (the "Plan") is to provide key management employees of Unitil Corporation and its subsidiaries identified on Exhibit A attached hereto (collectively, the "Corporation") with significant incentives related to the performance of the Corporation and thereby to motivate them to maximize their efforts on the Corporation's behalf. The Plan is further intended to provide the Corporation's key management employees with competitive levels of total compensation when considered with their base salaries.

I. PARTICIPATION

Key management employees of the Corporation who are selected by the Compensation Committee (the "Committee") of the Corporation's Board of Directors (the "Board") for participation shall participate in the Plan (each such participating key management employee, a "Participant") for the applicable Performance Period(s) (as defined below). Each Participant in the Plan for a Performance Period shall be notified of such Participant's selection, such Participant's Target Incentive Award (as defined below) and the specific Performance Objectives and Performance Standards (each as defined below) upon which such Participant's Incentive Awards (as defined below), if any, shall be based. The Participants in the Plan for the applicable Performance Period shall be documented.

II. TARGET INCENTIVE AWARD

The Committee shall establish an individual targeted award (the "Target Incentive Award") under the Plan for each Participant for each Performance Period, expressed as a percentage of the Participant's base salary (prior to reduction under the Corporation's 401(k) retirement plan or cafeteria plan, "Base Salary") earned during the applicable Performance Period. The Target Incentive Awards for all Participants for the applicable Performance Period shall be documented.

III. PERFORMANCE PERIOD

The Performance Period is the period during which performance will be measured for determining the amounts of Participants' awards under the Plan ("Incentive Awards"). The Performance Period for the Plan shall be the calendar year.

IV. PERFORMANCE OBJECTIVES

Prior to the beginning of each Performance Period, or as soon thereafter as practicable, the Committee shall establish, based in part upon the recommendations of the Corporation's Chief Executive Officer (the "CEO"), objectives for the performance of the Corporation for the next following Performance Period, deemed necessary for the Corporation to achieve its strategic plans ("Performance Objectives"), the achievement of which or failure to achieve will result in the payment of Incentive Awards, as described in Section VIII, Determination of Incentive Awards. The Performance Objectives for the applicable Performance Period shall be documented.

Docket No. DE 16-384 Staff 5-38 Attachment 1 Page 2 of 5

> Docket No. DE-16-384 Attachment DHM-9 Page 3 of 26

V. PERCENTAGE WEIGHTING

Coincident with the establishment of the Performance Objectives for a particular Performance Period, the Committee shall, based in part upon the recommendations of the CEO, determine the relevant weights (the "Percentage Weightings") to be assigned to each of the Performance Objectives established for such Period, based on the relative impact of each Performance Objective on the Corporation's performance. The Percentage Weightings for the applicable Performance Period shall be documented.

VI. PERFORMANCE STANDARDS

Prior to the beginning of each Performance Period, or as soon thereafter as practicable, the Committee shall, based in part upon the recommendations of the CEO, establish the Performance Standards for each Performance Objective. The Performance Standards for the current Performance Period shall be documented. Performance Standards shall be set for the following three levels of achievement - "Threshold," "Target" and "Maximum."

- A. Threshold: The minimum level of performance required for an Incentive Award to be paid. No Incentive Award shall be paid for performance below this level. Achievement of the Threshold level shall result in a payment equal to 50% of the amount of the Target Incentive Award for the Performance Objective, as adjusted by the applicable Percentage Weighting.
- **B. Target:** The expected level of performance required, for which an Incentive Award in an amount equal to 100% of the Target Incentive Award shall be paid for the Performance Objective, as adjusted by the applicable Percentage Weighting.
- C. Maximum: The maximum level of performance, for which an Incentive Award in an amount equal to 150% of the amount of the Target Incentive Award shall be paid for the Performance Objective, as adjusted by the applicable Percentage Weighting. Achievement of a result greater than the Maximum level shall not increase the amount of the Incentive Award.

VII. CONTROLLING THRESHOLD(S)

The Committee may, based in part upon the recommendations of the CEO, establish minimum organization performance level(s) for each Performance Period ("Controlling Threshold(s)") that must be satisfied by the Corporation for Incentive Awards to be paid; <u>provided</u>, <u>however</u>, that a Controlling Threshold need not be established for any particular Performance Period. The Controlling Threshold(s) for the applicable Performance Period shall be documented.

VIII. DETERMINATION OF INCENTIVE AWARDS

As soon as practicable following the completion of a Performance Period, the Committee shall determine the degree of satisfaction of the Performance Objectives and the amounts of the Incentive Awards payable in accordance with the Plan, if any. The amount of the Incentive Award earned by each Participant shall depend upon the degree of achievement of the

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Performance Standards for each Performance Objective and the Percentage Weighting assigned thereto. If an achievement level falls between the Threshold and Target levels or between the Target and Maximum levels, the Incentive Award shall be linearly extrapolated between the two levels. Award calculations will be applied to Base Salary earned during the applicable Performance Period. Subject to the payment limitations in paragraph X below and notwithstanding anything else to the contrary contained in the Plan, the Committee shall have absolute discretion with respect to the payment of Incentive Awards, including but not limited to the amount to be paid and whether or not payment will be made, on the basis of business conditions.

IX. PLAN ADMINISTRATION

The Plan shall be administered by the Committee. The Committee shall, in its sole discretion, interpret the Plan, prescribe, amend and rescind any rules and regulations necessary or appropriate for administration of the Plan and make such other determinations and take such other actions as it deems necessary or advisable for such purposes. Any interpretation, determination or other action made or taken by the Committee shall be final, binding, and conclusive. The Committee may rely upon the advice, counsel, and assistance of the CEO in performing its duties under the Plan.

X. PAYMENT OF INCENTIVE AWARDS

Payment of each Participant's Incentive Award shall be made as soon as practicable following the end of the applicable Performance Period, but not prior to January 1 or later than March 15 of the calendar year following the Performance Period (the "Incentive Award Payment Date"); provided, however, that notwithstanding anything to the contrary contained in the Plan, no Incentive Award shall be paid to any individual who is not employed by the Corporation on the applicable Incentive Award Payment Date, unless due to the individual's death, disability (entitlement to benefits under the Corporation's Long-Term Disability Plan, "Disability") or retirement at or after attaining age 55. Incentive Award payments made due to the Participant's death, Disability or retirement at or after attaining age 55 shall be made on the applicable Incentive Award Payment Date. All Incentive Awards shall be paid in a lump sum in cash, less any amounts required for federal, state and local income and payroll tax withholdings.

XI. DISCIPLINARY ACTION

Notwithstanding anything to the contrary contained in the Plan, a Participant whose performance rating for a Performance Period is "Does Not Meet Expectations" (pursuant to the Corporation's Salary Administration Policy) shall not receive an Incentive Award for such Performance Period.

