
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act 1934**

Date of Report (Date of earliest event reported): May 30, 2014

UNITIL CORPORATION
(Exact name of registrant as specified in its charter)

New Hampshire
(State or other jurisdiction
of incorporation)

1-8858
(Commission
File Number)

02-0381573
(IRS Employer
Identification No.)

6 Liberty Lane West, Hampton, New Hampshire
(Address of principal executive offices)

03842-1720
(Zip Code)

Registrant's telephone number, including area code: (603) 772-0775

N/A
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 7.01 Regulation FD Disclosure

On May 30, 2014, the Massachusetts Department of Public Utilities (“MDPU”) issued an Order (the “Order”) approving an increase of \$5.6 million in annual distribution revenue for the electric division of Fitchburg Gas and Electric Light Company (“Fitchburg” or the “Company”), Unitil Corporation’s Massachusetts electric and natural gas utility subsidiary. The \$5.6 million in annual distribution revenue represents a 9.5% increase over 2012 electric division total operating revenue. The MDPU also approved a return on equity of 9.7% and a common equity ratio of 47.8%. Included in the amount of this annual increase is approximately \$1.7 million for the recovery over a three year period of deferred storm costs related to three extraordinary storms: Tropical Storm Irene (2011), the October Snowstorm (2011) and Hurricane Sandy (2012). The increase in base distribution rates reflects the Company’s operating costs and investments in utility plant assets based on a test year ended December 31, 2012 as adjusted for known and measurable changes. The Order is attached as Exhibit 99.1 to this Current Report on Form 8-K.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Number	Exhibit
99.1	MDPU Order dated May 30, 2014

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

UNITIL CORPORATION

By: /s/ Mark H. Collin
Mark H. Collin
Senior Vice President, Chief Financial Officer and Treasurer

Date: June 3, 2014

EXHIBIT INDEX

Number	Exhibit
99.1	MDPU Order dated May 30, 2014



The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 13-90

May 30, 2014

Petition of Fitchburg Gas and Electric Light Company (Electric Division) d/b/a Unitil to the Department of Public Utilities for approval of the rates and charges set forth in Tariffs M.D.P.U. Nos. 229 through 238, and approval of an increase in base distribution rates for electric service pursuant to G.L. c. 164, § 94 and 220 C.M.R. § 5.00 et seq.

APPEARANCES:

Gary Epler, Chief Regulatory Counsel
Unitil Service Corp.
6 Liberty Lane West
Hampton, New Hampshire 03842

-and-

James M. Avery, Esq.
Jed M. Nosal, Esq.
Brown Rudnick LLP
One Financial Center
Boston, Massachusetts 02111
FOR: FITCHBURG GAS AND ELECTRIC LIGHT
COMPANY D/B/A UNITIL
Petitioner

Martha Coakley, Attorney General
Commonwealth of Massachusetts
By: Erik Bennett
John J. Geary
Sandra E. Merrick
Ronald J. Ritchie
Joseph W. Rogers
Assistant Attorneys General
Office of Ratepayer Advocacy
One Ashburton Place
Boston, Massachusetts 02108
Intervenor

Michael J. Altieri
Legal Counsel
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, Massachusetts 02114
FOR: MASSACHUSETTS DEPARTMENT OF
ENERGY RESOURCES
Intervenor

Jerrold Oppenheim, Esq.
57 Middle Street
Gloucester, Massachusetts 01930
FOR: THE LOW-INCOME WEATHERIZATION AND
FUEL ASSISTANCE PROGRAM NETWORK,
MASSACHUSETTS ENERGY DIRECTORS
ASSOCIATION, AND MONTACHUSETT
OPPORTUNITY COUNCIL
Intervenors

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I. INTRODUCTION

On July 15, 2013, Fitchburg Gas and Electric Light Company, d/b/a Unitil (“Unitil” or “Company”), filed a petition with the Department of Public Utilities (“Department”) for an increase to its electric base distribution rates. The Company’s last increase to electric base distribution rates was in 2011. Fitchburg Gas and Electric Light Company, D.P.U. 11-01 (2011). Unitil seeks to increase its electric base distribution rates by \$6,880,551, which includes, among other things, a proposed increase to its vegetation management program and a new storm resiliency program (“SRP”).¹ In addition, Unitil seeks approval of (1) a major storm reserve fund (“MSRF”), and (2) a revenue adjustment mechanism (“RAM”).² The Department docketed the petition as D.P.U. 13-90 and suspended the effective date of the tariffs until June 1, 2014, for further investigation.

Unitil provides electric distribution service to approximately 28,000 customers in the City of Fitchburg (“Fitchburg”) and the Towns of Ashby, Lunenburg, and Townsend (Exh. Unitil-MHC-1, at 2). Unitil is a wholly owned utility subsidiary of Unitil Corporation (Exh. Unitil-MHC-1, at 2). Unitil Corporation is a public utility holding company engaged in the retail distribution of electricity and gas through its three utility subsidiaries: (1) Unitil, which provides electric and gas service in Massachusetts; (2) Northern Utilities, Inc. (“Northern Utilities”), which provides gas service in Maine and New Hampshire; and (3) Unitil Energy Systems, Inc. (“Unitil Energy”), which provides electric service in New Hampshire

¹ In its initial filing, Unitil sought an increase to electric base distribution rates of \$6,737,861 (Exh. Unitil-DLC-7). After several revisions to its revenue requirement schedules, the Company now seeks an increase of \$6,880,551 (Exh. DPU-FGE 3-16 (Supp. 7)).

² The Company presented two alternative proposals for its RAM: a comprehensive capital cost tracker and a multi-year rate plan featuring a revenue cap index (Exh. Unitil-MNL-1, at 45).

(Exhs. Unitil-MHC-1, at 2; AG 1-98). Unitil Corporation also owns the following subsidiaries: (1) Unitil Power Corp.; (2) Unitil Realty Corp.; (3) Unitil Resources, Inc.; and (4) Unitil Service Corp. ("Unitil Service"), which provides engineering, financial, managerial, and regulatory services to Unitil Corporation's utility subsidiaries (Exhs. Unitil-DLC-1, at 1; AG 1-98).

On July 23, 2013, the Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a notice of intervention pursuant to G.L. c. 12, § 11E. On August 14, 2013, the Department granted the petitions to intervene as full parties filed by (1) the Massachusetts Department of Energy Resources ("DOER"), and (2) the Low-Income Weatherization and Fuel Assistance Program Network, the Massachusetts Energy Directors Association, and Montachusett Opportunity Council (collectively referred to as the "Low-Income Intervenors").

Pursuant to notice duly issued, the Department held a public hearing in Fitchburg on September 23, 2013. The Department held ten days of evidentiary hearings from January 6, 2014, to January 23, 2014. In support of its filing, Unitil sponsored the testimony of eleven witnesses: (1) Mark H. Collin, treasurer of Unitil and senior vice president, chief financial officer, and treasurer of Unitil Corporation; (2) David L. Chong, assistant treasurer of Unitil, Unitil Energy, and Northern Utilities; (3) George E. Long, vice president of administration of Unitil Service; (4) Kevin E. Sprague, director of engineering of Unitil Service; (5) Sara M. Sankowich, system arborist of Unitil Service; (6) Richard L. Francazio, director of business continuity and compliance of Unitil Service; (7) Laurence M. Brock, controller and chief accounting officer of Unitil Corporation, vice president and controller of Unitil Service, and controller of Unitil, Unitil Energy, and Northern Utilities; (8) Douglas J. Debski, senior regulatory analyst for Unitil Service; (9) Paul M. Normand, management consultant and

principal with Management Applications Consulting, Inc.; (10) Mark Newton Lowry, president of Pacific Economics Group Research LLC; and (11) Robert B. Hevert, managing partner of Sussex Economic Advisors, LLC. The Attorney General sponsored the testimony of five witnesses: (1) David E. Dismukes, consulting economist with Acadian Consulting Group; (2) J. Randall Woolridge, professor of finance at Pennsylvania State University; (3) Donald M. Bishop, consultant; (4) David J. Effron, consultant; and (5) Helmuth W. Schultz, III, senior regulatory analyst at Larkin & Associates.³

On February 18, 2014, the Attorney General submitted her initial brief. On March 3, 2014, Unitil submitted its initial brief. On March 10, 2014, the Attorney General submitted her reply brief. On March 17, 2014, Unitil submitted its reply brief.⁴ The evidentiary record includes 1,102 exhibits and 66 responses to record requests.

II. MAJOR STORM RESERVE FUND

A. Introduction

Unitil proposes to implement an MSRF to smooth out the financial impacts of major storms upon customers and the Company (Exh. Unitil-LMB-1, at 37). The MSRF, as proposed by the Company, would have a target balance of \$2.1 million with a symmetrical cap of \$6.3 million (Exh. Unitil-LMB-1, at 37-38). Unitil proposes to fund the MSRF by collecting

³ On August 14, 2013, the Department approved the Attorney General's retention of experts and consultants to assist her in representing consumer interests in this case at a cost not to exceed \$250,000. D.P.U. 13-90, Order on Attorney General's Notice of Retention of Experts and Consultants (August 14, 2013). The costs incurred by the Attorney General in this proceeding are reimbursed to her by Unitil and the Company then passes those costs on to ratepayers. D.P.U. 11-01/D.P.U. 11-02, at 277-279.

⁴ DOER and the Low-Income Intervenors did not submit briefs.

from its customers \$2.8 million beginning January 1, 2015 (Exh. Unitil-LMB-1, at 37-39).⁵ The amount in the MSRF would be collected through a storm cost recovery adjustment factor ("SRAF"), which would reconcile annually the revenues collected through the SRAF and the amount withdrawn from the MSRF to pay for storm restoration costs (Exh. Unitil-LMB-1, at 37-38, 41-42). The SRAF would be included in the distribution charge for billing purposes (Exh. Unitil-LMB-1, at 38). In addition, Unitil proposes that the MSRF earn interest on the fund's average monthly balance at the rate of 4.31 percent, which is the Company's after-tax long-term average debt rate (Exh. Unitil-LMB-1, at 40-41).

The Company proposes to establish a threshold amount for Unitil to access the MSRF, based on the following criteria: (1) a storm of type 3 or stronger;⁶ or (2) a storm where expenditures of \$50,000 or greater are incurred in the course of the storm event (Exh. Unitil-LMB-1, at 38). Once the \$50,000 threshold is reached, Unitil proposes to recover the total expenditures for that storm event through the MSRF, not just the amount incremental to the threshold amount (Exh. Unitil-LMB-Rebuttal-1, at 14; Tr. 2, at 236-238). Unitil also proposes that any major storm costs incurred by the Company in 2013 and 2014 be eligible for inclusion in the MSRF (Exh. Unitil-LMB-1, at 39). In addition, Unitil proposes that the annual reconciliation filing be submitted on November 15th each year for any change in rates to take effect the following January 1st (Exh. Unitil-LMB-1, at 41-42).

⁵ After the first year of implementation (i.e., 2015), the Company proposes to establish the amount to be recovered from customers for each upcoming year based on the balance of the fund (Exh. Unitil-LMB-1, at 39).

⁶ The estimated impact indices used by Unitil categorize storms as five types: type 5 is normal operations/blue sky day with no or few outages; type 4 is moderate weather with isolated outages; type 3 is moderate to severe weather with scattered outages; type 2 is moderate to severe weather with widespread outages; and type 1 is severe weather with extensive outages (Exh. Sch. Unitil-RLF-5, at 1).

The Department rejected a storm fund proposal put forth by the Company in its last base rate proceeding. D.P.U. 11-01/D.P.U. 11-02, at 374-375. In that Order, the Department found that Unitil must demonstrate a record of improved performance before it is allowed the greater discretion with ratepayer funds that comes from a storm fund mechanism. D.P.U. 11-01/D.P.U. 11-02, at 374.

B. Positions of the Parties

1. Attorney General

The Attorney General states that the Company has provided no evidence of improved storm performance (Attorney General Brief at 26). For this reason, the Attorney General argues that the Department should reject Unitil's request for a storm fund mechanism (Attorney General Brief at 27). The Attorney General also argues that storm restoration costs have been the major impediment to the Company's earnings, so that if the Department were to allow the MSRF, it would eliminate the need for alternative rate mechanisms proposed by the Company, such as the RAM (Attorney General Reply Brief at 13).

In the event the Department determines that a storm fund is appropriate for Unitil, the Attorney General recommends several modifications to the Company's proposal (Attorney General Brief at 27-30; Attorney General Reply Brief at 14-16). First, the Attorney General avers that the annual funding level for the MSRF should be \$140,000, with a symmetrical cap set at \$420,000 (Attorney General Brief at 27-28; Attorney General Reply Brief at 14). The Attorney General argues that this funding level is more reflective of the costs of major storms from 2010 to 2012 (Attorney General Brief at 27-28, citing Exh. AG-DMB-1, at 8). Second, the Attorney General takes issue with the criteria for accessing the MSRF (Attorney General Brief at 28; Attorney General Reply Brief at 14). The Attorney General recommends that a disaster declaration made by the Federal Emergency Management Administration ("FEMA") be the sole

criterion for accessing the MSRF (Attorney General Brief at 28; Attorney General Reply Brief at 14). Third, the Attorney General states that if the Department declines to adopt a FEMA declaration of disaster as the criterion, the Department should modify the Company's proposal such that the criteria would be: (1) a storm of type 3 or stronger; *and* (2) incremental costs of \$50,000 or greater incurred in the course of the storm event (Attorney General Brief at 29; Attorney General Reply Brief at 14).

Fourth, the Attorney General argues that storm expenditures incurred in 2013 and 2014 should not be eligible for recovery through the MSRF (Attorney General Brief at 29; Attorney General Reply Brief at 16). The Attorney General states that because the effective date of the MSRF and SRAF tariff is June 1, 2014, it would be inappropriate to recover costs incurred before that date through the MSRF as the MSRF will not have existed prior to that date (Attorney General Brief at 29).

Finally, the Attorney General argues that the appropriate carrying charge rate for the MSRF is the customer deposit rate as opposed to the after-tax long-term average debt rate, as proposed by the Company (Attorney General Brief at 30; Attorney General Reply Brief at 15). The Attorney General argues that another Massachusetts electric utility uses the customer deposit rate as the carrying charge rate for its storm fund (Attorney General Brief at 30, citing *Western Massachusetts Electric Company*, D.P.U. 10-70, at 206 (2010)). In addition, the Attorney General states that the Company proposed using the customer deposit rate as the carrying charge rate for its storm fund when it sought a storm fund in its last base rate proceeding (Attorney General Brief at 30, citing *D.P.U. 11-01/D.P.U. 11-02*, at 367).

2. Company

Unitil argues that it has demonstrated improved performance in storm restoration through its successful restorations during Tropical Storm Irene (“T.S. Irene”), an October 2011 snow event (“October Snowstorm”), and Hurricane Sandy (Company Brief at 25-28, 51; Company Reply Brief at 3). The Company also points to ongoing enhancements to its emergency response preparedness plans and vegetation management plans as further demonstrations of the Company’s commitment to improved performance (Company Brief at 51, citing Exhs. Unitil-RLF-1, at 18-19; Unitil-SMS-1, at 22-23). In addition, the Company argues that the fact the Department did not direct Unitil to take part in investigations into utility response to T.S. Irene and the October Snowstorm serves as acknowledgement by the Department of the quality of Unitil’s response to these storms (Company Brief at 51-52, citing Investigation into Tropical Storm Irene, D.P.U. 11-85; Investigation into October Snowstorm, D.P.U. 11-119).

The Company argues that the MSRF is necessary for Unitil because utilities incur significant costs to prepare for major storms (Company Brief at 52, citing Exhs. Unitil-RLF-1, at 22; Unitil-LMB-1, at 36; Sch. Unitil-RLF-7; Sch. Unitil-RLF-9). Unitil maintains that its proposed MSRF reflects mechanisms employed in storm funds of other utilities in Massachusetts and that the funding level and threshold are based on the Company’s experiences in recent years (Company Brief at 52, citing Exhs. Unitil-LMB-1, at 37; Sch. Unitil-LMB-8). In addition, the Company argues that it has proposed an appropriate and objective threshold for accessing the MSRF consistent with Department precedent (Company Brief at 54, citing Exhs. Unitil-RLF-1, at 24-25; AG 12-6). The Company states that type 3 and stronger storms were chosen as part of the threshold because they are most likely to result in damage that leads to a large number of customer outages (Company Brief at 54, citing Exh. AG 12-20). The Company also contends that the \$50,000 threshold was selected because Unitil determined that storms that require expenses greater than \$50,000 typically require outside services (Company Brief at 54,

citing Exh. Sch. Unitil-RLF-9; Company Reply Brief at 12). The Company maintains that the funding level was selected because it is representative of Unitil's recent storm restoration costs (Company Brief at 55, citing Exhs. Unitil-LMB-1, at 39, Sch. Unitil-LMB-9, line 21, column g; Company Reply Brief at 11-12).

The Company contends that the Attorney General's recommended use of a FEMA declaration of disaster as the threshold for access to the MSRF does not make sense for several reasons (Company Brief at 56). First, Unitil states that FEMA disaster declarations are typically made after a storm has occurred, so it would be an ineffective tool for storm planning (Company Brief at 56). Second, Unitil's Massachusetts service territory straddles two counties, which could lead to incongruity as FEMA declares disasters by county (Company Brief at 56, citing Exh. Unitil-RLF/SMS-Rebuttal at 6). In addition, the Company states that relying on the FEMA declaration of disaster would not cover major storms that are forecast to cause major damage but then fail to materialize, such as Hurricane Earl (Company Brief at 56-57, citing Unitil-RLF-Rebuttal at 8-9). The Company argues that it is prudent for a utility to expend resources to prepare for major storms, even if damage and outages do not occur because the storm changes course (Company Brief at 56-57).

Unitil also takes issue with the Attorney General's recommendation that the Company must satisfy both prongs of the threshold requirement in order to access the MSRF (i.e., a storm of type 3 or stronger; *and* (2) incremental costs of \$50,000 or greater incurred in the course of the storm event) (Company Brief at 57). The Company states that if the Department imposes such a requirement, Unitil should be allowed to access the MSRF after a demonstration that it prudently incurred storm preparation costs for a storm that never attains type 3 or stronger status (Company Brief at 57).

The Company states that while the Attorney General agrees with Unitil that the symmetrical cap for the MSRF should be set at three times the target balance, the funding level proposed by the Attorney General is arbitrarily low (Company Brief at 57-58). Unitil argues that the Attorney General is excluding three major storms experienced by the Company (i.e., T.S. Irene, the October Snowstorm, and Hurricane Sandy) from the calculation of the funding level, which is misleading and erroneous (Company Brief at 57-58; Company Reply Brief at 12).

The Company also takes issue with the Attorney General's recommendation that eligible storm expenses incurred prior to June 1, 2014, be ineligible for recovery through the MSRF (Company Brief at 58; Company Reply Brief at 13-14). Unitil states that it proposed a 2013 start date for eligibility to establish a "clean slate" coming out of this proceeding and to decrease the likelihood that the Company will be forced to file for a base rate increase as a result of storm costs (Company Brief at 58; Company Reply Brief at 13). The Company states that if the Department were to alter the eligibility date for the MSRF, it must also adjust the Company's proposed amortization of major storm expense to include the substantial costs of the February 2013 nor'easter (Company Brief at 58, citing Exhs. Sch. Unitil-LMB-7; AG 10-45; Company Reply Brief at 13-14).

Unitil disagrees with the Attorney General's recommendation that the customer deposit rate be used as the carrying charge rate for the MSRF (Company Brief at 58-59; Company Reply Brief at 13). Unitil states that it has demonstrated that the Company's after-tax average long-term debt rate is a more accurate representation of the Company's costs to carry storm costs on its books (Company Brief at 58-59, citing Exh. Unitil-LMB-Rebuttal at 14; Company Reply Brief at 13).

In addition, the Company disagrees with the Attorney General's argument that deferred storm costs affected Unital's earnings (Company Reply Brief at 11). The Company claims that the deferred storm costs were not recognized as a current expense for purposes of determining Unital's net income, so those costs had no impact on the calculation of return on equity ("ROE") presented by the Company in this proceeding (Company Reply Brief at 11, citing Fitchburg Gas and Electric Light Company, D.P.U. 11-128, at 11, 14-15 (2012)). Consequently, the Company urges the Department to reject the Attorney General's mischaracterization of Unital's earnings and the purported effect of the MSRF on the Company's ROE (Company Reply Brief at 11). Finally, the Company avers that the Department should find that Unital's storm restoration performance has improved, that the proposed MSRF is consistent with Department precedent, and that the thresholds are based on appropriate, Company-specific data (Company Brief at 59).

C. Analysis and Findings

Under conventional Department ratemaking practice, if the test year level of storm-related expense is not extraordinary in relation to the company's distribution revenues, the cost of service used to design base rates would include recovery for storm expenses. Western Massachusetts Electric Company, D.P.U. 558, at 26-27 (1981); Boston Edison Company, D.P.U. 19991, at 28 (1979). Alternatively, if the test year expense is extraordinary, the Department may permit the expense to be amortized over a period of years without carrying costs. D.P.U. 11-01/D.P.U. 11-02, at 71-72; Boston Edison Company, D.P.U. 85-266-A/85-271-A at 95-98 (1986); Boston Edison Company, D.P.U. 1720, at 89 (1984); Boston Edison Company, D.P.U. 19300, at 36 (1978). Under this ratemaking treatment, the risk of unanticipated expenses such as extraordinary storm costs is shared by both shareholders and ratepayers. See D.P.U. 11-01/D.P.U. 11-02, at 71-72; D.P.U. 10-70, at 202; Massachusetts Electric Company/Nantucket Electric Company, D.P.U. 09-39, at 207 (2009).

The Department has elected to permit extraordinary, nonrecurring expenses to be recovered over time as a way to insulate the Company from the business risk of large, unanticipated expenditures. D.P.U. 10-70, at 202; D.P.U. 09-39, at 207.

Under conventional storm cost recovery, if a company experiences a major storm expense outside of a test year, it would seek approval of an accounting deferral for such costs from the Department and, if granted, would seek recovery through an amortization of those costs over a reasonable time period in its next base rate proceeding. With a storm fund, revenues are collected for extraordinary storms in advance through rates and are placed in a storm contingency account. When an extraordinary storm occurs, the company may recover the incremental costs to restore service from the reserve in the storm contingency account. Thus, the company receives dollar-for-dollar recovery of the costs it incurs to respond to a storm. If the company does not incur storm costs in a given year, ratepayers still pay the yearly amount into the fund. Any storm fund balances are allowed to earn interest (or incur carrying charges).

The Department has approved rate settlements for a number of electric distribution companies that included storm funds. See, e.g., Western Massachusetts Electric Company, D.P.U. 06-55 (2006); Boston Edison Company/Cambridge Electric Light Company/Commonwealth Electric Company/NSTAR Gas Company, D.T.E. 05-85 (2005); New England Electric System, D.T.E. 99-47 (1999); Boston Edison Company, D.P.U./D.T.E. 96-23, at 70 (1998). In addition, the Department has approved modifications to storm funds that were previously approved as part of rate settlements. See D.P.U. 10-70, at 196-201; D.P.U. 09-39, at 205-213. In these subsequent decisions, the Department has allowed storm funds based on the rationale that a storm fund levelizes the financial impact of major storms on distribution rates. D.P.U. 10-70, at 196-197; D.P.U. 09-39, at 206. Currently Massachusetts Electric Company, Nantucket Electric Company, NSTAR Electric Company, and Western Massachusetts Electric Company operate storm funds.

In deciding whether to approve a proposed storm fund, the Department considers whether it is in the public interest to do so. In D.P.U. 11-01/D.P.U. 11-02, at 344, we found that given Until's relatively recent history of demonstrated subpar management performance that it was in the public interest to continue our conventional ratemaking treatment of major storm costs as a means to encourage Unutil's management to improve its performance. The Department acknowledges that Unutil's storm response performance has improved since it first sought a storm fund in D.P.U. 11-01. This improvement is made evident by the fact that it was not necessary for the Department to investigate Unutil's preparation for and response to T.S. Irene (D.P.U. 11-85), the October Snowstorm (D.P.U. 11-119), and Hurricane Sandy.⁷ Thus, our evaluation of the Company's storm fund proposal is not based on continued concerns about company management performance. The Department must determine, however, whether it is in the public interest to depart from conventional ratemaking treatment for Unutil's recovery of storm costs. In doing so, the Department considers which ratemaking treatment establishes the appropriate balance of risks between the Company and its ratepayers.

The Department gives careful consideration to the formation of any new cost reconciling mechanisms. See, e.g., Boston Gas Company/Essex Gas Company/Colonial Gas Company, D.P.U. 10-55, at 66 n.43 (2010); Bay State Gas Company, D.T.E. 05-27, at 183-186 (2005); Commonwealth Electric Company/Cambridge Electric Light Company/Boston Edison Company/NSTAR Gas Company, D.T.E. 03-47-A, at 25-28, 36-37 (2003); Eastern

⁷ All three storms were substantial storms for the Company with outages experienced as follows: (1) 29 percent for T.S. Irene; (2) 91 percent for the October Snowstorm; and (3) 20 percent for Hurricane Sandy (Exh. DPU-FGE 16-1).

Enterprises/Essex County Gas Company, D.T.E. 98-27, at 6, 28 (1998). Such consideration is warranted because certain cost recovery mechanisms can lessen the incentive of a utility to control its costs. Under conventional ratemaking practice, there is a time gap between when a utility incurs a cost and when the utility recovers its costs through new rates. This time gap is referred to as “regulatory lag” and it provides a strong incentive for companies to control costs and to invest wisely in capital. See D.P.U. 09-39, at 80. Cost reconciling mechanisms, because they allow for dollar-for-dollar recovery from ratepayers, substantially reduce, or in some cases eliminate, benefits to ratepayers previously attained through regulatory lag.⁸ With a storm fund, essentially all the financial risk of storm costs is borne by ratepayers because the company receives dollar-for-dollar recovery of the costs it incurs to respond to major storms. Unitil’s storm fund proposal would reduce the regulatory lag for the Company with regard to certain operating and maintenance (“O&M”) costs and will shift more of the risk of storm cost recovery to ratepayers.

The primary objective for allowing storm funds has been to levelize storm restoration costs of major storms on ratepayers. D.P.U 10-70, at 201-202; D.P.U. 09-39, at 206. Recent experience has demonstrated that the use of storm funds to recover extraordinary storm costs has not provided ratepayers with significant benefits. For example, companies that currently have storm funds have petitioned the Department to allow recovery of storm-related costs that well exceed their current storm fund limits. Massachusetts Electric Company/Nantucket Electric Company, D.P.U. 13-85 (investigation ongoing); NSTAR Electric Company, D.P.U. 13-52(2013).⁹ Moreover, storm funds include a carrying cost component, which is not included in conventional storm cost recovery. D.P.U. 11-01/D.P.U. 11-02, at 71-72.

⁸ Because a storm fund allows for dollar-for-dollar recovery on a potentially expedited basis, a company’s incentive to control costs may be reduced.

⁹ In D.P.U. 11-01/D.P.U. 11-02, at 367, the Company sought a storm fund with an annual funding level of \$200,000. Here, Unitil seeks a storm fund with an annual funding level of \$2.8 million (Exh. Unitil-LMB-1, at 37-39). This demonstrates the uncertainty of storm costs, which has lead to companies seeking additional storm cost recovery outside of existing storm funds. See D.P.U. 13-85; D.P.U. 13-52; D.P.U. 11-56.

The use of storm funds also increases administrative burdens. Under conventional ratemaking, the detailed cost review would take place in the context of a base distribution rate proceeding at least every five years. G.L. c. 164, § 94. Unitil proposes to file with the Department each year to adjust the SRAF. Storm cost review proceedings are often protracted and involve the same level of scrutiny that takes place in a base distribution rate proceeding. See D.P.U. 13-52; Massachusetts Electric Company/Nantucket Electric Company, D.P.U. 11-56 (2013). Having these proceedings on an annual basis is costly and burdensome to all parties involved. Confining the review of storm costs to rate case proceedings, as opposed to annual filings, eliminates this additional administrative burden.

Recent experience with storm funds leads us to conclude that the burden of cost recovery for major storms has been shifted disproportionately to ratepayers without providing commensurate benefits. The Department finds that the conventional storm cost recovery approach more equitably shares the risk of large storm costs between ratepayers and shareholders, provides greater protection for ratepayers than exist through a storm fund and lessens administrative burdens. For these reasons, the Department denies the Company's proposed storm fund. The Department puts all electric distribution companies on notice that if they seek continuation of a storm fund in their next base distribution rate case, they must demonstrate why, given the considerations set forth above, the continuation of a storm fund is in the best interest of ratepayers.

III. STORM RESILIENCY PROGRAM

A. Introduction

The Company proposes to implement an SRP over a ten-year period (Exh. Unitil-SMS-1, at 22, 28; Tr. 6, at 739). Unitil states the goal of the SRP is to reduce tree-related incidents, customer interruptions, and impact on municipalities along critical portions of targeted lines caused by major weather events (Exhs. Unitil-SMS-1, at 22; AG 3-24, at 7; Tr. 2, at 113, 131-132, 141).¹⁰ The Company's affiliate, Unitil Service, implemented a similar storm resiliency pilot program in the seacoast region of its New Hampshire service territory in 2012, and Unitil relied on Unitil Service's experience from that pilot program to design and estimate the costs of the Company's SRP proposal (Exhs. Unitil-SMS-1, at 27, 33; AG 3-24; DPU-FGE 3-7).

Unitil's proposed SRP is designed to target trees that are outside of the scope of its current vegetation management program (Exh. Unitil-SMS-1, at 24-25). The Company's proposed scope of work for the SRP is for critical three-phase sections of select circuits¹¹ to undergo tree exposure reduction by removing all overhanging vegetation (i.e., ground-to-sky clearing) as well as performing intensive hazard tree¹² review and removal (Exh. Unitil-SMS-1,

¹⁰ "Major weather events" are defined as weather events above normal conditions such as massive snow storms, and storms with wind above 50 mph, where the failure of defective trees and limbs predominate, and widespread and extended outages occur (Exhs. Unitil-SMS-1, at 25; Unitil-RLF/SMS-Rebuttal-1 at 22-23; DPU-FGE 7-30).

¹¹ The select circuits are defined as the circuitry from the substation out to a desired protection device (Exh. Unitil-SMS-1, at 23-24).

¹² A hazard tree is a tree that: (1) has both a target (i.e., utility infrastructure that can be damaged by tree failure) and a noticeable defect that increases the likelihood of failure; and (2) upon failure, is capable of interfering with the safe, reliable transmission of electricity (Exh. Unitil-SMS-1, at 5; Tr. 2, at 118-119).

at 22-24). Additionally, the remaining three-phase circuitry beyond the designated critical portions would receive hazard tree review and removal (Exh. Unitil-SMS-1, at 23-24). The scope of work would also take into account critical infrastructure needs for affected cities and towns (Exh. Unitil-SMS-1, at 24). The locations of critical facilities such as police and fire departments, schools, emergency shelters, and other critical business centers will be considered along with the critical electric company infrastructure (Exh. Unitil-SMS-1, at 24).

The Company identified the circuits it proposes to include in the SRP by considering (1) tree-related field conditions, (2) customer count, (3) miles of each circuit that are three-phase, and (4) presence of scenic roads or other vegetation management restrictions (Exh. Unitil-SMS-1, at 24). The Company's SRP will not include any circuits located (1) primarily in low tree density areas, (2) where there is no critical municipality need, (3) on scenic roads, or (4) where there are known restrictions (Exh. Unitil-SMS-1, at 24).

The Company projected that the SRP will cost \$501,445 annually and proposed to include this cost in base distribution rates as an O&M expense (Exhs. Unitil-SMS-1, at 28; Unitil-DLC-1, at 23; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-12). The projected costs are based upon implementing the SRP on approximately 9.2 miles of circuits annually (Exh. Unitil-SMS-1, at 28). The Company derived the proposed costs of the SRP by a two-step process (Exh. Unitil-SMS-1, at 28). First, the Company arrived at the 9.2 miles per year by balancing the scope of work and total number of miles subject to the SRP (i.e., 92 miles) with the level of manageable miles for work planning, management and vendor implementation, and the overall time to complete the full project scope (i.e., ten years) (Exh. Unitil-SMS-1, at 28; Tr. 6

at 739). Second, the Company applied the annual 9.2 miles to the estimated cost per mile of work, which was adjusted from the actual costs of the 2012 New Hampshire storm resiliency pilot program, plus the estimated costs of work planning, notification, oversight, and traffic control (Exhs. Unutil-SMS-1, at 28; DPU-FGE 3-7). After adding in an inflation factor, the Company determined that the total ten-year cost of the proposed SRP would be approximately \$5.9 million (Exh. DPU-FGE 16-13; Tr. 6, at 739).

B. Positions of the Parties

1. Attorney General

The Attorney General maintains that Unutil is behind on its current vegetation management (Attorney General Brief at 71, citing Exh. AG-HWS-1, at 7). The Attorney General argues that, in fact, the Company should have implemented an SRP immediately after the 2008 ice storm or even earlier (Attorney General Brief at 71, citing Exh. AG-HWS-1, at 7; Fitchburg Gas and Electric Light Company, D.P.U. 09-01-A at 159 (2009)). Nonetheless, the Attorney General does not object to the SRP but argues that the Department should reduce Unutil's request by 50 percent, or \$250,723 (Attorney General Brief at 72).

The Attorney General contends that the Department rejected a similar proposed vegetation management program in the Company's last rate case, D.P.U. 11-01/D.P.U. 11-02, and that here, the Company merely separated the previously rejected request into two components: (1) the vegetation management test-year expense, and (2) the SRP request of \$501,445 (Attorney General Brief at 71). The Attorney General expresses concern that the Company may not spend what has been requested in these two components (Attorney General Brief at 71, citing Exh. AG-HWS-1-Surrebuttal-1, at 6). As such, she asserts that her proposed 50 percent reduction for the SRP is appropriate because the Company has failed in the past to follow through with spending what it claimed was needed on vegetation management (Attorney

General Brief at 71-72, citing Exhs. AG-HWS-1, at 11-12; AG-HWS-3). The Attorney General asserts that once the Company proves that more than \$250,723 of funds will be expended, then an increase in funding may be justified (Attorney General Brief at 71-72, citing Exh. AG-HWS-1-Surrebuttal-1, at 8-9).

2. Company

The Company claims the SRP addresses entirely different goals from the Company's vegetation management program, and that the SRP should be approved because the resulting improved reliability, avoided service interruptions and costs, positive public acceptance, and public health and safety benefits more than offset an annual cost of \$501,445 (Company Brief at 20, 59-60). The Company asserts that the SRP relies upon highly aggressive and extremely comprehensive vegetation removal techniques (e.g., tree and limb removal) as an alternative to underground line construction (Company Brief at 20, citing Exh. DPU-FGE 8-5). The Company further argues the SRP is designed to reduce tree impacts from major storms that would not be addressed in conventional vegetation management programs (Company Brief at 20). The Company asserts that unlike traditional vegetation management programs, which are designed to address less severe storms (i.e., wind less than 50 mph and more common rain or snow events), the SRP is aimed at addressing the need for essential services after a major storm with widespread and extended outages (i.e., massive snow storms and storms with wind above 50 mph) (Company Brief at 21).

C. Analysis and Findings

1. Cost Recovery

It is a well-established Department precedent that base distribution rates are established using an historic test year, adjusted for known and measurable changes. See D.P.U. 10-70, at 232, 234; Eastern Edison Company, D.P.U. 1580, at 13-17, 19 (1984); Massachusetts Electric

Company, D.P.U. 136, at 3-5 (1980); Massachusetts Electric Company, D.P.U. 18204, at 4-5 (1975); New England Telephone and Telegraph Company, D.P.U. 18210, at 2-3 (1975); see also Massachusetts Electric Company v. Department of Public Utilities, 383 Mass. 675, 680 (1981). In this case, the Company presents a proposal to incorporate \$501,445 for its SRP into base distribution rates without having expended any funds towards that program within the test year or throughout the period of this proceeding (Exhs. DPU-FGE 16-24; AG 6-8). The costs were not incurred in the test year and are neither known nor measurable. Moreover, as the Company's ex-ante request is based upon its New Hampshire pilot program and not upon known and measurable costs in Massachusetts, there is no certainty that Unitil will actually require the full requested amount for the cost-effective execution of its proposed Massachusetts SRP (Exh. DPU-FGE 3-7). The unknowable nature of these actual expenditures is evidenced by Unitil's attestation that it has not yet issued requests for proposals to vendors or awarded contracts, and that the Company will measure results after program implementation (after the Company would have begun to collect any approved amount through base distribution rates) (Exh. AG 8-5).

Nonetheless, the Department recognizes the financial burden that Massachusetts ratepayers have borne due to high storm restoration costs, and additionally notes that a company's poor pre-storm preparation may have adverse effects upon that company's customers. D.P.U. 11-01/D.P.U. 11-02, at 70-71; D.P.U. 09-39, at 210-211. We recognize that the SRP may represent a worthwhile step towards strengthening Unitil's distribution system, thus mitigating a portion of the physical damage and financial impacts of future storm events, and thereby benefiting ratepayers (see, e.g., Exh. Unitil-SMS-1, at 23; Tr. 3, at 143-146; RR-DPU-8). Therefore, we find that it is appropriate to grant the Company a fully reconcilable SRP fund on a pilot basis.

With respect to the length of time the pilot SRP fund will be in effect, we find that Unitil should implement the SRP immediately upon conclusion of this proceeding and continue its execution until the Company files its next base distribution rate case, unless otherwise ordered by the Department. As outlined in detail below, the Company must submit annual informational reports that indicate the monies expended from the SRP fund by activity, and the actual circuit miles trimmed under the SRP pilot (Exh. DPU-FGE 3-10). In addition, during the Company's next distribution rate case, we will examine the required accounting, reports, and any other requested documentation from the entire term of the Company's SRP pilot up to that point, and make a determination regarding the SRP's future funding.

Since we have determined that some amount is properly includable on a pilot basis in a SRP fund, we must now examine the proper level of annual funding for such a program. As a preliminary matter, we considered the Attorney General's argument that the Department should grant recovery for the Company's SRP in base distribution rates but only fund the program at half of the Company's proposed budget (Attorney General Brief at 71-72, citing Exh. AG-HWS-1-Surrebuttal-1, at 8-9). We reject the Attorney General's proposal because the amount that the Attorney General contends should be allowed in base distribution rates is not based on any quantification of actual or proposed costs (see Exh. AG-HWS-1-Surrebuttal-1, at 8-9).

We direct the Company to establish a SRP fund, to be funded by including an annual amount of \$501,445 in base distribution rates.¹³ The SRP fund shall be used for the sole purpose of recovering the prudently incurred incremental costs of the SRP and shall be reviewed and reconciled in the Company's next base distribution rate proceeding. The SRP fund balance shall not accrue interest.

2. Reporting Requirements

As noted above, we direct Until to implement the SRP as a pilot program. The Department's approval of the pilot SRP fund will allow Until to commence the SRP. In order for the Department and parties to monitor the Company's SRP progress, we require the Company to provide an annual report. Until has represented that it has been able to track the success of a similar pilot program in New Hampshire (Exhs. DPU-FGE 7-28; AG 3-24, Att. at 7-8). Accordingly, the Company must submit in its annual electric reconciliation mechanism filing (see Fitchburg Gas and Electric Light Company, D.P.U. 12-121 (2013); Fitchburg Gas and Electric Light Company, D.P.U./D.T.E. 97-115/98-120 (1999)) an informational report that illustrates the Company's cost tracking system, including amounts expended each month, the SRP fund balance, and circuit miles completed under the SRP pilot.¹⁴

To protect consumer interests, at the time of the Company's next base distribution rate case, Until must demonstrate that the SRP costs were incremental to costs currently recovered

¹³ The Department notes that consideration of an inflation factor is unnecessary because these costs will be recovered through a reconciling mechanism.