XII. TERMINATION OF EMPLOYMENT

If a Participant ceases to be employed by the Corporation (a) by reason of his death, Disability or retirement at or after attaining age 55, the Participant's Incentive Award for the Performance Period in which his employment terminates shall be calculated using the Participant's Base Salary earned prior to his termination of employment, or (b) other than by reason of his death, Disability or retirement at or after attaining age 55, the Participant's Incentive Award for the Performance Period in which his employment terminates shall be calculated using the Participant's Base Salary earned prior to his termination of employment, or (b) other than by reason of his death, Disability or retirement at or after attaining age 55, the Participant's Incentive Award for the Performance Period in which his employment terminates shall be forfeited.

XIII. FUNDING

No funds shall be set aside or reserved for payment of Incentive Awards under the Plan, and all obligations of the Corporation under the Plan shall be unfunded and shall be paid from the general assets of the Corporation.

XIV. NOT EXCLUSIVE METHOD OF INCENTIVE

The Plan shall not be deemed to be an exclusive method of providing incentive compensation for employees of the Corporation nor shall it preclude the Board from authorizing or approving other forms of incentive compensation therefor.

XV. NO RIGHT TO CONTINUED PARTICIPATION

Participation in the Plan by an employee in any Performance Period shall not be held or construed to confer upon such employee the right to participate in the Plan in any subsequent Performance Period.

XVI. NO RIGHT TO CONTINUED EMPLOYMENT

None of the establishment of the Plan, participation in the Plan by a Participant, the payment of any Incentive Award hereunder or any other action pursuant to the Plan shall be held or construed to confer upon any employee the right to continue in the employ of the Corporation or affect any right which the Corporation may have to terminate at will the employment thereof.

XVII. NONTRANSFERABILITY OF AWARDS

Except by operation of the laws of descent and distribution, no amount payable at any time under the Plan shall be subject to alienation by anticipation, sale, transfer, assignment, bankruptcy, pledge, attachment, charge or encumbrance of any kind nor in any manner be subject to the debts or liabilities of any person, and any attempt to so alienate or subject any such amount shall be void.

XVIII. AMENDMENT AND TERMINATION

The Board may amend or terminate the Plan at any time; <u>provided</u>, <u>however</u>, that no amendment or termination of the Plan shall adversely affect the entitlement of a Participant to payment of any Incentive Award which has been determined by the Committee prior to such amendment or termination, although the Board may amend or terminate the rights of any Participant under the Plan at any time prior to the determination of the amount of the Incentive Award to be paid thereto for a Performance Period.

XIX. EFFECTIVE DATE

The Plan shall be effective June 5, 2013 and shall continue in effect until terminated by the Board.

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Exhibit A Participating Subsidiaries

Unitil Energy Systems, Inc.

Fitchburg Gas and Electric Light Company

Unitil Service Corp.

Usource LLC

Northern Utilities, Inc.

Granite State Gas Transmission, Inc.

<u>000091</u>

UNITIL CORPORATION INCENTIVE PLAN (amended and restated as of January 27, 2015)

The purpose of the Unitil Corporation Incentive Plan (the "Plan") is to provide employees of Unitil Corporation and its subsidiaries identified on Exhibit A attached hereto (collectively, the "Corporation") with significant incentives related to the performance of the Corporation and thereby to motivate them to maximize their efforts on the Corporation's behalf. The Plan is further intended to provide the Corporation's employees with competitive levels of total compensation when considered with their base salaries.

I. PARTICIPATION

All employees of the Corporation who are not selected by the Compensation Committee (the "Committee") of the Corporation's Board of Directors (the "Board") to participate in the Unitil Corporation Management Incentive Plan shall participate in the Plan (each such participating employee, a "Participant"); <u>provided</u>, <u>however</u>, that employees of the Corporation whose employment is covered by a collective bargaining agreement in effect between the Corporation and a union shall not participate in the Plan unless the participation of such employees is provided for under the terms of such collective bargaining agreement.

II. TARGET INCENTIVE AWARD

The Committee shall establish an individual targeted award (the "Target Incentive Award") under the Plan for each Participant for each Performance Period (as such term is used below), expressed as a percentage of the Participant's base salary (prior to reduction under the Corporation's 401(k) retirement plan or cafeteria plan, "Base Salary") earned during the applicable Performance Period. The Target Incentive Awards for all Participants for the applicable Performance Period shall be documented.

III. PERFORMANCE PERIOD

The Performance Period is the period during which performance will be measured for determining the amounts of Participants' awards under the Plan ("Incentive Awards"). The Performance Period for the Plan shall be the calendar year.

IV. PERFORMANCE OBJECTIVES

Prior to the beginning of each Performance Period, or as soon thereafter as practicable, the Committee shall establish, based in part upon the recommendations of the Corporation's Chief Executive Officer (the "CEO"), objectives for the performance of the Corporation for such Performance Period deemed necessary for the Corporation to achieve its strategic plans ("Performance Objectives"), the achievement of which or failure to achieve will result in the payment or nonpayment of Incentive Awards, as described in Section VIII (Determination of Incentive Awards.) The Performance Objectives for the applicable Performance Period shall be documented.

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V. PERCENTAGE WEIGHTING

Coincident with the establishment of the Performance Objectives for a particular Performance Period, the Committee shall, based in part upon the recommendations of the CEO, determine the relevant weights (the "Percentage Weightings") to be assigned to each of the Performance Objectives established for such Period, based on the relative impact of each Performance Objective on the Corporation's performance. The Percentage Weightings for the applicable Performance Period shall be documented.

VI. PERFORMANCE STANDARDS

Prior to the beginning of each Performance Period, or as soon thereafter as practicable, the Committee shall, based in part upon the recommendations of the CEO, establish the Performance Standards for each Performance Objective. The Performance Standards for such Performance Period shall be documented. Performance Standards shall be set for the following three levels of achievement - "Threshold," "Target" and "Maximum."

- A. Threshold: The minimum level of performance required for an Incentive Award to be paid. No Incentive Award shall be paid for performance below this level. Achievement of the Threshold level shall result in a payment equal to 50% of the amount of the Target Incentive Award for the Performance Objective, as adjusted by the applicable Percentage Weighting.
- **B. Target:** The expected level of performance required, for which an Incentive Award in an amount equal to 100% of the Target Incentive Award shall be paid for the Performance Objective, as adjusted by the applicable Percentage Weighting.
- C. Maximum: The maximum level of performance, for which an Incentive Award in an amount equal to 150% of the amount of the Target Incentive Award shall be paid for the Performance Objective, as adjusted by the applicable Percentage Weighting. Achievement of a result greater than the Maximum level shall not increase the amount of the Incentive Award.

VII. CONTROLLING THRESHOLD(S)

The Committee may, based in part upon the recommendations of the CEO, establish minimum organization performance level(s) for each Performance Period ("Controlling Threshold(s)") that must be satisfied by the Corporation for Incentive Awards to be paid; <u>provided</u>, <u>however</u>, that a Controlling Threshold need not be established for any particular Performance Period. The Controlling Threshold(s) for the applicable Performance Period shall be documented.