¹⁴ This accounting should, at a minimum, include amounts spent and organized by activity, with a record of the accounts in the Uniform System of Accounts for Electric Companies ("USOA-Electric Companies") to which each expense was booked. 18 C.F.R. Pt. 101, Electric Plant Instructions, § 2. The Department has adopted the USOA-Electric Companies prescribed by the Federal Energy Regulatory Commission, with several modifications. 220 C.M.R. § 51.01(1).

through base distribution rates, were reasonable, and were prudently incurred. D.P.U. 10-55, at 440-443; D.P.U. 09-39, at 209; Fitchburg Gas and Electric Light Company, D.P.U. 09-31, at 22-24, 26 (2010); Massachusetts-American Water Company, D.P.U. 95-118, at 39-42 (1996). When the Company files its next base distribution rate proceeding, Unitil should provide sufficient information to bear the burden of proof that its SRP costs met the standards above.¹⁵

For the Department to assess the future of the program, the Company must at the time of its next base distribution rate case filing, or at the Department's discretion, provide a description of any benefits, by year, of the SRP program. The description should include, as applicable, benefits of system reliability, such as reductions in the frequency and duration of outages (e.g., system average interruption duration and system average interruption frequency), as well as benefits related to storm restoration (e.g., fewer crew and material resources required and improved time to restore service). Expected positive quantifiable results will be measured by, but not limited to, the following: (1) performance during normal conditions and storm events after program implementation; (2) reduced Company restoration costs; and (3) cost-effective and minimal bill impact on a per-customer basis (Exhs. DPU-FGE 7-28; AG 3-24, Att. at 7-8). Positive quantifiable results (from above) in a storm event shall be measured by, but not limited to, the following, for that event: (1) reduced mainline tree-related outage events; (2) improved restoration time; (3) preserved municipal critical infrastructure; (4) reduced dependence on mutual aid and off-system resources; and (5) reduced economic loss to municipalities, businesses, and residential customers (Exhs. DPU-FGE 7-28; AG 3-24, Att. at 7-8).

¹⁵ The Department previously accepted National Grid's three-step process for preventing double recovery of overhead and burden costs related to the company's TIRF, as "a starting point for further evaluation," and we recommend that Unitil draw lessons from that filing when constructing its SRP filing in the Company's next base distribution rate case. D.P.U. 10-55, at 142-143. A reasonable system to track costs must prevent any "double recovery" of costs through base distribution rates and allow the Department and stakeholders to review expenditures easily. See, e.g., D.P.U. 10-55, at 74-76; NSTAR Electric Company, D.P.U. 09-33, at 66 (2010).

IV. REVENUE ADJUSTMENT MECHANISM

A. Introduction

Pursuant to its revenue decoupling mechanism (“RDM”), Until annually reconciles its actual base revenues (consisting of customer and distribution charges) to a target level of revenues through a kWh charge, based on projected sales (M.D.P.U. No. 203, § 5.1). The Department established the Company’s RDM in its last base distribution rate case, D.P.U. 11-01/D.P.U. 11-02. The Company proposes to continue its current RDM (with updated target revenues) but to add to it a broad-based RAM (Exhs. Unutil-MHC-1, at 3-4; Unutil-MNL-1, at 45).¹⁶ Unutil proposes two alternatives for the RAM: (1) a capital cost adjustment mechanism (“CCAM”); or (2) a multi-year rate plan (“MRP”) with a revenue cap index (“RCI”) (Exhs. Unutil-MHC-1, at 15; Unutil-MNL-1, at 28, 45).¹⁷ The Department describes each alternative in detail below.

B. Description of Proposed Revenue Adjustment Mechanisms

1. Capital Cost Adjustment Mechanism

Under its first alternative, the CCAM, the Company proposes to implement a rate adjustment mechanism that would allow it to collect the annual revenue requirement associated with capital expenditures incurred on and after January 1, 2013 (Exhs. Unutil-MHC-1, at 15;

¹⁶ For each rate class, the Company would sum the class-specific decoupling revenue adjustment approved in this proceeding with the revenue adjustments for the RAM to determine the annual target revenues (Exh. Unutil-1, proposed tariff M.D.P.U. No. 236 (Sch. RDAC), §§ 3.0, 4.0).

¹⁷ A CCAM is designed to directly address capital investments, while an MRP is a more comprehensive ratemaking mechanism designed to address all operating expenses.

Unitil-MNL-1, at 45-46; Sch. Unitil-MNL-3). The adjustment would apply to all prudently incurred conventional capital investments,¹⁸ and would recover the return,¹⁹ depreciation, and property taxes associated with these capital investments (Exhs. Unitil-MNL-1, at 45-47; Sch. Unitil-MNL-2; Unitil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version)). The CCAM would include the revenue requirement from investments the Company deems grid modernization investments²⁰ but only after the Department has granted pre-approval for such investments in a separate proceeding (Exhs. Unitil-MNL-1, at 47; Unitil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version), § 1.0).²¹ Each year the CCAM adjustment would be added to the target revenues approved in this proceeding and then annually reconciled to the actual base revenues (Exh. Unitil-1, proposed tariff M.D.P.U. No. 236 (Sch. RDAC); proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version)).

Under the Company's proposal, Unitil would file documentation with the Department every July in support of the distribution capital expenditures that it incurred in the preceding calendar year (Exhs. Unitil-MNL-1, at 48; Sch. Unitil-MNL-3; DPU-FGE 14-15, Att.). In November of every year, the Company would submit class rate adjustments pursuant to its RDM and RAM proposals for rates effective January 1 of the following year (Exhs. Unitil-MNL-1, at 48; Sch. Unitil-MNL-3; DPU-FGE 14-15, Att.).

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- 18 The Company defines conventional capital investments as those required to meet Unitil's existing obligation "to provide safe and reliable service at just, reasonable, and affordable rates" (Exh. Unitil-MNL-1, at 46).
- 19 To calculate the return, the Company proposes to apply the pre-tax weighted average cost of capital approved in this proceeding (Exhs. Unitil-MNL-1, at 47; Sch. Unitil-MNL-2, at 1, 3).
- 20 The Company defines special grid modernization investments as transformational investments delivering capabilities and functionalities consistent with the Department's policy and regulatory framework for such investments under development in Modernization of the Electric Grid, D.P.U. 12-76 (Exh. Unitil-MNL-1, at 46-47).
- 21 The Company proposes that the filing schedule, processes, and policies for the pre-approval of special capital expenditures would be determined in the Department's current grid modernization proceeding, D.P.U. 12-76 (Exh. DPU-FGE 14-2).

The Company initially proposed to recover its capital spending bounded each year by a cost recovery cap based on the annual average of a projected three-year period of capital spending (Exh. Unutil-MNL-1, at 45-46).²² Further, the Company would limit recovery resulting from the CCAM to two percent of total retail revenues²³ from the most recent year, with an adjustment to the total retail revenues for competitive supply customers²⁴ (Exhs. Unutil-MNL-1, at 50; Sch. Unutil-MNL-2; Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version), §§ 3.0, 4.4). The Company proposes to carry forward any excess spending until the next year with interest charged at the prime lending rate (Exhs. Unutil-MNL-1, at 50; Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version), § 4.4). The CCAM would expire when new rates become effective in Unutil's next base distribution rate case (see Exh. Unutil-MNL-1, at 52).

During the proceeding, the Company stated that it was amenable to using a historical basis for establishing the annual investment cap for eligible cost recovery (Exh. Unutil-MNL-Rebuttal-1, at 3). In addition, Unutil stated that it was amenable to a three percent rate increase cap combining the CCAM and RDM rate impacts, with allowed revenues in excess of the caps deferred with interest charges at the customer deposit rate until the next RDM adjustment (Exh. Unutil-MNL-Rebuttal-1, at 2-3, 5).

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- ²² Under the proposed cap, annual investment recovery would be limited to \$7,875,935, the average of the Company's projected capital budgets for 2013 to 2015 (Exhs. Unutil-MNL-1, at 45-46; Sch. Unutil-MNL-2, at 2).
- ²³ Total revenues include revenues for distribution service, transmission service, transition charges, energy efficiency, basic service, and all related adjustment factors (Exh. Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version.), at § 4.4).
- ²⁴ The adjustment would calculate revenues for customers on competitive supply by assuming they were on basic service (Exh. Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version), § 4.4).

2. Multi-Year Rate Plan

The Company's second alternative, the MRP, is a form of performance-based ratemaking (see Exh. Unutil-MNL-1, at 30). The proposed MRP would have a four-year term, although the Company stated that it was amenable to a five-year term with an earnings sharing mechanism (Exhs. Unutil-MNL-1, at 52, 55; Unutil-MNL-Rebuttal-1, at 14). Under Unutil's proposal, target revenues in its RDM would be adjusted each year by an RCI adjustment calculated as follows:

$$\text{RCI Adjustment}_t = \text{Annual Target Revenues}_{t-1} \times \text{Growth RCI}_t$$

where

$$\text{Growth RCI}_t = (\text{GDP-PI}_{t-1} / \text{GDP-PI}_{t-2} - 1) - X$$

(Exh. Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-RCI Version), at § 5.2).

Each year, the proposed RCI adjustment would equal the previous year's annual target revenue multiplied by an RCI increase (Exh. Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-RCI Version), § 5.0). The RCI increase comprises inflation minus an X factor and the resulting annual target revenues would be adjusted by any applicable exogenous cost adjustment, otherwise known as a Z factor (Exhs. Unutil-MNL-1, at 52-53; Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-RCI Version), §§ 5.0, 6.0, 7.0). Unutil proposes to use the gross domestic product price index ("GDP-PI") as the inflation measure, adjusted by an X factor that reflects: (1) a productivity differential or the difference between multi-factor productivity growth in the private business sector and that of Northeast power distributors; (2) an input price differential exhibiting the difference in price trends of the overall U.S. economy versus those of the Northeast power distributors; and (3) a consumer dividend, or "stretch factor" (Exhs. Unutil-MNL-1, at 53-54; Unutil-1, proposed tariff M.D.P.U. No. 238

(Sch. RAM-RCI Version), at § 5.0). The Company states that the stretch factor is intended to reflect the expectation of improved performance under the Company's MRP (Exh. Unutil-MNL-1, at 54-55). The Z factor would permit rate adjustments for costs from defined extraordinary events (e.g., changes in tax rates, potential costs related to grid modernization) (Exhs. Unutil-MHC-1, at 15-16; Unutil-MNL-1, at 60; Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-RCI Version), at § 6.0).

As with the CCAM, every July, Unutil would file documentation with the Department in support of its proposed revenue adjustment and, if applicable, its exogenous costs (Exhs. Unutil-MNL-1, at 58-59; DPU-FGE 14-16, Att.). Every November, the Company would file class rate adjustments for rates effective January 1st of the following year (Exhs. Unutil-MNL-1, at 58-60; DPU-FGE 14-16, Att.). The Company's four-year stay-out provision would allow it to file a general base distribution rate increase no earlier than January 1, 2017, when the final adjustment under the RAM would go into effect (Exh. Unutil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-RCI Version), at §§ 1.0, 10.0).

C. Positions of the Parties

1. Attorney General

a. Introduction

The Attorney General argues that the Department should reject the Company's proposed RAMs on the grounds that they: (1) are unnecessary and unsupported; (2) would not provide benefit to ratepayers but would, instead, increase ratepayers' risk through the erosion of regulatory lag; and (3) are otherwise flawed (Attorney General Brief at 9-10, citing Fitchburg Gas and Electric Light Company, D.T.E. 99-118, at 7 (2001); The Berkshire Gas Company, D.T.E. 01-56-A (2002); Attorney General Reply Brief at 4-5, 12-13). In addition, the Attorney General maintains that the Company has historically failed to meet its service obligation and, for

this reason, the Department should reject each of Unitil's proposed RAMs (Attorney General Brief at 3, citing D.P.U. 11-01/D.P.U. 11-02, at 424; D.P.U. 09-01-A; Attorney General Reply Brief at 3).

The Attorney General argues that, consistent with Department precedent, the Company has the burden to demonstrate that: (1) its system would be growing but for decoupling; and (2) any proposed RAM is reasonable and, for a cost tracker, necessary to recover anticipated capital expenditures between base distribution rate cases (Attorney General Brief at 8-9, 24-25, citing D.P.U. 11-01/D.P.U. 11-02, at 107-113; Investigation into Rate Structures that will Promote Efficient Deployment of Demand Resources, D.P.U. 07-50-A at 50 (2008); D.P.U. 09-39, at 79-82; Attorney General Reply Brief at 4, citing D.P.U. 11-01/D.P.U. 11-02, at 79-80, 107-111). The Attorney General avers that the Company has failed to meet this burden because it relies only on theoretical arguments and has presented no factual support for its claim that a RAM is necessary for Unitil to receive an adequate return on its investments (Attorney General Brief at 7, 24-25; citing Exh. Unitil-MNL-1, at 22-23). To the contrary, the Attorney General argues that the Company has been operating under decoupling for some time without any serious effect on its ability to maintain its distribution system (Attorney General Brief at 25). Finally, with respect to the proposed MRP, the Attorney General argues that the Company has not supported the need for such a significant regulatory change (Attorney General Brief at 25).

b. Capital Cost Adjustment Mechanism

The Attorney General argues that the Department should reject Unitil's CCAM proposal because the Company has not proven it is reasonably limited in scope, is necessary, or will provide quantifiable benefits to ratepayers (Attorney General Brief at 10-15). The Attorney General further avers that the Department should reject the CCAM because the proposal is antithetical to the positive aspects of regulatory lag (Attorney General Brief at 15-17).

With respect to scope, the Attorney General asserts that the capital trackers approved for gas utilities have been limited to the replacement of aging infrastructure. For electric utilities, the Attorney General argues that only Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid (“National Grid”), has a capital tracker of a broader scope, although she states it was justified by a need to update National Grid’s electric distribution system (Attorney General Brief at 10-11, citing D.P.U. 09-39; Attorney General Reply Brief at 5). The Attorney General asserts that Unitil’s proposed tracker includes cost recovery for all incremental net capital additions, regardless of whether such additions are related to reliability improvements or are growth-related investments (Attorney General Brief at 10). The Attorney General further maintains that Unitil does not have a pressing need to upgrade its infrastructure because it recently retired a significant portion of its distribution plant due to the extensive damage brought by recent storms (Attorney General Brief at 11, citing Tr. 8, at 935; Attorney General Reply Brief at 5).

In asserting that Unitil has failed to demonstrate that a RAM is necessary, the Attorney General contends that the Company has been able to make investments since it has operated under decoupling, similar to those proposed here, without the benefit of an extraordinary ratemaking mechanism (Attorney General Brief at 12; Attorney General Reply Brief at 5). For this reason, the Attorney General argues that it is doubtful that the Company’s capital spending is the cause of any recent under-earnings (Attorney General Reply Brief at 6-7).

In addition, the Attorney General asserts that the Department should reject the Company’s CCAM because the Company has failed to demonstrate the likelihood of quantifiable benefits to ratepayers (Attorney General Brief at 15, citing Exh. AG-DED-1, at 27). The Attorney General maintains that other jurisdictions have rejected infrastructure replacement

programs because utilities failed to show that the benefits to ratepayers from such mechanisms outweigh the potential costs of shifting risk from shareholders to ratepayers (Attorney General Brief at 15, citing Exh. AG-DED-1, at 27-30).

Finally, the Attorney General argues that the CCAM proposal appears to be designed to combat the purported negative effects of regulatory lag for the Company (Attorney General Brief at 15, citing Exh. Unitil-MNL-1, at 6-28). The Attorney General asserts that there are benefits to regulatory lag that have been documented extensively (Attorney General Brief at 16-17). In addition, the Attorney General maintains that the Department has reaffirmed the disciplinary value of regulatory lag as a valid ratemaking tool that provides an incentive for a utility to control its costs (Attorney General Brief at 16-17, citing D.P.U. 09-39, at 80-82; Attorney General Reply Brief at 8, citing Bay State Gas Company, D.P.U. 13-75, at 107-108 (February 28, 2014)).

c. Multi-Year Rate Plan

The Attorney General argues that the Company's proposed MRP is inconsistent with the Department's recent move away from performance-based ratemaking because this ratemaking mechanism has not produced the intended results (Attorney General Brief at 17-18, citing Bay State Gas Company, D.P.U. 09-30, at 24 (2009); Attorney General Reply Brief at 5, 9-10). In addition, the Attorney General argues that the Company's MRP proposal suffers from numerous design deficiencies (Attorney General Brief at 19-21, citing Exh. AG-DED-1, at 38-39; Attorney General Reply Brief at 10-11). Specifically, the Attorney General asserts that the proposal lacks an effective productivity offset or consumer dividend factor (Attorney General Brief at 19). She also asserts that the Company did not provide a cost-benchmarking study showing that it is effectively managing costs or propose an accumulated inefficiencies factor to offset deficiencies associated with Unitil's current operating cost profile (Attorney General Brief at 19-20). In addition, the Attorney General maintains that the Company failed to offer any earnings cap or earnings sharing mechanism (Attorney General Brief at 19-21).

The Attorney General also urges the Department to reject the productivity research offered by the Company purportedly to show that current inflation-productivity differentials, coupled with slow growth in average electric use per customer, require the adoption of performance-based ratemaking (Attorney General Brief at 21, citing Exh. Unitil-MNL-1, at 6; Attorney General Reply Brief at 11-12). The Attorney General highlights what she asserts are numerous flaws in this research and argues that, at a minimum, the Department should recognize the incomplete nature of the analysis and weigh it accordingly (Attorney General Brief at 21-24).

2. Company

a. Introduction

Unitil argues that its current RDM results in unjust and unreasonable rates that do not provide the Company with a reasonable opportunity to earn its authorized rate of return (Company Brief at 66-67, citing Exh. Unitil-MHC-1, at 4). Accordingly, the Company contends that its RDM should be complemented by a RAM that permits Unitil to grow its target revenues between base distribution rate cases (Company Brief at 67). The Company argues that it has proposed two options for a RAM because, without a RAM, the frozen level of target revenues within its current RDM, in combination with increasing investments and expenses, will leave Unitil unable to properly implement the Commonwealth's energy policies in areas such as grid modernization (Company Brief at 2, citing Tr. 1, at 17; Exh. Unitil-MHC-1, at 9, 14-16 ("Z factor provisions would permit rate adjustments for extraordinary events or special expenditures such as grid modernization initiatives to achieve regulatory policy objectives and goals."); Company Reply Brief at 15, 16, 21).

Unitil argues that the Department has recognized that decoupling should not render a distribution company unable to raise the funds for necessary system maintenance and upgrades, projects that companies had traditionally been able to pursue between base distribution rate cases through revenue growth from increases in delivery volumes, number of customers, and other billing determinants (Company Brief at 70, citing D.P.U. 07-50-A at 48-50; Company Reply Brief at 17). As part of decoupling, Unitil further asserts that the Department has authorized companies to propose specific ratemaking mechanisms to address the dual impacts of capital spending requirements and inflationary pressures (Company Brief at 70, citing D.P.U. 07-50-A at 50; Company Reply Brief at 17). To address these issues, the Company argues that it has provided two detailed and fully supported RAM proposals for Department consideration (Company Brief at 70).

b. Capital Cost Adjustment Mechanism

The Company asserts that its proposed CCAM largely conforms to the capital tracker approved by the Department for National Grid in D.P.U. 09-39 (Company Brief at 71, citing Exh. Unitil-MNL-1, at 45). The Company further asserts that the Attorney General's criticisms of the CCAM disregard the evidence and are erroneous (Company Brief at 73-74).

In addition, Unitil maintains that the scope of the CCAM is appropriate and consistent with the scope of National Grid's capital tracker (Company Brief at 74, citing D.P.U. 09-39). Specifically, Unitil argues that in D.P.U. 09-39, the Department recognized that all capital expenditures were eligible for recovery in a tracker and not, as the Attorney General suggests, only replacement capital expenditures exceeding historical norms (Company Brief at 74, citing D.P.U. 09-39, at 12, 81-82; Company Reply Brief at 17-18). The Company argues that, while capital trackers for gas companies have narrower eligibility requirements, other features of decoupling for gas companies (e.g., automatic revenue escalation for customer growth) mitigate

the narrow scope (Company Brief at 75, citing Exh. Unitil-MNL-1, at 8). Unlike gas companies that have been made whole by decoupling for declines in average use, the Company contends that it has returned money to customers in all three years of its RDM operation (Company Brief at 75, citing Tr. 8, at 967).

Contrary to the Attorney General's position, the Company asserts that the Department did not limit its willingness to consider capital trackers or other alternative forms of regulation to situations where there were problems with inflation, capital expenditures, or customer growth (Company Brief at 75-76, citing D.P.U. 07-50-A at 50). The Company maintains it has demonstrated that Unitil would likely experience growth in billing determinants in the absence of Unitil's demand side management programs (Company Brief at 75, citing Exhs. Unitil-MNL-Rebuttal-1, at 4; AG 2-89). Further, the Company contends that it has provided evidence of chronic under-earning and the prospect of increasing base distribution rate case frequency, which together render the CCAM necessary to address the deficient nature of its stand-alone RDM, even absent an accelerated grid modernization program (Company Brief at 75, citing Exhs. Unitil-MNL-Rebuttal-1, at 4; AG 2-89). Unitil contends that grid modernization may lead to slowed productivity growth in the future, which cannot be remedied by a stand-alone RDM (Company Brief at 69, citing Exh. Unitil-MNL-1, at 6).

Finally, Unitil claims that the Attorney General's arguments regarding regulatory lag are misplaced (Company Brief at 78). The Company maintains that its proposed CCAM preserves regulatory lag because only the prior year's plant in service is eligible for recovery (Company Brief at 78, citing Exh. Unitil-MNL-1, at 49; Company Reply Brief at 19). Unitil contends that, to the extent the CCAM reduces base distribution rate case frequency, regulatory lag would actually increase for O&M expenses (Company Brief at 78, citing Exhs. AG 2-95; DPU-FGE 14-13; Company Reply Brief at 19).

c. Multi-Year Rate Plan

Unitil contends that there are many benefits to the Company and its customers from its MRP proposal and that a small company like Unitil is well-suited for a return to performance-based ratemaking (Company Brief at 81, 90, citing Exh. Unitil-MNL-Rebuttal-1, at 31). In particular, the Company asserts that its MRP would ensure customers the benefit of productivity growth that exceeds the industry trend (Company Brief at 81, citing Exh. Unitil-MNL-Rebuttal-1, at 16). Accordingly, Unitil argues that customers' and the Company's interests are fully aligned under its proposed MRP (Company Brief at 81).

The Company also maintains that the RCI would make its revenue growth timelier and, because it is driven by external business conditions such as inflation, the RCI would effectively increase regulatory lag (Company Brief at 81-82). The Company asserts that this increase in regulatory lag would strengthen Unitil's cost containment incentives (Company Brief at 82, citing Exh. Unitil-MNL-Rebuttal-1, at 16). In addition, Unitil maintains that its costs would be reduced as a result of less frequent base distribution rate cases and the fact that, unlike a CCAM, there would be no need for separate annual proceedings to review conventional capital expenditures (Company Brief at 82, citing Exh. Unitil-MNL-Rebuttal-1, at 62; Tr. 8, at 911).

Contrary to the Attorney General's position, the Company asserts that the Department has expressed a willingness to combine decoupling and MRPs with RCIs (Company Brief at 82-83, citing D.P.U. 07-50-A at 50; Incentive Regulation, D.P.U. 94-158, at 44 (1995)). The Company also maintains that the Department has recognized that decoupling plans can provide compensation for inflation, capital expenditures, and customer growth in a manner that is similar in structure to performance-based ratemaking plans (Company Brief at 83, citing D.P.U. 07-50-A

at 50; D.P.U. 94-158, at 44). In addition, Unitil contends that MRPs are well-regarded in several other jurisdictions (Company Brief at 84, citing Exhs. AG 2-42, Att. at 22-24, 36-39; AG 5-16, Att.; Tr. 8, at 912-915).

Finally, the Company asserts that its MRP is well-designed and fully supported by the evidence in this proceeding (Company Brief at 84). The Company maintains that its productivity analysis is comprehensive (Company Brief at 87-89). In addition, the Company argues that the alleged deficiencies raised by the Attorney General are not necessary for approval of the Company's proposal (Company Brief at 85).

D. Analysis and Findings

In D.P.U. 07-50-A at 48, the Department recognized that full revenue decoupling would, all other things being equal, remove the opportunity for companies to retain additional revenues from sales growth between base distribution rate cases — revenues that companies could have used to pay for increased O&M costs, costs related to system reliability, and capital expansion projects. See D.P.U. 11-01/D.P.U. 11-02, at 73-74, 107; D.P.U. 10-70, at 47. The Department also recognized that changes in a distribution company's costs could arise from inflationary pressures on the prices of the goods and services it uses. D.P.U. 07-50-A at 49; see also D.P.U. 10-70, at 53. Accordingly, the Department stated that, along with decoupling, it would consider company-specific proposals that adjust target revenues to account for capital spending and inflation but that a company would bear the burden of demonstrating the reasonableness of its proposal. D.P.U. 07-50-A at 50; see also D.P.U. 11-01/D.P.U. 11-02, at 107-108; D.P.U. 10-70, at 47.

Under Unitil's current RDM, the Company's target revenues are fixed between base distribution rate cases (M.D.P.U. No. 203, § 4.0). For several reasons, Unitil maintains that operation under its current RDM results in distribution rates that, combined with the Company's

current cost recovery mechanisms, are insufficient to allow Unitil a reasonable opportunity to recover its distribution investments and operating expenses or to attain its authorized rate of return (Exh. Unitil-MHC-1, at 3-4, 14). Accordingly, the Company proposes to implement one of two alternate RAMs (i.e., a CCAM and an MRP) that the Company states are designed to facilitate an opportunity to recover its investments and O&M expenses more quickly (Exh. Unitil-MHC-1, at 3-4). The Attorney General argues that the Department should reject the Company's proposed RAMs because Unitil has failed to demonstrate that its proposals: (1) are either reasonable or necessary to recover anticipated capital expenditures between base distribution rate cases; (2) would be a benefit to ratepayers; and (3) are appropriately designed (Attorney General Brief at 10 n.6, 25, citing D.T.E. 01-56-A; D.T.E. 99-118, at 7; Attorney General Reply Brief at 5-6, 12-13).

When deciding whether to adopt a new RAM, the Department must closely examine whether the mechanism is warranted and is in the best interest of ratepayers. D.P.U. 11-01/D.P.U. 11-02, at 111; D.P.U. 10-70, at 51-52. The Department has allowed capital cost recovery mechanisms in cases where a company has adequately demonstrated the need to recover incremental costs associated with capital expenditure programs between base distribution rate cases. D.P.U. 10-55, at 121-122, 132-133; D.P.U. 09-39, at 79-80, 82; D.P.U. 09-30, at 133-134. Conversely, without compelling evidence of lost growth in sales, the Department has declined to approve a capital cost recovery mechanism as an element of decoupling. See D.P.U. 11-01/D.P.U. 11-02, at 109-111; D.P.U. 10-70, at 47; see also D.P.U. 07-50-A at 50. The Department has found that, where a company failed to demonstrate that there were extraordinary circumstances preventing it from acquiring the capital necessary to make required investments in its infrastructure, approval of a capital cost recovery mechanism was neither warranted nor in the best interests of ratepayers. D.P.U. 11-01/D.P.U. 11-02, at 111; D.P.U. 10-70, at 50-52.

To determine whether either of the Company's two alternative RAM proposals is reasonable, the Department first will consider whether the Company has experienced the adverse effects it claims (i.e., an inability to fund capital investment and a lack of opportunity to earn the Company's authorized return) and, if it has, whether and to what extent there is a link between its operation under decoupling and these claimed outcomes. See D.P.U. 11-01/D.P.U. 11-02, at 107-108; D.P.U. 10-70, at 51-52; D.P.U. 07-50-A at 50. If the answers to these questions are positive, the Department will consider whether the two alternative RAMs are reasonably designed to achieve their intended goals and how their implementation will affect ratepayers and the Company's financial well-being. D.P.U. 10-55, at 66, citing D.P.U. 07-50-A at 50.

For the reasons discussed below, we find that the Company has failed to demonstrate that its proposed RAMs, in particular its CCAM, are necessary to recover incremental costs associated with anticipated capital expenditures in between base distribution rate cases. To assess the Company's ability to fund its capital expenditures, the Department compares the Company's capital budget against its depreciation expense recovered in rates. Until's approved annual depreciation expense of \$5,175,913, which includes \$4,784,942 of depreciation expense related to base distribution and \$390,971 of depreciation expense related to internal transmission,²⁵ would provide the Company with between approximately 54 percent and 70 percent of its forecasted year to year capital budget (Exh. DPU-FGE 3-16 (Supp. 7), Att.,

²⁵ Internal transmission represents certain infrastructure facilities that are owned and operated by the Company within its service territory, but that has been designated by the Federal Energy Regulatory Commission ("FERC") as FERC-jurisdictional plant (Exh. Unutil-DLC-1, at 7-8). The costs associated with internal plant are calculated based on a FERC-approved formula rate (Exh. Unutil-DLC-1, at 8).

Sch. RevReq 3-22). See Section VI.R, below. This comparison shows that Unitol would be able to fund a substantial portion of its 2013 to 2017 capital budget through its depreciation expense alone (Exhs. AG 1-1 (Supp.), Sch. Unitol-KES-1; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-22). The Department made a similar finding in the Company's most recent distribution base rate case, where we declined to approve Unitol's proposed CCAM. D.P.U. 11-01/D.P.U. 11-02, at 79-80, 111.

The Department fully expects that electric distribution companies will make all necessary capital investments to ensure safe and reliable service for their customers. See D.P.U. 10-70, at 51. Although we make no determination here regarding the optimal level of capital investments that the Company should make to ensure safe and reliable service to its customers, we note that Unitol's five-year capital budget for 2013 through 2017 calls for a level of distribution spending similar to Unitol's distribution spending from 2010 to 2011 (Exh. AG 1-1 (Supp.), Sch. Unitol-KES-1). In addition, from 2008 through 2012, Unitol replaced an average of nine percent of the value of its distribution plant each year (Exhs. AG 1-1 (Supp.), Sch. Unitol-KES-1; DPU-FGE 10-23, Att.).²⁶ Neither observation supports Unitol's claimed difficulty in funding the Company's capital investment program. Instead, the evidence shows that the Company has been able to make investments since it has operated under decoupling, similar to those proposed here, without the benefit of a RAM (Exhs. AG 1-1 (Supp.), Sch. Unitol-KES-1; DPU-FGE 10-23, Att.).

²⁶ The Company recorded a replacement of 128.41 percent in its meter account in 2008. Removing this number along with the corresponding meter installation account brings the five-year distribution asset replacement average to 7.98 percent (Exh. DPU-FGE 10-23, Att. at 1). This adjustment does not change our conclusion above.

Further, the evidence in this proceeding does not show that, absent revenue decoupling, the Company is likely to sustain positive sales growth in the coming years (Exhs. AG 2-1, Att. 2; AG 1-13, Att.; RR-DPU-40, Att.). To support its need for a RAM, the Company argues that, absent decoupling, it would have been able to retain significant earnings since its last base distribution rate case. The Company did experience much lower kWh sales in 2009 than in any year through 2011 (Exh. AG 2-1, Att. 2; RR-DPU-40, Att.). As 2009 was the test year in Unitil's last base distribution rate case, the Company's 2009 sales were the basis for the calculation of target revenues under its current RDM (see Tr. 8, at 966-967). Therefore, in the absence of revenue decoupling, the Company may reasonably have expected to attain a higher level of earnings since its previous rate adjustment. Conversely, however, in the event of a downward trend in sales, decoupling would have benefitted Unitil by insulating it from a resulting decrease in revenues. D.P.U. 10-70, at 41, 46, 47, citing D.P.U. 07-50-A at 31-32.

With respect to Unitil's most recent data, the evidence shows competing trends with respect to the Company's sales growth. Specifically, after experiencing increased sales from 2009 to 2010 and relative stabilization from 2010 to 2011, Unitil saw a steep decline in sales in 2012 to a level comparable to the 2009 test year in its last base distribution rate case (Exh. AG 2-1, Att. 2; RR-DPU-40, Att.). The Department notes, however, that the Company's sales data for 2013 indicate only a very slight increase in electricity sales from its test year low (RR-DPU-40, Att.).

Unitil claims that operation under stand-alone decoupling has inhibited its ability to earn its authorized rate of return (Company Brief at 66-67). The Company has, in fact, experienced an earned ROE lower than that authorized in its last base distribution rate case (Exhs. DPU-FGE 10-2; AG 1-12, Att. 1; Tr. 1, at 12-13). D.P.U. 11-01/D.P.U. 11-02, at 427. The Company states that downward pressure on its ability to earn its authorized rate of return makes it difficult for it to raise debt and other capital in a way that is cost-effective for customers

(Tr. 1, at 14-15; Tr. 9, at 1106-1109). More specifically, the Company states that certain shortfalls in its interest coverage ratio may negatively impact its ability to raise additional long-term debt (RR-DPU-49). Despite the Company's statements that its constrained ability to raise capital at favorable rates follows, at least in part, from its experience under stand-alone revenue decoupling, the Company did not support these statements with record evidence in the form of externally generated statements or ratings linking decoupling to increased risk or a credit downgrade (Exhs. AG 1-11; AG 7-3; AG 7-4; Tr. 9, at 1104-1111; RR-DPU-49, Att. 1). Moreover, the Company notes that, historically, it has fallen short of earning its authorized ROE as a result of earnings attrition under established ratemaking (Exh. AG 16-10). Therefore, the Company has not made a convincing showing that stand-alone decoupling prevents it from a fair opportunity to attain its authorized rate of return.

In addition to our findings above regarding the Company's failure to demonstrate that the proposed RAMs are necessary, the Department has identified several concerns with the design of the Company's proposed RAMs, in particular, its MRP. The Department has considered the merits of ten-year rate plans versus five-year rate plans and has found that ten-year rate plans have certain advantages in terms of creating an environment that allows medium- and long-term efficiency planning and business decision making. In addition, the Department has found that ten-year rate plans provide stronger incentives for companies to achieve efficiency gains and significant cost savings through innovation, deployment of productivity-enhancing technology, and other measures. For these reasons, the Department has rejected rate plan terms of five years in favor of ten-year terms. See D.T.E. 05-27, at 399-400; Boston Gas Company, D.T.E. 03-40, at 495-496 (2003). Here, we find that the four- or five-year term of the Company's proposed MRP is not of sufficient duration to achieve the plan's goal and to provide Unitil with the

appropriate economic incentives and certainty to follow through with medium- and long-term strategic business decisions. See D.T.E. 05-27, at 398-400. Further, recent amendments to G.L. c. 164, § 94 regarding the required frequency of rate tariff filings suggest that the time between base distribution rate cases for electric distribution companies cannot be of sufficient length to effectively implement an MRP. See Section 18 of an Act Relative to Competitively Priced Electricity in the Commonwealth, St. 2012, c. 209, Section 51 (“2012 Energy Act”).

In addition, the Department has noted that performance-based ratemaking plans like a MRP may carry an incentive for a company to postpone capital investment in favor of maximizing revenues. D.T.E. 05-27, at 383. The Department notes that the Company’s proposed MRP does not contain a commitment to a certain level of capital investment sufficient to mitigate our concern about this negative incentive.

Also, the design of the Company’s proposed MRP raises some concern with respect to inter-class subsidies.²⁷ The Department’s rate design fairness principle holds that no class of consumers should pay more than the costs of serving that class. D.P.U. 13-75, at 331. Because of the ten-percent cap established in Section 51 of the 2012 Energy Act, the rates established in this proceeding will result in some amount of inter-class subsidization, as described in Section VIII.D below, and as shown in Schedule 10. As proposed by the Company, the MRP contains a stay-out provision, preventing the Company from making its next base distribution rate case filing for several years (Exh. Unifil-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-RCI Version), §§ 1.0, 10.0). The Company’s operation under its proposed MRP would, for duration of the plan, effectively prevent the Department from remedying this cross subsidization.

²⁷ Although these same concerns are present with the CCAM, they are more pronounced with the MRP because it has a fixed term.

Finally, we note that Unitol references anticipated future grid modernization requirements to support its need for a RAM (see, e.g., Exhs. Unitol-MHC-1, at 15-16; Unitol-MNL-1, at 6,45-46, 60-61; Unitol-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version); Tr. 1, at 19-20).²⁸ In addition, the architecture and execution of each RAM proposal hinges, in large part, on a proposed alternative ratemaking treatment for grid modernization investment (see, e.g., Exhs. Unitol-MHC-1, at 15-16; Unitol-MNL-1, at 45-46, 60-61; Unitol-1, proposed tariff M.D.P.U. No. 238 (Sch. RAM-CCA Version); Tr. 1, at 19-20). For example, as part of its RAM proposals, Unitol has submitted testimony and evidence regarding its view of what does and does not constitute grid modernization spending,²⁹ including a proposed split between conventional capital investments and special capital investments (Exh. Unitol-MNL-1, at 46-47; AG 5-20; AG 19-3; RR-DPU-19 & Att. 1). The Company's proposed CCAM also contemplates Department pre-approval of grid modernization investments (Exh. Unitol-MNL-1, at 49, 60). In addition, Unitol's proposed MRP and, to some extent, its proposed CCAM each implies a determination that grid modernization should be afforded ratemaking treatment as an exogenous cost (Exhs. Unitol-MNL-1, at 60, lines 13-14; Unitol-MNL-Rebuttal-1, at 2, lines 6-15). The Company acknowledges that these issues are under consideration in Modernization of the Electric Grid, D.P.U. 12-76 (Tr. 1, at 19-20; Tr. 8, at 861- 862).

²⁸ The Company cites an assumed acceleration in O&M expenses that will result from grid modernization (Exhs. Unitol-MNL-1, at 6, 50, 55; DPU-FGE 14-14; AG 2-34; Tr. 8, at 948). The Department notes, however, that the Company contradicts itself regarding the impact of grid modernization, arguing both that it may slow productivity growth and, at the same time, that it may accelerate productivity growth (Exh. Unitol-MNL-1, at 6, 55).

²⁹ We note that the Company has exhibited some ambiguity as to whether or not it considers reliability spending a grid modernization cost (Exhs. Unitol-MHC-1, at 15, lines 3-6; Unitol-MNL-Rebuttal-1, at 19, lines 7-12; AG 2-34, part a; Tr. 1, at 39, lines 12-19; RR-DPU-19).

The Department is currently considering questions regarding the nature, scope, objectives, and appropriate treatment of grid modernization investment as part of its investigation in D.P.U. 12-76. See, e.g., D.P.U. 12-76, Vote and Order Opening Investigation at 6-7 (October 2, 2012). We fully appreciate the active role the Company has taken as stakeholder in D.P.U. 12-76, including its participation in the grid modernization working group as well as its submission of written comments. See, e.g., D.P.U. 12-76, Unitil Initial Comments (January 21, 2014). The Department has proposed that, at the conclusion of our investigation in D.P.U. 12-76, each electric distribution company, including Unitil, will present a grid modernization plan for the Department's review and approval. See generally D.P.U. 12-76-A. Accordingly, we find that implementation of a RAM at this time that contemplates grid modernization investments within its scope is premature.

For all of these reasons, the Department finds that the Company has not demonstrated that its RAM proposals are warranted or in the best interest of ratepayers. Specifically, we find that the Company has failed to demonstrate that its proposed RAMs are reasonable in design and necessary to recover incremental costs associated with anticipated capital expenditures between base distribution rate cases. Accordingly, we decline to approve either of the Company's RAM proposals.

V. RATE BASE

A. Introduction

As of the end of the test year, Unitil reported a total utility plant in service of \$121,233,783, including \$10,157,750 in plant assigned to internal transmission (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-4). The Company also reported an accumulated depreciation reserve of \$47,712,240, of which \$5,226,782 was assigned to internal transmission (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-4).

Unitil proposes a total utility plant in service of \$109,732,715, which excludes plant allocated to internal transmission and \$1,343,318 in streetlighting plant that was sold to Fitchburg on February 4, 2013 (Exhs. Unitil-DLC-1, at 9; DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq 3-4, RevReq-4; DPU-FGE 5-12). The Company also reduced its accumulated depreciation reserve to \$41,553,110 to remove accumulated depreciation associated with internal transmission and the streetlighting plant sold to Fitchburg, resulting in a net utility plant in service of \$68,179,605 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq-3, RevReq-4). Unitil further reduced its net utility plant in service by the following amounts: (1) \$17,514,029 for deferred income taxes adjusted for deferred income taxes associated with internal transmission and the streetlighting plant sold to Fitchburg; (2) \$362,883 for customer advances; (3) \$203,276 for customer deposits; and (4) \$10,407 for unclaimed funds (Exhs. Unitil-DLC-1, at 16-17; DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq-3, RevReq-4). Finally, the Company added the following amounts to rate base: (1) \$958,465 for materials and supplies inventories; and (2) \$952,603 for cash working capital (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-4). Based on these adjustments, the Company determined that its total electric division rate base was \$52,000,079 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-4).

B. Plant Additions

1. Introduction

During the course of this proceeding, Unitil identified all electric division capital projects that were completed between January 1, 2010, and December 31, 2012 and that the Company deemed to be used and useful (Exhs. DPU-FGE 16-39, Att. 1; DPU-FGE 16-40; AG 1-1 (Supp.), Att., Sch. Unitil-KES-1; Tr. 4, at 464-465).³⁰ Between 2010 and 2012, 237 construction

³⁰ Unitil's current electric base distribution rates include capital projects completed through the test year ending December 31, 2009. See, D.P.U. 11-01/D.P.U. 11-02, at 144.

authorizations were submitted to Company management for approval; of these, approximately 24 required additional funding or scope modifications during the approval process (Exhs. DPU-FGE 13-1; DPU-FGE 13-2). Of the projects that the Company states are completed, used, and useful, 39 involved work orders that had not yet been closed to detailed plant accounts by the end of the test year (Exhs. DPU-FGE 16-39, Att. 1; DPU-FGE 16-40; AG 1-1 (Supp.), Att., Sch. Unutil-KES-1). The Company proposed to include in rate base \$17,683,113 in plant additions that had been closed to plant accounts (Exhs. DPU-FGE 16-39, Att. 1; DPU-FGE 16-40; Tr. 4, at 464-465).

The Company recorded a total of 139 individually-authorized capital projects closed to plant between January 1, 2010, and December 31, 2012 (RR-DPU-18, Att. 1). Of these projects, the Company closed 39 to plant at a final cost greater than \$50,000, and closed 100 to plant at a final cost of less than or equal to \$50,000 (RR-DPU-18, Att. 1).³¹

The Company additionally made use of several "blanket authorizations," each of which contained projects corresponding to activities that the Company states were: (1) not easy to anticipate during the Company's capital budgeting process; and (2) estimated to cost less than \$20,000 (Exhs. Unutil-KES-1, at 16-17; AG 2-22, at 2).³² At the beginning of the year, the

³¹ The total figures presented here are based on the Department's review of the attachments to Record Request DPU-18 (Tr. 4, at 492-494). Earlier in the proceeding, the Company submitted that 99 projects had plant additions at a cost no greater than \$50,000 and that 64 projects had plant additions at a cost greater than \$50,000 (Exhs. DPU-FGE 16-45; DPU-FGE 16-46).

³² The Company states that it did not provide closing reports for blanket authorizations, citing the volume of information that would be associated with these closing reports (Exhs. DPU-FGE 7-14; DPU-FGE 16-42; RR-DPU-18). The Department notes, however, that the Company did provide closing reports for 15 blanket authorizations (Exh. AG 1-1 (Supp.), Att., Sch. Unutil-KES-1; RR-DPU-18). The Company's closing reports, including some but not all of the Company's projects conducted under blanket authorizations, record that the Company closed \$12,904,959 to plant (RR-DPU-18, Att. 1). When the omitted blanket authorizations are added back, this total is \$17,683,114 (Exh. DPU-FGE 16-39, Att. 1; RR-DPU-18, Att. 1).

Company states that it authorizes only six months of spending under its blanket authorizations and reviews the actual spending at the end of this period before revising the authorization for the second six months of each cycle (Exh. Unutil-KES-1, at 17).

Utility plant that has been completed and placed in service, but for which the associated work orders have not yet been finally classified to detailed plant accounts, is booked to Account 106, Completed Construction Not Classified (220 C.M.R. § 51.01(1), 18 C.F.R. Pt. 101, Balance Sheet Chart of Accounts). Unutil included in its proposed rate base its test-year-end Account 106 balance of \$1,508,720 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 4-1). For each project the Company submitted for inclusion in rate base, it provided the authorization number, a brief project description, the total amount authorized, the total amount expended, and the total amount in or closed to plant (Exhs. Sch. Unutil-KES-2; DPU-FGE 16-39, Att. 1).

As part of its budgeting process, the Company categorizes individual projects into one of seven designations³³ and assigns each project one of three priority levels, denoting the investment as: (1) essential to meeting the Company's service obligation, non-discretionary, and time-sensitive (priority level one); (2) essential to business activities, non-discretionary, but with possibly flexible timing (priority level two); or (3) improvement or enhancement projects that are discretionary to varying degrees (priority level three) (Exh. Unutil-KES-1, at 11-12). The Company considers a project to be under budget if it was closed to plant at a figure any lower than the final net authorized amount (Tr. 4, at 497-500). The Company considers a project to have experienced a cost overrun if the project was closed to plant at a cost that was both \$5,000

³³ These designations include: (1) transmission; (2) substation; (3) electric distribution; (4) annual requirements; (5) transportation; (6) structures; and (7) general equipment (Exh. Unutil-KES-1, at 11).

over budget and 15 percent above the final net authorized cost (Tr. 4, at 478-481, 497-500). A mid-cycle revision is required for blanket authorizations identified as experiencing such overruns, and project supervisors are expected to submit revised authorization paperwork in the event of changes to project scope or anticipated spending by at least 15 percent and \$5,000 of the originally authorized amount (Exhs. AG 2-22, at 4-5; AG 2-22, Att. 3, at 2-3; Tr. 4, at 478-481, 497-500).

2. Positions of the Parties

The Company maintains that it has correctly identified and provided all appropriate documentation for each of the electric division capital projects it completed between January 1, 2010, and December 31, 2012 (Company Brief at 92, citing Exh. Sch. Unitil-KES-2). The Company argues that it practices effective cost management through its budgeting and management procedures, and that all cost overruns were appropriately explained (Company Brief at 92-93, citing Exhs. Unitil-KES-1, at 9 et seq.; DPU-FGE 7-12, Att. 1; DPU-FGE 16-41; AG 2-22).³⁴ The Company contends that the reasons for such cost overruns are factors that are difficult to anticipate, including changing overheads, the need for additional equipment, and equipment failing field tests (Company Brief at 93; citing Exh. DPU-FGE 7-12, Att. 1).

The Company maintains that the prudence of its plant additions has gone unchallenged (Company Brief at 93). The Company argues that the Department should find that: (1) its project expenditures were prudent; and (2) the projects are in service and providing benefits to customers (Company Brief at 93). For these reasons, the Company argues that the projects should be included in rate base (Company Brief at 93; citing Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 9 (1998); Boston Gas Company, D.P.U. 96-50 (Phase I) at 15 (1996)). No other party addressed this issue on brief.

³⁴ The Company avers that zero percent of the Company's capital projects in 2010, three percent in 2011, and three percent in 2012 experienced cost overruns, and nearly two-thirds of the projects completed during these years were under budget (Company Brief at 93, citing Exh. DPU-FGE 16-41).

3. Analysis and Findings

a. Standard of Review

For costs to be included in rate base, the expenditures must be prudently incurred and the resulting plant must be used and useful to ratepayers. Western Massachusetts Electric Company, D.P.U. 85-270, at 20 (1986). The prudence test determines whether cost recovery is allowed at all, while the used and useful analysis determines the portion of prudently incurred costs on which the utility is entitled to a return. D.P.U. 85-270, at 25-27.

A prudence review involves a determination of whether the utility's actions, based on all that the utility knew or should have known at that time, were reasonable and prudent in light of the extant circumstances. Boston Gas Company, D.P.U. 93-60, at 24-25 (1993). Such a determination may not properly be made on the basis of hindsight judgments, nor is it appropriate for the Department merely to substitute its own judgment for the judgments made by the management of the utility. Attorney General v. Department of Public Utilities, 390 Mass. 208, 229-230 (1983). A prudence review must be based on how a reasonable company would have responded to the particular circumstances and whether the company's actions were in fact prudent in light of all circumstances that were known, or reasonably should have been known, at the time a decision was made. D.P.U. 93-60, at 24-25; D.P.U. 85-270, at 22-23; Boston Edison Company, D.P.U. 906, at 165 (1982). A review of the prudence of a company's actions is not dependent upon whether budget estimates later proved to be accurate but rather upon whether the assumptions made were reasonable, given the facts that were known or that should have been known at the time. D.P.U. 95-118, at 39-40; D.P.U. 93-60, at 35; Fitchburg Gas and Electric Light Company, D.P.U. 84-145-A at 26 (1985).

The Department has cautioned utility companies that, as they bear the burden of demonstrating the propriety of additions to rate base, failure to provide clear and cohesive reviewable evidence on rate base additions increases the risk to the utility that the Department will disallow these expenditures. Massachusetts Electric Company, D.P.U. 95-40, at 7 (1995); D.P.U. 93-60, at 26; The Berkshire Gas Company, D.P.U. 92-210, at 24 (1993); see also Massachusetts Electric Company v. Department of Public Utilities, 376 Mass. 294, 304 (1978); Metropolitan District Commission v. Department of Public Utilities, 352 Mass. 18, 24 (1967).³⁵

In addition, the Department has stated that:

In reviewing the investments in main extensions that were made without a cost-benefit analysis, the [c]ompany has the burden of demonstrating the prudence of each investment proposed for inclusion in rate base. The Department cannot rely on the unsupported testimony that each project was beneficial at the time the decision was made. The [c]ompany must provide reviewable documentation for investments it seeks to include in rate base.

D.P.U. 92-210, at 24.

b. Capital Projects Under \$50,000

The Company closed 100 individually authorized projects with a final cost less than or equal to \$50,000 (see RR-DPU-18, Att. 1). The Department has reviewed the information supporting these smaller capital projects. Authorization 2112 provides for the replacement of 540 feet of underground cable in Fitchburg at a total cost of \$28,440 (RR-DPU-18, Att. 2, at 282). The Company completed this project in 2012 but it had not yet been finalized to the Company's plant accounts by the end of the test year (RR-DPU-18, Att. 1). While the project itself was under \$50,000, the final project cost exceeded the net authorized amount by \$6,023 (or

³⁵ The burden of proof is the duty imposed on a proponent of a fact whose case requires proof of that fact to persuade the fact finder that the fact exists, or where a demonstration of non-existence is required, to persuade the fact finder of the non-existence of that fact. D.T.E. 03-40, at 52 n.31, citing D.T.E. 01-56-A, at 16; D.T.E. 99-118, at 7.

approximately 21 percent over the authorized amount) which, by the Company's own standards, constituted a cost overrun warranting further authorization (Exhs. DPU-FGE 16-41; AG 2-22, Att. 3; Tr. 4, at 478-481; RR-DPU-18, Att. 1; RR-DPU-18, Att. 2, at 282). While at least some portion of the cost overrun may have a reasonable basis, the Company has not made this showing on the record. In the absence of further explanation, we are unable to determine whether the cost overrun was justified. Therefore, the Department will not include the \$6,023 in excess of the original net authorization in rate base. The Department finds that the remaining \$22,417 based on the original authorization was prudently incurred and the associated plant is in service. Therefore, the Department will include the net undepreciated balance associated with this project in the Company's rate base.

The Department has reviewed the information provided by the Company for the remaining 99 projects. Based on our review, we find that each of these remaining projects is in service and that the Company has satisfactorily explained all cost variances (Exh. DPU-FGE 16-39, Att. 1; RR-DPU-18, Atts. 1, 2). Therefore, the Department finds that these projects satisfy our prudence used and useful standards. Accordingly, we will include the undepreciated cost of the 99 projects in the Company's rate base.

c. Capital Projects Above \$50,000

The Company closed 39 individually authorized projects with a final cost greater than \$50,000 (see RR-DPU-18, Att. 1). No intervenors have challenged the prudence of the Company's plant additions. Nevertheless, as noted above, the Company bears the burden of demonstrating through clear and convincing evidence that such plant investments were prudently made. D.P.U. 95-40, at 7, citing D.P.U. 93-60, at 26; 376 Mass. 294, 304; 352 Mass. 18, 24.

The Department has reviewed the data produced by the Company with respect to the aforementioned closed projects, including all supporting documents such as capital budgets, authorizations, and closing reports (Exhs. AG 1-19, Att. 1; DPU-FGE 7-10; DPU-FGE 16-39, Att. 2; RR-DPU-18, Atts. 1, 2). Based on our review, the Department finds that, with the exception of the four projects detailed below, the Company has clearly explained its method for project cost estimation, provided sufficient and reviewable evidence to demonstrate that it has controlled costs, and demonstrated that the reasons for cost overruns include factors that could not have been reasonably anticipated during the preparation of the construction estimates. The Department notes, however, that the Company has a propensity for over-budgeting or over-estimating capital expenses for the large majority of its projects (in some cases, the Company concedes, to avoid the scrutiny and paperwork that attend cost overruns) (Exh. DPU-FGE 16-39, Att. 1; Tr. 4, at 481-486). We are concerned that this practice may prevent an effective allocation of capital, and therefore direct the Company to review this practice and employ more realistic cost estimates for capital expenses going forward (Tr. 4, at 481-486).³⁶

Authorizations 0290 and 0291 relate to improvements to the Company's ground grid at the Lunenburg and Beech Street substations (RR-DPU-18, Att. 2, at 65-66). Authorization 0290 was initially budgeted for \$69,737, and Authorization 0291 was initially budgeted for \$92,983 (RR-DPU-18, Att. 2, at 65-66). Both projects were budgeted prior to the Company receiving quotes or proposals for the work; based on the actual quotes received and the addition of

³⁶ In prior proceedings, the Department has identified deficiencies in Unital's capital budgeting process and directed the Company to take corrective measures, which we later accepted. Fitchburg Gas and Electric Light Company, D.P.U. 02-24/25, at 43 (2002). While the Department's previous directives were related to cost overruns, we note here that chronically over conservative cost forecasting can defeat the purpose of the budgeting process. The Department places all companies on notice that if it is determined that a company is relying on an overly conservative cost estimating process, we may evaluate any cost overruns using a more appropriate (i.e., lower) initial project estimate.

55 percent in construction overheads, the final authorizations were \$136,376 for Authorization 0290 and \$129,185 for Authorization 0291 (RR-DPU-18, Att. 2, at 65-66). The total amounts closed to plant for these projects in 2010 were \$147,749 and \$139,957, respectively, exceeding the authorized amounts by \$11,373 and \$10,772, respectively (RR-DPU-18, Atts. 1, 2). The associated closing reports consist of a single line item for each project including the notation "STA EQUIP" (RR-DPU-18, Att. 1).

The Department has previously faulted companies for unreasonably terse closing reports. D.T.E. 05-27-A at 44-45. While at least some portion of the cost overruns may have a reasonable basis, we find that the Company has not made this showing on the record. In the absence of further explanation, we are unable to determine whether the cost overruns for the projects associated with Authorizations 0290 and 0291 were justified. Therefore, the Department will not include the \$11,373 and \$10,772 in excess of the original net authorizations in rate base.³⁷

Authorization 1068 relates to the Company's mobile dispatch system that had been previously used only by Unitil Corporation's gas distribution subsidiaries (RR-DPU-18, Att. 2, at 141-142). This project involves the development of an enhanced work order system that would both accommodate the Company's gas work order numbering and allow the mobile dispatch system to process electric work orders (RR-DPU-18, Att. 2, at 141-144). A total of \$133,700 was authorized for this Unitil Corporation-wide project, consisting of \$124,700 in budgeted costs and \$9,000 in preliminary survey charges (RR-DPU-18, Att. 2, at 141-144). The project documentation notes that 42.97 percent of the total project cost was allocated to the Company as a whole, but does not disaggregate this overall cost between Unitil's electric and gas divisions (RR-DPU-18, Att. 2, at 141-144).

³⁷ The closing report for Authorization 1063 is similarly terse (RR-DPU-18, Att. 1, Att. 2, at 134). Because the Company's description of the project was adequate, however, we have determined that the plant expenditure was prudently incurred and that the resulting investment is used and useful (RR-DPU-18, Att. 1, Att. 2, at 134).

The earliest authorization on file for this project notes its status as “Completed” and allocates \$53,584 to the Company’s electric and gas divisions (RR-DPU-18, Att. 2, at 141-142). A supplemental authorization with a status marked “Routing Done” bears a higher total project amount of \$216,533, with the increase attributed to a number of factors, but still notes a total allocation to the Company’s electric and gas divisions of \$53,584 (RR-DPU-18, Att. 2, at 143-144). The Company, however, recorded \$54,058 as closed to plant in the electric division related to Authorization 1068 (RR-DPU-18, Att. 1, Att. 2, at 143-144). Based on this information, it is apparent that the Company intended to and did allocate some amount of the final project total to its electric division. It is unclear, however, what that amount was or whether the Company accurately closed the project to plant on the electric side.

The Company has provided conflicting accounts of whether the project in question was complete as of the end of the test year (Exh. AG 1-1 (Supp.), Att., Sch. Unitil-KES-1; RR-DPU-18, Atts. 1, 2). The Company’s workpapers and subsequent responses to information requests clarify that the Company’s roll-out of its mobile dispatch system was in service as of March 1, 2013 (Exhs. DPU-FGE 3-16 (Supp. 7), Att., WP 5; AG 3-35, Att. 1). Multiplying the supplemental total project amount of \$216,533, by the 42.97 percent allocation factor representing the Company’s share of the total project cost, produces a total Company allocation of \$93,044. Multiplying this total by the electric allocation used in 2012 to allocate common plant between Unitil’s electric and gas divisions (*i.e.*, 49.47 percent) yields an electric division allocation of \$46,029 (Exh. DPU-FGE 3-16 (Supp. 7), Att., WP 2). This amount is \$8,029 less than the amount the Company records as closed to plant on the electric side (RR-DPU-18, Att. 1, Att. 2, at 143-144). While the difference may have a reasonable basis, the Company has not made this showing on the record. Therefore, the Department will not include \$8,029 related to Authorization 1068 in rate base.

Authorization 1069 pertains to a discretionary project in which the Company acquired and implemented an asset management software package (RR-DPU-18, Att. 2, at 145-148). The project was originally budgeted for a total of \$798,540, of which \$132,566 was initially allocated to Unitil's electric division (RR-DPU-18, Att. 2, at 145-146). The Company later revised the electric division allocation to \$144,400 (Exh. DPU-FGE 7-3, Att. at 5; RR-DPU-18, Att. 2, at 147-148).

The Company's closing reports reveal that the final expenditure allocated to Unitil's electric division in 2011 was \$156,942, an amount of \$12,542 over the revised authorization (RR-DPU-18, Att. 1, Att. 2, at 148). The Department notes that the Company has, at the request of the Department and parties in this proceeding, provided closing reports for nearly all of its capital investment in the period under review. In several cases, these closing reports consist only of one line item on a spreadsheet, noting a total figure with little or no explanatory content (RR-DPU-18, Att. 1). The closing report for Authorization 1069 suffers from this infirmity (RR-DPU-18, Att. 1).

The Company subsequently provided all invoices associated with Authorization 1069 (RR-DPU-48, Att. 3). The Department has reviewed these invoices and makes two observations. First, the Company has provided duplicate invoices in some instances (see RR-DPU-48, Att. 3, at 18-23, 36-37, 51-58). Second, although Unitil Service's Authorization S-0010 allocates 16 percent of the project costs to the Company's electric division under Authorization 1069, many of the invoices combine allocations for Unitil's electric and gas divisions (RR-DPU-18,

Att. 1, Att. 2, at 146; RR-DPU-48, Att. 3, at 20, 23, 53, 56). To correct these errors, the Department has excluded the duplicate invoices and multiplied the appropriate amount within the remaining invoices by 16 percent to arrive at an appropriate allocation to the Company. Based on these adjustments, the Department determines that the total project cost was \$137,142, which is \$19,800 less than the total reported in the Company's closing report (RR-DPU-18, Att. 1; RR-DPU-48, Att. 3). While the difference may have a reasonable basis, the Company has not made this showing on the record. Therefore, the Department will not include \$19,800 related to Authorization 1069 in rate base.

The Department has reviewed the information provided by the Company for the remaining 35 projects. Based on our review, we find that each of these remaining projects is in service and that the Company has satisfactorily explained all cost variances (Exh. DPU-FGE 16-39, Att. 1; RR-DPU-18, Atts. 1, 2). Therefore, the Department finds that these projects satisfy our prudence used and useful standards. Accordingly, we will include the undepreciated cost of these 35 projects in rate base.

d. Blanket Authorizations

The Company used blanket authorizations for smaller projects of less than \$20,000 that cannot be readily identified during the Company's capital budgeting process, such as new service requests, certain types of repair work, transformer purchases, and meter purchases (Exhs. Unutil-KES-1, at 16-17; AG 2-22, at 2).³⁸ Between 2010 and 2012, the Company reported

³⁸ The Department has recognized that blanket authorizations are a routine part of utility business, used predominately for smaller, lower-cost projects. D.P.U. 09-39, at 93; D.T.E. 02-24/25, at 41-44; D.P.U. 95-40, at 4. Companies have used blanket work orders to support the inclusion of these smaller, more routine projects in rate base. Bay State Gas Company, D.P.U. 10-52, at 23 (2012); New England Gas Company, D.P.U. 10-114, at 81 n.67 (2011). To require budget authorizations and closing reports for projects of this nature may prove unnecessarily burdensome for companies given the relatively low cost per project involved. D.P.U. 10-52, at 24.

a total of \$4,778,155 in plant investments made under blanket authorizations procedures (see Exhs. Sch. Unitil-KES-2; DPU-FGE 16-39, Att. 1; Tr. 4, at 463-464; RR-DPU-18, Att. 1). Given the nature of the investments at issue, the Department finds that it was reasonable for Unitil to rely on blanket authorization procedures for these smaller, unanticipated, and lower-cost projects. D.P.U. 09-39, at 93; Fitchburg Gas and Electric Light Company, D.T.E. 02-24/25, at 41-44 (2002); D.P.U. 95-40, at 4. The Department further finds that the Company has demonstrated that it has policies in place to monitor and contain costs (Exh. Unitil-KES-1, at 17). Accordingly, we will not require documentation beyond authorization reports and statements of amounts closed to plant, to support recovery of the investments authorized under blanket authorizations.³⁹

Based on our review of the documents provided, we find that the plant investment made under the Company's blanket authorization procedures were prudently incurred, in service, and providing benefits to customers (Exhs. Unitil-KES-1, at 16-18; Sch. Unitil-KES-2; DPU-FGE 16-39, Att. 1; AG 1-1 (Supp.), Att., Sch. Unitil-KES-1; Tr. 4, at 463-464; RR-DPU-18, Att. 1, 2). Accordingly, we will include the undepreciated cost of these projects in rate base.

e. Conclusion

The Company provided closing reports for 39 individually authorized projects closed to plant at a final cost greater than \$50,000 between January 1, 2010, and December 31, 2012, and closing reports for 100 individually authorized projects closed to plant at a final cost less than or equal to \$50,000 during this same period (Exhs. DPU-FGE 7-14, Att. 1; DPU-FGE 16-39,

³⁹ As discussed in n.32 above, the Company provided documentation beyond the minimum required (i.e., beyond authorization reports and statements of amounts closed to plant) to support 15 blanket authorizations (Exh. AG 1-1 (Supp.), Att., Sch. Unitil-KES-1; RR-DPU-18, Att. 1).

Atts. 1, 2; DPU-FGE 16-42, Att. 1; DPU-FGE 16-46; AG 1-19, Att. 2; RR-DPU-18, Att. 1). In addition, the Company provided authorization reports and statement of amounts in plant for a number of investments authorized under blanket authorizations (Exh. AG 1-1 (Supp.), Att., Sch. Unitil-KES-1; RR-DPU-18, Att. 2).

No intervenor challenged the Company's proposed plant additions. With the exceptions noted above, we find that the Company has demonstrated that (1) the project expenditures were prudently incurred; and (2) that plant is in service and provides benefits to customers and, therefore, is used and useful (Exh. DPU-FGE 16-39, Att. 1; RR-DPU-18, Atts. 1, 2; RR-DPU-48, Atts. 1-3). D.P.U. 09-39, at 95; D.T.E. 02-24/25, at 41-44; D.T.E. 98-51, at 9; D.P.U. 96-50 (Phase I), at 15.

Based on our review of the Company's individually authorized projects, the Department has excluded \$55,997 in plant additions from rate base. This disallowance was not based on our determination that the projects in question were imprudent or that the projects are not providing benefits to customers. Rather, the Department determined that the Company has not provided clear and cohesive reviewable evidence on certain rate base additions and did not bear its burden of demonstrating the propriety of additions to rate base. D.P.U. 95-40, at 7; D.P.U. 93-60, at 26; D.P.U. 92-210, at 24; see also 376 Mass. 294, 304; 352 Mass. 18, 24-25. Of this \$55,997 in disallowed plant, the two software projects totaling \$27,829 have allocations to internal transmission of 8.3662 percent (Exh. DPU-FGE 3-16 (Supp. 7), Att., WP 1). Therefore, \$2,328 in disallowed plant is assigned to internal transmission and \$53,669 is assigned to base distribution service.

In recognition of the Department's decision to exclude these plant additions from rate base, a corresponding adjustment to Unitil's depreciation reserve is appropriate. D.P.U. 10-55,

at 193-194; Aquarion Water Company of Massachusetts, D.P.U. 08-27, at 16-17 (2009); D.T.E. 03-40, at 71. The Company applies account-specific depreciation accrual rates to determine its depreciation reserve (Exh. AG 1-24, Att. 1). Of the five projects with disallowances, Authorizations 2112 and 1068, with a total disallowance of \$14,052, were still booked to Account 106 as of the end of the test year. On this basis, the Department is satisfied that no depreciation, or amortization on Authorization 1068, had been accumulated on either of these projects prior to the end of the test year. Authorization 1069, with a total disallowance of \$19,800, pertains to the Company's asset management software, which is being amortized over five years (see Exh. DPU-FGE 3-16 (Supp. 7), Att., WP 5). The remaining two projects represented by Authorizations 0290 and 0291, with a total disallowance of \$22,145, pertain to station equipment booked to Account 362 that has a depreciation accrual rate of 5.18 percent (Exh. AG 1-24, Att. 1).

To calculate the accumulated depreciation associated with Authorizations 0290 and 0291, the Department multiplied the total disallowance of \$22,145 by the 5.18 percent depreciation accrual rate for Account 362, and multiplied the result by the three years between 2010 and 2012 (i.e., the end of the test year in this proceeding). This calculation produces an accumulated depreciation balance of \$3,441. Accordingly, the Department reduces the Company's proposed depreciation reserve by \$3,441. Because plant booked to Account 362 is not assigned to internal transmission (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-22), no internal transmission assignment is required.

To calculate the accumulated amortization associated with Authorization 1069, the Department multiplied the total Authorization 1069 disallowance of \$19,800 by the 20 percent amortization rate used for this account, and multiplied the result by the two years between 2011

and 2012. This calculation produces an accumulated amortization balance of \$7,920. Accordingly, the Department reduces the Company's proposed amortization reserve by \$7,920. The amortization reserve consists of \$663 assigned to internal transmission and \$7,257 assigned to base distribution service.

The above adjustments also make it necessary to eliminate the associated deferred income taxes from Unitil's proposed rate base, as well as the depreciation and software amortization expense associated with the disallowed plant additions. These adjustments are described in Sections V.C, VI.R, and VI.S below.

C. Accumulated Deferred Income Taxes

1. Introduction

At the end of the test year, Unitil had recorded \$22,419,362 in accumulated deferred income taxes (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 4-5). In calculating its rate base, the Company excluded deferred taxes associated with non-distribution-related items, including: (1) storm restoration; (2) contributions in aid of construction; (3) accrued revenues and bad debt associated with retail rate mechanisms; (4) obligations related to pension and post-retirement benefits other than pension ("pension/PBOP"); (5) Statement of Financial Accounting Standards ("SFAS") 158 obligations associated with the Company's pension/PBOP and Supplemental Executive Retirement Plan; and (6) the Company's rental water heater program (Exhs. Unitil-DLC-1, at 16; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 4-5). The Company also included \$1,306,879 in deferred federal taxes resulting from the increase in the utility state income tax rate from 6.5 percent to 8.0 percent, which has been offset by a corresponding decrease to the Company's SFAS 109 regulatory asset (Exh. DPU-FGE 3-16

(Supp. 7), Att., Sch. RevReq 4-5).⁴⁰ These adjustments produce a revised deferred income tax balance of \$19,085,125, of which \$1,596,700 was assigned to internal transmission and \$17,488,425 was assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 4-5). The Company then added back \$25,604 in deferred income taxes associated with the streetlighting plant sold to Fitchburg (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-4). Therefore, the final pro forma deferred income tax balance is \$19,085,125, of which \$1,596,700 was assigned to internal transmission and \$17,488,425 was assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq-4, RevReq 4-5). No parties addressed this issue on brief.

2. Analysis and Findings

Accumulated deferred income taxes represent a cost-free source of funds to utilities and, accordingly, are treated as an offset to rate base. Essex County Gas Company, D.P.U. 87-59, at 27 (1987); AT&T Communications of New England, D.P.U. 85-137, at 31 (1985); Boston Edison Company, D.P.U. 1350, at 42-43 (1983). Nonetheless, the Department has a general policy of matching recovery of tax benefits and losses to the recovery of the underlying expense with which the tax effects are associated. Commonwealth Electric Company, D.P.U. 89-114/90-331/91-80 (Phase One), at 29 (1991); Massachusetts Electric Company, D.P.U. 89-194/195, at 66 (1990).

In this proceeding, the Company excluded from its year-end accumulated deferred income tax balance \$5,129,647 in deferred income taxes associated with accrued revenues, offset in part by \$65,555 in associated bad debt (Exh. DPU-FGE 3-16 (Supp. 7), Att.,

⁴⁰ While Exhibit DPU-FGE 3-16 (Supp. 7), Att., Schedule RevReq 4-5 indicates that these deferred taxes are not distribution-related, examination of the underlying calculations demonstrate that the associated deferred taxes are being treated as distribution-related.

Sch. RevReq 4-5). Because Unutil's generation costs have been unbundled from base distribution rates, all related costs, including deferred income taxes, must be appropriately assigned to these functions. Fitchburg Gas and Electric Light Company, D.P.U. 07-71, at 55-56 (2008); D.T.E. 02-24/25, at 62. The Department finds that Unutil has appropriately adjusted its test-year balance of accumulated deferred income taxes associated with accrued electric revenues (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 4-5). We direct the Company to continue to calculate carrying charges on any basic service over- or under-collections net of the tax savings produced by these deferrals.

Consistent with our disallowance of \$55,997 in plant additions from rate base as discussed above, the Department must adjust the Company's deferred income taxes to remove the deferred income taxes associated with this disallowed plant. D.P.U. 10-55, at 194; D.T.E. 01-56, at 42. In view of the complexities associated with deferred income tax calculations, the Department will derive a representative level of associated deferred income taxes by first dividing Unutil's total test-year-end accumulated deferred income tax reserve assigned to internal transmission and distribution service of \$19,085,125 by its total net utility plant as of that date of \$121,233,783 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq 4-1, RevReq 4-5). D.P.U. 10-55, at 194; D.T.E. 01-56, at 43. This produces a factor of 15.74 percent which, when multiplied by the total net plant being excluded from rate base of \$55,997, produces a deferred income tax balance of \$8,814. Accordingly, the Department reduces Unutil's proposed deferred income tax reserve by \$8,814. Of this amount \$367 is assigned to internal transmission and \$8,447 is assigned to base distribution service.⁴¹

⁴¹ The \$367 assigned to internal transmission is calculated as follows: \$27,829 in excluded intangible plant times 15.74 percent, times 8.3662 percent internal transmission allocator for plant.

D. Cash Working Capital

1. Introduction

In their day-to-day operations, utilities require funds to pay for expenses incurred in the course of business, including O&M expenses. These funds are either generated internally by a company or through short-term borrowing. Department policy permits a company to be reimbursed for costs associated with the use of its funds and for the interest expense incurred on borrowing. D.P.U. 96-50 (Phase I) at 26, citing Western Massachusetts Electric Company, D.P.U. 87-260, at 22-23 (1988). This reimbursement is accomplished by adding a working capital component to the rate base calculation.

Cash working capital needs have been determined through the use either of a lead-lag study or a 45-day O&M expense allowance. D.T.E. 03-40, at 92. In the absence of a lead-lag study, the Department has traditionally relied on the 45-day convention as reasonably representative of O&M working capital requirements. D.T.E. 05-27, at 98; Boston Gas Company, D.P.U. 88-67 (Phase I) at 35 (1988). The Department, however, has expressed concern that the 45-day convention, first developed in the early part of the 20th century, may no longer provide a reliable measure of a utility's working capital requirements. D.T.E. 03-40, at 92; D.T.E. 98-51, at 15. In recent years, lead-lag studies have resulted in savings for ratepayers by reducing the cash working capital requirement below the 45-day convention. D.P.U. 11-01/D.P.U. 11-02, at 163, citing New England Gas Company, D.P.U. 10-114, at 108 (2011); D.P.U. 10-70, at 78; D.P.U. 10-55, at 204-205; D.P.U. 09-39, at 114; D.P.U. 09-30, at 151-152; New England Gas Company, D.P.U. 08-35, at 38 (2009); D.T.E. 05-27, at 99-100. For these reasons, the Department requires all electric and gas companies serving more than 10,000 customers to conduct a fully developed and reliable O&M lead-lag study. D.P.U. 11-01/D.P.U. 11-02, at 164.⁴²

⁴² The Department recognizes that for companies that do not use a monthly billing cycle, a lead-lag study is likely to produce a higher cash working capital allowance than the 45-day convention. See Massachusetts-American Water Company, D.P.U. 19900, at 10 (1979). Therefore, the 45-day convention remains in use by water companies. Milford Water Company, D.P.U. 12-86, at 100-101 (2013); D.P.U. 08-27, at 39 n.22; Pinehills Water Company, D.T.E. 01-42, at 7, 38 (2001); Assabet Water Company, D.P.U. 95-92, at 11 (1996).

Unitil did not conduct a lead-lag study but, instead, relied on the lead-lag study prepared in its most recent rate case to determine the net lag days associated with O&M expenses (Exh. Unitil-DLC-1, at 13-14). In that case, Unitil proposed a net lead-lag factor of 33.30 days, which the Department reduced to 31.41 days. D.P.U. 11-01/D.P.U. 11-02, at 154, 156-164. Consequently, in this proceeding, Unitil used the Department-determined net lag of 31.41 days to calculate its proposed cash working capital allowance for its electric division (Exhs. Unitil-DLC-1, at 14; DPU-FGE 3-16 (Supp. 7), Att., Sch. Rev-Req-4).

The Company divided the net lag of 31.41 days by 365 days to derive a cash working capital factor of 8.61 percent (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 4-4). This factor, multiplied by Unitil's pro forma O&M expense of \$11,063,910, produces a cash working capital allowance of \$952,603 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 4-4).

2. Position of the Company

The Company argues that it did not conduct a lead-lag study in this case because it determined that it would not be cost-effective to do so (Company Brief at 95). Instead, the Company argues that its proposal to use the collection lag established in its last rate case is reasonable as it produces a lower cash working capital allowance and avoids the cost of a new study (Company Brief at 95).

To determine whether a new lead-lag study would be cost effective, the Company states that it calculated its collection lag for the test year and for prior periods and, based on these collection lags, it estimated that a full lead-lag study would have produced a collection lag of 44.69 days (Company Brief at 94-95). The Company notes that this estimated collection lag is substantially higher than the collection lag of 35.36 days established in its last rate case and that it proposes to use here (Company Brief at 95, citing D.P.U. 11-01/D.P.U. 11-02, at 153). The Company contends that neither the other revenue lag components (e.g., service lag and billing lag) nor the expense lead would have changed materially in the limited time since the Company's last rate case in 2011 (Company Brief at 95). Thus, Unitol argues that a new lead-lag study would have resulted in a higher cash working capital factor at significant ratepayer expense (Company Brief at 95). No other party addressed this issue on brief.

3. Analysis and Findings

The purpose of conducting a cash working capital lead-lag study is to determine a company's "cash in-cash out" level of liquidity in order to provide the company an appropriate allowance for the use of its funds. D.P.U. 87-260, at 22-23. Such funds are either generated internally or through short-term borrowing. See D.P.U. 96-50 (Phase I) at 26. Department policy permits a company to be reimbursed for costs associated with the use of its funds and for the interest expense incurred on borrowing. D.P.U. 96-50 (Phase I) at 26; D.P.U. 87-260, at 22. The Department requires all electric and gas companies serving more than 10,000 customers to conduct a fully developed and reliable O&M lead-lag study. D.P.U. 11-01/D.P.U. 11-02, at 164. In the event that the lead-lag factor is not below 45 days, a company will bear a heavy burden to justify the reliability of such a study and the reasonableness of the steps the company has taken to minimize all factors affecting cash working capital requirements within its control, such as the collections lag. D.P.U. 11-01/D.P.U. 11-02, at 164.

In the instant case, Unitil began preparations for a lead-lag study but determined, based on its collection lag calculation and a review of its monthly accounts receivable balances, that an updated lead-lag study would result in a greater cash working capital requirement (Exhs. Unitil-DLC-1, at 14-16; Unitil-DLC-3; Sch. PMN-1E-7; Tr. 9, at 1069-1071). Thus, the Company chose to rely on the results of the lead-lag study submitted in D.P.U. 11-01/D.P.U. 11-02, as modified by the Department in that proceeding, to request what it contends is a lower cash working capital allowance than it would otherwise be entitled to based on the estimated results of a new study (Exh. Unitil-DLC-1, at 14).⁴³

A lead-lag study compares the timing difference between (1) the incurrence of costs by a company and the company's subsequent payment of such costs ("expense lead") and (2) the receipt of service by customers, and the customer's subsequent payment for these services ("revenue lag"). D.P.U. 11-01/D.P.U. 11-02, at 151. The revenue lag is broken down into three parts: (1) service lag; (2) billing lag; and (3) collection lag. The service lag is the average number of days between the midpoint of the customer's billing month to the meter reading date. In Unitil's prior rate case, the Department accepted a service lag of 15.21 days. See D.P.U. 11-01/D.P.U. 11-02, at 151, 161 n.91. The billing lag is the number of days required to process and send out bills. In Unitil's prior rate case, the Department accepted a billing lag of 2.49 days. D.P.U. 11-01/D.P.U. 11-02, at 151, 152, 161 n.91. The collection lag represents the time delay between the posting of customer bills to accounts receivable and a company's receipt of payment. In Unitil's prior rate case, the Department applied a collection lag of 35.36 days. D.P.U. 11-01/D.P.U. 11-02, at 151, 159. The sum of these three lag components, less the approved expense lead of 21.6 days, resulted in a net lag of 31.41 days. D.P.U. 11-01/D.P.U. 11-02, at 161.

⁴³ The Department incorporated by reference in this proceeding the Company's lead-lag study from D.P.U. 11-01/D.P.U. 11-02 (Tr. 9, at 1068). 220 C.M.R. § 1.10(3).

The Department has reviewed the evidence and concludes that the Company has demonstrated that an updated collection lag would be significantly greater than the 31.41-day net lag approved in the Company's previous rate case (Exh. Unitil-DLC-3). While the collection lag is only one component of a lead-lag study, service lags exhibit almost no variability and there has been no change in the Company's billing or payment practices in the two years since the Company's last base distribution rate case that would offset the increase in the collection lag (Tr. 9, at 1084-1085). On this basis, the Department finds that Unitil's request to rely on the results of its previous lead-lag study to develop its cash working capital allowance is reasonable (i.e., a new lead-lag study would not result in a lower cash working capital allowance). Application of the O&M lead-lag factor of 31.41 days to the level of O&M and tax expense authorized by this Order produces a cash working capital allowance of \$890,786.⁴⁴

Going forward, we remind all electric and gas companies serving more than 10,000 customers that they can no longer rely on the 45-day convention to establish a cash working capital allowance and must, instead, conduct a fully developed and reliable O&M lead-lag study for each rate case. D.P.U. 11-01/D.P.U. 11-02, at 164. In the event that a company seeks to rely on the results of a recent prior lead-lag study, it must be prepared to demonstrate (as Unitil has done here) that a new lead-lag study would not result in a lower cash working capital allowance.

⁴⁴ The derivation of this cash working capital allowance is provided in Schedule 6, below.

VI. OPERATING AND MAINTENANCE EXPENSESA. Employee Compensation1. Introduction

When determining the reasonableness of a company's employee compensation expense, the Department reviews the company's overall employee compensation expense to ensure that its compensation decisions result in a minimization of unit-labor costs. D.P.U. 10-55, at 234; D.P.U. 96-50 (Phase I) at 47; Cambridge Electric Light Company, D.P.U. 92-250, at 55 (1993). This approach recognizes that the different components of compensation (i.e., wages and benefits) are, to some extent, substitutes for each other and that different combinations of these components may be used to attract and retain employees. D.P.U. 92-250, at 55. In addition, the Department requires a company to demonstrate that its total unit-labor cost is minimized in a manner supported by its overall business strategies. D.P.U. 92-250, at 55.