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Performance Standards for each Performance Objective and the Percentage Weighting assigned thereto. If an achievement level falls between the Threshold and Target levels or between the Target and Maximum levels, the Incentive Award shall be linearly extrapolated between the two levels. Award calculations will be applied to Base Salary earned during the applicable Performance Period. Subject to the payment limitations as described in Section X (Payment of Incentive Awards) and notwithstanding anything else to the contrary contained in the Plan, the Committee shall have absolute discretion with respect to the payment of Incentive Awards, including but not limited to the amount to be paid and whether or not payment will be made, on the basis of business conditions.

IX. PLAN ADMINISTRATION

The Plan shall be administered by the Committee. The Committee shall, in its sole discretion, interpret the Plan, prescribe, amend and rescind any rules and regulations necessary or appropriate for administration of the Plan and make such other determinations and take such other actions as it deems necessary or advisable for such purposes. Any interpretation, determination or other action made or taken by the Committee shall be final, binding, and conclusive. The Committee may rely upon the advice, counsel, and assistance of the CEO in performing its duties under the Plan.

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XVII. NONTRANSFERABILITY OF AWARDS

Except by operation of the laws of descent and distribution, no amount payable at any time under the Plan shall be subject to alienation by anticipation, sale, transfer, assignment, bankruptcy, pledge, attachment, charge or encumbrance of any kind nor in any manner be subject to the debts or liabilities of any person, and any attempt to so alienate or subject any such amount shall be void.

XVIII. AMENDMENT AND TERMINATION

The Board may amend or terminate the Plan at any time; <u>provided</u>, <u>however</u>, that no amendment or termination of the Plan shall adversely affect the entitlement of a Participant to payment of any Incentive Award which has been determined by the Committee prior to such amendment or termination, although the Board may amend or terminate the rights of any Participant under the Plan at any time prior to the determination of the amount of the Incentive Award to be paid thereto for a Performance Period.

XIX. EFFECTIVE DATE

The Plan shall be effective January 27, 2015, and shall continue in effect until terminated by the Board.

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Exhibit A Participating Subsidiaries

Unitil Energy Systems, Inc.

Fitchburg Gas and Electric Light Company

Unitil Service Corp.

Usource LLC

Northern Utilities, Inc.

Granite State Gas Transmission, Inc.

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Unitil Corporation Second Amended and Restated 2003 Stock Plan

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Unitil Corporation Second Amended and Restated 2003 Stock Plan

ARTICLE 1

Establishment, Objectives, and Duration

1.1 Establishment of the Plan. Unitil Corporation, a corporation organized and existing under New Hampshire law (the "Company"), hereby establishes an incentive compensation plan to be known as the "Unitil Corporation Second Amended and Restated 2003 Stock Plan" (hereinafter referred to as the "Plan"). The Plan permits the grant of Shares and Restricted Stock Units. The Plan first became effective on January 1, 2003 and was previously known as the "Unitil Corporation 2003 Restricted Stock Plan." On March 24, 2011, the Plan was amended and restated to permit the granting of Restricted Stock Units, to change the name of the Plan to the "Unitil Corporation Amended and Restated 2003 Stock Plan," and to make other non-material revisions. The Plan, as further amended, restated and renamed, will become effective on April 19, 2012 if approved by the Company's shareholders at the Company's 2012 Annual Meeting of Shareholders. The Plan shall remain in effect as provided in Section 1.3 hereof.

1.2 Objectives of the Plan. The objectives of the Plan are to optimize the profitability and growth of the Company through incentives which are consistent with the Company's goals and which link the personal interests of Participants to those of the Company's shareholders; to provide Participants with an incentive for excellence in individual performance; and to promote teamwork among Participants.

1.3 Duration of the Plan. The Plan shall remain in effect, subject to the right of the Board to amend or terminate the Plan at any time pursuant to Article 14 hereof, until all Shares subject to it shall have been purchased or acquired according to the Plan's provisions.

ARTICLE 2

Definitions

Whenever used in the Plan, the following terms shall have the meanings set forth below, and, when the meaning is intended, the initial letter of the word shall be capitalized:

2.1 "Affiliate" means any parent or subsidiary of the Company which meets the requirements of Section 424 of the Code.

2.2 "Award" means, individually or collectively, an award under this Plan of Shares or Restricted Stock Units.

2.3 "Award Agreement" means an agreement entered into by the Company and each Participant setting forth the terms and provisions applicable to Awards made under the Plan.

2.4 "Board" means the Board of Directors of the Company.

2.5 "Change in Control" means the satisfaction of any one or more of the following conditions (and the "Change in Control" shall be deemed to have occurred as of the first day that any one or more of the following conditions shall have been satisfied):

(a) the Company receives a report on Schedule 13D filed with the Securities and Exchange Commission pursuant to Rule 13(d) of the Exchange Act, disclosing that any person, group, corporation or other entity is the beneficial owner, directly or indirectly, of 25% or more of the outstanding Shares;

(b) any "person" (as such term is used in Section 13(d) of the Exchange Act), group, corporation or other entity other than the Company or a wholly-owned subsidiary of the Company, purchases Shares pursuant to a tender offer or exchange offer to acquire any Shares (or securities convertible into Shares) for cash, securities or any other consideration, provided that after consummation of the offer, the person, group, corporation or other entity in question is the "beneficial owner" (as such term is defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of 25% or more of the outstanding Shares (calculated as provided in paragraph (d) of Rule 13d-3 under the Exchange Act in the case of rights to acquire Shares);

(c) consummation of a transaction which involves (1) any consolidation or merger of the Company in which the Company is not the continuing or surviving corporation, or pursuant to which Shares of the Company would be converted into cash, securities or other property (except where the Company's shareholders before such transaction will be the owners of more than 75% of all classes of voting securities of the surviving entity); or (2) any sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all or substantially all the assets of the Company.

(d) there shall have been a change in a majority of the members of the Board within a 25-month period, unless the election or nomination for election by the Company's shareholders of each new director was approved by the vote of at least two-thirds of the directors then still in office who were in office at the beginning of the 25-month period.

2.6 "Code" means the Internal Revenue Code of 1986, as amended from time to time.

2.7 "Committee" means (i) the Compensation Committee of the Board, as specified in Article 3 herein, or (ii) such other Committee appointed by the Board to administer the Plan (or aspects thereof) with respect to grants of Awards except (a) as may be prohibited by applicable law, the Company's Articles of Incorporation or the

Company's By-Laws or (b) as may conflict with the authority that the Board has delegated to another Committee appointed by the Board.

2.8 "Company" means Unitil Corporation, a corporation organized and existing under New Hampshire law, and any successor thereto as provided in Article 17 herein.