A company is required to provide a comparative analysis of its compensation expenses to enable a determination of reasonableness by the Department. D.P.U. 96-50 (Phase I) at 47. The Department evaluates the per-employee compensation levels, both current and proposed, relative to the companies in the utility's service territory and utilities in the region that compete for similarly skilled employees. D.P.U. 96-50 (Phase I) at 47; D.P.U. 92-250, at 56; Bay State Gas Company, D.P.U. 92-111, at 103 (1992); Massachusetts Electric Company, D.P.U. 92-78, at 25-26 (1992).

Unitil's employee compensation program provides for: (1) base pay; (2) incentive compensation; (3) vacation and holiday pay; (4) medical and dental insurance; (5) life, disability, and travel insurance; (6) matching contributions to a 401(k) savings plan; (6) pension and other post-retirement benefits; (7) wellness benefits; and (8) educational assistance (Exhs. Unitil-GEL-1, at 2, 9, 11, 16; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6; AG 1-50,

at 1-4). Key management and other non-union employees are also eligible to participate in Unital Corporation's incentive compensation plans; these plans are discussed in Section VI.A.4, below (Exh. AG 1-35).

2. Union Wage Increase

a. Introduction

During the test year, Unital booked \$1,764,601 in union payroll expense to its electric division, of which \$969,230 was capitalized and the remaining \$795,372 was booked to O&M expense (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6). The Company proposes a \$145,055 increase to its test-year union payroll expense. The increase comprises: (1) \$9,275 based on the annualization of a three percent wage increase that took effect May 27, 2012; (2) \$26,553 based on a 3.3 percent wage increase that took effect May 26, 2013; (3) \$81,836 for two new union positions⁴⁵ added pursuant to a collective bargaining agreement effective June 1, 2013; and (4) \$27,391 based on a three percent wage increase scheduled to take effect June 1, 2014 (Exhs. Unital-GEL-1, at 5; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6; AG 1-42 & Atts. 1-3; AG 1-43).⁴⁶

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Department should reduce the Company's pro forma adjustment to test-year payroll expense by \$76,485 to remove the salaries of two new

⁴⁵ The new union positions are a cable splicer and a line worker (Exh. AG 1-42, Att. 3, at 4).

⁴⁶ A portion of this amount is assigned to internal transmission; the Company's cost of service schedules calculate the internal transmission allocation based on the combined union and non-union payroll adjustments, including incentive compensation (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6).

union positions that were filled after the test year (Attorney General Brief at 49-51).⁴⁷ The Attorney General contends that the Company has not established that the addition of these employees falls outside the normal ebb and flow of its workforce complement or that it will result in a net increase to O&M expense (Attorney General Brief at 50-51; Attorney General Reply Brief at 22-23). The Attorney General notes that as of August 2013, the line worker position had been filled, bringing Unitil's total employee headcount to 63 employees, while the 2012 test-year total was a comparable 64 employees (Attorney General Brief at 50, citing Exh. AG/DJE-1, at 4). This, the Attorney General argues, shows that the addition of the two new employees is within the normal ebb and flow of the Company's employee headcount (Attorney General Brief at 50-51). Further, the Attorney General disputes the Company's argument that its employee headcounts were affected by a recent reassignment of a former Company employee to Unitil Service, asserting that Unitil has provided no documentation to substantiate its argument that services formerly performed by this employee are now provided by other Unitil Service employees who charge a portion of their time to the Company (Attorney General Brief at 50-51).

ii. Company

Unitil contends that its proposed adjustments to union payroll comply with Department standards (Company Brief at 98). The Company argues that the proposed adjustments include only those increases that have been or will be granted before the midpoint of the first twelve months after the Department's Order in this proceeding (Company Brief at 98). In addition, the

⁴⁷ The proposed \$76,485 reduction is comprised of the 2013 salaries of the two positions at issue (\$81,836) plus a three percent wage increase for 2014 (\$2,455), with the resulting total (\$84,291) multiplied by 90.74 percent to determine the percentage allocated to distribution service (Attorney General Brief at 51, citing Exh. AG/DJE-1, at 5; see Exh. AG/DJE-1, at Sch. DJE-2).

Company argues that the wage increases are known and measurable as they are based on a signed collective bargaining agreements that include wage increases on June 1, 2012, June 1, 2013, and June 1, 2014 (Company Brief at 98-99, citing Exh. Unitil-GEL-1, at 5). Unitil also asserts that the wages paid to union employees are reasonable based on a 2013 study of union hourly rates (Company Brief at 99, citing Exh. Unitil-GEL-1, at 9).

Regarding its proposed post-test year addition of two new union employees, the Company maintains that its “effective” headcount has increased due to the recent reassignment of a former Company employee to Unitil Service who still charges time to the Company (Company Brief at 99, citing Exh. Unitil-GEL-Rebuttal at 2-3; Company Reply Brief at 22). Additionally, Unitil argues that Department precedent supports the inclusion of the salaries for the two new union positions in cost of service because the positions were actually filled and do not remain vacant (Company Brief at 99, citing Exh. Unitil-GEL-Rebuttal at 2; D.P.U. 10-114, at 136-137; Company Reply Brief at 22). Finally, Unitil maintains that the contractually obligated addition of these two employees constitutes a significant change in staffing levels in light of the Company’s small size (Company Brief at 99-100; Company Reply Brief at 22). For these reasons, Unitil asserts that the salaries of the two new union employees should be included in its cost of service (Company Brief at 100).

c. Analysis and Findings

The Department’s standard for union payroll adjustments requires that three conditions be met: (1) the proposed increase must take effect before the midpoint of the first twelve months after the date of the rate increase; (2) the proposed increase must be known and measurable (i.e., based on signed contracts between the union and the company); and (3) the proposed increase must be reasonable. D.P.U. 96-50 (Phase I) at 43; D.P.U. 95-40, at 20; D.P.U. 92-250, at 35; Western Massachusetts Electric Company, D.P.U. 86-280-A at 74 (1987).

Regarding the newly hired cable splicer and line worker, employee levels routinely fluctuate because of retirements, resignations, hiring, terminations, and other factors. Massachusetts-American Water Company, D.P.U. 88-172, at 12 (1989); Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 16-17 (1983). In recognition of this variability, the Department generally determines payroll expense on the basis of test-year employee levels, unless there has been a significant post-test-year change in the number of employees that falls outside the normal ebb and flow of a company's workforce. D.P.U. 10-114, at 135-136; The Berkshire Gas Company, D.P.U. 90-121, at 80-81 (1990); D.P.U. 88-172, at 12. The Department has found that normal fluctuations in employee levels will not be an appropriate basis for adjustments to test-year levels. See D.P.U. 1270/1414, at 12-17; see also D.P.U. 90-121, at 75-81; Nantucket Electric Company, D.P.U. 88-161/88-168, at 21-22, 64-67 (1989); Colonial Gas Company, D.P.U. 84-94, at 38-40 (1984).

The Attorney General asserts that the post-test-year hires should be removed from the cost of service as they are merely an example of the normal ebb and flow of employees that constitutes the normal course of business. The Company argues that the two new hires represent a significant addition to its workforce.

During the test year, the Company had 63 to 64 employees, depending upon the month. The Company's staffing level declined to 61 employees in July 2013 before increasing to 63 employees in August 2013 (Exh. AG 3-14, Att.). These changes are attributable to employees moving between the Company and Unitil Service over this period (Tr. 4, at 431-433). While the Department recognizes that the employee transfer to Unitil Service would affect employee headcounts, the Department is not persuaded that the additional staffing agreed to under the collective bargaining agreement increases the Company's workforce to such an extent as to constitute a significant change in employee levels.⁴⁸

⁴⁸ The Department notes that Unitil's reliance on D.P.U. 10-114 to support the proposed post-test-year change to employment levels is inapposite. In D.P.U. 10-114, the company's test year cost of service included expenses related to a position that became vacant but was filled with a temporary employee. The Department did not remove the costs associated with this position from the test year cost of service because the costs had been incurred during the test year and would continue to be incurred going forward as the position subsequently had been filled. D.P.U. 10-114, at 135. Here, the costs at issue were incurred after the test year and, therefore, the Department's standard applies requiring a significant post-test year change in the number of employees that falls outside the normal ebb and flow of a company's workforce.

The Department finds the post-test-year hiring of two employees in the instant case to be well within the normal ebb and flow of conducting business. Accordingly, the Department will exclude from Unital's payroll expense the cost of the two post-test-year positions. This exclusion reduces the Company's payroll expense by \$84,291 (i.e., \$81,836 adjusted for the three percent union wage increase scheduled for 2014).⁴⁹

Based on the Company's collective bargaining agreements and a memorandum of understanding, the Department finds that the remaining proposed union payroll adjustments appropriately include only those increases that have been granted or will be granted before the midpoint of the first twelve months after the Department's Order in this proceeding (i.e., November 30, 2014) (Exhs. Unital-GEL-1, at 5; AG 1-42 & Atts. 1-3; AG 1-43). Further, because the remaining union payroll increases are based on signed collective bargaining agreements and a memorandum of understanding, the Department finds that the proposed wage increases are known and measurable (Exhs. Unital-GEL-1, at 5; AG 1-42, Atts. 1-3). Finally, the Company provided a 2013 wage survey of New England distribution utilities, which demonstrates that the hourly wages paid to union employees are reasonable in relation to other utilities in the Northeast (Exhs. Unital-GEL-1, at 7-9; DPU-FGE 6-14, Att.).

⁴⁹ The effect of the disallowance of \$84,291 on the Company's cost of service, including allocations to internal transmission and base distribution service, is discussed in Section VI.A.5, below.

Based on the above, the Department finds that the Company has adequately demonstrated that (1) the union salary increase will take effect before the midpoint of the first twelve months after the date of the rate increase; (2) the union salary increase is known and measurable; and (3) the union salary increase is reasonable. Accordingly, with the exception of the \$84,291 disallowance addressed above, the Department allows the Company's remaining union payroll expense adjustments.

3. Non-Union Wage Increases

a. Introduction

During the test year, Unitol booked \$4,373,841 in non-union payroll expense to its electric division, consisting of \$731,340 in direct Company non-union payroll expense and \$3,642,501 in allocated payroll from Unitol Service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6).⁵⁰ Of this total amount, \$1,332,888 was capitalized and \$515,382 was allocated to non-utility operations (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6). Of the remaining \$2,525,571 booked to O&M expense, \$318,705 represents payroll attributed to direct Company employees and \$2,206,866 was allocated from Unitol Service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6 & WPs 7.1-7.6).

The Company initially proposed a \$178,811 increase to its non-union payroll expense (Exh. Sch. RevReq 3-6). Based on revisions made during the proceeding, the Company now proposes to increase non-union payroll expense by \$196,042, consisting of: (1) \$9,561 based on

⁵⁰ The Company's non-union payroll expense includes incentive compensation expense, which is discussed in Section VI.A.4 below (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6 & WP 7.1).

a non-union wage increase of three percent effective January 1, 2013; (2) \$9,848 based on a non-union wage increase of three percent effective January 1, 2014; (3) \$90,482 based on a Unitil Service non-union wage increase of 4.1 percent effective January 1, 2013; and (4) \$86,151⁵¹ based on a Unitil Service non-union wage increase of 3.75 percent effective January 1, 2014 (Exhs. Unitil-GEL-1, at 5-6; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6; DPU-FGE 6-24, Atts. 1, 2).⁵² The non-union wage increases were determined based on salary surveys (Exhs. Unitil-GEL-1, at 6; DPU-FGE 6-9, Att. 1). Unitil did not propose any adjustments to non-union payroll expense for staffing levels. No party addressed this issue on brief.

b. Analysis and Findings

To recover an increase in non-union wages, a company must demonstrate that: (1) there is an express commitment by management to grant the increase; (2) there is a historical correlation between union and non-union raises; and (3) the non-union increase is reasonable. D.P.U. 96-50 (Phase I) at 42; D.P.U. 95-40, at 21; D.P.U. 1270/1414, at 14. In addition, only non-union salary increases that are scheduled to become effective no later than six months after the date of the Order may be included in rates. D.P.U. 85-266-A/271-A at 107.

Here, the Company is not proposing to include any post-Order wage increases. The Company's proposed non-union payroll adjustments include only those increases that have been

⁵¹ The Company originally proposed an increase of \$68,920 based on a projected Unitil Service non-union wage increase of three percent for 2014. Unitil updated this proposed increase based on the actual wage increase of 3.75 percent (compare Exh. Sch. RevReq 3-6 and Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6).

⁵² A portion of this amount is assigned to internal transmission; the Company's cost of service schedules calculate the internal transmission allocation based on the combined union and non-union payroll adjustments (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6).

granted through the close of the record in this proceeding (Exhs. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6; DPU-FGE 6-24, Atts 1, 2). In addition, between 2004 and 2013, annual union wage increases were between three and four percent and non-union increases for both the Company and Unitil Service were between two and four percent (Exh. AG 1-41, Att.). Accordingly, the Department finds that the Company has shown a sufficient correlation exists between union and non-union wage increases. See D.P.U. 07-71, at 76; D.P.U. 87-59-A at 18.

Finally, with respect to the reasonableness of the non-union wage increase, the Company compensates employees at the median of the marketplace for base pay and total cash compensation (Exh. Unitil-GEL-1, at 7). Unitil Service performed a compensation study on behalf of Unitil and its affiliates in 2009 with the assistance of a consultant and concluded that the Company's pay structure was close to the market median for most job grades and positions (Exhs. Unitil-GEL-1, at 7-8; DPU-FGE 6-10, Att. 1). Unitil further relied on salary surveys to demonstrate that non-union wage increases are in line with those of the utility industry overall (Exhs. AG 3-15, Att. 1; DPU-FGE 6-8, Att.; DPU-FGE 6-9, Att.). The Department finds that the market compensation data presented by Unitil is sufficient to confirm the reasonableness of the Company's non-union salary levels. See D.P.U. 10-55, at 245; D.P.U. 05-27, at 109; D.T.E. 02-24/25, at 94.

Based on the above, the Department finds that Unitil has adequately demonstrated that (1) the non-union salary increases have been granted, (2) there is a historical correlation between union and non-union payroll increases, and (3) the increases are reasonable. Accordingly, the Department allows the Company's non-union payroll expense adjustments.

4. Incentive Compensation

a. Introduction

The Company offers two incentive compensation programs. The first program is the Unitil Corporation Management Incentive Plan (“Management Plan”), in which key management employees as selected by Unitil Corporation’s board of directors are eligible to participate (Exh. DPU-FGE 6-31, Att. 2, at 1). The second program, the Unitil Corporation Incentive Plan (“Incentive Plan”), is open to all employees of Unitil except: (1) those named by the board of directors to participate in the Management Plan; and (2) union members, unless participation is allowed under the terms of a collective bargaining agreement (Exh. DPU-FGE 6-31, Att. 1, at 1).⁵³

The Company records incentive compensation expense equal to 75 percent of the current year’s incentive compensation, plus a true-up to reconcile the actual expense with the incentive compensation recorded in the prior year (Tr. 4, at 438-439; RR-DPU-13). During the test year, the Company was allocated \$435,025 in Management Plan payments from Unitil Service, of which 58.59 percent (or \$254,881) was allocated to its electric division; a portion of this expense was capitalized as described below (see Exh. AG 1-35). In addition, during the test year, Unitil booked \$58,798 in Incentive Plan payments to direct Company employees, as well as 28.92 percent of \$685,300 (or \$198,189) in Incentive Plan payments allocated from Unitil Service, for a total of \$256,987 (see Exh. AG 1-35). Of this amount, the Company allocated 58.59 percent (or \$150,569) to its electric division; a portion of this expense was capitalized as described below (see Exh. AG 1-35).

⁵³ Union employees are not currently eligible to receive incentive compensation (Exh. DPU-FGE 6-25, Att. at 1).

Under the Management Plan, certain management employees of Unitil Corporation and its subsidiaries, including the Company, are eligible for an annual target incentive award equal to a predetermined percentage of their individual base salaries, net of any adjustments associated with their 401(k) plans (Exh. DPU-FGE 6-31, Att. 2, at 1). Under the Incentive Plan, employees of Unitil Corporation and its subsidiaries, including the Company, are eligible for an annual target incentive award equal to five percent of their base salaries (Exh. DPU-FGE 6-31, Att. 1, at 1).

Prior to or soon after the start of each calendar year, a compensation committee establishes performance objectives and weights for the upcoming year based upon recommendations made by Unitil Corporation's chief executive officer (Exh. DPU-FGE 6-31, Att. 1, at 1; Att. 2 at 2). In 2012, the Incentive Plan and Management Plan performance goals were: (1) earnings per share; (2) three-year average ROE as measured against certain Northeast peer companies; (3) gas safety (i.e., response rate to odor calls); (4) electric reliability based on the system average interruption duration index ("SAIDI");⁵⁴ (5) customer satisfaction; and (6) electric and gas residential distribution rates in comparison to those of selected Northeast peer companies (Exh. DPU-FGE 6-31, Att. 3, at 2). For 2013, the Incentive Plan and Management Plan performance goals were: (1) earnings per share; (2) gas safety; (3) electric reliability based on SAIDI; (4) customer satisfaction; and (5) O&M cost per customer in comparison to that of selected Northeast peer companies (Exh. DPU-FGE 6-31, Att. 3, at 2).⁵⁵

⁵⁴ SAIDI measures the duration of electric service outages. D.T.E. 99-84, at 22-24.

⁵⁵ In the Company's last rate case, the Department directed Unitil to review its incentive compensation plan design and to examine the feasibility of implementing Company-specific performance measures. D.P.U. 11-01/D.P.U. 11-02, at 194-195. After review, the Company concluded that maintaining a separate incentive plan for direct Unitil employees would be costly and would not encourage a consistent culture across all Unitil Corporation subsidiaries (Exhs. Unitil-GEL-1, at 17; DPU-FGE 6-21, Att.). Nonetheless, based on this review, the Company adopted two performance metric changes that Unitil represents are more directly influenced by employee performance. First, the Company states it replaced the distribution rate metric with an O&M performance measure because distribution rates are increasingly affected by regulatory requirements over which Unitil has little control (Exhs. Unitil-GEL-1, at 17-18; DPU-FGE 6-22). Second, the Company states the ROE metric relative to peers was rolled into the earnings per share metric because employees perceived no connection between their own performance and the earned ROEs of a limited number of other companies (Exhs. Unitil-GEL-1, at 18; DPU-FGE 6-22).

These performance objectives are evaluated based upon three levels of achievement upon which different payout levels are established: (1) a threshold level for which 50 percent of the target payout (i.e., 2.5 percent of an employee's base salary) is made; (2) a target level for which 100 percent payout (i.e., five percent of an employee's base salary) is made; and (3) a maximum level for which 150 percent of the target incentive payment (i.e., 7.5 percent of an employee's base salary) is made (Exh. DPU-FGE 6-31, Att. 1, at 2). During the test year, the weights assigned to these performance goals varied from 30 percent for the distribution rate performance standard to ten percent for most of the remaining goals (Exhs. DPU-FGE 6-31, Att. 3, at 2; AG 1-2, Att. 6D at 36).

In addition to these two incentive programs, Unitol offers a Restricted Stock Option Plan ("Stock Plan") to certain key executives (Exhs. AG 1-2, Att. 6D at 44-45; AG 1-35). Under the Stock Plan, target awards are established that generally vary based upon the job grade level of each participant's position in the Company in accordance with survey data derived from a peer group of other comparable utility companies (Exh. AG 1-2, Att. 6D at 32, 34). During the test year, the Company was allocated \$409,473 in payments under the Stock Plan from Unitol Service, of which \$239,910 was allocated to the electric division (see Exh. AG 1-35). Of this amount, \$215,466 was booked to O&M expense (Exh. AG 10-52, Att.).

The Stock Plan relies on the performance standards set forth under the Incentive Plan, as well as a qualitative score determined by Unitil Corporation's compensation committee (Exh. AG 1-2, Att. 6D at 37-38). The quantitative score is based on the compensation committee's evaluation of other factors such as unplanned events, unforeseen problems, or other unique circumstances that occurred during the year, and the ways in which the Company responded to those situations (Exh. AG 1-2, Att. 6D at 37-38).⁵⁶ During the test year, a quantitative score of 20 percent was applied (Exh. AG 1-2, Att. 6D at 38).

At the same time that the compensation committee establishes performance goals for the upcoming year, the committee also examines performance over the previous year to determine the appropriate incentive plan payouts to be made (Exh. DPU-FGE 6-31, Atts. 1, 3). During the test year, the Company's incentive plans paid out at 100 percent of target for the Incentive Plan, 121 percent of target for the Management Plan, and 125 percent of target for the Stock Plan (Exhs. AG 11-12; DPU-FGE 11-5).

On an aggregate basis, net of capitalized amounts, during the test year the Company's electric division booked \$9,931 in Incentive Plan expense attributed to direct employees, \$326,953 in combined Incentive Plan and Management Plan allocations from Unitil Service, and \$215,466 in Stock Plan expenses, for a total incentive compensation expense of \$552,350 (Exh. AG 10-52, Att.). The Company proposes to include in cost of service a total of \$507,875 associated with its various incentive compensation programs (\$9,541 in direct Company Incentive Plan expense, \$325,961 in combined Incentive Plan and Management Plan allocations

⁵⁶ The qualitative score also provides the compensation committee with the discretion to determine that no Stock Plan award will be granted, even if the performance measures indicate otherwise (Exh. AG 1-2, Att. 6D at 38).

from Unitil Service, and \$172,373⁵⁷ in Stock Plan expense), net of capitalized amounts and restated to represent what those payments would have been at the target compensation levels (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-7 & WPs 7.1, 7.2; Tr. 4, at 436, 439).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the portion of incentive compensation based on the attainment of financial goals should be removed from the Company's cost of service because it is not appropriate to recover these payments from ratepayers (Attorney General Brief at 51-52). The Attorney General asserts that 25 percent of the Company's incentive compensation is based on the earnings per share metric and 15 percent is based on the average ROE metric, both of which are financial goals (Attorney General Brief at 52). The Attorney General maintains that the Department addressed the issue of incentive compensation related to the attainment of financial goals in the Company's last rate case, finding that while such goals may be used as a threshold component, companies seeking to maintain financial metrics to determine incentive compensation must be prepared to demonstrate direct ratepayer benefits (Attorney General Brief at 51-53, citing D.P.U. 11-01/D.P.U. 11-02, at 193). The Attorney General avers that in the Company's last rate case, the Department determined that Unitil had provided insufficient evidence that the achievement of the aforementioned financial goals resulted in direct ratepayer benefits and she argues that the Company has not offered any evidence in the instant case that differs from the evidence provided in D.P.U. 11-01/D.P.U. 11-02 (Attorney General Brief at 53-54; Attorney General Reply Brief at 24). For these reasons, the Attorney General argues that the portion of incentive compensation associated with the attainment of financial goals should be removed from cost of service (Attorney General Brief at 54; Attorney General Reply Brief at 24).

⁵⁷ This Stock Plan expense is based on a test year expense of \$215,466 divided by test year actual performance which was 25 percent over target (Exh. DPU-FGE 11-5).

ii. Company.

Unitil contends that the Company's incentive compensation meets the Department's standard for inclusion in cost of service because it is both reasonable in amount and reasonably designed to encourage good employee performance (Company Brief at 104). The Company notes that it reviewed its incentive compensation plan design as directed by the Department in D.P.U. 11-01/D.P.U. 11-02, at 194-195, and made certain changes to its structure to enhance the link to employee performance (Company Brief at 104). Further, the Company contends that it reviewed the feasibility of implementing a Company-specific incentive plan as required by the Department but concluded that it would not be cost beneficial and could potentially harm the ability of Unitil to operate as part of the overall Unitil Corporation system (Company Brief at 105).

The Company states that its incentive compensation metrics are weighted 60 percent to operational targets and 40 percent to financial targets, which is similar to its peers (Company Brief at 104-105). Unitil argues that the attainment of financial goals directly affects ratepayers because the achievement of financial benchmarks permits the Company to attract capital at lower interest rates, which is a cost ultimately borne by customers (Company Brief at 106-107; Company Reply Brief at 24). The Company also claims that the use of such financial benchmarks is essential to competitive compensation plans in order to allow Unitil to retain capable employees, which results in better service (Company Brief at 107; Company Reply Brief at 24).

Finally, the Company argues that when considering the reasonableness of employee compensation expense, the Department has indicated it will look at overall compensation because the different components of compensation are essentially substitutes for each other (Company Brief at 105). Unitil maintains that it has demonstrated that its overall compensation is appropriate, reasonable, and set at the median of the marketplace for total compensation and, therefore, it is not appropriate for the Department to disallow all or a portion of its incentive compensation expense (Company Brief at 105, citing Exh. Unitil-GEL-1, at 8).

c. Analysis and Findings

The Department has traditionally allowed incentive compensation expenses to be included in a utility's cost of service if (1) the expenses are reasonable in amount, and (2) the incentive plans are reasonably designed to encourage good employee performance. D.P.U. 07-71, at 82-83; D.P.U. 89-194/195, at 34. For an incentive plan to be reasonable in design, it must both encourage good employee performance and result in benefits to ratepayers. D.P.U. 93-60, at 99.

The Department must first determine whether Unitil's Incentive Plan and Management Plan are reasonable in design. During the test year, a portion of the Company's Incentive Plan and Management Plan expense was tied to meeting earnings per share and ROE performance metrics (Exh. DPU-FGE 6-31, Att. 3, at 2). The Attorney General argues that the Department should deny recovery of incentive compensation related to these metrics because Company has failed to show that the achievement of these financial goals results in direct ratepayer benefits (Attorney General Brief at 53-54).

The Department has articulated its expectations on the use of financial targets in incentive plans and the burden required to justify the recovery of such costs in rates. D.P.U. 11-01/D.P.U. 11-02, at 192-193; D.P.U. 10-70, at 105-106; D.P.U. 10-55, at 253-254. Specifically, where companies seek to include financial goals as a component of incentive compensation design, the Department expects to see the attainment of such goals as a threshold

component, with job performance standards designed to encourage good employee performance (e.g., safety, reliability, and/or customer satisfaction goals) used as the basis for determining individual incentive compensation awards. See D.P.U. 11-01/D.P.U. 11-02, at 192-193; D.P.U. 10-70, at 105-106; D.P.U. 10-55, at 253-254. Companies that nonetheless wish to maintain financial metrics as a component of the formula used to determine individual incentive compensation must be prepared to demonstrate direct ratepayer benefit from the attainment of these goals or risk disallowance of the related incentive compensation costs. D.P.U. 11-01/D.P.U. 11-02, at 193; D.P.U. 10-70, at 106; D.P.U. 10-55, at 253-254.

Unitil's earnings per share and ROE metrics do not operate as threshold components but rather represent direct components in its overall incentive compensation design (Exh. DPU-FGE 6-31, Att. 3, at 2). While Unitil argues that the Department should not exclude costs related to financial performance metrics as they are only one component of an overall reasonable incentive compensation plan, the Company has provided insufficient evidence that the achievement of the earnings per share and ROE measures results in direct ratepayer benefits. D.P.U. 11-01/D.P.U. 11-02, at 193-194; D.P.U. 10-55, at 254. It is evident that the attainment of these financial targets has a primary and direct shareholder benefit. The benefit to ratepayers, however, is identified as being in the form of more favorable financing terms resulting from improved financial performance (Exhs. Unitil-GEL-1, at 18-19; Unitil-GEL-Rebuttal at 4). While improved financial performance may result in more favorable financing arrangements, the connection between the earnings per share and ROE performance measures and ratepayer benefits is tenuous. D.P.U. 11-01/D.P.U. 11-02, at 193. Similarly, while the Company claims that financial performance metrics are a key element of competitive salary

structures intended to attract and retain quality employees, the connection here is also tenuous.⁵⁸ Therefore, the Department finds that Unitil has failed to demonstrate that the earnings per share and ROE components of its incentive compensation plan are reasonably designed to encourage good employee performance and result in benefits to the Company's ratepayers. Accordingly, the Department excludes that portion of the Company's incentive compensation expense attributable to the earnings per share and ROE measures.

The remaining performance measures include system-wide objectives (i.e., across all Unitil Corporation subsidiaries) related to safety, reliability, cost containment, and customer satisfaction (Exhs. DPU-FGE 6-31, Att. 3, at 2; AG 1-2, Att. 6D at 33-37). As noted above, in the Company's last rate case, the Department directed Unitil to examine the feasibility of implementing Unitil-specific metrics to ensure that its employees did not receive a bonus merely on the strength of overall system performance when performance in their own service territory had been subpar. D.P.U. 11-01/D.P.U. 11-02, at 194-195. The Department expressed a clear preference for Company-specific metrics but stated that in order to maintain system-wide metrics, the Company was required to demonstrate how such metrics provide a direct benefit to Unitil's ratepayers. D.P.U. 11-01/D.P.U. 11-02, at 195.

Rather than adding Unitil-specific metrics to its existing plan, the Company studied the cost of adopting an entirely separate incentive plan for Unitil employees (Exh. Unitil-GEL-1, at 16-18). The Company estimates that creating and operating a separate plan for the 19 direct Unitil employees would involve one-time costs of approximately \$23,000 and annual incremental costs of \$5,600 per year (Exhs. Unitil-GEL-1, at 16-18; DPU-FGE 6-21 & Att.). The Company declined to adopt such a plan, citing costs and concerns that a separate incentive plan could threaten Unitil Corporation's ability to promote a unified culture across all subsidiaries (Exh. Unitil-GEL-1, at 17).

⁵⁸ The Company raised these same arguments in its previous rate case, and the Department rejected them there as well. D.P.U. 11-01/D.P.U. 11-02, at 193.

As we found in D.P.U. 11-01/D.P.U. 11-02, at 195, system-wide performance measures remain an efficient way to evaluate performance for Unitil Service employees in view of the fact that these employees provide services to multiple affiliates in multiple states. Therefore, the Department accepts the use of system-wide performance measures here.

With respect to the 19 direct Unitil employees, however, we have found that system-wide performance metrics could allow these Unitil employees to receive an incentive award despite substandard performance in their own service territory. D.P.U. 11-01/D.P.U. 11-02, at 194-195. The Department is not persuaded by Unitil's claims that the implementation of Company-specific objectives in an incentive compensation program will somehow threaten Unitil Corporation's corporate culture. A corporate culture should be focused on promoting safe and reliable service to customers. Rewarding Company employees for providing such service to Company customers does not threaten the ability of Unitil Corporation to promote customer service. The Company has failed to persuade us that performance measures that combine data from Unitil Corporation's Maine, Massachusetts, and New Hampshire operating subsidiaries are reasonably designed to directly benefit the Company's ratepayers. Accordingly, for the 19 direct Unitil employees, the Company is required to implement Unitil-specific performance measures as part of its existing incentive compensation program. The performance measures at issue include objectives related to safety, reliability, and customer satisfaction (Exh. DPU-FGE 6-31, Att. 3, at 2). Rather than measuring performance using system-wide data, performance for these metrics shall be measured using Unitil-specific data alone (e.g., SAIDI performance based on the Company's own operations, versus the combined SAIDI performance of Unitil Corporation's Massachusetts and New Hampshire electric distribution affiliates).

With respect to the issue of whether the Company's incentive compensation expenses are reasonable, the results of the compensation study indicate that the Company's incentive compensation thresholds are aligned with market practice (Exh. DPU-FGE 6-10, Att. 1, at 13). The Company has also adjusted its incentive compensation plan to position itself closer to the market over the long term (Exh. Unutil-GEL-1, at 9, 20). Therefore, the Department finds that the costs associated with the Incentive Plan and Management Plan are reasonable.

Concerning the overall level of incentive compensation expense to include in rates, the Department uses test-year costs adjusted for known and measurable changes to set base distribution rates in accordance with a company's experienced costs. D.T.E. 98-51, at 62; Dedham Water Company, D.P.U. 84-32, at 17 (1984). As we have found previously, neither the target incentive compensation amount nor the amount based on accrual accounting represents a known and measurable change to test-year cost of service. D.P.U. 11-01/D.P.U. 11-02, at 196. Therefore, the Department finds that the appropriate level of incentive compensation to include in the Company's cost of service is the actual incentive compensation awarded during the test year, less the disallowed portion attributable to the earnings per share and ROE performance metrics.

During the test year, the Company paid out \$90,703 in Incentive Plan payments to direct employees and was allocated 28.92 percent of the total Unutil Corporation Incentive Plan and Management Plan payments of \$2,189,535, or \$633,214, for a total of \$723,917 (see Exh. AG 1-35). Of the \$723,917, the Company allocated 58.59 percent, or \$424,143, to its electric division (see Exh. AG 1-35). The earnings per share and ROE performance metrics in

use during the test year had a weighted value of 40 percent, as does the new combined earnings per share performance metric implemented in 2013 (Exhs. AG 1-2, Att. 6D at 36; DPU-FGE 6-31, Att. 3, at 2). Accordingly, the Department will reduce the actual incentive compensation awarded during the test year (i.e., \$424,143) by 40 percent (i.e., \$169,657) producing an allowable Incentive Plan and Management Plan expense of \$254,486.

Turning to the Company's Stock Plan, the performance standards for this plan rely on the performance standards used for the Incentive Plan and a more subjective qualitative score (Exh. AG 1-2, Att. 6D at 36-38). In view of the fact that participants in the Stock Plan are senior-level executives who provide services to multiple affiliates in multiple states, the Department finds that the use of system-wide performance metrics are appropriate here. Nevertheless, consistent with our findings above regarding financial performance metrics, the Department excludes that portion of the Company's Stock Plan expense attributable to the earnings per share and ROE measures.

During the test year, actual payments under the Stock Plan were \$215,466 based on a payout equal to 125 percent of target (Exh. DPU-FGE 11-5). Of this amount, 20 percent of the payout was associated with qualitative factors (see Exh. AG 1-2, Att. 6D at 38). To avoid double-counting the financial performance and qualitative components of the Stock Plan expense, the Department first removes the subjective component from the test-year Stock Plan payments by multiplying \$215,466 by 20 percent, producing a subjective factor component of \$43,093. The Department then reduces the remaining \$172,373 by 40 percent attributable to the disallowed financial performance measures, or \$68,949. The remaining \$103,424, plus the \$43,093 subjective component, produces an allowable Stock Plan expense of \$146,517.

As noted earlier, the Company proposes to include in cost of service \$9,541 in direct Company Incentive Plan expense and \$325,961 in combined Incentive Plan and Management Plan allocations from Unutil Service, plus \$172,373 in Stock Plan expense, for a total incentive compensation expense of \$507,875. Based on the findings above, we have allowed a combined Incentive Plan and Management Plan expense of \$254,486 and a Stock Plan expense of \$146,517 for a total allowed incentive compensation expense of \$401,003. Accordingly, the Department will reduce Unutil's proposed cost of service by \$106,872.

5. Conclusion

Based on the above analysis, the Department has excluded from the Company's proposed cost of service \$84,291 in union wages and \$106,872 in incentive compensation, for a total disallowance of \$191,163. Because the Company allocates a portion of its payroll expense to internal transmission, this disallowance must be allocated between internal transmission and base distribution service.

The Company assigns certain transmission-related accounts directly to internal transmission, as well as 10.77 percent in allocations of other payroll-related accounts (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6 & WPs 1, 1.2, 1.3). Based on the weighting of the allocation factors, the Company proposed allocating \$25,535 of its total proposed payroll increase of \$321,678, or 7.94 percent, to internal transmission (see Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-6 & WPs 7.1, 7.2). Application of the 7.94 percent overall allocation factor for payroll expense to the \$191,163 disallowance produces an internal transmission expense allocation of \$15,178 and a base distribution service expense of \$175,985.

B. Medical and Dental Insurance

1. Introduction

During the test year, the Company booked \$358,559 in medical and dental expense to its electric division, comprised of \$86,438 in Unitil direct costs and \$272,121 allocated from Unitil Service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-7). The Company self-insures a portion of its medical, dental, and vision coverage, such that the first \$200,000 in medical claims for each family is covered through self-insurance, while claims over \$200,000 per family are covered by reinsurance (Exh. AG 1-63). In addition, if total medical claims for the year exceed 125 percent of expected claims, then all claims above 125 percent of expected claims are also paid by the re-insurer (Exh. AG 1-63).

Under the Company's self-insurance program, Unitil Service receives weekly invoices from its medical insurance carrier and receives monthly invoices from its dental and vision carriers (Exh. AG 1-63, at 2). The invoices are processed and charged to each Unitil Corporation affiliate based on the claimant's employer (Exh. AG 1-63, at 2). At any one point in time, approximately four weeks of medical and dental claims are not yet reported. Accordingly, Unitil calculates and records a liability representing a 30-day lag in insurance claims; this amount is reviewed and adjusted quarterly if necessary (Exh. AG 1-63, at 2). Unitil Service also pays a monthly administrative fee and a premium to insure claims above \$200,000 and a portion of these amounts are allocated to Unitil (Exh. AG 1-63, at 2).

The Company initially proposed a \$102,977 increase to medical and dental expense based on estimated 2014 working rates (Exh. Sch. RevReq 3-7).⁵⁹
Based on revisions made

⁵⁹ Working rates are insurance carrier's estimates of plan costs for the upcoming plan year, based on medical and dental inflation rates as well as actual claims experience (Exhs. Unitil-GEL-Rebuttal-1, at 5; DPU-FGE 6-20).

during the proceeding, the Company now proposes an increase of \$76,141 based on actual 2014 working rates as well as the effect of the retiree drug subsidy⁶⁰ offset (Exhs. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-7; DPU-FGE 6-20; DPU-FGE 11-8; AG 3-17). Unitil's proposed adjustments to medical and dental insurance expense also take into consideration the addition of two new union positions (disallowed in Section VI.A.2, above), and a change in medical plans that took effect January 1, 2014 (Exh. Unitil-GEL-1, at 11). The proposed increase consists of \$77,951 in expenses associated with direct Company employees, less \$1,810 representing a reduction in expenses allocated from Unitil Service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-7). Unitil assigns \$8,200 of the proposed increase to internal transmission and the remaining \$67,941 to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-7).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company has not adequately justified its proposed increase in medical and dental insurance expense (Attorney General Brief at 54). The Attorney General maintains that the Company has not provided any plausible explanation of the factors that would result in an increase of 90 percent for Unitil direct costs (Attorney General Brief at 54-55). The Attorney General asserts that the largest factor contributing to the pro forma increase in costs is forecasted claims (Attorney General Brief at 55).

Consistent with her recommendation to eliminate all payroll costs associated with two post-test-year positions, the Attorney General asserts that the increases in medical and dental

⁶⁰ The Medicare Prescription Drug, Improvements, and Modernization Act of 2003, which took effect January 1, 2006, provided a retiree drug subsidy to employees as an incentive for employers to maintain prescription drug benefits for retirees.

expense associated with those positions should also be eliminated (Attorney General Brief at 55). According to the Attorney General, even after the elimination of those costs, the remaining increase in medical and dental insurance expense is still significantly greater than what has been justified by the Company (Attorney General Brief at 55).

The Attorney General contends that there has been no increase in Unital's medical and dental costs from 2012 to 2013 (Attorney General Brief at 55). Specifically, she asserts that the Company's actual medical and dental expense for the months of January through September 2013 are approximately the same as the level of expense for the corresponding period in 2012 (i.e., the test year) (Attorney General Brief at 55). Accordingly, the Attorney General recommends that the Company's forecasted increase be eliminated (Attorney General Brief at 56).

In response to the Company's claim that it experienced a relatively low year for claims during the test year, the Attorney General again points to the fact that the actual 2013 costs were essentially the same as those incurred during the test year (Attorney General Brief at 56). Further, the Attorney General claims the Company did not cite any specific factors in an actuarial analysis, nor did they present any evidence that the Company is experiencing an increase in the rate of medical costs incurred (Attorney General Brief at 56). For these reasons, the Attorney General recommends eliminating the pro forma increase to medical and dental insurance expense (Attorney General Brief at 56).

b. Company.

The Company contends that its proposed medical and dental insurance costs are reasonable in amount and based on known and measurable adjustments to insurance expenses (Company Brief at 101-102). The Company states that the largest factor contributing to the pro forma increase in medical and dental insurance costs is forecasted claims (Company Brief

at 102). The Company further states that its forecasted claims are based on the working rates provided insurance companies and are a reflection of expected claims based on medical trends and the Company's historical claims experience (Company Brief at 102, citing Exh. AG 3-17). According to the Company, insurance company projections are based upon broad, regional experience (Company Brief at 102). Unital asserts that it had a relatively low level of claims during the test year but that this is not dispositive for the purpose of setting future rates (Company Brief at 102). The Company asserts that the Attorney General's request to eliminate any pro forma increase is based on speculation, while its request to include these costs is based on sound, detailed actuarial analyses (Company Brief at 102).