2.9 "Consultant" means an independent contractor who is performing consulting services for one or more entities in the Group and who is not an employee of any entity in the Group.

2.10 "Director" means a member of the Board or a member of the board of directors of an Affiliate.

2.11 "Director Participant" means a Participant who receives an Award for his or her services as a Director.

2.12 "Disability" shall have the meaning ascribed to such term in the long-term disability plan maintained by the Company, or if no such plan exists, at the discretion of the Committee.

2.13 "Dividend Equivalents" shall have the meaning ascribed to such term in Section 7.5 hereof.

2.14 "Employee" means any employee of the Group, including any employees who are also Directors.

2.15 "Exchange Act" means the Securities Exchange Act of 1934, as amended from time to time, or any successor act thereto.

2.16 "Fair Market Value" means as of any date, the closing price based upon composite transactions on a national stock exchange for one Share or, if no sales of Shares have taken place on such date, the closing price on the most recent date on which selling prices were quoted. In the event the Company's Shares are no longer traded on a national stock exchange, Fair Market Value shall be determined in good faith by the Committee.

2.17 "Group" means the Company and its Affiliates.

2.18 "Named Executive Officer" means a Participant who, as of the date of vesting of an Award, is one of the group of "covered employees," as defined in the regulations promulgated under Code Section 162(m), or any successor section.

2.19 "Nonemployee Director" shall have the meaning ascribed to such term in Rule 16b-3 of the Exchange Act.

2.20 "Outside Director" shall have the meaning ascribed to such term under the regulations promulgated with respect to Code Section 162(m).

2.21 "Participant" means a current or former Employee, Director, or Consultant who has outstanding an Award granted under the Plan.

2.22 "**Performance-Based Exception**" means the performance-based exception from the tax deductibility limitations of Code Section 162(m).

2.23 "Period(s) of Restriction" means the period (or periods) during which the transfer of Shares or Restricted Stock Units are limited in some way (based on the passage of time, the achievement of performance goals, or upon the occurrence of other events as determined by the Committee, at its discretion), and the Shares or Restricted Stock Units are subject to a substantial risk of forfeiture.

2.24 "Plan" shall have the meaning ascribed to such term in Section 1.1 hereof.

2.25 "Restricted Stock" or **"Restricted Share**" means an Award of Shares granted to a Participant pursuant to Article 6 herein subject to a Period(s) of Restriction.

2.26 "Restricted Stock Unit" means an Award granted to a Participant pursuant to Article 7 herein.

2.27 "RSU Election" shall have the meaning ascribed to such term in section 7.1 hereof.

2.28 "Shares" means the shares of common stock (no par value) of the Company.

2.29 "Termination of Service" means, (i) if an Employee, termination of employment with all entities in the Group, (ii) if a Director, termination of service on the Board and the board of directors of any Affiliate, as applicable, and (iii) if a Consultant, termination of the consulting relationship with all entities in the Group; provided, however, that if a Participant serves the Group in more than one of the above capacities, Termination of Service shall mean termination of service in all such capacities; provided, however, that with respect to any Restricted Stock Units that constitute deferred compensation for purposes of Code Section 409A, the term Termination of Service shall mean "separation from service," as that term is used in Code Section 409A.

ARTICLE 3

Administration

3.1 The Committee. The Plan shall be administered by the Committee. To the extent the Company deems it to be necessary or desirable with respect to any Awards made hereunder, the members of the Committee may be limited to Nonemployee Directors or Outside Directors, who shall be appointed from time to time by, and shall serve at the discretion of, the Board.

3.2 Authority of the Committee. Except as limited by law or by the Articles of Incorporation or the By-laws of the Company, and subject to the provisions herein, the

Committee shall have full power to select the persons who shall participate in the Plan; determine the sizes of Awards; determine the terms and conditions of Awards in a manner consistent with the Plan; construe and interpret the Plan and any agreement or instrument entered into under the Plan as they apply to Participants; establish, amend, or waive rules and regulations for the Plan's administration as they apply to Participants; and (subject to the provisions of Article 14 herein) amend the terms and conditions of any outstanding Award to the extent such terms and conditions are within the discretion of the Committee as provided in the Plan. Further, the Committee shall make all other determinations which may be necessary or advisable for the administration of the Plan. As permitted by law, the Committee may delegate its authority as identified herein.

3.3 Decisions Binding. All determinations and decisions made by the Committee pursuant to the provisions of the Plan and all related orders and resolutions of the Board shall be final, conclusive and binding on all persons, including the Company, its shareholders, Affiliates, Participants, and their estates and beneficiaries.

ARTICLE 4

Shares Subject to the Plan and Maximum Awards

4.1 Number of Shares Available for Grants.

(a) Subject to adjustment as provided in Section 4.2, the maximum number of Shares available for Awards to Participants under the Plan shall be 677,500 Shares. The 677,500 Shares referred to in the immediately preceding sentence includes 177,500 Shares initially made available for Awards to Participants under the Plan and 500,000 Shares added to the Plan as of April 19, 2012. To the extent all or any portion of an Award expires before vesting, is forfeited, or is paid in cash, the Shares subject to such portion of the Award shall again be available for issuance under the Plan. For avoidance of doubt, if Shares are returned to the Company in satisfaction of taxes relating to a Restricted Stock Award, such issued Shares shall not become available again under the Plan.

(b) The maximum aggregate number of Shares or Restricted Stock Units that may be granted in any one calendar year to any one Participant shall be 20,000, subject to adjustment in accordance with Section 4.2.

4.2 Adjustments in Authorized Shares. In the event of an equity restructuring (within the meaning of Financial Accounting Standards Board Accounting Standards Codification Topic 718, Stock Compensation) affecting the Shares, such as a stock dividend, stock split, spin off, rights offering, or recapitalization through a large, nonrecurring cash dividend, the Committee shall authorize and make an equitable adjustment to the number and kind of Shares that may be delivered pursuant to Section 4.1 and, in addition, may authorize and make an equitable adjustment to the Award limit set forth in Section 4.1(b). In the event of any other change in corporate capitalization, such as a merger, consolidation, reorganization or partial or complete liquidation of the Company, the Committee may, in its sole discretion, authorize and make such proportionate adjustments, if any, as the Committee shall deem appropriate to prevent

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dilution or enlargement of rights, including, without limitation, an adjustment in the maximum number and kind of Shares or Restricted Stock Units that may be delivered pursuant to Section 4.1 and in the Award limit set forth in Section 4.1(b). The number of Shares or Restricted Stock Units subject to any Award shall always be rounded to the nearest whole number, with one-half (1/2) of a share rounded up to the next higher number.

ARTICLE 5

Eligibility and Participation

5.1 Eligibility. Persons eligible to participate in this Plan include all Employees, Directors and Consultants of the Group.

5.2 Actual Participation. Subject to the provisions of the Plan, the Committee may, from time to time, select from all eligible Employees, Directors and Consultants those to whom Awards shall be made and shall determine the nature and amount of each Award.

ARTICLE 6

Stock Awards

6.1 Grant of Stock Awards. Subject to the terms and provisions of the Plan, the Committee, at any time and from time to time, may grant Shares to Participants in such amounts as the Committee shall determine and subject to any restrictions the Committee may deem appropriate.

6.2 Stock Award Agreement. Each grant of Shares shall be evidenced by an Award Agreement that shall specify the Period(s) of Restriction, if any, the number of Shares granted, and such other provisions as the Committee shall determine.

6.3 Transferability. Except as provided in this Article 6, the Shares granted herein may not be sold, transferred, pledged, assigned or otherwise alienated or hypothecated until the end of any applicable Period(s) of Restriction established by the Committee and specified in the Award Agreement.

6.4 Restrictions.

(a) Subject to the terms hereof, the Committee shall impose such conditions and/or restrictions on any Shares granted pursuant to the Plan as it may deem advisable and as are expressly set forth in the Award Agreement including, without limitation, a requirement that Participants pay a stipulated purchase price for each Share, restrictions based upon the achievement of specific performance goals (Company-wide, divisional, and/or individual), time-based restrictions, and/or restrictions under applicable federal or state securities laws. For purposes of Awards granted under this Article 6, the period(s) that the Shares are subject to such conditions and/or restrictions shall be referred to as the "Period(s) of Restriction."

(b) The Participant shall execute appropriate stock powers in blank and such other documents as the Committee shall prescribe.

(c) Subject to restrictions under applicable law or as may be imposed by the Company, Shares covered by each Award made under the Plan shall become freely transferable by the Participant after the last day of any applicable Period(s) of Restriction.

6.5 Voting Rights. During any Period(s) of Restriction, subject to any limitations imposed under the By-laws of the Company, Participants holding Shares granted hereunder may exercise full voting rights with respect to those Shares.

6.6 Dividends and Other Distributions. During any Period(s) of Restriction, Participants holding Shares granted hereunder may be credited with regular dividends paid with respect to the underlying Shares while they are so held. The Committee may apply any restrictions to the dividends that the Committee deems appropriate and as are expressly set forth in the Award Agreement. Without limiting the generality of the preceding sentence, if the grant or vesting of Shares granted to a Named Executive Officer is designed to comply with the requirements of the Performance-Based Exception, the Committee may apply any restrictions it deems appropriate to the payment of dividends declared with respect to such Shares, such that the dividends and/or the Shares maintain eligibility for the Performance-Based Exception.

ARTICLE 7

Restricted Stock Units

7.1 Grant of Restricted Stock Units. Subject to the terms and provisions of the Plan (a) the Committee, at any time and from time to time, may grant Restricted Stock Units to Participants in such amounts as the Committee shall determine and (b) to the extent permitted by the Committee, Director Participants may elect to receive Restricted Stock Units in lieu of Shares (an "RSU Election") that such Director Participant otherwise would receive for services on the Board. Each Restricted Stock Unit Award shall be evidenced by an Award Agreement that shall specify the Period(s) of Restriction/vesting schedule (if any), the number of Restricted Stock Unit s granted, and such other provisions as the Committee shall determine. A Restricted Stock Unit is a notional unit of measurement denominated in Shares (*i.e.*, one Restricted Stock Unit is equivalent in value to one Share), which represents an unfunded, unsecured right to receive Shares or a cash amount equal to the Fair Market Value of the Shares that would have been received (as specified in the applicable RSU Agreement) on the terms and conditions set forth herein and in the applicable RSU Agreement.

7.2 RSU Elections. Any RSU Election will be made in the manner determined by the Committee. Notwithstanding the foregoing, an RSU Election shall only be effective if (a) the RSU Election was made in the calendar year prior to the calendar year in which the services to which the Shares and Restricted Stock Units relate are performed, (b) the RSU Election was made within 30 days of a Director Participant first becoming eligible to participate in the Plan and such RSU Election is limited to compensation

earned following the date of such election, or (c) the Committee determined the RSU Election otherwise constitutes a compliant deferral election under Code Section 409A. Once a Director Participant makes an RSU Election, such election shall remain in place until revoked or changed by the Director Participant in accordance with procedures determined by the Committee. Any such revocation or change will only be effective with respect to Shares and Restricted Stock Units relating to service in calendar years following such revocation or change, unless otherwise provided by the Committee.

7.3 Vesting. The Committee shall, in its discretion, determine any vesting requirements with respect to a Restricted Stock Unit Award, which shall be set forth in the Award Agreement. The requirements for vesting of a Restricted Stock Unit Award may be based on the continued service of the Participant for a specified time period (or periods) and/or on the attainment of a specified performance goal (or goals) established by the Committee in its discretion. A Restricted Stock Unit Award may also be granted on a fully vested basis, with a deferred payment date as may be determined by the Committee or elected by the Participant in accordance with the rules established by the Committee.

7.4 Settlement of Restricted Stock Units. Restricted Stock Units shall be settled (*i.e.*, paid out) at the time or times determined by the Committee and set forth in the Award Agreement, which may be upon or following the vesting of the Award. Restricted Stock Units that constitute deferred compensation for purposes of Code Section 409A shall only be settled on dates or events that comply with Code Section 409A. If Restricted Stock Units are settled in cash, the payment with respect to each Restricted Stock Unit shall be determined by reference to the Fair Market Value of one Share on the day immediately prior to the settlement date. Restricted Stock Unit Award Agreements may provide for payment to be made in cash or in Shares, or in a combination thereof.

7.5 Dividend Equivalents. Restricted Stock Units may be granted, at the discretion of the Committee, with or without the right to receive Dividend Equivalents with respect to the Restricted Stock Units. A Dividend Equivalent is an unfunded, unsecured right to receive (or be credited with) an amount equal to the regular cash dividend payments (if any) the Participant would have been entitled to had he or she held the number of Shares underlying the Restricted Stock Units on the record date of any regular cash dividend on the Shares. The Committee may apply any terms, restrictions or conditions on the Dividend Equivalents as it deems appropriate (including, without limitation, deferring payment of the Dividend Equivalents until the related Restricted Stock Units). Any such terms, restrictions or conditions shall be set forth in the Restricted Stock Unit Award Agreement.

7.6 No Rights as Stockholder. The Participant shall not have any voting or other rights as a stockholder with respect to the Shares underlying Restricted Stock Units until such time as Shares may be delivered to the Participant pursuant to the terms of the Award.

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ARTICLE 8

Termination of Service

Each Award Agreement shall set forth the effect that Termination of Service shall have upon that Award. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Awards issued pursuant to the Plan, and may reflect distinctions based on the reasons for Termination of Service; provided, however, that the following shall automatically apply to the extent different provisions are not expressly set forth in a Participant's Award Agreement:

(a) Upon a Termination of Service for any reason other than death, retirement or Disability, all unvested Restricted Shares shall be forfeited as of the termination date.