The Company argues that it has acted appropriately to contain increases in its medical and dental insurance costs (Company Brief at 102). The Company contends that examples of such containment measure include: (1) implementing a health plan for new union employees hired after 2013 and for non-union employees, which includes a high deductible, a health savings account, and coinsurance of ten percent; and (2) discontinuance of the existing preferred provider plan for all union employees in exchange for either the plan described above or a plan with a more limited choice of providers (Company Brief at 103). For these reasons, the Company recommends that the Department approve the pro forma increase to medical and dental insurance expense as proposed (Company Brief at 103).

3. Analysis and Findings

Rates are designed to allow for recovery of a representative level of a company's revenues and expenses based on a historic test year adjusted for known and measurable changes. D.T.E. 02-24/25, at 161; D.P.U. 92-250, at 106. To be included in rates, medical and dental insurance expenses must be reasonable. D.T.E. 01-56, at 60-61; see D.P.U. 92-78, at 29-30; Nantucket Electric Company, D.P.U. 91-106/91-138, at 53-54 (1991). Further, companies must

demonstrate that they have acted to contain their health care costs in a reasonable, effective manner. D.T.E. 01-56, at 60-61; D.P.U. 96-50 (Phase I) at 46; D.P.U. 92-78, at 29; D.P.U. 91-106/91-138, at 53. Finally, any post-test-year adjustments to health care expense must be known and measurable. D.T.E. 01-56, at 60-61; D.P.U. 96-50 (Phase I) at 46; North Attleboro Gas Company, D.P.U. 86-86, at 8 (1986).

As an initial matter, the Department finds that Unitil's test-year medical and dental insurance expenses are reasonable and that the Company has taken reasonable and effective measures to contain its health care costs (see, e.g., Exhs. Unitil-GEL-1, at 11-12; AG 1-50; DPU-FGE 6-17; DPU-FGE 6-18, Att.; DPU-FGE 6-19, Att.; DPU-FGE 11-7, Att.). Unitil frequently compares the coverage and cost of its insurance programs to market alternatives to ensure value for cost of insurance is maintained (Exh. Unitil-GEL-1, at 11). The Company introduced a single high deductible health plan for new union and all non-union employees, with an estimated annual savings of \$1,736 for two-person coverage (Exhs. Unitil-GEL-1, at 12; DPU-FGE 6-18, Att.). The Company also has added a coinsurance feature to the new health plan that, together with an increase in its self-insurance limit from \$125,000 to \$200,000, resulted in an approximate 8.5 percent decrease in premiums and a 47.3 percent decrease in stop loss insurance costs (Exhs. Unitil-GEL-1, at 12; DPU-FGE 6-17). Additionally, Unitil has replaced its preferred provider plan for existing union employees in favor of more limited plans with an anticipated cost savings of \$71,151 (Exhs. Unitil-GEL-1, at 12; DPU-FGE 6-19).

With regard to the Company's proposed post-test-year adjustments to medical and dental insurance expense, the Department has removed the costs related to two new union positions from payroll expense in Section VI.A.2, above. For the same reasons, the Department also excludes the proposed medical and dental expenses associated with those positions (i.e., \$25,286) from the Company's cost of service (Exh. DPU-FGE 3-16 (Supp. 7), Att., WP 10).

Turning to the proposed post-test-year increase in medical and dental insurance costs, the Company maintains that the working rates provided by its insurance carriers are actuarially based and, therefore, should be accepted as a known and measurable change in medical and dental insurance expense. As conceded by the Company, however, the working rates represent actuarial estimates intended for a broad-based pool of insured parties (Exh. Unitil-GEL-Rebuttal at 5). The Department is not setting rates for a broad-based pool of insured parties, but rather for Unitil. Cf. D.T.E. 02-24/25, at 107 (self-insurance administrator calculated annual medical claims payment rates that were reconciled monthly to actual medical claims, thus ensuring that claims billings would equal claims payments over time). Moreover, the Company's claim that its test-year medical and dental insurance expense is unrepresentative of the level of costs expected to be incurred in the future is not supported by the evidence. For the period January through September 2012, the Company incurred a total of \$81,268 in medical and dental O&M costs (Exh. AG 11-7, Att.). For the corresponding period in 2013, the total costs are \$81,982, representing a variance of less than one percent (Exh. AG 11-7, Att.). This consistent level of expense belies the Company's claim that its test-year medical and dental expense was unrepresentative. Furthermore, the Company has presented no evidence to suggest that the test-year level of expense was uncharacteristically low (Tr. 4, at 445). Therefore, the Department declines to adopt the Company's working rates to derive its medical and dental expense.

Based on the Company's description of its health care program, the Department concludes that the Company's policy of self-insurance to meet a significant portion of its health

care expense is analogous to self-insurance arrangements that are associated with other forms of insurance coverage, such as property and liability insurance, which is discussed in Section VI.E., below. Just as property and liability insurance claims may vary from year to year, medical claims may also vary from year to year. Consequently, limiting recovery to test-year levels may not produce a representative level of claims expense on a forward-looking basis. See generally D.P.U. 87-59, at 35-40. Therefore, under these circumstances, the Department declines to adopt the Attorney General's recommendation to limit the Company's medical and dental insurance expense to test-year levels. Instead, the Department will determine a representative level of medical and dental expense based on an appropriate period of time supported by the evidentiary record.

The Department has examined Unitil's medical and dental insurance expense for the 2010 through 2012 and will rely on this information to derive a representative level of expense (Exh. AG 1-34, Att. 1, at 16, 18, Att. 2, at 3).⁶¹ During 2010 through 2012, the Company booked an average annual medical and dental expense of \$101,351 attributed to Company employees, and \$271,308 in allocated expense from Unitil Service (Exhs. AG 1-34, Att. 1, at 16, 18, Att. 2, at 3; AG 11-7, Att.).⁶² Substituting these expenses for the pro forma medical and dental O&M

⁶¹ Although the record contains a partial year of medical and dental insurance data through September 2013, the relevant exhibit does not contain sufficient information to derive an annual expense for the year (Exh. AG 11-7). In contrast, the account and subaccount information contained in Exhibit AG 1-34 for the years 2010 through 2012 is readily reconcilable with the Company's supporting workpapers used to derive its proposed medical and dental expense.

⁶² The direct Company expense is calculated using the seven subaccount balances provided in Exhibit DPU-FGE 3-16 (Supp. 7), Att., WP 10.3, applied to the corresponding account balances for the years 2010 through 2012 as reported in Exhibit AG 1-35, Att. 1, at 16, 18. The allocation from Unitil Service is calculated using the five subaccount balances provided in Exhibit DPU-FGE 3-16 (Supp. 7), Att., WP 10.3, applied to the corresponding account balances for the years 2010 through 2012 as reported in Exhibit AG 1-35, Att. 2, at 3.

expense used by the Company produces a total medical and dental expense of \$372,659 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-7). Accordingly, the Department reduces the Company's proposed cost of service by \$62,041.⁶³

C. 401(k) Plan

1. Introduction

During the test year, Unitol booked \$128,959 in 401(k) plan expense to its electric division, of which \$31,040 represents direct expense and \$97,919 represents costs allocated from Unitol Service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-8). The Company proposes to increase its test-year 401(k) expense by \$21,289 to incorporate wage increases that took effect during 2013 and 2014, along with 401(k) expense attributable to the two new union positions discussed in Section VI.A.2, above (Exhs. Unitol-GEL-1, at 2; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-8 & WP 9.1). Of this amount, \$2,293 is assigned to internal transmission and \$18,996 is assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-8). No party addressed this issue on brief.

2. Analysis and Findings

The Department has found that employee contributions to utility-sponsored savings plans are voluntary and, thus, subject to fluctuation. D.P.U. 89-114/90-331/91-80 (Phase One) at 66-67; Commonwealth Electric Company, D.P.U. 88-135/151, at 68 (1989). In the absence of a demonstration that the post-test-year participation levels are more representative of future participation than the total employee contributions made during the test year, the Department declines to permit any adjustment above the expense booked during the test year. D.P.U. 92-250, at 48; D.P.U. 89-114/90-331/91-80 (Phase One) at 66-67; D.P.U. 88-135/151, at 68.

⁶³ Of this amount, 10.77 percent, or \$6,682 is assigned to internal transmission and \$55,359 is assigned to base distribution service.

Unitil's 401(k) plan provides for a Company contribution rate of four percent regardless of whether an employee participates in or makes contributions to the plan (Exh. DPU-FGE 6-34). Because the Company's contribution rate is a function of total payroll rather than participant contributions, the Department finds that the Company's calculation of 401(k) expense based on total payroll produces a more representative 401(k) expense than reliance on the actual test-year amount.

As discussed in Section VI.A.2, above, the Department has removed the costs associated with two post-test-year union positions from Unitil's cost of service. Consistent with this disallowance and the operation of the Company's 401(k) plan, a corresponding adjustment must be made to the Company's 401(k) expense. The Company's total proposed 401(k) expense, before adjusting for capitalized amounts, is \$222,759; of this amount, \$10,919 is associated with the two new union positions (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-8 & WP 9.1). After adjusting for capitalized amounts, the Company proposes to include in cost of service \$150,247 in 401(k) expense, consisting of \$37,831 in 401(k) expense for direct Company employees and \$112,416 in 401(k) expense allocated from Unitil Service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-8 & WP 9.1). Removing the \$10,919 in 401(k) costs associated with the two union positions from the Company's total 401(k) expense of \$222,759, and recalculating the capitalized amount using the 48.7 percent capitalization rate for the Company's electric division, produces a revised 401(k) expense of \$144,183, consisting of \$31,767 in 401(k) expense for direct Company employees and \$112,416 in 401(k) expense allocated from Unitil Service (see Exh. DPU-FGE 3-16 (Supp. 7), Att., WP 9.1). Accordingly, the Department reduces the Company's proposed cost of service by \$6,065.⁶⁴

⁶⁴ Of this amount, 10.77 percent, or \$653, is assigned to internal transmission and \$5,412 is assigned to base distribution service.

D. Payroll Taxes

1. Introduction

Unitil originally proposed to increase its cost of service by \$18,499 to recognize the additional payroll taxes associated with its pro forma wage and salary expense (Exh. Sch. RevReq 3-25). Of this amount, \$1,992 was assigned to internal transmission and \$16,507 was assigned to base distribution service (Exh. Sch. RevReq 3-25). After updating payroll expense based on actual 2014 wage increases, the Company proposed an updated payroll tax expense of \$19,420 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-25). Of this amount, \$2,092 was assigned to internal transmission and \$17,328 was assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-25).

2. Positions of the Parties

The Attorney General argues that Unitil's payroll tax expense should be adjusted to remove the portion of payroll tax expense associated with two union positions as discussed in Section VI.A.2, above (Attorney General Brief at 51). The Company asserts that all costs related to the two union positions should be included in the Company's cost of service (Company Brief at 100).

3. Analysis and Findings

The Department has examined Unitil's supporting workpapers and finds that the Company has appropriately applied the correct tax rates for Social Security and Medicare (Exhs. Unitil-GEL-1, at 10-11; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-25;

DPU-FGE 15-6). Because the Department has removed the costs associated with two post-test-year union positions from cost of service, a corresponding adjustment must be made to payroll tax expense.

Unitol proposed an increase of \$19,420 in payroll tax expense, based on a proposed increase in payroll expense of \$321,678 (before assignment to internal transmission) (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-25). As noted in Section VI.A.2 above, the Department has excluded from the Company's proposed cost of service \$84,291 in union wages and \$106,872 in incentive compensation (including \$25,856 in Stock Plan expense), for a total disallowance of \$191,163. Application of the 1.45 Medicare tax rate to the disallowed payroll expense of \$191,163 produces a total Medicare tax reduction of \$2,772 (see Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-25). The Social Security tax rate of 6.2 percent is applicable to wages and salaries subject to a maximum taxable limit of \$113,700 per year (Exh. DPU-FGE 15-6). Based on our review of the compensation paid to participants in the Stock Plan, the Department is satisfied that the Social Security taxes associated with Stock Plan payments are minimal, and that no further reduction is warranted. Therefore, the Department will exclude the \$25,856 in disallowed Stock Plan expense from the calculation of disallowable Social Security tax expense.⁶⁵ Application of the 6.2 percent Social Security tax rate to the non-Stock Plan payroll disallowances of \$165,307 produces a total Social Security tax reduction of \$10,249 (see Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-25).

⁶⁵ The exhibits relevant to incentive compensation for each employee do not identify which recipients are being compensated at a rate in excess of the maximum Social Security base of \$113,700 per year (Exh. DPU-FGE 6-30 (Rev.), Att. 2; RR-DPU-14).

The sum of the \$2,772 in Medicare taxes and \$10,249 in Social Security taxes is \$13,021. Accordingly, the Department reduces the Company's proposed cost of service by \$13,021.⁶⁶

E. Property and Liability Insurance

1. Introduction

Unitil's property and liability insurance program includes both premium-based and self-insured coverage (Exh. Unitil-DLC-1, at 21). During the test year, the Company booked \$175,383⁶⁷ in premium-based property and liability insurance expense (Exhs. Sch. RevReq 3-9; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-9; DPU-FGE 15-4, Att.). Initially, the Company proposed to increase its test-year premium-based property and liability insurance expense by \$50,696 (Exhs. Unitil-DLC-1, at 21-22; Sch. RevReq 3-9). During the proceeding, the Company reduced its request to a proposed increase of \$31,612, based on the most recent annual premiums associated with its premium-based coverage (Exhs. DPU-FGE 3-16 (Supp. 4); DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-9). Of this amount, \$3,776 is allocated to internal transmission and the remaining \$27,836 is allocated to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-9).

The Company relies on self-insurance for the following types of property and liability risks: (1) general liability up to \$500,000 per claim; and (2) directors and officers liability up to \$500,000 per claim (Exh. AG 1-63, at 1). During the test year, Unitil assigned \$180,000 in general liability self-insurance expense to its electric division, of which \$19,386 was allocated to

⁶⁶ Of this amount, 10.77 percent, or \$1,402, is assigned to internal transmission and \$11,619 is assigned to base distribution service.

⁶⁷ The test year costs comprise \$160,708 in direct costs and \$14,675 allocated from Unitil Service (Exhs. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-9; DPU-FGE 15-4, Att.).

internal transmission and \$160,614 was allocated to base distribution service (Exh. AG 3-33).⁶⁸ In its initial filing, the Company proposed to include the \$180,000 in self-insurance expense accrual in its revenue requirement (Exh. AG 1-34, Att. 1, at 17). On brief, Unitil offers an alternative ratemaking treatment for its self-insurance expense to address the Attorney General's concerns (Company Brief at 108-109, citing Attorney General Brief at 58-59). Under this alternative approach, the level of self-insurance expense for ratemaking purposes would be equal to the five-year average of actual payments for 2008 through 2012, including \$200,000 in damage claims associated with a 2011 incident that are expected to be paid out in 2014 (Company Brief at 109; see n.68, below).

2. Positions of the Parties

a. Attorney General

The Attorney General does not contest the Company's proposed increase to its test-year property and liability insurance expense. The Attorney General, however, identifies a number of problems with the Company's proposal to include a self-insurance accrual of \$180,000 in the Company's test-year cost of service (Attorney General Brief at 58). First, she maintains that because the particulars of the 2011 incident are unknown, it is unclear whether ratepayers or shareholders should absorb this cost (Attorney General Brief at 58, citing Exh. AG-DJE-Surrebuttal-1, at 5-6). Second, the Attorney General argues that the Company's proposed test-year expense is driven largely by an event that occurred before the test year, i.e., in 2011, and, therefore, prospective recovery of these amounts would constitute

⁶⁸ The \$180,000 includes an accrual of \$150,000 for claims resulting from a 2011 equipment fire that caused significant damage to a restaurant and several adjacent residential structures (Exh. Unitil-DLC-Rebuttal at 5; Tr. 1, at 46-47). The Company anticipates that it will ultimately pay out approximately \$200,000 on these claims and, therefore, increased this accrual by \$50,000 in 2013 (Exh. Unitil-DLC-Rebuttal at 5).

retroactive ratemaking (Attorney General Brief at 58, citing Exh. AG-DJE-Surrebuttal-1, at 5-6). Third, the Attorney General maintains that the Company provided no basis for the \$180,000 accrual so it is impossible to determine whether the estimate is speculative or known with a reasonable degree of certainty (Attorney General Brief at 58, citing Exh. AG-DJE-Surrebuttal-1, at 5-6). Finally, the Attorney General argues that if the full \$180,000 accrual is included in the revenue requirement, the Company will continue to recover this amount from ratepayers for years into the future when Unitil presented no evidence that it incurs self-insurance expenses of this magnitude on an annual basis (Attorney General Brief at 58-59).

The Attorney General also takes issue with the Company's proposed alternative ratemaking treatment of self-insurance expense (Attorney General Reply Brief at 25-26). The Attorney General asserts that the Department's general practice is to normalize self-insurance expense based on a five-year average of actual cash payments (Attorney General Brief at 57, citing D.P.U. 11-01/D.P.U. 11-02; Exh. Unitil-MHC-Rebuttal-2, at 5; Attorney General Reply Brief at 25-26, citing D.P.U. 07-71, at 93). The Attorney General argues that the Company's proposed inclusion of a 2014 payment for an event that occurred in 2011 merely represents an estimate of what the Company might pay at some time in the future (Attorney General Reply Brief at 25, citing Exh. AG/DJE-Surrebuttal-1, at 5-6). Finally, the Attorney General claims that the Company's alternative proposal improperly mixes cash disbursements with accrual accounting (Attorney General Reply Brief at 26).

The Attorney General contends that the five-year average of actual insurance payments for 2008 through 2012 was \$30,704, a reduction of \$149,926 from the Company's proposed expense (Attorney General Brief at 59, citing Exh. AG 3-34). The Attorney General argues that, after adjusting this reduction for internal transmission, the Company's proposed cost of service should be reduced by \$133,217 (Attorney General Brief at 59, citing Exh. AG/DJE-1, at 12).

b. Company.

Unitil argues that its proposed adjustment to test-year property and liability insurance expense is known and measurable, and fully supported by evidence (Company Brief at 108, citing Exhs. Unitil-DLC-Rebuttal at 5; AG 3-33). With respect to its self-insurance accrual, the Company concedes that because damage claims vary from year to year, basing recovery on test-year levels as it originally proposed may not produce a representative level of claims expense on a forward-looking basis (Company Brief at 108-109, citing D.P.U. 09-30, at 219). Instead, the Company suggests that the Department could, in the alternative, use a five-year average of actual payments to determine a representative level of property and liability insurance expense (Company Brief at 109).

When calculating such a five-year average, the Company argues that the Department should include a payment of \$200,000 expected to be made in 2014 relating to the 2011 fire (Company Brief at 109; Company Reply Brief at 25). The Company states that this method produces an expense of \$70,704⁶⁹ and would, therefore, reduce the Company's test-year property and liability insurance expense by \$109,296⁷⁰ (Company Brief at 109). The Company maintains that it is appropriate to include this \$200,000 payment when calculating the five-year average because the payment will be made prior to the midpoint of the rate year and, therefore, should be

⁶⁹ The Company uses the following amounts to calculate the five-year average: (1) \$9,351 for 2008; (2) \$53,390 for 2009; (3) \$9,912 for 2010; (4) \$241,972 (i.e., \$41,972 plus \$200,000) for 2011; and (5) \$38,896 for 2012 (Company Brief at 109, citing Exhs. AG 3-33; AG 3-34).

⁷⁰ Of this reduction, \$11,771 would be assigned to internal transmission and the remaining \$97,525 would be assigned to base distribution rates (Company Brief at 109).

considered a cash payment for purposes of the normalization calculation (Company Reply Brief at 25). The Company maintains that similar adjustments have been incorporated into normalization calculations in other proceedings and that failure to recognize this expense would inappropriately understate Unitil's self-insurance expense (Company Reply Brief at 25, citing D.P.U. 09-30, at 219-220).

3. Analysis and Findings

Rates are designed to allow for recovery of a representative level of a company's revenues and expenses based on a historic test year adjusted for known and measurable changes. D.T.E. 02-24/25, at 161; D.P.U. 92-250, at 106. To be included in rates, property and liability insurance expenses must be reasonable. See D.T.E. 02-24/25, at 161-162. Further, companies must demonstrate that they have acted to contain their property and liability insurance costs in a reasonable, effective manner. D.P.U. 08-35, at 119-120; D.T.E. 05-27, at 133-134; D.T.E. 03-40, at 184-185. Finally, any post-test-year adjustments to property and liability insurance expense must be known and measurable. D.P.U. 10-55, at 276; D.P.U. 09-30, at 218; D.T.E. 02-24/25, at 161; D.P.U. 86-86, at 8-10; D.P.U. 84-94, at 44.

The Department has recognized that because self-insured damage claims vary from year to year, limiting recovery to test-year levels may not produce a representative level of claims expense on a forward-looking basis. See D.P.U. 87-59, at 35-40. Accordingly, the Department has used a five-year average of self-insurance claim payments to determine the appropriate level of self-insured expense for ratemaking purposes. D.P.U. 09-30, at 219-220; D.P.U. 89-194/195, at 75; D.P.U. 87-59, at 40.

Unitil's property and liability insurance program includes both premium-based and self-insured coverage (Exh. Unitil-DLC-1, at 21). The Company represents that this arrangement ensures that its insurance coverage remains available at a reasonable cost

(Exh. Unutil-DLC-1, at 21). All insurance policies, with the exception of workers' compensation, are carried by Unutil Service, with the costs allocated among the various Unutil Corporation affiliates using either a specific allocator (e.g., auto liability premiums are allocated based on the number of vehicles in the business unit) or, if there is no definable unit (e.g., excess liability and directors and officers liability coverage), a general allocator based on a weighted average of plant investment, revenues, and salaries (Exh. AG 1-61).⁷¹ With respect to its premium-based insurance, the Company has provided updated invoices, policy information, and explanations for the increases in various insurance premiums including all-risk insurance, workers' compensation, excess liability, and directors and officers liability (Exhs. AG 1-61, Att. 3; AG 1-61 (Supp.), Att. 1; DPU-FGE 15-4, Att. 1). Based on our review, the Department finds that the Company's premium-based insurance costs are reasonable and that the proposed increases to property and liability insurance are known and measurable (Exhs. AG 1-61, Atts. 1, 2, 3; AG 1-61, Att. 1 (Supp.); DPU-FGE 15-4, Att. 1). See D.T.E. 02-24/25, at 161; D.P.U. 92-250, at 106; D.P.U. 86-86, at 10. In addition, based on a review of the Company's insurance costs over the past several years, the Department finds that the Company has been able to control property and liability insurance expenses (Exhs. AG 1-34, Atts. 1, 2; DPU-FGE 15-4, Att. 1).

Turning to the Company's self-insurance costs, Unutil contends that its test-year accrual of \$180,000 represents a reasonable level of expense for ratemaking purposes (Company Brief at 108). Alternatively, the Company argues that if the Department uses a five-year average of actual claims paid to calculate its self-insurance expense, that average should take into account a \$200,000 claims payment expected to be made later this year (Company Brief at 109; Company

⁷¹ Workers' compensation insurance is separately carried by Unutil Corporation's affiliates, including the Company (Exh. AG 1-61).

Reply Brief at 25). While the Attorney General supports the use of a five-year average of actual claims paid to calculate a representative self-insurance expense, she argues that is inappropriate to include the \$200,000 payment in such average (Attorney General Brief at 59; Attorney General Reply Brief at 25).

Amounts credited to operating reserves, such as Unitil's self-insurance reserve, are determined by a company's assessment of probable liabilities and, therefore, represent estimates of future events. See D.P.U. 10-70, at 184; Western Massachusetts Electric Company, D.P.U. 1300, at 52-53 (1983). Consequently, we find that including the full test year amount booked to the reserve account in cost of service is not appropriate as it would tend to overstate Unitil's self-insurance expense. Instead, the Department will use a five-year average of the Company's actual self-insurance payments to calculate a representative expense for ratemaking purposes. D.P.U. 10-55, at 272; D.P.U. 07-71, at 93.

With respect to Unitil's alternative proposal to include a \$200,000 payment expected to be made in 2014 in the five-year average of actual claims paid, the Department accepts that self-insurance claims payments will fluctuate from year to year. The Company's recent history of actual self-insured damage claims paid by its electric division range from \$9,351 in 2008 to \$53,390 in 2009, with a five-year average of \$30,704 over the period 2008 through 2012 (Exh. AG 3-34). While the Company asserts that other high-dollar damage claims have been incurred in the past, the evidence indicates that such payments have not been made – at least with respect to the Company's electric division – in recent years (Exh. AG 3-34; Tr. 1, at 47-48, 78-79; Tr. 5, at 565-567). On this basis, the Department is unable to conclude that the anticipated \$200,000 claims payment is representative of the Company's damage claims paid. In addition, the Company provided insufficient evidence to demonstrate that the \$200,000 claim

will actually be paid.⁷² Instead, Unitil simply asserts that it anticipates it will make the \$200,000 claims payment in 2014 (Exh. Unitil-DLC-Rebuttal, at 5). For these reasons, the Department will not include the \$200,000 claim in the five-year average of the Company's self-insurance expense.

As noted above, the Company's five-year average of actual self-insured damage claims paid is \$30,704 (Exh. AG 3-34). During the test year, the Company accrued \$180,000 in self-insurance expense to its electric division, of which \$19,386 was assigned to internal transmission and \$160,614 was assigned to base distribution service (Exh. AG 3-33). Accordingly, the Department reduces the Company's proposed cost of service by \$149,296.⁷³

F. Distribution-Related Bad Debt

1. Introduction

The Department permits a representative level of distribution-related bad debt expense to be included in cost of service. D.P.U. 89-114/90-331/91-80 (Phase One) at 137-140. During the test year, Unitil booked \$733,732 to distribution-related bad debt for its electric division (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-10). The Company proposes to decrease its distribution-related bad debt expense by \$103,067 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-10). The Company proposes to calculate the total amount of distribution-related

⁷² The Company's reliance on D.P.U. 09-30 to support the inclusion of the anticipated \$200,000 payment in the five-year average is misplaced. In that proceeding, Bay State Gas Company ("Bay State") proposed to use a five-year average of actual auto and general liability claims payments to calculate its proposed self-insurance expense, but excluded self-insurance expense associated with workers' compensation on the basis that it had eliminated the deductible on its workers' compensation insurance coverage. D.P.U. 09-30, at 219-220. In contrast to Unitil's anticipated claims payment, Bay State had already restructured its workers' compensation insurance program.

⁷³ Of this amount, \$16,079 is assigned to internal transmission and \$133,217 is assigned to base distribution service.

bad debt to be included in distribution rates by dividing the three-year average (i.e., 2010 through 2012) distribution-related net write-offs by the distribution-related revenues for the same period and multiplying the resulting percentage by normalized test-year distribution revenues (Exhs. Unitil-DLC-1, at 22-23; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-10). No party addressed this issue on brief.

2. Analysis and Findings

The Department permits companies to include for ratemaking purposes a representative level of bad debt revenues as an expense in cost of service. D.P.U. 09-39, at 164; D.P.U. 96-50 (Phase I) at 70-71; D.P.U. 89-114/90-331/91-80 (Phase One) at 137-140. The Department has found that the use of the most recent three years of available data is appropriate in the calculation of bad debt. D.P.U. 96-50 (Phase I) at 71. A company's bad debt ratio is derived by dividing the three-year distribution-related net write-offs by the distribution-related billed revenues for the same period. This bad debt ratio is then multiplied by test-year distribution-related billed revenues, adjusted for any distribution revenue increase or decrease that is approved in the current rate case. See D.P.U. 07-71, at 106-109; D.P.U. 96-50 (Phase I) at 71.

We find that the method used by Unitil to calculate its distribution-related bad debt adjustment is consistent with Department precedent (Exhs. Unitil-DLC-1 at 22-23; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-10). See D.P.U. 07-71, at 106-109; D.P.U. 96-50 (Phase I) at 70-71; D.P.U. 89-114/90-331/91-80 (Phase One) at 137-140. Consistent with Department precedent, the Company applied the three-year average bad debt rate to both the test-year retail billed revenues and the requested distribution rate increase (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-10).

Applying the three-year average bad debt rate of 1.27 percent to test-year distribution revenues, inclusive of internal transmission, of \$42,905,794 yields a distribution-related bad debt expense of \$543,506.⁷⁴ Further, applying the three-year average bad debt rate of 1.27 percent to the allowed distribution revenue increase of \$5,592,390 results in an additional \$70,841 of bad debt expense. Accordingly, we find that the Company's allowed distribution-related bad debt expense is \$614,348. Removing the bad debt allocated to internal transmission reduces distribution-related bad debt expense for the electric division by \$9,796 to \$604,552 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-10). Therefore, the Department decreases the Company's proposed cost of service by \$16,058.

G. Sundry-Related Bad Debt

1. Introduction

Unitil proposes to include in its cost of service sundry bad debt of \$185,057 (Exhs. Unitil-DLC-1, at 23; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-11). According to the Company, this amount relates to unpaid third party billings to Verizon for tree trimming and pole charges (Exhs. Unitil-DLC-1, at 23; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-11). Of the \$185,057, \$2,951 is assigned to internal transmission and \$182,106 is assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-11). No party addressed this issue on brief.

2. Analysis and Findings

Unitil has filed a civil complaint against Verizon seeking recovery of various shared expenses associated with tree trimming, pole charges, storm damage repair, and other activities (Exhs. AG 1-82, Att. 1; AG 3-9; AG 12-1). See Section VI.I.5, below. Consistent with our treatment of this issue in Section VI.I.5, below, the Department finds that it is premature to include this amount as sundry-related bad debt in the Company's cost of service. Accordingly, the Department decreases the Company's proposed cost of service by \$185,057.⁷⁵

⁷⁴ Although the Company shows a bad debt rate of 1.27 percent, Unitil computes its bad debt using a floating decimal of 1.26674347 (see Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-10)

⁷⁵ Of this amount, \$2,951 is assigned to internal transmission and \$182,106 is assigned to base distribution service.

H. Vegetation Management Program Expense

1. Introduction

a. Overview

The Company has a comprehensive vegetation management program intended to prevent trees from interfering with electric lines during normal weather conditions and minor storm events (Exh. Unitil-SMS-1, at 3). The Company designed and implemented its current enhanced vegetation management program in January 2012 based on the recommendations and analysis provided by an independent consultant (Exhs. Unitil-SMS-1, at 8; DPU-FGE 6-38, Atts. 1-3; DPU-FGE 7-26, Att.).⁷⁶ Unitil's vegetation management program has three main components, each of which is devised to minimize the effects of trees and other vegetation on the reliability of the Company's distribution system during normal operating conditions: (1) cycle pruning; (2) hazard tree mitigation; and (3) forestry reliability assessment (Exh. Unitil-SMS-1, at 3).

The Company has a five-year cycle pruning plan designed to trim approximately one-fifth of its 412 system pole miles each year, or approximately 83 miles per year (Exh. Unitil-SMS-1, at 3-4, 11).⁷⁷ The Company determined a five-year cycle was appropriate based on a balancing (1) the desired clearance, (2) growth rates of the predominant species in the service area, (3) risk to system reliability, (4) aesthetics, and (5) cost (Exh. Unitil-SMS-1, at 3-4).

⁷⁶ In D.P.U. 09-01-A at 213, the Department concluded that Unitil failed to demonstrate a sufficient commitment to develop and adhere to adequate tree-trimming practices and required the Company to engage a consultant to assist in developing an appropriate vegetation management program to ensure service reliability.

⁷⁷ Prior to implementation of its current vegetation management plan, the Company had a split circuit maintenance policy where it trimmed on a four-year to ten-year cycle, depending on the line voltage (Exh. DPU-FGE 7-26, Att. 1, at 6, 17; Tr. 2, at 134).

The hazard tree mitigation component of the Company's vegetation management program includes a tree risk assessment protocol to examine a tree's location and potential impact of any failure on the distribution system, as well as the probability of tree failure due to defect (Exh. Unutil-SMS-1, at 3-4). In implementing its hazard tree mitigation practices, the Company performs an assessment to identify hazard trees and then prioritizes hazard tree removal according to degree of risk the trees pose to the system (Exh. Unutil-SMS-1, at 5-6). Finally, as part of the forestry reliability assessment component of the vegetation management program, the Company reviews circuits with high levels of tree-related interruptions and marks them for an in-depth field assessment, with the objective of identifying and addressing trouble spots that were not discovered during regular cycle pruning or hazard tree inspections (Exh. Unutil-SMS-1, at 6).

b. Test-Year Costs and Proposed Cost of Service Adjustment

In its initial filing, Unutil reported \$1,198,939 in test-year costs related to its vegetation management program (Exhs. Unutil-SMS-1, at 10; Sch. Unutil-SMS-1).⁷⁸ During the proceedings, the Company revised its test-year amount to \$1,186,503 to remove \$12,436 in costs associated with transmission operations (Exhs. Unutil-DLC-Rebuttal-1, at 11; DPU-FGE 3-14).

⁷⁸ The Company's vegetation management expense comprises several cost categories including: (1) maintenance circuit pruning (i.e., tree trimming); (2) hazard tree mitigation; (3) forestry reliability assessment; (4) police flagger details; (5) sub-transmission vegetation control; and (6) and forestry contract services (Exh. Unutil-SMS-1, at 9-12; RR-DPU-9, Att.).

The Company initially proposed to increase its test-year vegetation management costs by applying an inflation escalation factor of 3.72 percent (Exhs. Unutil-DLC-1, at 30-31; Unutil-RLF/SMS-Rebuttal-1, at 3-4; Sch. RevReq 3-21, at 2).⁷⁹ During the course of proceedings, Unutil offered an alternative proposal to increase test-year costs to recognize actual vegetation management costs that the Company incurred in 2013 (Exh. Unutil-DLC-Rebuttal-1, at 12; Unutil-RLF/SMS-Rebuttal-1, at 3-4; RR-DPU-9, Att.).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company's proposed vegetation management program expense is approximately three times the ten-year average spending from 2003 to 2012 of \$413,092 (Attorney General Brief at 69, citing Exh. AG-HWS-1, at 3). Although the Attorney General concedes that an increase from past spending levels is necessary given the Company's lack of adequate spending in the past, she proposes that the Department reject the requested inflation escalation factor and conditionally approve the actual test-year expense (Attorney General Brief at 69). According to the Attorney General, the Company has provided no support to justify the use of an inflation escalation factor for an expense that fluctuates based on the type of work needed and vegetation density (Attorney General Brief at 69, citing Exh. AG-HWS-1, at 5). She further maintains that the absence of an inflation escalation factor to test-year costs would not undermine the Company's ability to fund its vegetation management program, particularly in view of the fact that the Company's tree-trimming cost per circuit mile decreased in 2013 (Attorney General Brief at 70, citing Exhs. Unutil-RLF/SMS-Rebuttal-1, at 3; AG-HWS-Surrebuttal-1, at 4).

⁷⁹ Unutil calculated its inflation factor based on the gross domestic product implicit price deflator inflation factor of 3.72 percent, projected from the midpoint of the test year, July 1, 2012, to the midpoint of the rate year, November 30, 2014, a 29-month period (see Exhs. Unutil-DLC-1, at 31; Sch. RevReq-3-21, at 2).

The Attorney General asserts that approval of a vegetation management expense should not be viewed by the Company as “blank check” spending approval (Attorney General Brief at 70, citing Exh. AG-HWS-Surrebuttal-1, at 4). According to the Attorney General, the Company’s historical spending for vegetation management has not always been commensurate with budgeted amounts (Attorney General Brief at 70, citing D.P.U. 11-01/D.P.U. 11-02, at 362. Further, the Attorney General notes that the Company’s test-year spending was 25 percent less than what the Company claimed during its last rate case that it would spend in 2012 (Attorney General Brief at 70, citing D.P.U. 11-01/D.P.U. 11-02, at 352-353).

Based on these considerations, the Attorney General recommends that the Department conditionally approve the Company’s test-year expense of \$1,186,503 (Attorney General Brief at 70). As part of this conditional approval, the Attorney General proposes that Unitil be required to: (1) report to the Department and the Attorney General the amount it annually expends on vegetation management; and (2) create a regulatory liability for any amount not expended, such that any unspent portion of the allowed \$1,186,503 would be applied to the following year’s vegetation management spending (Attorney General Brief at 70).

b. Company.

The Company asserts that its current vegetation management plan fully addresses all of the substantive recommendations of its independent consultant, incorporates state-of-the-art features, and is being funded in an aggressive and cost-effective manner (Company Brief at 17). Unitil maintains that there has been no substantive criticism of the design or implementation of its vegetation management program (Company Brief at 17). Unitil rejects as inaccurate and misleading the Attorney General’s arguments regarding the Company’s spending on its vegetation management program (Company Brief at 17-20). The Company asserts that its current vegetation management costs are based on actual needs as determined in the field and on

the implementation of detailed vegetation management plans (Company Brief at 18). Further, the Company claims that spending has been well above levels reflected in rates and is growing at rates above the level of inflation (Company Brief at 19, citing RR-DPU-9). The Company asserts that its proposed inflation escalation factor adjustment is appropriate because the vegetation management program is subject to extraordinary and continuing cost pressure, including increases due to traffic control (Company Brief at 113, citing Exhs. Unutil-DLC-Rebuttal-1, at 11-12; Unutil-RLF/SMS-Rebuttal-1, at 5-6). Finally, the Company asserts that the Attorney General's proposed tracker is unnecessary and counterproductive (Company Brief at 114). Specifically, Unutil maintains that a mandatory spending obligation would create a perverse incentive contrary to the Company's fundamental operational goal to reduce and maintain its O&M costs (Company Brief at 114).

3. Analysis and Findings

The Company proposes to include in base distribution rates its test-year vegetation management expense of \$1,186,503, plus an inflation escalation factor of 3.72 percent, producing an adjusted test year expense of \$1,230,641 (Exhs. Unutil-RLF/SMS-Rebuttal-1, at 3-4; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-26; RR-DPU-9, Att.). As an alternative, the Company proposes to include in its cost of service its actual 2013 vegetation management expense of \$1,371,206 (Exh. Unutil-RLF/SMS-Rebuttal-1, at 3-4; RR-DPU-9, Att.).

As we have stated, it is well-established Department precedent that base distribution rate filings are based on an historic test year, adjusted for known and measurable changes. See D.P.U. 10-70, at 232; D.P.U. 1580, at 13-17, 19; D.P.U. 136, at 3-5; D.P.U. 18204, at 4-5; D.P.U. 18210, at 2-3; see also 383 Mass. 675, 680. The selection of the test year is largely a matter of a distribution company's choice, subject to Department review and approval. See D.P.U. 07-50-A at 51; D.P.U. 1720, Interlocutory Order at 7-11 (January 17, 1984).

The test year in this case is 2012, which happens to coincide with the first year of spending under the Company's current vegetation management program. As noted above, during the test year the Company spent \$1,186,503 on its vegetation management program, and this level of spending is supported by the evidence (see, e.g., Exhs. Unitil-DLC-Rebuttal-1, at 11; DPU-FGE 3-14; DPU-FGE 6-42, Att.; DPU-FGE 6-43; RR-DPU-9, Att.). The Company initially sought to increase its test-year level of expense by an inflation escalation factor of 3.72 percent (Exhs. Unitil-DLC-1, at 31; Sch. RevReq 3-21, at 2; Unitil-RLF/SMS-Rebuttal-1, at 3-4). An inflation allowance is intended to adjust certain O&M expenses for inflation where the expenses are heterogeneous in nature and include no single expense large enough to warrant specific focus and effort in adjusting. D.P.U. 1720, at 19-21. We find that the Company's vegetation management program expense is large enough to warrant particular focus and, if appropriate, adjustment. Therefore, we reject the Company's proposal to treat vegetation management expense as if it were a residual O&M expense that would be subject to an inflation adjustment. Further, because this category of O&M expense is subject to separate adjustment so that the expense will be representative of costs to be incurred in the year following new rates, the Department finds it unnecessary to include the test-year expense in the Company's residual O&M expense used to compute the inflation allowance (see Section VI.N, below).

As an alternative to the requested inflation adjustment, the Company seeks to adjust its test-year expense to reflect its reported 2013 level of spending. The Company claims that it increased spending in 2013 to \$1,371,206, and that spending will further escalate in the future (Exh. Unitil-RLF/SMS-Rebuttal-1, at 3-4; RR-DPU-9, Att.). Nonetheless, Unitil failed to provide sufficient supporting documentation of its 2013 costs and, as such, the costs are not known and measurable (see Exh. DPU-FGE 16-8; Tr. 3, at 388-389; RR-DPU-9, Att.). Further,

the Department does not typically allow proposed adjustments based on projections or estimates of increased expenses. D.T.E. 98-51, at 62; D.P.U. 92-210, at 83; Dedham Water Company, D.P.U. 849, at 32-34 (1982). Therefore, we reject the Company's proposal to adjust its test-year expense to reflect purported 2013 spending or projected increased spending in the future. Instead, based on the record before us, we find that the Company's test-year level of vegetation management expense is a representative level of expense. Nonetheless, included in this representative level of expense is \$185,057 that was charged to Verizon (Exhs. Unitil-SMS-1, at 10; AG 3-22; Tr. 6, at 716-719). We determine that this amount shall not be included in a representative level of vegetation management expense supported by ratepayers going forward. Therefore, we will allow the test year level of \$1,186,503 less the \$185,057 billed to Verizon (see Section VI.G, above) to be included in base rates.

Finally, we address the Attorney General's recommendation to establish a regulatory liability to ensure stable spending under the Company's vegetation management program. As noted above, the Department had previously recognized that Unitil had an inadequate vegetation management practice to the detriment of its system reliability. D.P.U. 09-01-A at 213. The Company has implemented its current vegetation management program to address and correct past deficiencies. Given that the current vegetation management program began in 2012, the record reflects only one year of substantiated spending. Thus, we find that the Attorney General's recommendation is premature at this time.

Moreover, Unitil's vegetation management program costs are a component of the Company's base distribution rates. Base distribution rates are designed to include what is considered to be a representative level of the associated costs, largely based on a historic test year adjusted for known and measurable changes. The resulting rates remain the same between

rate cases; that is, the underlying expenses are not reconciled between rate cases.⁸⁰ The fact that a company experiences year-to-year fluctuations in its vegetation management program costs, does not, in itself, warrant the adoption of an alternative regulatory mechanism, such as the creation of a regulatory liability as proposed by the Attorney General.

D.P.U. 11-01/D.P.U. 11-02, at 363-365. We intend to give close scrutiny to the Company's performance under its current vegetation management program because vegetation management is a fundamental distribution utility practice within a company's control that is critical to providing safe and reliable service. See D.P.U. 11-01/D.P.U. 11-02, at 365. It is the Company's obligation to ensure that its vegetation management program is sufficiently robust to serve customers reliably, and this obligation includes adequate and consistent spending to effectively implement the vegetation management program.

I. Major Storm Restoration Cost Recovery

1. Introduction

a. Overview

Unitil seeks to recover \$5,869,538 in restoration and repair costs related to three major storms that struck New England in 2011 and 2012 –T.S. Irene, the October Snowstorm, and Hurricane Sandy. The costs are broken down as follows: (1) \$1,472,647 related to T.S. Irene; (2) \$3,003,137 related to the October Snowstorm; (3) \$838,110 related to Hurricane Sandy; and (4) \$555,644 in carrying costs accrued at the Company's after-tax cost of long-term debt (4.31 percent) since September 2011 (Exhs. Unitil-LMB-1, at 26-27; Sch. LMB-7;

⁸⁰ The Department considers specific criteria when determining whether to allow a new fully reconciling mechanism, including whether the expense is (1) volatile in nature, (2) large in magnitude, (3) neutral to fluctuations in sales, and (4) beyond the company's control. See, e.g., D.P.U. 10-70, at 48; D.P.U. 10-55, at 66 n.43; D.P.U. 07-50-A at 50; D.T.E. 05-27, at 183-186; D.T.E. 03-47-A at 25-28, 36-37; D.T.E. 98-27, at 6, 28.

DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq-6, RevReq 6-1).⁸¹ The Company proposes to amortize these costs, plus carrying costs, over three years for an annual amount of \$2,083,370 to be included in base distribution rates (Exhs. Unutil-LMB-1, at 26; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-6).

b. Description of the Storms and Resulting Damage

i. T.S. Irene – August 2011

T.S. Irene stretched from the Carolinas to New England and caused widespread damage, including power outages to more than seven million homes and business across 13 states and the District of Columbia (Exhs. Unutil-RLF-1, at 5-6; Sch. Unutil-RLF-1, at 4). T.S. Irene impacted the New England area on August 28, 2011, and included sustained winds between 35 and 40 miles per hour, wind gusts of approximately 60 miles per hour, and more than three inches of rainfall (Exhs. Unutil-RLF-1, at 6; Sch. Unutil-RLF-1, at 4). Customer interruptions were reported on 22 of the Company's 38 distribution feeders, with two feeder lockouts reported (Exh. Sch. Unutil-RLF-1, at 11-12).⁸² The Company received and responded to a total of 77 priority wire-down calls from municipal emergency response officials (Exh. Sch. Unutil-RLF-1, at 13).⁸³ The Company also received 106 other wire-down calls during the event, with some of

⁸¹ In D.P.U. 11-128, the Department permitted Unutil to defer certain costs related to T.S. Irene and the October Snowstorm for review in this proceeding. Hurricane Sandy occurred in the test year, *i.e.*, 2012.

⁸² A feeder lockout is an automatic or unplanned interruption of electrical service at a distribution feeder substation that requires manual investigation and correction before service can be restored. Western Massachusetts Electric Company, D.P.U. 11-119-C at 7 n.9 (2012). A feeder lockout can result from equipment failure, downed power lines, or line faults on the transmission system that supplies the feeder. D.P.U. 11-119-C at 7 n.9.

⁸³ Priority calls are received from a public or municipal official about a downed wire and are reported as level one, two, or three; level one represents an imminent hazard, life-threatening event, level two is an event hindering public safety operations, and level three is public safety concern. See D.P.U. 11-119-C at 58.

calls reassigned to cable, fire, and/or telecommunications providers (Exh. Sch. Unitil-RLF-1, at 13). As a result of the storm, the Company experienced two broken utility poles and damage to six transformers (Exh. Sch. Unitil-RLF-1, at 13-14). Unitil reports that at the peak of the storm, 8,232, or 29 percent, of the Company's customers were without power, while over the course of the restoration efforts there were approximately 10,723 cumulative customer interruptions (Exhs. Unitil-RLF-1, at 7; Sch. Unitil-RLF-1, at 4).⁸⁴ The Company restored service to all its Massachusetts customers by August 29, 2011 (Exhs. Unitil-RLF-1, at 7; Sch. Unitil-RLF-1, at 4).

ii. October Snowstorm – October 2011

The October Snowstorm produced heavy snowfall across twelve Northeast states and the Canadian Maritimes and caused three million customer outages (Exhs. Unitil-RLF-1, at 8; Sch. Unitil-RLF-2, at 4). Locally, the storm impacted the New England area on October 29, 2011, and produced sustained winds of 17 miles per hour, wind gusts up to 30 miles per hour, and 19 to 25 inches of heavy wet snow when the leaves were still on the trees (Exhs. Unitil-RLF-1, at 8; Sch. Unitil-RLF-2, at 4). Customer interruptions were reported and confirmed on 27 of the Company's 38 distribution feeders, with 15 feeder lockouts reported (Exh. Sch. Unitil-RLF-2, at 12-13). The Company also received and responded to a total of 781 wire-down calls during the event, with nearly half of the calls reassigned to cable, fire, and/or telecommunications providers (Exh. Sch. Unitil-RLF-2, at 14). As a result of the storm, the

⁸⁴ Cumulative customer interruptions represent the total number of customers experiencing storm-related interruptions, including customers impacted multiple times (Exh. Sch. Unitil-RLF-1, at 12).

Company experienced 18 broken utility poles⁸⁵ and damage to ten transformers (Exh. Sch. Unutil-RLF-2, at 15-16). Unutil reports that at the height of the October Snowstorm's impact on the Company's service territory, 26,163, or 91 percent, of its customers were without power, while over the course of the storm and the related restoration efforts, there were approximately 49,840 cumulative customer interruptions (Exhs. Unutil-RLF-1, at 9-10; Sch. Unutil-RLF-2, at 4, 13). Unutil restored service to all of its Massachusetts customers by November 2, 2011 (Exhs. Unutil-RLF-1, at 9-10; Sch. Unutil-RLF-2, at 4).

iii. Hurricane Sandy – October 2012

Hurricane Sandy originated in the Atlantic Ocean, spread across 24 states in the United States, and caused widespread power outages (Exhs. Unutil-RLF-1, at 11; Sch. Unutil-RLF-3, at 2). The storm impacted the New England area on October 29, 2012, accompanied by sustained winds of 20 to 30 miles per hour, wind gusts up to 50 miles per hour and heavy rain (Exhs. Unutil-RLF-1, at 12; Sch. Unutil-RLF-3, at 3). During the event, interruptions were reported on 19 of the Company's 38 distribution feeders, with two feeder lockouts reported (Exh. Sch. Unutil-RLF-3, at 24-25). Further, the Company received and responded to a total of 96 wire down calls (Exh. Sch. Unutil-RLF-3, at 26). As a result of the storm, the Company also experienced nine broken utility poles and damage to five transformers (Exh. Sch. Unutil-RLF-3, at 26-27). Unutil reports that at the height of the hurricane's impact, 5,600, or 20 percent, of the Company's customers were without power, while over the course of the storm and the related restoration efforts, there were 7,244 cumulative customer interruptions (Exhs. Unutil-RLF-1, at 13; Sch. Unutil-RLF-3, at 3, 25). The Company restored service to all of its customers by October 31, 2012 (Exh. Unutil-RLF-1, at 13; Sch. Unutil-RLF-3, at 4).

⁸⁵ The Company reports that 14 of the poles were in Verizon's pole-set territory (Exh. Sch. Unutil-RLF-1, at 15).

c. Specific Storm Cost Recovery Considerations

In the sections below, we discuss (1) the Company's efforts to document storm restoration costs, (2) issues raised by the Attorney General with respect to the prudence of the storm restoration costs, (3) differences in the amount of costs related to T.S. Irene and the October Snowstorm that were previously deferred for recovery and the amount of costs related to these storms for which the Company now seeks recovery, (4) whether certain storm-related costs that Unitil seeks from Verizon are recoverable in this proceeding, and (5) particular ratemaking treatment considerations associated with the costs that we determine are recoverable in this case.

2. Documentation of Storm Restoration Costs

a. Introduction

Unitil segmented the major storm restoration costs incurred by the Company during its emergency restoration efforts into the following categories:

(1) contractor and related services to acquire and compensate local and non-local utility line crews, tree crews, and damage assessment and wires-down personnel; (2) incremental wages and overtime paid to the Company's crews, overtime paid to non-exempt employees of Unitil and Unitil Service, and overtime paid to Unitil and Unitil Service employees; (3) materials and supplies issued from inventory and charged to the respective construction work orders; and (4) transportation, which represents incremental costs of operating Company-owned vehicles and other equipment used by Unitil (Exhs. Unitil-LMB-1, at 28-31; Sch. Unitil-LMB-7).

The Company provided detailed documentation to support its request for cost recovery, including contractor authorization forms, work orders, invoices, and payroll and expense records (Exhs. DPU-FGE 6-57, Atts. 1-3; AG 10-28, Atts. 1-3). Unitil's internal audit group performed audits of the storm restoration costs to validate the accuracy, completeness, and proper classification of the costs (Exhs. Unitil-LMB-1, at 25; AG 12-40 & Atts. 1-3). The internal audit

group issued reports summarizing the audit process and identifying any adjustments to the storm-related costs that were made as a result of the audit (see Exhs. AG 12-40, Atts. 1-3). No party challenged the sufficiency of the Company's documentation of the storm restoration costs.

b. Analysis and Findings

The Department has reviewed the documentation provided by the Company to support its request for storm restoration cost recovery. We find that the information provided by the Company demonstrates that the costs for which the Company seeks recovery were incurred during the restoration period, are accurately categorized as storm-related costs, and are supported by sufficient documentation (Exhs. DPU-FGE 6-57, Atts. 1-3; AG 10-28, Atts. 1-3; AG 12-40, Atts. 1-3). Our finding that the restoration costs incurred by the Company for the three storms are supported by sufficient documentation; however, the documentation does not demonstrate that those costs were reasonably and prudently incurred, or that they are otherwise appropriate for recovery. Rather, as discussed in the sections below, the Department must evaluate whether the Company incurred additional costs as a result of any imprudent management decisions during the restoration period. If the Company incurred additional costs as a result of imprudent management decisions, those costs will be disallowed. D.P.U. 95-118, at 46, 50, 51, 57; D.P.U. 93-60, at 28-30; Boston Edison Company, D.P.U. 92-1A-A at 17 (1993); Cambridge Electric Light Company, D.P.U. 91-2C-1, at 17-18 (1993); Natural Gas Shortage, D.P.U. 555-C at 249, 258-259 (1983); D.P.U. 555, at 4-5. Further, we will evaluate in this proceeding other aspects of the costs to determine whether they are appropriate for recovery.

3. Prudency of Storm Restoration Costs

a. Introduction

The Department stated in D.P.U. 09-01-A that we would review the prudence of the Company's storm-related costs to determine whether it is appropriate to allow recovery of those costs, and that we would disallow any imprudently incurred costs. D.P.U. 09-01-A at 196. The Department may deny costs that are directly attributable to imprudent management decisions. D.P.U. 95-118, at 46, 50, 51, 57; D.P.U. 93-60, at 28-30; D.P.U. 92-1A-A at 17; D.P.U. 91-2C-1, at 17-18; D.P.U. 555-C at 249, 258-259; D.P.U. 555, at 4-5. Imprudently incurred costs are any increased costs that a company would not have incurred but for imprudent management decisions. D.P.U. 95-118, 46, 50, 51, 57; D.P.U. 93-60, at 28-30; D.P.U. 92-1A-A at 17; D.P.U. 91-2C-1, at 17-18; D.P.U. 555-C at 249, 258-259; D.P.U. 555, at 4. In conducting a prudence review, the Department may not interfere with reasonable company judgments made in good faith and within the limits of reasonable discretion. Fitchburg Gas and Electric Light Company d/b/a Unitil, D.P.U. 09-09, at 38 (2009); D.P.U. 555-C at 16. The Department is required, however, to determine whether the company's actions, based on all it knew or should have known at the time, were reasonable and prudent in light of the then-existing circumstances. D.P.U. 09-09, at 38; Milford Water Company, D.P.U. 08-5, at 12-13 (2008), citing D.P.U. 93-60, at 24-25; D.P.U. 85-270, at 22-23; D.P.U. 906, at 165. A determination of reasonableness and prudence may not properly be made on the basis of hindsight judgments, nor is it appropriate for the Department merely to substitute its own judgment for the judgment of the management of the utility. 390 Mass. 208, 229.

The Attorney General has raised two primary arguments with respect to the prudency of the storm restoration costs incurred by the Company. First, the Attorney General challenges the prudency of the costs given that the costs per outage incurred by the Company in Massachusetts were more than double the costs per outage incurred for the same three storms by Unitil's New Hampshire affiliate, Unitil Energy. Second, the Attorney General contends that the storm restoration costs were increased as a result of the Company's inadequate vegetation management practices. The Department addresses these arguments below.

b. Storm Restoration Costs per Outagei. Introduction

Storm restoration activities in Massachusetts were performed by the Company, while storm restoration efforts in New Hampshire were performed by Unitil Energy (see Exh. DPU-FGE 16-1, at 2). For each of the three storms, Unitil provided a comparison of the costs incurred for each event, along with the number of customer outages in Massachusetts and New Hampshire (Exh. DPU-FGE 16-1, Att.).

ii. Position of the Parties(A) Attorney General

The Attorney General argues that a detailed comparison of Unitil's storm restoration costs shows that Massachusetts ratepayers paid twice as much per outage for restoration as the Company's New Hampshire customers (Attorney General Brief at 33-34, citing Exh. DPU-FGE 16-1; Attorney General Reply Brief at 29-31, citing Tr. 2, at 181-191, 201-210). According to the Attorney General, the higher average cost per outage in Massachusetts was a result of the Company's storm response decisions in securing and allocating crews to its Massachusetts and New Hampshire service territories (Attorney General Reply Brief at 31). The Attorney General claims that although New Hampshire was more significantly impacted by the storms and more contractor resources were allocated to New Hampshire, Unitil's Massachusetts customers are expected to pay \$85.28 more in restoration costs per outage than New Hampshire ratepayers (Attorney General Reply Brief at 30-31, citing Tr. 2, at 208-209). Thus, the Attorney General argues that the Company's "exorbitant" restoration costs incurred for Massachusetts restoration efforts amount to impudence (Attorney General Brief at 33-34; Attorney General Reply Brief at 31). Therefore, she recommends that the Department disallow \$3,270,403 in storm restoration costs (Attorney General Brief at 33-34).⁸⁶

⁸⁶ The Attorney General calculated the adjustment per storm by multiplying the New Hampshire cost per storm outage by the number of outages sustained in Massachusetts, which results in a recommended adjustment of \$870,090 ($\$73.21 \times 8,230$) for T.S. Irene; \$1,922,734 ($\$41.30 \times 26,163$) for the October Snowstorm; and \$477,579 ($\$64.38 \times 5,600$) for Hurricane Sandy (Attorney General Brief at 33-34, citing Exh. DPU-FGE 16-1).

(B) Company.

Unitil argues that the Department should reject the Attorney General's recommendation to disallow restoration costs because her analysis: (1) is not supported by substantial evidence and was raised for the first time on brief; and (2) fails to consider factors that would provide a meaningful comparison of storm-related impacts, such as weather intensity or equipment failures experienced in Massachusetts and New Hampshire (Company Brief at 33-35; Company Reply Brief at 5-6). On this latter point, the Company maintains that for T.S. Irene and the October Snowstorm, weather impacts were more severe in Massachusetts than they were in New Hampshire (Company Brief at 33-34; Company Reply Brief at 7-8). Further, Unitil asserts that it experienced fundamentally different and more severe damage to its Massachusetts distribution system than in New Hampshire, and that the required repairs resulted in a higher cost per outage in Massachusetts (Company Brief at 33-34; Company Reply Brief at 7-8).

Unitil also argues that in the Company's last rate case, the Department rejected an analysis based upon a comparison of the storm restoration cost experience of two neighboring utilities, as it concluded that too many factors may affect the underlying calculation to give the comparison much credence (Company Reply Brief at 6, citing D.P.U. 11-01/D.P.U. 11-02, at 63). Finally, the Company notes that its overall restoration efforts were successful, and that it was the only Massachusetts electric utility impacted by these storms that was not required to participate in the Department's subsequent investigations of response and restoration efforts (Company Brief at 25-29; Company Reply Brief at 3).

iii. Analysis and Findings

As an initial matter, the Department rejects the Company's argument that the issue of per outage storm restoration costs was raised by the Attorney General for the first time on brief. Both the Department and the Attorney General explored this issue during the course of the proceedings (see Exh. DPU-FGE 16-1, Att.; Tr. 2, at 208-209; Tr. 6, at 642-648). Thus, we will evaluate the merits of the Attorney General's position.

The Attorney General argues that in determining the prudence of the Company's storm restoration efforts, the Department must examine and compare per outage costs allocated to Massachusetts customers with per outage costs allocated to New Hampshire customers. In particular, the Attorney General claims that the mobilization and demobilization of contractor crews accounted for an overwhelming majority of contractor costs and that Unitil's decisions regarding the placement of these crews resulted in higher average cost per outage in Massachusetts than New Hampshire (Attorney General Reply Brief at 30-31).

We are not persuaded by the Attorney General's arguments. The Attorney General's position fails to account for other important factors that may impact cost, such as the type and severity of damage to the Company's distribution system and the scope and complexity of restoration efforts. In this regard, the record shows that all three storms were significant in intensity and severity and resulted in widespread damage throughout the Company's service territory (Exhs. Unitil-LMB-1, at 27-31; Sch. Unitil-LMB-7; Unitil-RLF-1, at 5-13; Sch. Unitil-RLF-1; Sch. Unitil-RLF-2; Sch. Unitil-RLF-3; see also Section VI.I.1.b, above). Further, the record shows that Unitil made its crew deployment decisions based on the information it had regarding the expected impact of each storm, and in light of Unitil's

knowledge of its distribution systems and how the systems tend to respond to major storm events (see Exhs. Sch. Unitil-RLF-1, Sch. Unitil-RLF-2, Sch. Unitil-RLF-3; Tr. 6, at 642-646). Consistent with our prudence standard, the Department is not inclined to substitute our judgment for that of the Company's management with respect to the level of storm preparedness and restoration efforts, including crew deployment.⁸⁷ Further, we find that the record regarding the Company's storm preparedness and response activities does not support a finding that it was Unitil's management crew deployment decisions, as opposed to actual storm-related damage, that resulted in the level of costs to Massachusetts ratepayers (see Exhs. Sch. Unitil-RLF-1; Sch. Unitil-RLF-2; Sch. Unitil-RLF-3). A simple review of per outage costs is insufficient to draw a conclusion of imprudent management by the Company. Accordingly, we decline to disallow any storm restoration costs on this basis.

c. Impact of Historic Vegetation Management Practices

i. Introduction

Prior to 2012, the Company maintained a vegetation management program that consisted of cycle pruning on a four- to ten-year basis, depending on the circuit, and a hazard tree program that was integrated into its overall vegetation maintenance work (Exh. AG 10-51, Att. 1; Tr. 2, at 116-118).⁸⁸ As noted in Section VI.H, above, the Company implemented its current enhanced vegetation management program, which consists of cycle pruning, hazard tree mitigation, and forestry reliability assessment, in 2012 (Exhs. Unitil-SMS-1, at 2-7; DPU-FGE 6-38).

⁸⁷ Of course, the Department may investigate a company's preparation for or restoration after an emergency event where it appears that a company has violated the Department's preparation and restoration standards. See 220 C.M.R. § 19.00 et seq.

⁸⁸ Prior to 2012, the Company did not separately track the number of hazard trees from the combined total of all hazard trees and limbs it removed (Exh. DPU-FGE 6-52; Tr. 2, at 126-127).

ii. Position of the Parties(A) Attorney General

The Attorney General argues that the main indicator of the Company's imprudence regarding storm restoration is its inferior vegetation maintenance practices, which have existed for at least the last eleven years and contributed to increased storm damage and severity of outages in the three storms at issue in this proceeding (Attorney General Brief at 38-39, citing Exh. AG-HWS-1, at 17-18; Attorney General Reply Brief at 31-32). As a result of this purported imprudence, the Attorney General recommends disallowance of 35 percent of overall storm-related costs (Attorney General Brief at 47-48, citing Exh. AG-HWS-1, at 25).⁸⁹ In particular, the Attorney General takes aim at the Company's tree-trimming activities and its hazard tree removal practices.

The Attorney General argues that between 2001 and 2011, the Company failed to follow best practices in vegetation management and adhere to a five-year tree-trimming cycle (Attorney General Brief at 39-40, citing Exh. AG-HWS-1, at 8, 11). Instead, according to the Attorney General, the Company followed a twelve-year trimming cycle and essentially ignored vegetation management for years (Attorney General Brief at 39-40, citing Exh. AG-HWS-1, at 11). The Attorney General contends that Unitil's switch to a five-year cycle in 2012 is indicative of the inadequacy of the Company's past practice (Attorney General Brief at 39-40, citing Exh. AG-HWS-Surrebuttal-1, at 24). Further, the Attorney General asserts that in eight of the ten years between 2001 and 2010, the Company did not spend its full vegetation management

⁸⁹ In her brief, the Attorney General recommends disallowance of \$1,521,707 in storm-related costs (Attorney General Brief at 47). In prefiled and rebuttal testimony, the Attorney General recommends disallowance of \$1,859,863, which is 35 percent of the storm-related costs (less carrying charges) sought by the Company (Exhs. AG-HWS-1, at 25-26; AG-HWS-6, at 1; AG-HWS-Surrebuttal-1, at 30).

budget, and that a comparison of the Company's average annual vegetation management expenditure of \$413,092 between 2003 and 2012 to its 2012 expenditure of \$1,186,503 illustrates that pre-2012 spending was inadequate (Attorney General Brief at 39, citing Exh. AG-HWS-1, at 11). Moreover, the Attorney General contends that the Company's increase in vegetation management spending each year from 2009 to 2012 is evidence that the Company's past vegetation management practices were deficient (Attorney General Reply Brief at 35, citing Exh. AG 10-1, Att. 1; D.P.U. 11-01/D.P.U. 11-02, at 60).

In addition, the Attorney General argues that the Company's failure to focus on hazard trees in the past and to implement a sufficient hazard tree mitigation plan likely impacted system reliability and contributed to the high amount of storm damage and costs incurred in 2011 and 2012 (Attorney General Brief at 41, 44-45, citing Exh. DPU-FGE 7-26, Att.1, at 72; Attorney General Reply Brief at 32, citing Exh. AG-HWS-1, at 24). According to the Attorney General, Unitol has known since 1996 of the threats posed to its distribution system by weak trees and limbs (Attorney General Brief at 41-42, citing Exh. AG-HWS-1, at 22). The Attorney General asserts that pre-2012, the Company's vegetation management program addressed hazardous trees on an inadequate basis with no accurate accounting of spending or the number of trees removed and no emphasis on achieving improvements in reliability during major storms (Attorney General Brief at 42-44, citing Exhs. AG-HWS-1, at 25; Exh. AG-HWS-Surrebuttal-1, at 14; DPU-FGE 6-52; DPU-FGE 7-26, Att. 1, at 8, 30; AG 10-1; AG 10-51, Att. 1, at 6; RR-AG-5; Attorney General Reply Brief at 32-34). The Attorney General contends that some of the trees that caused damage during the 2011 and 2012 storms would not have been there had a hazard tree program been implemented earlier by the Company (Attorney General Brief at 43-44, citing Exhs. Unitol-SMS-1, at 25; Unitol-RLF/SMS-Rebuttal-1, at 11, 17; AG-HWS-1, at 24.).

Thus, the Attorney General asserts that the Company's failure to implement even limited hazard tree mitigation is indicative of the imprudence that contributed to the high amount of storm damage and costs incurred in 2011 and 2012 (Attorney General Brief at 44-45, citing Exh. DPU-FGE 7-26, Att. 1, at 72).⁹⁰

The Attorney General, relying on evidence presented by the Company in its prior rate case and evidence presented in unrelated proceedings in Connecticut, argues that appropriate vegetation management and focus on hazardous trees would have reduced storm damage by an estimated 35 percent (Attorney General Brief at 45-47, citing Exhs. AG-HWS-1, at 19, 23-25; DPU-FGE 7-26, Att. 1, at 72 n.15). As such, the Attorney General recommends a storm cost disallowance of 35 percent of overall storm-related costs (Attorney General Brief at 47-48, citing Exh. AG-HWS-1, at 25). The Attorney General asserts that her recommended disallowance is appropriate because (1) the Department found in D.P.U. 11-01/D.P.U. 11-02 that the Company failed to adhere to its tree-trimming schedule, and (2) a request for an increase in vegetation management spending is an indication that the Company's past vegetation management practices were deficient (Attorney General Reply Brief at 34-35). The Attorney General asserts that, unlike in D.P.U. 11-01/D.P.U. 11-02, where the Department declined to adopt her recommended disallowance because of a lack of evidence, the Attorney General has provided sufficient evidence in the instant proceeding (1) to prove that the Company's adherence to planned trimming cycles would have eliminated a specific level of storm-related damages and costs, and (2) to support the suggested disallowance (Attorney General Brief at 47-48; Attorney General Reply Brief at 35).

⁹⁰ The Attorney General also addresses hazardous tree removal in the context of the Company's proposed storm resiliency pilot program, which is discussed in further detail in Section III, above (Attorney General Brief at 41-42, 44).

(B) Company.

The Company argues that the Attorney General's proposal to disallow a portion of the major storm-related costs is not supported by sufficient evidence, relies on the same discredited arguments that the Department rejected in past proceedings, and should be rejected again in this case (Company Brief at 35-36 citing Exhs. AG-HWS-1, at 18, 20; AG-HWS-Surrebuttal-1, at 12-13; D.P.U. 11-01/D.P.U. 11-02, at 60; D.P.U. 09-01-A at 160).

In particular, Unitol contends that the Attorney General's position is flawed for the following reasons: (1) most tree expert evidence concludes that trees outside of the right-of-way or outside of the Company's control are the primary cause of damage from major storms with high winds or heavy snow; (2) a review of the actual time between trimming cycles for a large majority of circuits shows that most went no more than four to six years between trimming, not twelve years as the Attorney General claims; (3) while hazard trees and limbs were not tracked separately prior to 2012, record evidence shows that the Company removed 6,700 hazard trees and limbs between 2004 and 2012 and removed 350 hazard trees in 2012; and (4) even if the Company had implemented its enhanced vegetation management program, which addresses normal weather events up to 50 mph, before the three major storms, it still would have experienced devastating outages from trees and limbs outside the trim zone (Company Brief at 36-40, citing D.P.U. 09-01-B at 155; Exhs. Sch. Unitol-RLF-7, at 9; DPU-FGE 3-4; DPU-FGE 6-52; RR-DPU-45; RR-AG-6, Att. 1, at 2-3 and Att. 2, at 1).

Unitol also challenges the Attorney General's argument that the Company's proposed increased spending on vegetation management is indicative of deficient past practices and excessive restoration costs, and the Company contends that the Department has previously rejected such a notion (Company Brief at 40, citing D.P.U. 11-01/D.P.U. 11-02, at 60-61; Company Reply Brief at 9). Further, the Company argues that the Attorney General's use of

witness testimony in Connecticut proceedings to establish a level of storm cost disallowance in this case is unreliable, unreasonable, and inappropriate (Company Brief at 42-47, citing, e.g., Exh. AG-HWS-1, at 19; Company Reply Brief at 9-10).

iii. Analysis and Findings

In D.P.U. 09-01-A, as part of the Department's investigation into Unitol's response to a severe 2008 ice storm, the Department fully examined the Company's vegetation management practices during years 2004 through 2008, and we determined that the Company was 18 to 21 months behind schedule on its distribution system tree trimming at the end of 2008. D.P.U. 09-01-A at 151. As noted in Section VI.H above, the Department required the Company to engage a consultant to assist in developing an appropriate vegetation management program to ensure service reliability. See D.P.U. 09-01-A at 213. The Company hired such a consultant who issued a report including a series of improvement recommendations (Exhs. Unitol-SMS-1, at 8; DPU-FGE 6-38, Atts. 1-3; DPU-FGE 7-26, Att.). The Company adopted the consultant's recommendations, and implemented the current enhanced vegetation management program in January 2012 (Exhs. Unitol-SMS-1, at 8; DPU-FGE 6-38, Atts. 1-3; DPU-FGE 7-26, Att.).

After our Order in D.P.U. 09-01-A but before implementing its current vegetation management program, the Company filed a rate case in 2011 and sought to recover restoration costs associated with the 2008 ice storm. See D.P.U. 11-01/D.P.U. 11-02, at 23-24. During that proceeding, the Attorney General examined the Company's tree-trimming practices from 2001 through 2010 and concluded that the Company's actual trimming was significantly less than what was required to achieve its planned tree-trimming cycles. D.P.U. 11-01/D.P.U. 11-02, at 60. The Department found that the evidence put forth by the Attorney General confirmed our conclusion in D.P.U. 09-01-A regarding the Company's failure to adhere to its tree-trimming schedule. D.P.U. 11-01/D.P.U. 11-02, at 60.

The record shows that the primary cause of outages for each of the three storms was tree-related damage to poles and wires. The Company acknowledges that for T.S. Irene and Hurricane Sandy, strong winds caused tree limbs to break and whole trees to be uprooted (Exhs. DPU-FGE 8-2; AG 10-41). Further, the evidence reveals that 99 percent of power outages during T.S. Irene, and 83 percent of outages during Hurricane Sandy, were related to damage from trees (Exh. AG 10-41). Regarding the October Snowstorm, the record shows that heavy wet snow caused limbs to break, and that 97 percent of all outages were caused by damage from trees (Exh. AG 10-41).

Given our findings in D.P.U. 09-01-A and D.P.U. 11-01/D.P.U. 11-02, and the timing of these storms vis-à-vis the implementation of the Company's enhanced vegetation management program in 2012, we conclude that the Company's past failure to adhere to an appropriate tree-trimming policy and a hazardous tree mitigation program in the past likely contributed to some portion of the damages experienced during some or all three of the storms. It is likely that in some areas of the Company's service territory there remained insufficiently trimmed and/or hazardous trees that were impacted by the storms and resulted in damage to the Company's distribution system.⁹¹ Nonetheless, given the characteristics and severity of the three storms, it is similarly likely that the Company's distribution system experienced damage from trees and limbs outside of the trim zone (see Exhs. Sch. Unitil-RLF-1; Sch. Unitil-RLF-2; Sch. Unitil-RLF-3;

⁹¹ In 2011, the Company trimmed trees over 36.5 miles of its distribution system, essentially the same as in 2010 and an increase of approximately seven miles from 2009 (Exh. AG 10-4). In 2011, the Company spent \$564,482 on vegetation management, which represents a 60 percent increase over spending on average between 2003 and 2010 (Exhs. AG 10-1, Att.; AG 10-4). In 2012, the Company trimmed 87.3 circuit miles, a 145 percent increase in trimming on average from 2003 to 2011 (Exh. AG 10-4). In 2012, the Company spent \$1,198,939 on vegetation management, including \$574,200 on tree trimming and \$167,844 on hazardous tree mitigation (Exh. AG 10-1, Att.; RR-DPU-9, Att.). The 2012 overall spending represents a 221 percent increase over average spending between 2003 to 2011 (Exh. AG 10-1, Att.).

Tr. 2, at 172-173; RR-AG-6, Atts. 1, 2). As such, we cannot determine with any degree of certainty the extent to which the costs incurred for restoration efforts during the three storms are related to Unital's past vegetation management practices or to damage by trees over which the Company had no control. See D.P.U. 11-01/D.P.U. 11-02, at 60, citing D.P.U. 09-01-A at 158-160.

In an attempt to quantify the extent of the damage attributable to the Company's past vegetation management practices, the Attorney General offers testimony from an unrelated Connecticut proceeding that purports to show that enhanced tree trimming would have resulted in a reduction of outages of at least 35 percent during major storms, and a reduction in service interruptions of about 50 percent at all other times (Exh. AG-HWS-1, at 19-26; AG-HWS-Surrebuttal-1, at 26-30). The Attorney General's submissions are unpersuasive. The testimony of a witness in a different proceeding in a different jurisdiction, who is not subject to cross examination in this case, lacks sufficient reliability and has little probative value on the issue of the Company's vegetation management practices or the casual connection between such practices, storm-related damage, and restoration costs. To disallow storm restoration costs for imprudence, the Department's precedent requires us to find that such costs were directly attributable to an imprudent management decision. See D.P.U. 95-118, at 46, 50, 51, 57; D.P.U. 93-60, at 28-30; D.P.U. 92-1A-A at 17; D.P.U. 91-2C-1, at 17-18; D.P.U. 555-C at 258-259; D.P.U. 555, at 4. Based on our findings above, we conclude that it would be inconsistent with our precedent to disallow storm restoration costs on the basis of the Company's past vegetation management practices.

4. Deferred Storm Cost Amounta. Introduction

In D.P.U. 11-128, at 13-14, 16-17, the Department approved Unitil's deferral request of \$1,434,823 in storm restoration costs for T.S. Irene and \$2,871,395 in storm restoration costs for the October Snowstorm. The Company now seeks to recover \$1,472,647 in storm restoration for T.S. Irene, an increase of \$37,824 in the amount approved for deferral in D.P.U. 11-128 (Exhs. Unitil-LMB-1, at 26-27; Sch. Unitil-LMB-7). The Company also seeks to recover \$3,003,137 in costs for the October Snowstorm, an increase of \$131,742 in the amount approved for deferral in D.P.U. 11-128 (Exhs. Unitil-LMB-1, at 26-27; Sch. Unitil-LMB-7).

b. Position of the Partiesi. Attorney General

The Attorney General argues that for T.S. Irene and the October Snowstorm, the Company's request for cost recovery exceeds the deferral amounts approved by the Department in D.P.U. 11-128 (Attorney General Brief at 32). The Attorney General asserts that the Department's findings in D.P.U. 11-128 relied upon precise deferral amounts provided by the Company, and that the Department's decision in that case does not support Unitil's position that the deferral amounts could be later revised (Attorney General Reply Brief at 28-29). Therefore, the Attorney General recommends that, consistent with Department precedent, \$37,824 in storm restoration costs for T.S. Irene and \$131,742 in costs for the October Snowstorm be excluded from recovery (Attorney General Brief at 32, citing D.P.U. 11-01/D.P.U. 11-02, at 51-53; Attorney General Reply Brief at 27, 28-29).

ii. Company.

The Company argues that the Attorney General has ignored the fact the Company explicitly stated in D.P.U. 11-128 that the cost information for T.S. Irene and the October Snowstorm was based on preliminary estimates (Company Brief at 30-31). Further, the Company contends that the Department, in deciding D.P.U. 11-128, appeared to recognize the estimated nature of the Company's cost information because the Department referred to the storm restoration costs as estimates (Company Brief at 31, citing D.P.U. 11-128, at 1-5; Company Reply Brief at 5). In addition, Unitil notes that that in presenting the cost information of the October Snowstorm in D.P.U. 11-128, the Company was required to estimate the totals because the storm occurred only seven weeks before the petition in that case was filed (Company Brief at 31). Finally, the Company argues that no party has challenged the merits of any of the audited storm-related invoices and that its good faith efforts to provide actual cost data should be considered (Company Brief at 31-32; Company Reply Brief at 4). For these reasons, the Company asserts that "[f]undamental fairness" requires an adjustment in the deferral amount to recognize the final repair and restoration costs (Company Reply Brief at 5).

c. Analysis and Findings

The Company incurred storm restoration costs for both T.S. Irene and the October Snowstorm in 2011, prior to the test year (Exhs. Unitil-LMB-1, at 24-25; DPU-FGE 6-57, Atts. 2, 3; AG 10-28, Atts. 1, 2). In D.P.U. 11-128, the Company provided: (i) actual expenditures as of March 8, 2012, of \$1,434,823 in storm restoration costs for T.S. Irene; and (ii) actual expenditures as of April 2, 2012, of \$2,871,395 in storm restoration costs for the October Snowstorm. D.P.U. 11-128, at 3-4 nn.3, 4. The actual expenditures presented by the Company for deferral formed the basis of the Department's evaluation of the Company's deferral petition. See D.P.U. 11-128, at 9-16. Based on this data, the Department approved deferral accounting treatment of \$1,434,823 in storm-related expenses for T.S. Irene and \$2,871,395 for the October Snowstorm. D.P.U. 11-128, at 13, 16-17. The Department's Order in D.P.U. 11-128 contains no provision for subsequent adjustments to the approved deferrals. Based on these considerations, we reject the Company's argument in this proceeding that the costs submitted for deferral in D.P.U. 11-128 were only estimates.⁹²

⁹² In its initial filing for D.P.U. 11-128, the Company provided estimated costs of \$1,464,000 for T.S. Irene and \$3,020,000 for the October Snowstorm. D.P.U. 11-128, at 3-4 nn.3, 4. During that proceeding, Unitil updated the cost estimates with the costs actually incurred of \$1,434,823 for T.S. Irene and \$2,871,395 for the October Snowstorm, and these actual costs were ultimately granted deferral by the Department. D.P.U. 11-128, at 3-4 nn.3, 4; 18.

Further, we are not persuaded that the additional costs sought for recovery by the Company should be allowed simply because they are documented and unchallenged as to their amount. These additional costs were incurred in 2011 and, therefore, they represent pre-test-year expenses that are ineligible for recovery absent deferral accounting treatment by the Department. See D.P.U. 11-01/D.P.U. 11-02, at 53; D.P.U. 10-55, at 303; Fitchburg Gas and Electric Light Company, D.P.U. 09-61, at 9-10, 17 (2009); Aquarion Water Company of Massachusetts, D.T.E. 04-77, at 5-7 (2005); North Attleboro Gas Company, D.P.U. 93-229, at 7-8 (1994). The Company determined the timing of the filing for its petition for deferral in D.P.U. 11-128 and bore the responsibility to ensure that all costs sought for deferral were presented in that proceeding. The additional costs for which the Company now seeks recovery were not submitted to the Department for deferral during the proceedings in D.P.U. 11-128.⁹³ Moreover, the Company was on notice of the Department's deferral precedent, having made a similar unconvincing argument in its last rate case to recover storm restoration costs that were not properly deferred. D.P.U. 11-01/D.P.U. 11-02, at 51-53. Accordingly, because the additional \$169,566 in costs for which the Company now seeks recovery were not approved for deferral in D.P.U. 11-128, the Department disallows their recovery.