(b) Upon a Termination of Service as a result of the Participant's death, retirement or Disability, all unvested Restricted Shares shall vest as of the termination date.

ARTICLE 9

Restrictions on Shares

All Shares issued pursuant to Awards granted hereunder, and a Participant's right to receive Shares upon vesting or settlement of an Award, shall be subject to all applicable restrictions contained in the Company's By-laws, shareholders agreement or insider trading policy, and any other restrictions imposed by the Committee, including, without limitation, restrictions under applicable securities laws, under the requirements of any stock exchange or market upon which such Shares are then listed and/or traded, and restrictions under any blue sky or state securities laws applicable to such Shares.

ARTICLE 10

Performance Measures

If an Award is subject to Code Section 162(m) and the Committee determines that such Award should be designed to comply with the Performance-Based Exception, the performance measure(s), the attainment of which determine the degree of vesting, to be used for purposes of such Awards shall be chosen from among earnings per share, economic value added, market share (actual or targeted growth), net income (before or after taxes), operating income, return on assets (actual or targeted growth), return on capital (actual or targeted growth), return on equity (actual or targeted growth), return on investment (actual or targeted growth), revenue (actual or targeted growth), share price, stock price growth, total shareholder return, or such other performance measures as are duly approved by the Committee and the Company's shareholders.

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ARTICLE 11

Beneficiary Designation

Subject to the terms and conditions of the Plan and the applicable Award Agreement, each Participant may, from time to time, name any beneficiary or beneficiaries (who may be named contingently or successively) to whom Shares under the Plan are to be transferred in the event of the Participant's death. Each such designation shall revoke all prior designations by the same Participant, shall be in a form prescribed by the Company, and will be effective only when filed by the Participant in writing during the Participant's lifetime with the party chosen by the Company, from time to time, to administer the Plan. In the absence of any such designation, Shares shall be paid to the Participant's estate following his death.

ARTICLE 12

Rights of Participants

12.1 Continued Service. Nothing in the Plan shall:

(a) interfere with or limit in any way the right of the Company to terminate any Participant's employment, service as a Director, or service as a Consultant with the Group at any time, or

(b) confer upon any Participant any right to continue in the service of any member of the Group as an Employee, Director or Consultant.

12.2 Participation. Participation is determined by the Committee. No person shall have the right to be selected to receive an Award under the Plan, or, having been so selected, to be selected to receive a future Award.

ARTICLE 13

Change in Control

Upon the occurrence of a Change in Control, unless otherwise specifically prohibited under applicable laws, or by the rules and regulations of any governing governmental agencies or national securities exchanges, any restrictions and transfer limitations imposed on Restricted Shares shall immediately lapse and any unvested Restricted Stock Units shall immediately become vested.

ARTICLE 14

Amendment or Termination

The Board may at any time and from time to time amend or terminate the Plan or any Award hereunder in whole or in part; provided, however, that no amendment which requires shareholder approval in order for the Plan to continue to comply with any applicable tax or securities laws or regulations, or the rules of any securities exchange

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on which the securities of the Company are listed, shall be effective unless such amendment shall be approved by the requisite vote of shareholders of the Company entitled to vote thereon; provided further that no such amendment or termination shall adversely affect any Award hereunder without the consent of the Participant.

ARTICLE 15

Withholding

15.1 Tax Withholding. The Company shall have the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy any taxes required by federal, state, or local law or regulation to be withheld with respect to any taxable event arising in connection with an Award.

15.2 Share Withholding. Participants may elect, subject to the approval of the Committee, to satisfy all or part of such withholding requirement by having the Company withhold Shares having a Fair Market Value equal to the minimum statutory total tax which could be imposed on the transaction. All such elections shall be irrevocable, made in writing, signed by the Participant, and shall be subject to any restrictions or limitations that the Committee, in its sole discretion, deems appropriate.

ARTICLE 16

Indemnification

Each person who is or shall have been a member of the Committee, or of the Board, shall be indemnified and held harmless by the Company to the fullest extent permitted by applicable law against and from any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan and against and from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification is subject to the person having been successful in the legal proceedings or having acted in good faith and what is reasonably believed to be a lawful manner in the Company's best interests. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Articles of Incorporation or Bylaws, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

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ARTICLE 17

Successors

All obligations of the Company under the Plan with respect to Awards granted hereunder shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

ARTICLE 18

Miscellaneous

18.1 Gender and Number. Except where otherwise indicated by the context, any masculine term used herein also shall include the feminine; the plural shall include the singular and the singular shall include the plural.

18.2 Severability. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

18.3 Requirements of Law. The granting of Awards and the issuance of Shares under the Plan shall be subject to, and may be made contingent upon satisfaction of, all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

18.4 Governing Law. To the extent not preempted by federal law, the Plan, and all agreements hereunder, shall be construed in accordance with and governed by the laws of the state of New Hampshire.

18.5 Section 409A Compliance. To the extent applicable, it is intended that the Plan and all Awards of Restricted Stock Units comply with the requirements of Section 409A, and the Plan and the Restricted Stock Unit Award Agreements shall be interpreted accordingly.

(a) If it is determined that all or a portion of a Restricted Stock Unit Award constitutes deferred compensation for purposes of Code Section 409A, and if the Participant is a "specified employee" (as defined in Code Section 409A(a)(2)(B)(i)) at the time of the Participant's separation from service (as that term is used in Code Section 409A), then, to the extent required under Section 409A, any Shares or cash that would otherwise be paid upon the Grantee's separation from service in respect of the Restricted Stock Units (including any related Dividend Equivalents that constitute deferred compensation for purposes of Section 409A) shall instead be paid on the earlier of (i) the first business day of the sixth month following the date of the Participant's separation from service (as that term is used in Code Section 409A) or (ii) the Grantee's death.

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(b) If it is determined that all or a portion of a Restricted Stock Unit Award constitutes deferred compensation for purposes of Code Section 409A, upon a Change in Control that does not constitute a "change in the ownership" or a "change in the effective control" of the Company or a "change in the ownership of a substantial portion of a corporation's assets" (as those terms are used in Code Section 409A), the Restricted Stock Units shall vest at the time of the Change in Control to the extent so provided Article 13, but settlement of any Restricted Stock Units (and payment of any related Dividend Equivalents Payments) that constitute deferred compensation for purposes of Code Section 409A shall not be accelerated (*i.e.*, payment shall occur when it would have occurred absent the Change in Control).