⁹³ Unitil completed the internal audit of the major storm costs for both storms by March 2012 (Exh. AG 8-4, Atts. 1, 2). The discovery period in D.P.U. 11-128 was open with final discovery responses provided on April 9, 2012. In addition, the Company had the opportunity to request an evidentiary hearing or an extension of the discovery process in that proceeding but did not do so. Instead, the final audited cost totals for these storms were not submitted as part of the record in D.P.U. 11-128 (see Exhs. DPU-FGE 9-6; DPU-FGE 9-7; AG 8-4, Atts. 1, 2; Tr. 3, at 309-312).

5. Storm Restoration Costs from Verizon

a. Introduction

Unitil and Verizon jointly own utility poles, and the two companies share vegetation maintenance and storm-related costs (Exh. Unitil-SMS-1, at 10). On November 1, 1996, the Company and Verizon executed intercompany operating procedure (“IOP”) No. 17, which is a provision within the joint operating agreement (“JOA”) between the two companies (Exh. DPU-FGE 7-24, Att.). The JOA and IPO No. 17 govern the shared responsibility for tree-trimming and maintenance costs between Unitil and Verizon (Exh. Unitil-SMS-1, at 10). IOP No. 17 established a method of allocating costs associated with the construction and maintenance of jointly owned poles (Exh. DPU-FGE 7-24, Att.). Specifically, IOP No. 17 states that each company will handle heavy storm work during hurricanes, wet snow, tornadoes, and ice storms immediately without prior review by the other party (Exh. DPU-FGE 7-24, Att. at 1). Moreover, in IOP No. 17, Unitil and Verizon agreed to reciprocal acceptance of each other’s tree contractors for heavy storms on an equal 50:50 percent basis (Exh. DPU-FGE 7-24, Att. at 1).

Unitil seeks to include in cost of service \$132,788 in storm-related vegetation management costs that it asserts are owed to the Company by Verizon but that Verizon has failed to pay (Exh. Unitil-LMB-1, at 31-32). The costs included \$35,891 for T.S. Irene, \$93,055 for the October Snowstorm, and \$3,842 for Hurricane Sandy (Exh. Unitil-LMB-1, at 31; RR-DPU-11 (Rev.)). Unitil states that despite its efforts to collect the amounts owed under the JOA, Verizon has not remitted payment to the Company for any of the amount owed since 2011 (Exh. Unitil-LMB-1, at 31). As a result of the ongoing collection dispute, Unitil filed a civil complaint against Verizon in August 2013, seeking \$1.5 million in damages, which includes the \$132,788 in storm-related vegetation management costs incurred as a result of the three storms at issue in the instant case (Exhs. Unitil-LMB-1, at 32; AG 1-82, Att.; AG 3-9).

b. Positions of the Partiesi. Attorney General

The Attorney General acknowledges that under the JOA, certain storm-related vegetation management costs would be reimbursable by Verizon, thus reducing both the amount of net storm-related costs used to calculate funding levels, as well as some of the dollars the Company seeks to recover from customers (Attorney General Brief at 37, citing Exh. AG 1-82, at 11). Nonetheless, the Attorney General argues that, consistent with recent Department precedent, no Verizon storm-related costs may be recovered from customers until the outcome of the Company's pending lawsuit against Verizon is known (Attorney General Brief at 37-38, citing D.P.U. 13-52, at 48; D.P.U. 11-56, at 29).

ii. Company

Unitil maintains that the Company's initial filing properly included certain costs associated with storm restoration for which it asserts Verizon is responsible pursuant to the JOA and IOP (Company Brief at 32). The Company contends that it has aggressively pursued the payment of these costs from Verizon, including through the filing of the civil complaint (Company Brief at 32, citing Exhs. Unitil-LMB-1, at 32; DPU-FGE 14-20; AG 12-1). The Company acknowledges recent Department precedent on this issue, and Unitil states that it continues in its efforts to resolve its claim with Verizon (Company Brief at 32, citing Attorney General Brief at 37-38, citing D.P.U. 13-52, at 48; D.P.U. 11-56, at 28-29). Finally, the Company states that it now seeks, to the extent necessary or appropriate, Department authority to defer such costs for future recovery in rates (Company Brief at 32).

c. Analysis and Findings

Before the Company may seek recovery of vegetation management storm-related costs from ratepayers, it must demonstrate that it has taken prudent steps to seek recovery of those costs from Verizon, including, if necessary, pursuing legal action to recover those costs in court. See D.P.U. 13-52, at 48; D.P.U. 11-56, at 28-29. If the Company is unsuccessful in its efforts to collect vegetation management costs from Verizon through the legal process, it may seek recovery of those costs by filing an appropriate petition with the Department. D.P.U. 13-52, at 48; D.P.U. 11-56, at 29.

Unitil demonstrated that it has taken prudent steps to seek recovery of the costs from Verizon, and ultimately sought recovery through the legal action (Exhs. Unitil-LMB-1, at 31-32; Unitil-SMS-1, at 10; Tr. 5, at 531). Nonetheless, the Company is currently in the midst of the legal action and, thus, an evaluation of the merits of the Company's claims against Verizon by the Department is premature. Given these considerations, the Company's inclusion in its cost of service of \$132,788 in costs attributable to Verizon is improper. Accordingly, based on these considerations, the Department disallows recovery in this proceeding of \$132,788 in storm restoration costs that the Company seeks from Verizon.

Finally, the Company, on brief, seeks to defer these costs (Company Brief at 32). The Verizon billable costs for T.S. Irene and the October Snowstorm already are part of the costs that the Department deferred in D.P.U. 11-128. D.P.U. 11-128, at 3 nn.3, 4 & 18. Thus, the Department allows the Company to retain \$128,946 in Account 186 pending resolution of the ongoing litigation; no further action needs to be taken at this time.⁹⁴

⁹⁴ Because Hurricane Sandy occurred in the test year, a deferral request for cost recovery was not properly proposed. Accordingly, the amount of \$3,842 for Verizon billable costs are not included as deferred expenses.

6. Ratemaking Treatment of Storm-Related Costsa. Capitalization of Storm-Related Costsi. Introduction

Unitil states that because the priority of its storm restoration crews is the restoration of service to customers, the Company first records all storm restoration costs in one or two work orders, so that bills from vendors can be paid expeditiously (Tr. 6, at 723). Once contractors are paid, the Company examines the associated invoices to identify those costs that should be capitalized or expensed (Tr. 6, at 724-725).

Unitil proposes to capitalize \$822,415 of the storm-related costs related to T.S. Irene, the October Snowstorm, and Hurricane Sandy (Exhs. Unitil-LMB-1, at 34-35; Sch. Unitil-LMB-7).⁹⁵ The Company derived this total by first identifying the utility plant assets installed during the restoration process for each storm based upon equipment purchases that were reconciled to an ending physical inventory of all stock areas (Exh. Unitil-LMB-1, at 35; Tr. 6, at 724-725). The Company then applied the average installation cost of similar plant units installed in the year prior to each storm to the assets replaced as a result of that storm to determine the amount to capitalize as utility plant (Exh. Unitil-LMB-1, at 35; Tr. 3, at 98, 104-105). Thus, for T.S. Irene and the October Snowstorm, the Company used its average installation costs for the year 2010 to calculate the amount to be capitalized for individual plant assets installed during these storm restoration efforts (Exh. Unitil-LMB-1, at 35). For Hurricane Sandy, the Company used the average installation costs for the year 2011 to calculate the amount to be capitalized for individual plant assets installed during this storm restoration effort (Exh. Unitil-LMB-1, at 35).

⁹⁵ The Company proposes to capitalize the following storm restoration costs: (1) \$82,366 for T.S. Irene; (2) \$465,739 for the October Snowstorm; and (3) \$274,310 for Hurricane Sandy (Exhs. Unitil-LMB-1, at 34-35; Sch. Unitil-LMB-7).

- i. Positions of the Parties
 - (A) Attorney General

The Attorney General argues that the Company's proposal to capitalize \$822,415 in storm-related costs results in understating the level of costs that should be capitalized (Attorney General Brief at 35). According to the Attorney General, the Company's overall capitalization ratio of 13.4 percent is unreasonably low given that outside contractor costs represented 91.4 percent of the total overall storm restoration costs (Attorney General Brief at 36, citing Exh. AG-HWS-1, at 13-14). The Attorney General supports her contention by noting that a sampling of contractor invoices demonstrates that contractor costs alone either exceeded or approximated the amount capitalized by Unitil, even though contractor costs exclude internal labor and material costs (Attorney General Brief at 36, citing Exh. AG-HWS-1, at 16).

The Attorney General attributes this undercapitalization to the Company's failure to recognize the actual costs associated with the installation of plant assets during the storm restoration processes (Attorney General Brief at 35, citing Exh. Unitil-LMB-1, at 35). The Attorney General points out that Unitil concedes that under extraordinary circumstances, such as those encountered with these three storms, plant replacement costs will be higher than that associated with normal replacement activities (Attorney General Brief at 35, citing Exh. AG 10-33). Therefore, the Attorney General contends that the assets should be capitalized at their actual cost, rather than at an average installed cost (Attorney General Brief at 35, citing Exh. AG-HWS-1, at 16-17).

To derive her proposed capitalized amounts, the Attorney General calculated for each storm the ratio of contractor costs for equipment she considered directly related to capital work to total equipment, and used that amount to develop what she considered to be a more appropriate level of capitalizable storm expense (Attorney General Brief at 36,

citing Exh. AG-HWS-6, at 3, 5, 7).⁹⁶ Thus, the Attorney General proposes that \$1,486,220 should be capitalized, rather than the \$822,415 proposed by Unitil, and that \$663,805 should be removed from the Company's storm cost recovery (Attorney General Brief at 35-36, citing Exhs. AG-HWS-1, at 15; AG-HWS-6, at 2-7).

(B) Company.

Unitil argues that its calculation of capitalized storm-related costs is consistent with requisite accounting practices and has been accepted by the Department, the Company's external auditor, and the New Hampshire Public Utility Commission (Company Brief at 47-48, citing Tr. 6, at 724-725). In particular, Unitil contends that its approach is consistent with requisite accounting practices and rules that direct the Company to consider the underlying event giving rise to the expenditures, which in these cases would be a repair activity (Company Brief at 48, citing Exh. Unitil-LMB-Rebuttal, at 9). Further, Unitil states that these accounting rules require that any capitalized cost that is to be added to rate base must be specific, measurable, and made in accordance with the Company's accounting principles consistently applied (Company Brief at 48, citing Exh. Unitil-LMB-Rebuttal, at 9). The Company claims that its approach satisfies these requirements (Company Brief at 48). Moreover, Unitil argues that the Attorney General's recommended adjustment to the proposed amount of capitalized storm-related costs would increase the total cost to be collected from customers (Company Brief at 48).

⁹⁶ For example, in the case of T.S. Irene, the Attorney General determined, based on a review of payments to two contractors with total payments of \$926,123, that capital-related equipment charges of \$37,251 represented 12.26 percent of the total contractor equipment charges of \$303,903 (Exh. AG-HWS-6, at 3). The Attorney General multiplied the total payments to these contractors of \$926,123 by the 12.26 percent to derive a capitalized amount of \$113,520 (Exh. AG-HWS-6, at 3). The Attorney General then added the \$113,520 to the incremental payroll, materials and supplies, and transportation costs identified by the Company of \$115,458 (Exh. AG-HWS-6, at 2). The total of \$228,978 represents what the Attorney General considers to be the appropriate level of capitalized storm expense associated with T.S. Irene (Exh. AG-HWS-6, at 2).

ii. Analysis and Findings

By their nature, storm restoration activities entail both repair work and the replacement of damaged or destroyed equipment (Exh. FGE-AG 1-30; Tr. 2, at 101-102; Tr. 3, at 374-375). The Department has long recognized a distinction between capitalized and expensed repair activities. Aquarion Water Company of Massachusetts, D.P.U. 11-43, at 75 (2012); D.P.U. 88-67, at 128-132; North Attleboro Gas Company, D.P.U. 18928, at 7 (1977). While both Unitil and the Attorney General recognize the propriety of capitalizing a portion of storm restoration costs, they disagree on how to measure the appropriate level of capitalized repairs (Exhs. Unitil-LMB-Rebuttal-1, at 9-10; AG-HWS-Surebuttal-1, at 17-21; Tr. 2, at 102, 104-109; Tr. 3, at 374-379).

As an initial matter, utility plant should be recorded at original cost, regardless of the circumstances under which the plant was installed. 220 C.M.R. § 51.00 et seq.: Uniform System of Accounts for Electric Companies (“USOA-Electric Companies”); 18 C.F.R. Pt. 101, Electric Plant Instructions, § 2. See also Butterworth Water Company, D.P.U. 85-152, at 6-7 (1986); Boston Edison Company, D.P.U. 84-47, at 5 (1985); New England Telephone and Telegraph Company, D.P.U. 10349/10564 (1953); Lowell Gas Company v. Department of Public Utilities, 324 Mass. 80 (1949). While the USOA-Electric Companies describes the types of costs to be capitalized (18 C.F.R. Pt. 101, Electric Plant Instructions, § 3), the USOA-Electric Companies does not prescribe a specific method to apportion storm restoration expenditures between capitalized and expensed amounts.

Both Unitil and the Attorney General rely on various accounting instructions to support their interpretations of capitalized storm restoration costs. The Company points to FASB Accounting Standards Codification Topic 820, "Fair Value Measurement" ("FASB ASC 820") to support its accounting interpretation (Exhs. FGE-AG 1-27; Unitil-LMB-Rebuttal-1, at 9-10). A reading of the relevant sections of FASB ASC 820, however, indicates that this accounting ruling is applicable to financial assets, and not plant assets (Exh. AG-HWS-Surebuttal-1, at 18-20). In view of the inapplicability of FASB ASC 820 to plant assets, the Department is not persuaded that FASB ASC 820 supports the use of historic average costs in capitalizing storm restoration costs.

The Company and Attorney General both rely on the Practitioners Publishing Company Guide to GAAP 2013 ("2013 PPC Guide") to support their respective accounting interpretations (Exhs. Unitil-LMB-Rebuttal-1, at 9-10; AG-HWS-Surebuttal-1, at 21).⁹⁷ The 2013 PPC Guide states that long-lived assets should generally not include routine repairs and maintenance costs that do not add to the utility of the asset, and adds that "long-lived assets should not be written up to reflect appraisal, market, or current values that are above costs" (Exh. Unitil-LMB-Rebuttal-1, at 10, citing 2013 PPC Guide). The Company relies on this statement to support its use of historical accounting over current costs to determine capitalized storm restoration costs (Exh. Unitil-LMB-Rebuttal-1, at 10). Notwithstanding the Company's interpretation, however, plant that has to be replaced because of storm damage is retired, and thus no longer exists. 220 C.M.R. § 51.00 et seq.; 18 C.F.R. Pt. 101, Electric Plant Instructions, § 10. Thus, the cost of restoring plant that has to be replaced because of storm damage becomes the new, actual cost of that plant. 220 C.M.R. § 51.00 et seq.; 18 C.F.R. Pt. 101, Electric Plant Instructions, § 2. That new cost of plant does not constitute an appraisal or other market-based revaluation of the former

⁹⁷ The 2013 PPC Guide is a comprehensive resource for researching and applying generally accepted accounting principles. See <https://tax.thomsonreuters.com/products/brands/checkpoint/ppc/>

assets. In view of this interpretation of plant costs, the Department is not persuaded that the 2013 PPC Guide provides a sufficient basis to support the use of historic average costs in capitalizing storm restoration costs.⁹⁸

Based on the foregoing analysis, the Department finds that unresolved issues remain with Unitil's method of determining capitalized storm restoration costs in that the Company's use of average plant installation costs during the previous year may tend to understate the required capitalized amount. The Attorney General has offered an alternative analysis, supporting the capitalization of an additional \$663,805 in storm restoration costs. We now turn to the Attorney General's analysis.

The Attorney General's calculation of capitalized storm restoration costs is based on an examination of contractor invoices to identify those expenses that she considers to be more appropriately capitalized (Exhs. AG-HWS-6; FGE-AG 1-30). A key element of her analysis is the development of contractor equipment ratios that are then used to determine capitalizable amounts (Exh. AG-HWS-6, at 3, 5, 7). It is unclear as to whether a linear relationship exists between contractor equipment charges and the level of expense that should be capitalized that would warrant extrapolation of vendor expenses, as proposed by the Attorney General. Moreover, the Attorney General's approach presumes that all incremental payroll, materials and supplies, and transportation costs are capitalizable (Exh. AG-HWS-6, at 2, 4, 6). The Department is not persuaded that the entire balance of incremental payroll, materials and supplies, and transportation costs are appropriately capitalizable. Finally, acceptance of the

⁹⁸ Unitil also cites in general to Matthew Bender's "Accounting for Public Utilities Release No. 18" (November 2001) (Exh. Unitil-LMB-Rebuttal-1, at 10). This reference appears to provide general principles and describes various plant costing methods, but does not appear to endorse the use of any specific method, such as the average historical cost approach used by the Company (Exh. AG-HWS-Surebuttal-1, at 20-21).

Attorney General's proposal would require the reallocation of \$663,805 in storm restoration costs to the relevant plant investment balances. Assabet Water Company, D.P.U. 95-92, at 7-8 (1996). Despite this requirement, there is no evidence as to what specific plant accounts would be affected by this adjustment, much less the additional depreciation expense that would be required were this amount to be capitalized, and the Department has insufficient information to implement the Attorney General's recommendation. Therefore, the Department declines to accept the Attorney General's proposed capitalization adjustments.

Unitil used the same historic average plant accounting treatment that it used to determine the capitalized costs related to the 2008 ice storm to determine the capitalized amount of storm restoration costs related to T. S. Irene, the October Snowstorm, and Hurricane Sandy (Tr. 2, at 99-100; Tr. 3, at 375, 378-379; Tr. 6, at 725-726).⁹⁹ Despite the questions raised above concerning the Company's method, the Department accepts the use of historic average plant costs for purposes of determining capitalized storm restoration costs in this proceeding. Therefore, the Department accepts Unitil's proposal to capitalize \$822,415 in deferred storm restoration costs. In doing so, we place the Company on notice that if the Company proposes to use historic average plant to determine capitalized storm restoration costs in its next rate case, it will be required to prove to how its proposal is reasonable given the concerns we raise here.

⁹⁹ Specifically, the Company capitalized approximately \$3.5 million of the approximately \$15 million in costs it had incurred related to the 2008 ice storm. D.P.U. 11-01/D.P.U. 11-02, at 24-25.

b. Amortization of Storm Restoration Costs

i. Introduction

In its initial filing, the Company proposed to recover a total of \$5,313,894 in storm restoration costs, plus carrying charges, over a three-year period¹⁰⁰ in base rates through an adjustment to test-year amortization expense in the Company's cost of service (Exh. Unitil-LMB-1, at 26). The Company's initial requested annual amortization amount for the three-year period was \$1,771,298 (Exhs. Unitil-LMB-1, at 26, 34-35; Sch. Unitil-LMB-7).

In its final cost of service update, the Company included in its amortization calculation \$5,313,894 in storm-related costs and \$555,644 in carrying charges accrued at the Company's after-tax cost of long-term debt (4.31 percent) from September 1, 2011 to June 1, 2014 (see Exh. DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq-6, RevReq 6-1). Thus, the total amount that the Company seeks to amortize is \$5,869,538 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq-6, RevReq 6-1). The Company also proposes to recover carrying charges on the balance of the annual amortized amount through the three-year recovery period (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-6). Thus, for each year in the three-year amortization period, the Company seeks to recover from ratepayers \$2,083,370 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-6).

ii. Positions of the Parties

(A) Attorney General

The Attorney General recommends a five-year amortization period for the recovery of the deferred storm-related costs (Attorney General Brief at 48, citing Exh. AG-HWS-1, at 14). The Attorney General notes that the Company was allowed to recover deferred storm-related costs

¹⁰⁰ Specifically, the Company proposes recovery over the period beginning June 1, 2014 to May 31, 2017 (Exh. Unitil-LMB-1, at 27).

over seven years in its previous rate case, so she contends that her recommendation represents the midpoint between the Company's proposal and the amortization period most recently ordered by the Department (Attorney General Brief at 48-49, citing Tr. 2, at 110). The Attorney General also asserts that a five-year amortization period represents a more equitable balance between ratepayer and Company interests (Attorney General Brief at 49).

The Attorney General maintains that, in approving the deferral of storm-related costs, the Department did not make any findings regarding carrying charges associated with such deferred costs (Attorney General Brief at 49, citing D.P.U. 11-128, at 16). Further, the Attorney General opposes the inclusion of carrying charges for the recovery of the deferred storm-related costs, as she contends that the Company's poor vegetation management practices once again negatively impacted customers (Attorney General Brief at 49). Thus, the Attorney General asserts that the denial of carrying charges for deferred storm-related costs is consistent with the Department's ruling in the Company's prior rate case (Attorney General Brief at 49, citing D.P.U. 11-01/D.P.U. 11-02).

(B) Company.

The Company argues that its proposed three-year amortization period for recovery of the deferred storm-related costs is consistent with Department precedent that allows amortization over a three- to five-year period (Company Brief at 49, citing Massachusetts Electric Company, D.P.U. 13-59, at 13 (2013); D.P.U. 09-39, at 205; D.P.U. 88-161/88-168, at 127; D.P.U. 85-266-A/85-271-A at 9; D.P.U. 1720, at 88; D.P.U. 19991, at 28). The Company contends that a three-year amortization period would result in the actual recovery of the costs over a six-year period because a portion of the deferred storm costs were incurred in 2011 (Company Brief at 49). Thus, the Company recommends that the Department accept the three-year amortization period proposed by Unitol (Company Brief at 50; Company Reply Brief at 4).

The Company states that it applied Unitil's long-term average debt rate, net of a deferred tax benefit, as carrying charges to the storm cost amount because that rate effectively matches the Company's cost of borrowing for a comparable period of time (Company Brief at 49-50, citing Unitil-LMB-1 at 26-27). Unitil argues that disallowance of carrying charges would be confiscatory absent a finding of imprudence (Company Brief at 50). In addition, the Company asserts that if the Department orders a five-year amortization period, it would be even more appropriate to include carrying charges because Unitil would be financing the unamortized balance for nearly eight years (Company Brief at 50). Thus, for these reasons, Unitil recommends that the Department allow the application of carrying charges to the deferred storm costs at the rate proposed by the Company (Company Brief at 50; Company Reply Brief at 4).

iii. Analysis and Findings

As noted above, the Company seeks to amortize the recovery of storm restoration costs over a three-year period with carrying charges. With respect to the amortization period, the Department often allows companies to collect storm-related costs over a three- to five-year amortization period, but may extend the amortization period based upon the facts of the particular proceeding. See, e.g., D.P.U. 11-01/D.P.U. 11-02, at 70-71 (approving a seven-year amortization period for storm-related costs); D.P.U. 19991, at 28 (approving a five-year amortization period for storm-related costs). Amortization periods are determined based on a case-by-case review of the evidence and underlying facts. D.P.U. 10-70, at 204; D.P.U. 08-27, at 99; Barnstable Water Company, D.P.U. 93-223-B at 14 (1994). In determining the proper amortization period, we must balance the interests of the Company and of ratepayers. D.P.U. 10-70, at 204; D.P.U. 93-223-B at 14. We have said that amortization of extraordinary

expenses over a reasonable time represents an appropriate and reasonable sharing of the risk of large, unanticipated expenditures between ratepayers and shareholders. D.P.U. 11-01/D.P.U. 11-02, at 72; D.P.U. 92-78, at 9, citing D.P.U. 1720, at 89. In setting an amortization period, the Department has considered such factors as the amount under consideration for deferral, the value of such an amount to ratepayers based on certain amortization periods, and the impact of the adjustment on the company's finances and income. D.P.U. 10-70, at 204; D.P.U. 08-27, at 99; D.P.U. 93-223-B at 14.

In this case, we have considered when the costs were incurred, the amount of costs to be recovered, and the means of recovery. In light of these considerations and the record in this proceeding, the Department finds that a three-year amortization period strikes a proper balance between the interests of the Company and ratepayers and, therefore, is reasonable and appropriate. We next turn to the issue of carrying charges.

First, the Company seeks to include \$555,644 in carrying charges accrued at the Company's after-tax cost of long-term debt (4.31 percent) since September 2011 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq-6, RevReq 6-1). The Department rejects the Company's proposal. Notwithstanding Unitil's claims of confiscation, including carrying charges on amounts being deferred pending their ultimate disposition in a future rate case serves to increase the amount of the deferral that must be addressed in that future proceeding. The sole ratemaking implication of a deferral is to remove, as an impediment to ratemaking consideration, the fact that the expenditures were made before the test year that serves as the basis for a general rate proceeding. D.P.U. 11-128, at 16-17; D.P.U. 93-229, at 7-8; Colonial Gas Company, D.P.U. 89-70, at 8 (1989). The Company's proposal creates a moving target on deferral balances, thus defeating the purpose of the deferral. Moreover, granting a deferral does not

signify that a company will be made whole for the deferred expenses. Allowing carrying charges on a deferral pending its ultimate ratemaking treatment creates a perverse incentive on the part of a company to allow a deferral to accrue in anticipation of being made whole, more or less, in future years, thus weakening management's incentive to manage the company's costs. Further, as stated in Section II.C above, the Department permits carrying charges on storm funds but does not allow carrying charges on O&M costs recovered under conventional ratemaking. D.P.U. 11-01/D.P.U. 11-02, at 71-72. In addition, it is the company that initiates rate proceedings before the Department by filing for rate relief and, thus, controls the timing of the rate proceeding. See D.P.U. 13-75, at 154; D.P.U. 10-70, at 234; D.P.U. 09-39, at 294; Bay State Gas Company, D.P.U. 1535-A at 17 (1983). Given these considerations, there is no reasonable basis upon which to find that unrecovered storm costs incurred between the Company's last base rate case and this proceeding should include a carrying cost component.

Second, the Company seeks to apply carrying costs on the annual amortized amount through the three-year recovery period (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-6). Based on our longstanding precedent, we do not allow a return on the unamortized balance of extraordinary expenses. D.P.U. 92-250, at 136; D.P.U. 88-135/151, at 28; D.P.U. 85-270, at 131-132; D.P.U. 1720, at 89. Cf. The Berkshire Gas Company, D.P.U. 905, at 243-244 (1982) (carrying charges allowed to support Department requirement that company develop resource program). The rationale for not permitting such a return is to balance the burden of the extraordinary loss between ratepayers and shareholders. D.P.U. 88-135/151, at 28; D.P.U. 85-270, at 131-132; D.P.U. 1720, at 89. The Company's proposal here shifts all risk to ratepayers. Taking all factors into consideration, the Department finds it appropriate and reasonable to deny the Company's request to apply carrying charges to the ratemaking recovery of the Company's storm costs. See D.P.U. 11-01/D.P.U. 11-02, at 72 (denying Unitil's request to apply carrying charges to the ratemaking recovery of the Company's storm-related costs).¹⁰¹

¹⁰¹ While Unitil claims on brief that denial of carrying charges in the absence of a finding of imprudence would be confiscatory, confiscation occurs when the Department's ratemaking decision deprives a utility of the opportunity to realize a fair and reasonable return on its investment. Boston Edison Company v. Department of Public Utilities, 375 Mass. 1, cert. denied, 439 U.S. 921 (1978); Boston Gas Company v. Department of Public Utilities, 368 Mass. 780, 789-790 (1975). A return is fair and reasonable if it covers utility operating expenses, debt service, and dividends, if it compensates investors for the risks of investment, and if it is sufficient to attract capital and assure confidence in the enterprise's financial integrity. 375 Mass. 1. The fact that a company is denied a request to include in its cost of service expenses that are found to be inappropriate does not sustain a claim of confiscation.

7. Conclusion

As determined above, the Company is allowed to capitalize \$822,415 in deferred storm-related costs. With respect to O&M costs, we disallow recovery of \$169,566 in storm restoration costs related to T.S. Irene and the October Snowstorm because the Department did not approve these costs for deferral in D.P.U. 11-128. We also disallow recovery of \$132,788 in storm restoration costs that the Company seeks to recover from Verizon in a separate civil lawsuit. Finally, we disallow the recovery of \$555,644 in carrying charges accrued since September 2011. Thus, we find that the Company is entitled to recover storm restoration costs in the amount of \$5,011,540,¹⁰² amortized over three years with no carrying charges. This results in an annual recovery amount of \$1,670,513. Accordingly, we decrease the Company's cost of service by \$412,857 (\$2,083,370 - \$1,670,513).

¹⁰² The storm restoration costs associated with T.S. Irene total \$1,398,932 after disallowance of \$37,824 in undeferred costs and \$35,891 in costs subject to the Verizon lawsuit; the storm restoration costs associated with the October Snowstorm total \$2,778,340 after disallowance of \$131,742 in undeferred costs and \$93,055 in costs subject to the Verizon lawsuit; and the costs associated with Hurricane Sandy total \$834,268 after disallowance of \$3,842 in costs associated with the Verizon lawsuit. Thus, the total costs for allowed amortization amount to \$5,011,540 (\$1,398,932 + \$2,778,340 + \$834,268).

J. Lesser Storms and Unscheduled Maintenance

1. Introduction

Unitil defines lesser storms as storms resulting in less than \$50,000 in restoration expense (Tr. 9, at 1047). The Company defines unscheduled maintenance as any unbudgeted repair work, such as may result from a lesser storm or automobile accident (Tr. 9, at 1047). Initially, the Company reported that during the test year, it booked \$307,298 in lesser storms and unscheduled maintenance expense (Exhs. Unitil-DLC-1, at 24; DPU-FGE 3-15, Att., Sch. RevReq 3-13). During the proceedings, the Company revised its reported test-year expense to \$367,012 based on a final reconciliation of lesser storm and unscheduled maintenance expense (Exhs. DPU-FGE 3-16 (Supp. 7) Att., Sch. RevReq 3-13; AG 10-48; Tr. 5, at 507-509). The Company proposes to include in its cost of service a normalized lesser storm and unscheduled maintenance expense level of \$417,007, based upon the average expense of the three years 2010 through 2012 (Exhs. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-13; AG 14-3, Att.).¹⁰³ Thus, the Company proposes to increase its test-year cost of service by \$49,995 (Exhs. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-13; AG 14-3, Att.).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that there is a discrepancy in the evidence provided by Unitil in support of its proposal. Specifically, the Attorney General notes that while Exhibit DPU-FGE 7-33 shows \$518,788 in lesser storms and unscheduled maintenance expense in 2009, Exhibit AG 3-28 shows \$271,128 for lesser storms and unscheduled maintenance expense in that year (Attorney General Brief at 68). The Attorney General contends that the

¹⁰³ The expense for the three years is (1) \$501,993 for 2010, (2) \$382,016 for 2011, and (3) 367,012 for 2012 (Exh. AG 14-3, Att.)

Company has failed to explain the discrepancy or justify reliance on Exhibit DPU-FGE 7-33 rather than Exhibit AG 3-28 in determining the normalized level of lesser storms and unscheduled maintenance expense (Attorney General Brief at 68). The Attorney General asserts that the information in Exhibit AG 3-28 should be used to determine the normalized level of expense (Attorney General Brief at 68).

In addition, the Attorney General argues that because the Company's 2010 lesser storm and unscheduled maintenance expense of \$501,993 is significantly higher than that of each of the other years, it is more appropriate to use a five-year average to determine the normalized expense level (Attorney General Brief at 67-68, citing Exhs. DPU-FGE 3-16, Att., Sch. RevReq 3-13; AG 3-28).¹⁰⁴ According to the Attorney General, based on the expenses for lesser storms and unscheduled maintenance expense in 2008 and 2009, as shown in Exhibit AG 3-28, the five-year average is \$50,501 less than the three-year average shown in the Company's updated filings (Exh. AG/DJE-Surrebuttal-1, at 4, citing DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-13). Thus, the Attorney General asserts that the Company's test-year expenses for lesser storms and unscheduled maintenance should be reduced by \$50,501 (Attorney General Brief at 68).

b. Company.

The Company agrees with the Attorney General that expenses for lesser storms and unscheduled maintenance are more volatile and less predictable than other O&M expenses (Company Brief at 114, citing Exh. Unifil-DLC-1, at 24; Attorney General Brief at 67). The Company also argues that it fully explained why its initial discovery response as to 2009 expenses was not accurate and why the information provided in later responses provides an

¹⁰⁴ The Attorney General also contends that the Company has provided conflicting data on the 2009 costs for lesser storms and unscheduled maintenance and recommends including the lower of the two in her five-year analysis (Attorney General Brief at 68, citing Exhs. AG 3-28; DPU-FGE 7-33).

accurate level of expense (Company Brief at 115, citing Tr. 9, at 1046). Further, the Company asserts that there is no material difference in the results of its own proposal of a three-year average of costs and the Attorney General's proposed five-year average of costs (Company Brief at 115). Nevertheless, Unitil contends that the Department should accept the Company's proposed normalization adjustment for lesser storms and unscheduled maintenance (Company Brief at 115).

3. Analysis and Findings

It is well-established Department precedent that base rate filings are based on an historic test year, adjusted for known and measurable changes. See D.P.U. 1580, at 13-17, 19; D.P.U. 136, at 3; Chatham Water Company, D.P.U. 19992, at 2 (1980); D.P.U. 18204, at 4; D.P.U. 18210, at 2-3; Boston Gas Company, D.P.U. 18264, at 2-4 (1975). In establishing rates pursuant to G.L. c. 164, § 94, the Department examines a test year, which usually represents the most recent twelve-month period for which complete financial information exists, on the basis that the revenue, expense, and rate base figures during that period, adjusted for known and measurable changes, provide the most reasonable representation of a distribution company's present financial situation, and fairly represent its cost to provide service. See Ashfield Water Company, D.P.U. 1438/1595, at 3-4 (1984). The selection of the test year is largely a matter of a distribution company's choice, subject to Department review and approval. See D.P.U. 07-50-A at 51.

The Department has stated that test-year expenses, which recur on an annual basis, are eligible for full inclusion in cost of service unless the record supports a finding that the level of the expense in the test year is abnormal. D.P.U. 1270/1414, at 33. If a finding is made that the test-year expense is abnormal, it is necessary to normalize the expense to reflect the amount that is likely to recur on a normal annual basis. D.P.U. 11-01/D.P.U. 11-02, at 348; D.P.U. 10-114, at 167; D.P.U. 10-55, at 272; D.P.U. 1270/1414, at 33.

As an initial matter, we note that during the course of discovery in this proceeding, the Company provided three different amounts of 2009 expenses for lesser storms and unscheduled maintenance (see Exhs. DPU-FGE 7-33 (Rev.); DPU-FGE 7-33; AG 3-28; AG 14-2). We find that the Company provided a sufficient explanation for the variances in these amounts, and we accept the amount of \$518,788 as representative of 2009 expenses (see Exhs. DPU-FGE 7-33 (Rev.); AG 14-2; Tr. 9, at 1046).

Both the Attorney General and the Company assert that the test-year costs are not representative of the typical costs incurred for lesser storms and unscheduled maintenance and, thus, should be normalized over a three- or five-year period. We disagree. The Company incurred the following costs for the five year period from 2008 to 2012: (1) \$310,381 in 2008; (2) \$518,788 in 2009; (3) \$501,993 in 2010; (4) \$382,016 in 2011; and (5) \$367,012 in 2012, i.e., the test year (Exh. DPU-FGE 7-33 (Rev.)). Based on the record evidence, we find that the Company's revised expense of \$367,012 is the appropriate level of lesser storm and unscheduled maintenance expense incurred in the test year (Exhs. DPU-FGE 3-16 (Supp. 7) Att., Sch. RevReq 3-13; AG 10-48; Tr. 5, at 507-509).

By their nature, expenses related to lesser storms and unscheduled maintenance cannot be predicted in advance and tend to fluctuate from year to year. While the Company's costs fluctuated over the five-year period, such fluctuations do not constitute what the Department considers to be volatility. In the absence of evidence that the test-year expense is not representative, the Department will rely on the test-year expense. D.P.U. 11-01/D.P.U. 11-02, at 348-349, 351-352.

Therefore, we find that the test-year expense is representative of the level of costs that the Company has incurred in the past and is likely to incur in the future. Thus, we see no need to normalize the costs, and we will allow the test-year expense of \$367,012 to be included in rates as a representative known and measurable expense. As noted above, the Company booked \$367,012 in lesser storms and unscheduled maintenance expense in the test year and requested an increase of \$49,995, for a total expense of \$417,007. Based on the foregoing, the Department decreases the Company's proposed cost of service by \$49,995.

K. Active Hardship Protected Accounts Receivable

1. Introduction

Hardship protected accounts are residential accounts that are protected from shut-off by the utility for non-payment. 220 C.M.R. §§ 25.03, 25.05. To qualify for protected status from service termination, customers must be elderly or demonstrate that they have a financial hardship and meet certain other requirements, such as suffering from a serious illness or residing with a child under twelve months of age. See 220 C.M.R. § 25.03(1); 220 C.M.R. § 25.03(3); 220 C.M.R. § 25.05(3).¹⁰⁵ All qualified accounts are protected from shut-off for non-payment year round, except for heating customers with a financial hardship. These heating accounts are protected from shut-off for non-payment only during the winter moratorium period, November 15th through March 15th. 220 C.M.R. §§ 25.03(1)(a)3, 25.03(1)(b).

¹⁰⁵ Pursuant to Department regulations, an account qualifies for protected status where the customer has a financial hardship and: (1) a person residing in the household is seriously ill; (2) a child under the age of twelve months resides in the household; (3) the customer takes heating service between the period November 15th and March 15th; or (4) all adults residing in the household are age 65 or older and a minor child resides in the household. 220 C.M.R. § 25.03. An account also qualifies for protected status where all residents of the household are age 65 or older. 220 C.M.R. § 25.05. Customers who meet the income eligibility requirements for the Federal Low-Income Home Energy Assistance Program are deemed to have a financial hardship. 220 C.M.R. § 25.01(2).

Because these accounts cannot be shut off, the Company classifies the accounts as “active” and has determined that it cannot write off the associated uncollected amounts (Exh. Unutil-LMB-1, at 13). The Company states that its accounts receivable balance associated with these accounts has been increasing for several years, coincident with the easing of eligibility requirements for hardship protection under the Federal Low-Income Home Energy Assistance Program (Exh. Unutil-LMB-1, at 8-9).¹⁰⁶ The Company’s total hardship protected accounts receivable balance outstanding over 360 days has increased from \$135,188 as of December 31, 2005, to \$867,588 as of December 31, 2012 (Exhs. Unutil-LMB-1, at 12; Sch. Unutil-LMB-4).

The Company proposes to recover both its existing and post-test-year hardship protected accounts receivable balances outstanding over 360 days. With respect to the \$867,588 existing balance as of the end of the test year, the Company proposes to include \$406,032 in base distribution rates and to collect \$461,556 through its basic service tariff (Exhs. Unutil-LMB-1, at 21; Sch. Unutil-LMB-2). The Company proposes to amortize these amounts over five years (Exhs. Unutil-LMB-1, at 21; Sch. Unutil-LMB-2), which results in a proposed increase to the Company’s cost of service of \$81,206, and a proposed increase to basic service of \$92,311. Under the Company’s proposal, any payments later received on these balances will be credited to all customers through the residential assistance adjustment factor (“RAAF”) or another mechanism the Department determines is appropriate (Exh. Unutil-LMB-1, at 21-22). With respect to accounts receivable balances that may become past due after the test year, the

¹⁰⁶ Massachusetts expanded eligibility for enrollment in this program twice in the past nine years: once in 2005 (from 175 to 200 percent of the federal poverty level) and again in 2008 (from 200 percent of the poverty level to 60 percent of the estimated state median income) (Exh. Unutil-LMB-1, at 8-9).

Company proposes a pro forma adjustment to its test-year bad debt of \$102,867¹⁰⁷ to recover through base distribution rates a representative amount of hardship protected accounts receivables outstanding over 360 days (Exhs. Unitil-LMB-1, at 21; Sch. Unitil-LMB-5; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-19; Tr. 6, at 598-599).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Department should deny the Company's proposed ratemaking treatment of hardship protected accounts receivables because Unitil took no reasonable efforts to deal with the issue in a timely manner (Attorney General Brief at 59; Attorney General Reply Brief at 21). Instead, the Attorney General argues that the Company should have started writing off a portion of its hardship protected accounts receivables as bad debt expense on an annual basis starting in 2004 when the problem was first identified (Attorney General Brief at 61, 63-64).