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UNITIL ENERGY SYSTEMS, INC. Incentive and Bonus Program Charges 2012 - 2015

Account No.	Description	2012	2013	2014	2015
10 20 03 00 920 05 00	INCENTIVE COMPENSATION	61,263.39	92,168.47	127,333.50	125,886.00
10 20 10 00 920 05 00	INCENTIVE COMPENSATION CAPITALIZED	(50,846.53)	(76,498.92)	(112,054.00)	(104,488.00)
	Incentive Compensation to O&M	\$ 10,416.86	\$ 15,669.55	\$ 15,279.50	\$ 21,398.00
12 30 03 00 920 05 00 12 30 03 00 920 06 00	INCENTIVE COMPENSATION COMPENSATION EXP - RESTR STK PLAN	1,929,585.53 1,271,616.61	2,391,242.53 684,868.08	3,754,131.54 1,356,954.84	3,737,122.96 1,833,072.52
		3,201,202.14	3,076,110.61	5,111,086.38	5,570,195.48
	Incentive & Bonus Program Charges to UES - %	31.73%	31.76%	30.44%	28.32%
	Incentive & Bonus Program Charges to UES - \$	1,015,741.44	976,972.73	1,555,814.69	1,577,479.36
	Incentive & Bonus Program Charges to UES Construction - %	26.66%	27.11%	28.21%	28.58%
	Incentive & Bonus Program Charges to UES Construction - \$	270,796.67	264,857.31	438,895.33	450,843.60
	Incentive & Bonus Program Charges to UES O&M - \$	\$ 744,944.77	\$ 712,115.42	\$ 1,116,919.37	\$ 1,126,635.76

Unitil Energy Systems, Inc. Docket No. DE 16-384 Petition for Rate Increase NHPUC Staff Set 8 Information Requests

Received: August 11, 2016 Request No. Staff 8-20 Date of Response: August 23, 2016 Witness: David L. Chong

Request

Restricted Stock Plan: Reference Direct Testimony of George Long, page 4, lines 19-21. Does the Company's revenue increase request in this proceeding include dollars associated with the Restricted Stock Plan? If so, please provide the amount included in the test year payroll and the capitalized payroll by UES Non Union and From USC.

Response:

Please see Staff 8-20 Attachment 1, which reflects \$370,760 of Restricted Stock expense included in the test year Cost of Service. The Restricted Stock costs are not included in the test year payroll amounts. These costs have not been adjusted for annual payroll increases. These costs are charged to UES through the USC billing process.

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Unitil Energy Systems, Inc.

Restricted Stock Compensation Costs billed to UES through the Service Bill in 2015

		 2015
12 30 03 00 920 06 00	COMPENSATION EXP - RESTR STK PLAN	\$ 1,833,073
	Percentage charged to UES through the USC Billing Process	28.32%
	Amounts Charged to UES through the USC Billing Process	 519,126
	Capitalization Ratio - 2015	28.58%
	Restricted Stock Compensation Costs Costs to Construction	 (148,366)
	Restricted Stock Compensation Costs Costs, net of Amounts to Construction - USC to UES	\$ 370,760

Received: June 30, 2016 Request No. Staff 2-24 Date of Response: July 18, 2016 Witness: George E. Long, Jr.

Request

Reference Chong testimony, page 88, and lines 20-21 regarding incentive compensation. Please supply the Company's goals for each organization within the Company and the results as compared to target for calendar years 2010, 2011, 2012, 2013, 2014 and 2015.

Response:

Please see Staff 2-24 Attachment 1 for the goals and results for the Unitil Corporation Incentive Plan for all of the requested Plan years.

2010 Incentive Plan – Final Audited Results

Measure	Goal	Result	Weight	Factor	Weighted Factor
Quantitative Evaluation:					
Earnings Per Share ⁽³⁾	\$1.15 - \$1.25 - \$1.35	Below Threshold	.25	0	0
3 Year Average Return On Equity vs. Peers ⁽⁴⁾	Threshold – Better Than Bottom Third Target – Better Than Peer Average Maximum – In Top Third	Threshold	.15	.50	0.08
Gas Safety – Response to Odor Calls ⁽⁵⁾	95% – 97% – 99%	99.6%	.10	1.50	0.15
Electric Reliability – SAIDI Minutes ⁽¹⁾	191 – 156 – 121	199	.10	0	0
Customer Satisfaction ⁽²⁾	Threshold – Target minus 5% Target – National EEI benchmark Maximum – Target plus 5%	Target Plus 2%	.10	1.20	0.12
Gas & Electric Residential Distribution Rates ⁽⁶⁾	Threshold – Better Than Most Costly Third Target – Better Than Peer Average Maximum – In Least Cost Third	Maximum	.30	1.50	0.45
	Subtotal - Quan	titative Evalua	ation Weigh	ted Factor	0.80
Qualitative Evaluation:					
Compensation Committee EvaluationThe Committee can elect to add or subtract up to .25 from the final quantitative result determined by applying all of the above factors to reflect unplanned opportunities, unforeseen problems, or otherwise adjust the objective result for unique circumstances that occur during the Plan Year.				Committee Discretion	
	Pay	out Percent f	or Average	Employee	4.00%

- (1) Target set based on SAIDI trend compared to peers
- (2) Measured against same-year national EEI benchmark for residential customer satisfaction
- (3) Target set based approved budget
- (4) Measured against same-year performance of selected peer companies in the Northeast
- (5) Threshold set based on MA, NH & ME minimum performance level for service quality
- (6) Measured against same-year performance of selected peer companies in the Northeast; weighted 50% electric, 50% gas

2011 Incentive Plan – Final Audited Results

Measure	Goal	Result	Weight	Factor	Weighted Factor
Quantitative Evaluation:					
Earnings Per Share ⁽³⁾	\$1.31 - \$1.41 - \$1.51	\$1.50	.25	1.45	0.36
3 Year Average Return On Equity vs. Peers ⁽⁴⁾	Threshold – Better Than Bottom Third Target – Better Than Peer Average Maximum – In Top Third	Threshold	.15	.50	0.08
Gas Safety – Response to Odor Calls ⁽⁵⁾	95% – 97% – 99%	Over 99%	.10	1.50	0.15
Electric Reliability – SAIDI Minutes ⁽¹⁾	191 – 156 – 121	163	.10	0.90	0.09
Customer Satisfaction ⁽²⁾	Threshold – Target minus 5% Target – National EEI benchmark Maximum – Target plus 5%	Target Plus 8%	.10	1.50	0.15
Gas & Electric Residential Distribution Rates ⁽⁶⁾	Threshold – Better Than Most Costly Third Target – Better Than Peer Average Maximum – In Least Cost Third	Gas – Target Electric – Max	.30	1.25	0.38
	Subtotal - Qua	ntitative Evaluatio	n Weighte	d Factor	1.21
Qualitative Evaluation:					TO STREET, SP
Compensation Committee Evaluation Committee, unforeseen problems, or otherwise adjust the objective result for unique circumstances that occur during the Plan Year.				Committee Discretion	
	Pa	ayout Percent for	Average E	mployee	6.05%

- (1) Target set based on SAIDI trend compared to peers
- (2) Measured against same-year national EEI benchmark for residential customer satisfaction
- (3) Target set based approved budget
- (4) Measured against three year average performance of selected peer companies in the Northeast
- (5) Threshold set based on MA, NH & ME minimum performance level for service quality
- (6) Measured against same-year performance of selected peer companies in the Northeast; weighted 50% electric, 50% gas

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2012 Incentive Plan – Audited Results

Measure	Goal	Result	Weight	Factor	Weighted Factor
Quantitative Evaluation:					
Earnings Per Share ⁽³⁾	\$1.51 - \$1.61 - \$1.71	\$1.43	.25	0.00	0.00
3 Year Average Return On Equity vs. Peers ⁽⁴⁾	Threshold – Better Than Bottom Third Target – Better Than Peer Average Maximum – In Top Third	Threshold	.15	.50	0.08
Gas Safety – Response to Odor Calls ⁽⁵⁾	95% – 97% – 99%	Over 99%	.10	1.50	0.15
Electric Reliability – SAIDI Minutes ⁽¹⁾	191 – 156 – 121	139	.10	1.24	0.12
Customer Satisfaction ⁽²⁾	Threshold – Target minus 5% Target – National EEI benchmark Maximum – Target plus 5%	Target Plus 12%	.10	1.50	0.15
Gas & Electric Residential Distribution Rates ⁽⁶⁾	Threshold – Better Than Most Costly Third Target – Better Than Peer Average Maximum – In Least Cost Third	Gas – Threshold Electric – Max	.30	1.00	0.30
	Subtotal - Qua	ntitative Evaluation	n Weighte	d Factor	0.80
Qualitative Evaluation:					
Compensation Committee Evaluation The Committee can elect to <u>add or subtract up to .25</u> from the final quantitative result determined by applying all of the above factors to reflect unplanned opportunities, unforeseen problems, or otherwise adjust the objective result for unique circumstances that occur during the Plan Year.				Management Recommends: 0.20	
	Pa	ayout Percent for A	verage E	mployee	5.00%

(1) - Target set based on SAIDI trend compared to peers

(2) - Measured against same-year national EEI benchmark for residential customer satisfaction

(3) - Target set based approved budget

(4) - Measured against three year average performance of selected peer companies in the Northeast

(5) - Threshold set based on MA, NH & ME minimum performance level for service quality

(6) - Measured against same-year performance of selected peer companies in the Northeast; weighted 50% electric, 50% gas

2013 Incentive Plan – Audited Results

Measure	Goal	Result	Weight	Factor	Weighted Factor
Quantitative Evaluation:					
Earnings Per Share ⁽³⁾	Threshold – \$1.38 Target – \$1.46 to \$1.56 Maximum –\$1.61	\$1.57	.40	1.10	0.44
Gas Safety – Response to Odor Calls ⁽⁵⁾	95% – 97% – 99%	Over 99%	.10	1.50	0.15
Electric Reliability – SAIDI Minutes ⁽¹⁾	191 – 156 – 121	114	.10	1.50	0.15
Customer Satisfaction ⁽²⁾	Threshold – Target minus 5% Target – National EEI benchmark Maximum – Target plus 5%	Target plus 5%	.10	1.50	0.15
O&M Cost Per Customer ⁽⁴⁾	Threshold – Better Than Most Costly Third Target – Better Than Peer Average Maximum – In Least Cost Third	Least Cost Third	.30	1.50	0.45
		Tota	Weighte	d Factor	1.34
	Pa	ayout Percent for A	verage E	mployee	6.7%

(1) - Target set based on SAIDI trend compared to peers

(2) - Measured against same-year national EEI benchmark for residential customer satisfaction

(3) - Target Band set based on approved budget with a ten cent band to reflect variability based upon weather.

(4) - Measured against same-year performance of selected peer companies in the Northeast; weighted 50% electric, 50% gas

(5) - Threshold set based on MA, NH & ME minimum performance level for service quality

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2014 Incentive Plan Results

Measure	Goal	Result	Weight	Factor	Weighted Factor
Quantitative Evaluation:		AND A DEPARTMENT			
Earnings Per Share ⁽³⁾	Threshold – \$1.38 Target – \$1.63 to \$1.73 Maximum –\$1.78	\$1.79	.40	1.50	0.60
Gas Safety – Response to Odor Calls ⁽⁵⁾	95% – 97% – 99%	Over 99%	.10	1.50	0.15
Electric Reliability – SAIDI Minutes ⁽¹⁾	191 – 156 – 121	127	.10	1.41	0.14
Customer Satisfaction ⁽²⁾	Threshold – Target minus 5% Target – National benchmark Maximum – Target plus 5%	Target plus 4%	.10	1.40	0.14
O&M Cost Per Customer ⁽⁴⁾	Threshold – Better Than Most Costly Third Target – Better Than Peer Average Maximum – In Least Cost Third	Least Cost Third	.30	1.50	0.45
		Tota	Weighte	d Factor	1.48
	Pa	ayout Percent for A	Average E	mployee	7.4%

(1) - Target set based on SAIDI trend compared to peers

(2) - Measured against same-year national benchmark for residential customer satisfaction

(3) - Target Band set based on approved budget with a ten cent band to reflect variability based upon weather.

(4) - Measured against same-year performance of selected peer companies in the Northeast; weighted 50% electric, 50% gas

(5) - Threshold set based on MA, NH & ME minimum performance level for service quality

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2015 Incentive Plan Results (final)

Measure	Goal	Result	Weight	Factor	Weighted Factor
Quantitative Evaluation:					
Earnings Per Share ⁽³⁾	Threshold – \$1.48 Target – \$1.76 to \$1.86 Maximum – \$1.91	\$1.89	.40	1.30	0.52
Gas Safety – Response to Odor Calls ⁽⁵⁾	95% – 97% – 99%	Over 99%	.10	1.50	0.15
Electric Reliability – SAIDI Minutes ⁽¹⁾	191 – 156 – 121	96	.10	1.50	0.15
Customer Satisfaction ⁽²⁾	Threshold – Target minus 5% Target – National benchmark Maximum – Target plus 5%	Target minus 1%	.10	.90	0.09
O&M Cost Per Customer ⁽⁴⁾	Threshold – Better Than Most Costly Third Target – Better Than Peer Average Maximum – In Least Cost Third	Least Cost Third	.30	1.50	0.45
	2	Tota	al Weighte	ed Factor	1.36
	Pa	ayout Percent for /	Average E	mployee	6.8%

(1) - Target set based on SAIDI trend compared to peers

(2) - Measured against same-year national benchmark for residential customer satisfaction

(3) - Target Band set based on approved budget with a ten cent band to reflect variability based upon weather.

(4) - Measured against same-year performance of selected peer companies in the Northeast; weighted 50% electric, 50% gas

(5) - Threshold set based on MA, NH & ME minimum performance level for service quality

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