The Attorney General contends that the Company presented no evidence to support its claim that "general economic conditions" worked against its efforts to recover its hardship protected accounts receivables in a timely manner (Attorney General Reply Brief at 20). Further, the Attorney General contends that, contrary to the Company's claims, there were no statutory requirements or Department policies preventing Unitil from writing off its hardship protected accounts receivables (Attorney General Brief at 61-62; Attorney General Reply Brief at 21). Even if the Company's internal policies prevented Unitil from writing off its active hardship

¹⁰⁷ The Company initially proposed a pro forma adjustment of \$99,728, which is a two-year average of its year-end hardship protected accounts receivables outstanding over 360 days (i.e., 2011 and 2012) (Exhs. Unitil-LMB-1, at 21; Unitil-LMB-5). The updated amount is the Company's year-end hardship protected accounts receivables outstanding over 360 days for 2013 (Exhs. Unitil-LMB-1, at 21; Unitil-LMB-5; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-19; Tr. 6, at 598-599).

protected accounts receivables, the Attorney General argues that changing such policies would not have violated either Department policy or financial accounting standards (Attorney General Brief at 62, citing Exh. AG-DMB-Surrebuttal-1, at 7-8; RR-DPU-28). In addition, the Attorney General alleges that the Company had the ability to change its customer information system to accommodate the write-off of these amounts (Attorney General Brief at 62-63).

The Attorney General argues that, if the Department approves the proposed adjustments, the appropriate amortization period for the existing balance should be ten years instead of five years because Unitil has known since 2004 that its hardship protected accounts receivable balance was a growing problem (Attorney General Brief at 61-62). The Attorney General also opposes the Company's proposal to adjust its test-year bad debt to recover hardship protected accounts receivable balances that may become past due after the test year (Attorney General Brief at 63-64). According to the Attorney General, any increase in the accounts receivable balance during the test year is short term, mainly attributable to a small number of medical alert accounts, while the other protected account categories showed a net decrease in the test year (Attorney General Brief at 64, citing Exh. AG-DJE-1, at 15). The Attorney General argues, therefore, that the Company has failed to demonstrate that this level of hardship protected accounts receivables is expected to recur annually on a prospective basis (Attorney General Brief at 65).

b. Company

The Company maintains that its hardship protected accounts cannot be referred to legal or credit collection agencies pursuant to Department regulations and, therefore, the unpaid balances remain on the Company's balance sheet and cannot be written off (Company Brief at 61-62, citing, 220 C.M.R. §§ 25.03, 25.05, Exh. Unitil-LMB-1, at 8, 10; Tr. 6, at 607). The Company asserts that, absent any probable recovery of the receivables, it will be required to treat

the balance as an impaired asset, resulting in a substantial charge to Unitil's retained earnings with a concomitant increase in operating expenses and a decrease to the Company's income from operations (Company Brief at 61-62; Tr. 6, at 608-609). Accordingly, the Company contends that this is one of the most pressing financial risks that it faces if left unresolved (Company Brief at 61-62; Tr. 6, at 608-609).

The Company argues that its proposed treatment of hardship protected accounts receivables is reasonable and consistent with Department precedent and, therefore, should be approved (Company Brief at 62, citing D.P.U. 10-70, at 207-214; Company Reply Brief at 14). The Company contends that the Attorney General's arguments against its proposed ratemaking treatment are erroneous and misleading (Company Brief at 64). In particular, Unitil asserts that the Attorney General ignores the fact that eligibility for financial hardship protection has been expanded over the past few years, contributing to the growth of its accounts receivables (Company Brief at 61, citing Exh. Unitil-LMB-1, at 8-10; D.P.U. 10-70, at 208-209). The Company maintains that the increase is the product of government policy decisions over which it has no control (Company Brief at 61-62; Tr. 6, at 600). In addition, contrary to the Attorney General's assertions, the Company claims that its hardship protected accounts receivable balance has been increasing before, during, and subsequent to the test year (Company Brief at 61, citing DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-19; Company Reply Brief at 15). Finally, the Company claims that the Attorney General contradicts herself when she argues, on one hand, that the Company should write down these receivables on a regular basis while, at the same time, opposing Unitil's proposed recovery of past due amounts as bad debt in the instant case (Company Brief at 64, citing Attorney General Brief at 60, 63-64).

3. Analysis and Findings

As described above, the Company proposes a ratemaking treatment to recover both the accumulated balance and a projection of its hardship protected accounts receivable that may become past due after the test year (Exh. Unitil-LMB-1, at 12-14).¹⁰⁸ The Company contends that such treatment is warranted because if its growing accounts receivable balance is determined to be an impaired asset, it will incur a significant charge against income that would place a considerable financial strain on the Company (Exh. Unitil-LMB-1, at 11-12, 20-21; Tr. 6, at 607-609).

In 2011, the Department approved a ratemaking treatment to permit Western Massachusetts Electric Company (“WMECo”) to recover a portion of its existing balance of hardship protected accounts receivable. D.P.U. 10-70, at 215-216. In that case, the Department found that the growing balance of hardship protected accounts receivable was the result of several factors, including public policy decisions and economic conditions. D.P.U. 10-70, at 214-215. After considering these factors, the Department found that a remedy was warranted because the financial impact of the growing balance of hardship protected accounts receivable could have unfavorable consequences not only for the company’s shareholders but also for the company’s ratepayers. D.P.U. 10-70, at 215-216.

¹⁰⁸ The Company proposed a similar ratemaking treatment in its last rate case, D.P.U. 11-01/D.P.U. 11-02. The Department declined to consider the Company’s proposal because it was submitted too late in the proceeding to permit proper inquiry. D.P.U. 11-01/D.P.U. 11-02, at 340-341. The Department stated, however, that Unitil could make a timely and well-supported request for recovery of the accounts receivable balance for its active hardship protected accounts in its next rate case. D.P.U. 11-01/D.P.U. 11-02, at 341.

The same factors that led us to approve a ratemaking treatment for WMECo's hardship protected accounts receivables are also present here. Contributing to the substantial balance of the Company's hardship protected accounts receivable was, among other things, the same economic downturn and expanded eligibility for hardship protection (Exh. Unifil-LMB-1, at 3). See Investigation Commencing a Rulemaking Pursuant to 220 C.M.R. § 2.00 et seq. D.P.U. 08-104-A (2009). Generally accepted accounting principles require that, without probable recovery of these outstanding balances, the Company must recognize an impairment loss through a charge to its income statement and establish a reserve account on its balance sheet for the impaired assets. D.P.U. 10-70, at 214-214.¹⁰⁹ The Company has shown that such a charge against income for the impaired value of its hardship protected accounts receivable could present a material adverse impact to its financial position (Exh. Unifil-LMB-1, at 11-12, 20-21; Tr. 6, at 607-609). The Department finds that such an adverse financial impact would likely have unfavorable consequences, not only for the Company's shareholders but also for the Company's ratepayers in the form of higher borrowing costs. Therefore, the Department finds that a remedy is warranted.

The Attorney General argues that the Company should not be permitted to recover any of its existing hardship protected accounts receivables as it had been aware for many years that the level of its protected receivables was a growing problem and it failed to take any significant actions to remedy this situation (Attorney General Brief at 59; Attorney General Reply Brief at 21). Under current ratemaking practice, there is no cost of service mechanism for the Company to recover the balance of protected hardship accounts receivable. Unlike expenses that may be deferred for recovery in a subsequent rate case, the balance of protected hardship accounts receivable cannot be recovered in rates unless the asset is deemed impaired and written

¹⁰⁹ See Statement of Financial Accounting Standards No. 144 ("FAS 144). In 2009, as part of a general recodification of its accounting rulings, FASB recodified FAS 144 as part of Financial Accounting Standards Board Accounting Standards Codification 310 (RR-DPU-28). The Department uses FAS 144 in this Order for consistency.

off (Exh. Unitil-LMB-1, at 20; Tr. 6, at 603-609; RR-DPU-28). Because the hardship protected accounts are active, the Company did not write off the unpaid balance and, therefore, could not recover the amounts as bad debt expense (Exh. Unitil-LMB-1, at 13-14; RR-DPU-28). See FAS 144. Based on these facts, we do not find that the Company ignored the problem.

The financial problem facing Unitil is similar to the problem faced by WMECo in D.P.U. 10-70. See D.P.U. 10-70, at 211 n.113.¹¹⁰ As we found above, if allowed to persist, this financial problem would likely have unfavorable consequences, not only for the Company's shareholders but also for the Company's ratepayers. Therefore, the Department will allow Unitil to recover through base distribution rates its outstanding balance of hardship protected accounts receivable over 360 days past due at the end of the test year. Such treatment provides assurance to the Company of the probability of recovery, which should alleviate the need for it to record a significant charge to income. D.P.U. 10-70, at 219.

Regarding the Company's proposal to collect a portion of its hardship protected accounts receivable balance through its basic service tariff, the Department notes that the ratemaking treatment approved in D.P.U. 10-70 did not include recovery of any accounts receivable balances through basic service rates. Given the nature and magnitude of the costs at issue, we find that it is not appropriate to collect these historic costs through current basic service rates. For this reason, and in the interests of administrative efficiency, the Department does not approve the Company's request to collect a portion of its accounts receivable balance through its basic

¹¹⁰ WMECo's test-year operating revenues were \$122 million. D.P.U. 10-70, at 216 n.115. WMECo's outstanding hardship protected accounts receivable balance over 360 days past due (i.e., \$5.6 million) was 4.59 percent of its test-year operating revenues. See D.P.U. 10-70, at 219. By comparison, Unitil's test-year operating revenues were \$20 million and its outstanding hardship protected accounts receivable balance over 360 days past due (i.e., \$867,588) was 4.34 percent of its test year operating revenues (Exh. Exhs. Unitil-LMB-1, at 12; Unitil-LMB-4; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 2-1).

service tariff.¹¹¹ Instead, the Department will permit the Company to recover its total outstanding balance of hardship protected accounts receivable over 360 days past due at the end of the test year through base distribution rates.

As noted above, the Company has proposed to recover through a five-year amortization the hardship protected accounts receivable balance outstanding over 360 days (Exhs. Unutil-LMB-1, at 21; Sch. Unutil-LMB-2). Alternately, the Attorney General suggests that a ten-year amortization period is more appropriate given the time period over which the outstanding balance was accumulated (Attorney General Brief at 61-62). Amortization periods are determined based on a case by-case review of the evidence and underlying facts. D.P.U. 08-27, at 99; D.P.U. 93-223-B at 14; D.P.U. 84-145-A at 54. In determining the proper length for the amortization period, the Department must balance the interests of both the company and its ratepayers. D.P.U. 93-223-B at 14. In setting the length of an amortization period, the Department has considered such factors as the amount under consideration for deferral, the value of such an amount to ratepayers based on certain amortization periods, and the impact of the adjustment on the company's finances and income. D.P.U. 08-27, at 99; D.P.U. 93-223-B at 14.

In this case, we consider the size of the balance to be recovered, the underlying facts giving rise to the accumulation of the balance, and the impact of recovery on ratepayers. Based on these considerations and the record in this case, the Department finds that five years is an appropriate amortization period (Exh. Unutil-LMB-1, at 21; Sch. Unutil-LMB-1).

¹¹¹ As noted in Section VIII.G.3 below, the Department has rejected the Company's proposed basic service tariff, M.D.P.U. No. 235, and directed it to refile this tariff without reference to the recovery of any hardship protected accounts receivable.

See D.P.U. 10-70, at 220. Amortizing and collecting the outstanding balance over a five-year period through base distribution rates will allow the Company adequate recovery, thus maintaining the quality of the asset and avoiding the need to take a significant charge against the Company's equity (Exh. Unutil-LMB-1, at 20-22; Tr. 6, at 607-609).

The Company has also proposed to include \$102,867 in base distribution rates to recover an estimated annual amount of hardship protected accounts receivable balances that may become past due after the test year. The Department finds this treatment to be unwarranted. By providing recovery of total hardship protected accounts receivable through a five-year amortization of balances greater than 360 days outstanding as of the end of the test year, the Department has addressed the potential adverse financial consequences to the Company. D.P.U. 10-70, at 220-221. Further, even if we had determined that some ratemaking treatment of post-test-year amount was warranted, we find that the Company has failed to demonstrate that the level of accounts receivable booked during 2013 is representative of the amount the Company will incur on an annual basis going forward. The Company avers that negative economic conditions contributed to an increase in its hardship protected accounts receivable (Tr. 6, at 599-600). It is reasonable to assume that poor economic conditions in Unutil's service territory are not permanent and that economic recovery will reduce hardship protected accounts receivable balances. D.P.U. 10-70, at 218-219. Accordingly, the Department reduces Unutil's proposed cost of service by \$102,867 to reflect the disallowance above of the Company's proposal to recover in base distribution rates hardship protected accounts receivable balances that may become past due after the test year.

Application of a five-year amortization period to \$867,588 in hardship protected accounts receivable balances over 360 days past due produces an annual amortization expense of \$173,517. The Company's proposed cost of service related to hardship protected accounts receivable balances at the end of the test year is \$81,206. Accordingly, the Department adjusts the Company's proposed cost of service by \$92,312.

Under the Company's proposal, any payments made by customers towards the amortized balance would be credited to all customers through the RAAF. In light of the Department's decision to eliminate the RAAF, we direct Unutil to credit any subsequent payments made by customers towards the amortized balance to all customers through the revenue decoupling adjustment factor.¹¹² Further, we direct the Company to track the accounts included in the balance of hardship protected accounts allowed for recovery so that the associated costs are excluded from recovery through bad debt expense.

L. Rate Case Expense

1. Introduction

Initially, the Company estimated that it would incur \$840,700 in rate case expense (Exh. Sch. RevReq 3-14). Unutil's proposed rate case expense includes costs related to legal representation, miscellaneous expenses associated with preparing the rate case (e.g., temporary workers, transcripts, copying, courier and delivery services, and newspaper publication), and expert services related to the following: (1) accounting cost of service, marginal cost study, and rate design; (2) cost of capital (ROE); (3) decoupling; (4) review of a previously conducted depreciation study; and (5) review of a previously conducted lead-lag study (Exhs. Sch. RevReq 3-14; DPU-FGE 1-1 (Supp. 7), Att. 1; DPU-FGE 1-10).

¹¹² In Section VIII.F.2 below, the Department eliminates the RAAF and directs the Company to stop collecting newly incurred costs through the RAAF as of June 1, 2014.

Based on its final invoices and projected costs to complete the compliance filing,¹¹³ the Company now states that its total rate case expense is \$751,339 (Exhs. DPU-FGE 1-1 (Supp. 7), Att. 1, at 3; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14). Unutil proposes to normalize its rate case expense over four years (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14). Normalizing the Company's proposed rate case expense of \$751,339 over four years produces an annual expense of \$187,835 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14).

2. Positions of the Parties

The Attorney General did not address the Company's proposed rate case expense on brief. The Company asserts that it provided detailed information regarding its rate case expense, including invoices that demonstrate that these costs were known and measurable, reasonable, appropriate, and prudently incurred (Company Brief at 112-113). Unutil maintains that it relied substantially on internal professional resources in the preparation and presentation of this case and conducted appropriate competitive solicitations for all external service providers (Company Brief at 112). The Company also contends that it properly calculated the proposed normalization period for rate case expense (Company Brief at 112).

Finally, Unutil asserts that, as required by the Department, it considered sharing rate case expense with shareholders and concluded that no explicit provision for sharing is required (Company Brief at 112). The Company argues that, because of the Department's policy of normalizing rate case expense, shareholders effectively have assumed 57.3 percent of the rate case expense incurred for D.P.U. 07-71 and 29.2 percent of the rate case expense incurred for D.P.U. 11-01/D.P.U. 11-02 (Company Brief at 112).

¹¹³ As discussed below, Unutil proposes to include the following amounts in rate case expense for work to complete the compliance filing: (1) \$12,500 for legal representation; (2) \$6,350 for expert services related to rate design; and (3) \$650 for expert services related to decoupling (Exh. DPU-FGE 1-1 (Supp. 7), Att. 1, at 1, 2; Att. 2, at 1, 2, 34, 48).

3. Analysis and Findings

a. Introduction

The Department allows recovery for rate case expense based on two important considerations. First, the Department permits recovery of rate case expense that has been actually incurred and, thus, is considered known and measurable. D.P.U. 10-114, at 219-220; D.P.U. 07-71, at 99; D.T.E. 05-27, at 157; D.T.E. 98-51, at 61-62. Second, such expenses must be reasonable, appropriate, and prudently incurred. D.P.U. 10-114, at 220; D.P.U. 09-30, at 227.

The overall level of rate case expense among utilities has been, and remains, a matter of concern for the Department. D.P.U. 10-114, at 241-242; D.P.U. 07-71, at 99; D.T.E. 03-40, at 147; D.T.E. 02-24/25, at 192; D.P.U. 93-60, at 145. Rate case expense, like any other expenditure, is an area in which companies must seek to contain costs. D.P.U. 07-71, at 99; D.T.E. 03-40, at 147-148; D.T.E. 02-24/25, at 192; D.P.U. 96-50 (Phase I) at 79. All companies are on notice that the risk of non-recovery of rate case expense looms should they fail to sustain their burden to demonstrate cost containment associated with their selection and retention of outside service providers. D.P.U. 10-114, at 220; D.P.U. 09-39, at 289-293; D.P.U. 09-30, at 238-239; D.T.E. 03-40, at 152-154. Further, the Department has found that rate case expenses will not be allowed in cost of service where such expenses are disproportionate to the relief being sought. D.P.U. 10-114, at 220; D.P.U. 10-55, at 323; see also D.P.U. 93-223-B at 16-17. Moreover, in its continuing scrutiny of the overall level of rate case expense, the Department may require shareholders to shoulder a portion of the expense. D.P.U. 10-114, at 220; D.P.U. 08-35, at 135.

b. Competitive Bidding

i. Introduction

The Department has consistently emphasized the importance of competitive bidding for outside services in a petitioner's overall strategy to contain rate case expense. See, e.g., D.P.U. 10-114, at 221; D.P.U. 09-30, at 227; D.T.E. 05-27, at 158-159; D.T.E. 03-40, at 148; D.T.E. 02-24/25, at 192. If a petitioner elects to secure outside services for rate case expense, it must engage in a competitive bidding process for these services. D.P.U. 10-114, at 221; D.P.U. 09-30, at 227; D.P.U. 07-71, at 99-100, 101; D.T.E. 03-40, at 153. In all but the most unusual of circumstances, it is reasonable to expect that a company can comply with the competitive bidding requirement. D.P.U. 10-55, at 342. The Department fully expects that competitive bidding for outside rate case services, including legal services, will be the norm. D.P.U. 10-55, at 342.

The requirement of having to submit a competitive bid in a structured and organized process serves several important purposes. First, the competitive bidding and qualification process provides an essential, objective benchmark for the reasonableness of the cost of the services sought. D.P.U. 10-114, at 221; D.P.U. 09-30, at 228-229; D.P.U. 07-71, at 101; D.T.E. 03-40, at 152. Second, it keeps even a consultant with a stellar past performance from taking the relationship with a company for granted. D.P.U. 10-114, at 221; D.P.U. 07-71, at 101; D.T.E. 03-40, at 152. Finally, a competitive solicitation process serves as a means of cost containment for a company. D.T.E. 03-40, at 152-153.

The competitive bidding process must be structured and objective, and based on a request for proposal ("RFP") process that is fair, open, and transparent. D.P.U. 10-114, at 221, 224; D.P.U. 09-30, at 227-228; D.P.U. 07-71, at 99-100; D.T.E. 03-40, at 153. The timing of the RFP process should be appropriate to allow for a suitable field of potential consultants to provide

complete bids, and provide for sufficient time to evaluate the bids. D.P.U. 10-114, at 221; D.P.U. 10-55, at 342-343. Further, the RFPs issued to solicit consultants must clearly identify the scope of work to be performed and the criteria by which the consultants will be evaluated. D.P.U. 10-114, at 221-222; D.P.U. 10-55, at 343.

The Department does not seek to substitute its judgment for that of a petitioner in determining which consultant may be best suited to serve the petitioner's interests, and obtaining competitive bids does not mean that a company must necessarily retain the services of the lowest bidder regardless of its qualifications. D.P.U. 10-114, at 222; D.T.E. 03-40, at 153. The need to contain rate case expense, however, should be accorded a high priority in the review of bids received for rate case work. D.P.U. 10-114, at 222; D.T.E. 03-40, at 153. In seeking recovery of rate case expenses, companies must provide an adequate justification and showing, with contemporaneous documentation, that their choice of outside services is both reasonable and cost effective. D.P.U. 10-114, at 222; D.T.E. 03-40, at 153.

ii. Unitil's RFP Process

The Company seeks to include in rates the legal and consulting expenses associated with its: (1) legal representation; (2) accounting cost of service analysis, marginal cost study, and rate design analysis; (3) ROE analysis; and (4) decoupling proposal (Exhs. Sch. RevReq 3-14; DPU-FGE 1-4, Att.). Unitil conducted a competitive bidding process for each of the above categories of service providers (Exhs. Unitil-DLC-5; Unitil-DLC-6). The Company received several bids in each category (Exhs. Unitil-DLC-5; Unitil-DLC-6). The selected service providers offered the lowest prices for their respective services (Exh. Unitil-DLC-6, at 3-11). Neither the Attorney General nor any other party challenges the Company's retention of these attorneys and consultants or the costs associated with their services. Nevertheless, Unitil bears the burden to demonstrate that its choice of attorneys and consultants is both reasonable and cost-effective. See D.P.U. 10-55, at 343; D.P.U. 09-30, at 230-231; D.T.E. 03-40, at 153.

Based on our review of the bids, the Company's bid evaluation process, and the invoices provided, we conclude that Unitil's choice of attorneys and consultants was both reasonable and cost-effective. As noted above, while the Company chose the lowest bidder in each category, we also find that the Company gave proper consideration to price and non-price factors before selecting the providers that it determined would provide the best combination of price and appropriate quality of service (Exh. Unitil-DLC-6). For each category, the Company appropriately selected a provider who possesses expertise and experience, knowledge of Department ratemaking precedent and practice, familiarity with the Company's operations, and a comprehensive understanding of the tasks for which it was requested to bid (Exh. Unitil-DLC-6).

In addition, we conclude that Unitil selected consultants and attorneys that offered the Company adequate cost-control measures. For example, each consultant agreed to implement a "not to exceed" price cap on portions of the consultant's work (Exhs. Unitil-DLC-6, at 9, 10; DPU-FGE 1-9). With respect to legal services, the selected law firm provided an overall price cap, a discounted, blended hourly rate for all attorneys working on the case, and a substantial credit off of the total bill (Exhs. Unitil-DLC-5, at 514-515; Unitil-DLC-6, at 10). The overall discounted, blended rate was a meaningful reduction from the rates normally charged by the lead attorneys representing the Company (Exhs. Unitil-DLC-5, at 514; Unitil-DLC-6, at 10). Additionally, the selected law firm did not seek reimbursement for travel expenses (Exh. Unitil-DLC-5, at 515, 516). The Company further controlled its rate case expense by using the consultant who had prepared the depreciation study presented in Unitil's previous rate case, D.P.U. 11-01/D.P.U. 11-02, to answer depreciation-related questions in this proceeding, rather than hiring a consultant to conduct a new study (Exhs. DPU-FGE 1-6; DPU-FGE 6-4).

c. Various Rate Case Expenses

The Department has directed companies to provide all invoices for outside rate case services that detail the number of hours billed, the billing rate, and the specific nature of the services performed. D.P.U. 10-114, at 235-236; D.T.E. 03-40, at 157; D.T.E. 02-24/25, at 193-194. The Department has reviewed the invoices provided by the Company and finds that such invoices are properly itemized (Exh. DPU-FGE 1-1 (Supps. 1 through 7), Att. 2). We find that the total costs associated with each service provider were reasonable, appropriate, proportionate to the overall scope of work provided, and prudently incurred (Exh. DPU-FGE 1-1 (Supp. 7), Att. 1).

In addition, the Company seeks to include miscellaneous costs of \$22,746 as rate case expenses (Exh. DPU-FGE 1-1 (Supps. 1 through 7), Atts. 1, 2). The Company states that these miscellaneous costs include costs associated with transcripts, courier and delivery services, and newspaper publication (Exhs. DPU-FGE 1-1 (Supps. 1 through 7), Atts. 1, 2; DPU-FGE 1-10). Neither the Attorney General nor any other party challenges the inclusion of these costs in rates. Nevertheless, the Company bears the burden of demonstrating that these costs are reasonable and appropriate and were prudently incurred. D.P.U. 10-114, at 220, 224-225; D.P.U. 95-118, at 115-119.

The Department has reviewed the invoices provided by the Company for these miscellaneous costs and finds that such invoices are properly itemized (Exh. DPU-FGE 1-1 (Supps. 1 through 7), Att. 2). In addition, the Department finds that these miscellaneous costs are reasonable and appropriate and were prudently incurred (Exh. DPU-FGE 1-1 (Supps. 1 through 7), Att. 2).

d. Fees for Rate Case Completion

The Company has included \$19,500 in its proposed rate case expense related to completion of the rate proceeding (Exh. DPU-FGE 1-1 (Supp. 7), Att. 1, at 1, 2; Att. 2, at 1-2, 34, 48). This amount includes fees for (1) legal representation, (2) rate design consulting services, and (3) decoupling consulting services (Exh. DPU-FGE 1-1 (Supp. 7), Att. 1, at 1, 2; Att. 2, at 1-2, 34, 48).

The Department's long-standing precedent allows only known and measurable changes to test-year expenses to be included as adjustments to cost of service. D.P.U. 10-114, at 237; D.T.E. 03-40, at 161; D.T.E. 02-24/25, at 195; D.T.E. 98-51, at 61-62. Proposed adjustments based on projections or estimates are not known and measurable, and recovery of those expenses is not allowed. D.P.U. 10-114, at 237; D.T.E. 03-40, at 161-162; D.T.E. 02-24/25, at 196; D.T.E. 01-56, at 75. The Department does not preclude the recovery of fixed fees for completion of compliance filing work in a rate case but the reasonableness of the fixed fees must be supported by sufficient evidence. D.P.U. 10-114, at 237; D.T.E. 03-40, at 162; D.T.E. 02-24/25, at 196. Given an adequate showing of the reasonableness of fixed contracts for services to complete a case after the record closes and briefs are filed, a company may qualify to recover such expenses. D.P.U. 10-114, at 237; D.T.E. 03-40, at 162; D.T.E. 02-24/25, at 196. Documented and itemized proof is a prerequisite to recovery. D.P.U. 10-114, at 237; D.T.E. 03-40, at 162; D.T.E. 02-24/25, at 196. Assuming that the fixed fee agreement is properly supported, the fact that the consultants and the company have agreed to complete the service for a fixed fee gives the Department a level of confidence in the reasonableness of the level of effort and consequent expenditure to carry the case through to the compliance filing. D.P.U. 10-114, at 237; D.P.U. 10-55, at 338.

In its initial fee proposal, the Company's legal counsel agreed to perform the compliance services for a fixed fee (Exhs. Unitil-DLC-5, at 515; DPU-FGE 1-1 (Supp. 7), Att. 2, at 2). Legal counsel provided the estimated number of attorney and paralegal hours to be spent in the compliance phase, as well as a recitation of the services to be performed (Exh. DPU-FGE 1-1 (Supp. 7), Att. 2, at 2). In addition, legal counsel noted that the effective hourly rate for the compliance tasks would be below the agreed-upon hourly rate for other case-related tasks (Exh. DPU-FGE 1-1 (Supp. 7), Att. 2, at 2). The Department finds that these costs are reasonable and supported by sufficient evidence.

For both the rate design consultant and the decoupling consultant, the Company provided invoices including a description of the specific services to be performed, the consultant performing the services, the number of hours to be spent, the method by which the number of hours was determined, the billing rate, and the resulting costs, including the costs for the compliance work (Exh. DPU-FGE 1-1 (Supp. 7), Att. 1, at 1, 2; Att. 2, at 34, 48). The Department finds that these costs are reasonable and supported by sufficient evidence.

e. Normalization of Rate Case Expense

The proper method to calculate a rate case expense adjustment is to determine the rate case expense, normalize the expense over an appropriate period, and then compare it to the test-year level to determine the adjustment. D.P.U. 10-55, at 338-339; D.T.E. 05-27, at 163; D.T.E. 03-40, at 163; D.T.E. 02-24/25, at 197; D.T.E. 98-51, at 62; D.P.U. 95-40, at 58. The Department's practice is to normalize rate case expense so that a representative annual amount is included in the cost of service. D.P.U. 10-55, at 339; D.T.E. 05-27, at 163; D.T.E. 03-40, at 163; D.T.E. 02-24/25, at 191; D.T.E. 01-56, at 77; D.T.E. 98-51, at 53; D.P.U. 96-50 (Phase I) at 77; The Berkshire Gas Company, D.P.U. 1490, at 33 (1983). Normalization is not intended to ensure dollar for dollar recovery of a particular expense; rather, it is intended to include a representative annual level of rate case expense. D.P.U. 10-55, at 339; D.T.E. 05-27, at 163; D.T.E. 03-40, at 163-164; D.T.E. 02-24/25, at 191; D.P.U. 96-50 (Phase I) at 77.

The Department determines the appropriate period for recovery of rate case expense by taking the average of the intervals between the filing dates of a company's last four rate cases, including the present case, rounded to the nearest whole number. D.P.U. 10-55, at 339; D.T.E. 05-27, at 163 n.105; D.T.E. 03-40, at 164 n.77; D.T.E. 02-24/25, at 191. If the resulting normalization period is deemed unreasonable or if the company has an inadequate rate case filing history, the Department will determine the appropriate normalization period based on the particular facts of the case. South Egremont Water Company, D.P.U. 86-149, at 2-3 (1986).

Unitil proposes a four-year rate case expense normalization period (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14). The average interval between the Company's last four rate cases is 3.7 years (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14).¹¹⁴ Accordingly, the Department finds that the Company's proposed normalization period of four years is appropriate.

4. Requirement to Control Rate Case Expense

The Department recognizes the extraordinary nature of a base rate proceeding and the associated investment of resources that is required for a petitioner to litigate its case before the Department. We emphasize yet again, however, our growing concern with the amount of rate case expense associated with base rate proceedings and the need for companies to control these costs. D.P.U. 11-01/D.P.U. 11-02, at 270; D.P.U. 10-55, at 341; D.P.U. 09-39, at 286; D.P.U. 09-30, at 227; D.P.U. 08-35, at 129; D.P.U. 07-71, at 99; D.T.E. 03-40, at 147; D.T.E. 02-24/25, at 192; D.P.U. 93-60, at 145.

¹¹⁴ In addition to the current filing, the Company's prior rate case filings were D.P.U. 11-01, D.P.U. 07-71, and D.T.E. 02-24/25 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14).

The Department will continue to closely scrutinize rate case expense and the requirement that a petitioner in an electric or gas rate case engage in a competitive bidding process for its rate case consultants will be enforced. See D.P.U. 11-01/D.P.U. 11-02, at 270; D.P.U. 10-55, at 343. We will disallow recovery of rate case expense where a petitioner fails to adhere to Department precedent and cannot demonstrate that its choice of consultants is reasonable and cost effective. See D.P.U. 11-01/D.P.U. 11-02, at 270; D.P.U. 10-55, at 343.

There are benefits to shareholders from approval of rate increases, and therefore, the Department has found that it may be appropriate for shareholders to shoulder a portion of the expense. See D.P.U. 11-01/D.P.U. 11-02, at 270; D.P.U. 10-55, at 343; D.P.U. 10-70, at 166; D.P.U. 08-35, at 135. As one means to demonstrate that rate case expense has been contained, the Department has directed all electric and gas companies in future rate case filings to consider proposals for some portion of the rate case expense to be borne by shareholders. D.P.U. 11-01/D.P.U. 11-02, at 270; D.P.U. 10-55, at 343-344.

Unitil states that it considered whether shareholders should bear a portion of rate case expense but determined that no sharing is appropriate here because shareholders have effectively borne a large percentage of its prior rate case costs (Exh. Unitil-DLC-1, at 27). Specifically, the Company asserts that, because of Department precedent regarding the normalization of rate case expense and because, in each case, the Company filed a new rate case prior to the expiration of the normalization period established in the prior rate case, shareholders have effectively assumed 57.3 percent of the rate case expense for D.P.U. 07-71 and 29.2 percent of the rate case expense for D.P.U. 11-01/D.P.U. 11-02 (Exh. Unitil-DLC-1, at 27).¹¹⁵

¹¹⁵ In D.P.U. 07-71, the Department established an eight-year normalization period but rates were in effect for only 3.4 years; shareholders ultimately carried \$376,005 or 57.3 percent of the costs (Exh. Unitil-DLC-1, at 27). Similarly, in D.P.U. 11-01, the Department established a four-year normalization period but rates will be in effect for only 2.8 years before the new rates established in this proceeding go into effect; thus, shareholders will bear \$242,628 or 29.2 percent of the costs (Exh. Unitil-DLC-1, at 27).

As discussed above, the Department's practice is to set a normalization period for rate case expense based on the Company's recent rate case experience, thus establishing a representative annual amount of expense to include in rates. D.P.U. 10-55, at 339. Normalization is not intended to ensure a company dollar-for-dollar recovery of a particular regulatory expense. D.P.U. 10-55, at 339; D.P.U. 91-106/91-138, at 20. Rather, the amount in rates is intended to reflect a representative annual level of regulatory litigation expenses. D.P.U. 91-106/91-138, at 20. The Department recognizes that, at times, a company will file with the Department before the interval predicted by the normalization period has elapsed; at other times, the interval between the company's regulatory filings will be longer than the interval assumed in calculating the representative amount reflected in base rates. D.P.U. 91-106/91-138, at 20.

In fact, a company largely controls the amount of its recovery of a normalized expense by deciding when to file a new rate case. For example, if the Department determines that rate case expense should be normalized over four years and a company files a new rate case after only three years (*i.e.*, before the normalization period has run), shareholders will, in effect, bear a portion of the rate case expense because the company has recovered only three-quarters of the amount of rate case expense through rates. On the other hand, if the company chooses to file a new rate case sometime after the four-year normalization period has run, the company will have recovered the anticipated amount of rate case expense during the first four years, and will continue to collect the representative annual amount in rates during the subsequent years. Because base distribution rates are not reconciling, the Department will not readjust the level of recovery to remove those costs from rates. Consequently, the company (*i.e.*, its shareholders) will collect more rate case expense than it incurred.

In this proceeding, Unitil argues that ratepayers should bear the full rate case expense because shareholders have effectively borne a large percentage of prior rate case expense given that the Company filed a new rate case prior to the expiration of the normalization period established in each of its two prior rate cases (Exh. Unitil-DLC-1, at 27). As discussed above, whether a company recovers all or a portion of a normalized expense is largely within its control and, if it decides to forgo a rate case filing for a number of years in excess of the normalization period, it will collect more rate case expense than it incurred. Further, Unitil's normalization argument does not speak directly to cost control. Therefore, the Department finds that this argument does not support the conclusion that ratepayers are obligated to bear the full rate case expense.

Nevertheless, we find that the Company has done a good job of complying with all of our cost-control mandates in this case, both in terms of competitive bidding and other measures such as "not to exceed" price caps on portions of the consultants' work, discounted consultant rates, and updating a recent study (Exhs. Unitil-DLC-5; Unitil-DLC-6; DPU-FGE 1-6; DPU-FGE 1-9; DPU-FGE 6-4). In fact, this is one of the few rate case proceedings in which the Attorney General or other parties did not challenge at least some aspect of the Company's proposed rate case expense. In comparison with other recent rate cases of similar complexity, the Company's estimate of rate case expense was reasonable and, based on the final invoices, the actual rate case expense fell below its initial estimate (Exhs. Sch. RevReq 3-14; Exh. DPU-FGE 1-1 (Supps. 1 through 7), Atts. 1, 2; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14). Cf. D.P.U. 10-55, at 313-314 (company initially estimated that it would incur rate case expense of \$1,731,840 for Boston Gas/Essex Gas and \$897,242 for Colonial Gas, but subsequently proposed total rate case expense of \$2,187,216 for Boston Gas/Essex Gas and \$1,188,815 for Colonial Gas).

For these reasons, we will not require the Company's shareholders to bear a portion of the rate case expense incurred in this proceeding. We reach this conclusion based on the specific facts of this case and do not establish a universally applicable rule at this time. Nonetheless, we remain concerned with the amount of rate case expense associated with base rate proceedings and fully expect companies to demonstrate they have taken aggressive measures to control these costs. Failure to do so will result in the disallowance of all or a portion of rate case expense.

5. Conclusion

Unitil has proposed and the Department has accepted a total rate case expense of \$751,339 (Exhs. DPU-FGE 1-1 (Supp. 7), Att. 1, at 3; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14). The annual level of normalized rate case expense is \$187,835 (\$751,339 divided by four years). During the test year, the Company booked \$406,145 in rate case expense (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14). The Company proposes to reduce this amount by \$218,310 to incorporate this annual level of normalized rate case expense for ratemaking purposes (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-14). Based on the findings above, the Department accepts the Company's proposed adjustment.

M. Outside Legal Costs

1. Introduction

During the test year, Unitil incurred \$198,039 in expenses for services provided by outside law firms (RR-AG-2, Att. 1). These law firms provided various services including representation in litigation and in the Company's sale of streetlights to Fitchburg (RR-AG-2, Att. 1).

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that the bulk of test-year legal costs (i.e., \$172,104) is related to expenses incurred for the sale of streetlights to Fitchburg (Attorney General Brief at 66). She asserts that these expenses are of a non-recurring nature and, therefore, should be removed from the Company's pro forma revenue requirement (Attorney General Brief at 66). In support of her position, the Attorney General maintains that the Company's total legal costs for the prior two years combined, i.e., 2010 and 2011, were approximately \$10,000, as compared to \$198,039 in the test year (Attorney General Reply Brief at 26, citing Exh. AG 1-34, Att. 1, at 20). She contends that the increase constitutes evidence that the non-recurring expenses related to the sale of streetlights caused the Company's test-year legal costs to exceed anything that could be considered a typical or representative expense (Attorney General Reply Brief at 26, citing Exh. AG 1-34, Att. 1, at 20). The Attorney General notes that the Company removed the operating expenses associated with the streetlights from its cost of service and she argues that it should accord the same treatment to the legal expenses related to the sale (Attorney General Brief at 66, citing Exh. Unitil-DLC-1, at 29).

b. Company

The Company asserts that it regularly and routinely incurs legal expenses in the course of operating its business (Company Brief at 116). Unitil maintains that its test-year legal expenses of \$198,039 reflect a typical or representative annual expense (Company Brief at 115-116; Company Reply Brief at 25). The Company maintains that, consistent with Department precedent, it demonstrated that the legal expenses are reasonable and cost-effective (Company Brief at 115-116).

Unitil asserts that the Attorney General's contention that costs should be disallowed because the Company will not incur legal services related to the sale of streetlights prospectively is misleading and erroneous (Company Brief at 116). Unitil maintains that for the costs to be included in rates, Department precedent simply requires that legal fees be reasonable and that the services provide value (Company Brief at 116; Company Reply Brief at 25). The Company further asserts that the Department only requires an examination of whether legal expenses of this nature are "customarily performed" by a utility (Company Reply Brief at 26). Finally, the Company argues that the Attorney General's proposal to include streetlight-related fees in Unitil's tariff to facilitate sales to other communities demonstrates that the Attorney General acknowledges the reasonableness of the expenses and the realistic prospect that similar services will be required in the rate year (Company Brief at 116; Company Reply Brief at 26).

3. Analysis and Findings

The Department typically includes a test-year level of expenses in cost of service and will adjust this level only for known and measurable changes. D.P.U. 11-01/D.P.U. 11-02, at 345; D.P.U. 07-71, at 120; D.P.U. 87-260, at 75. In this regard, the Department consistently has held that there are three classes of expenses that are recoverable through base rates: (1) annually recurring expenses; (2) periodically recurring expenses; and (3) non-recurring extraordinary expenses. D.T.E. 98-51, at 35; D.P.U. 95-118, at 121-122; D.P.U. 1270/1414, at 32-33.

The Attorney General asserts that the legal expenses related to the sale of streetlights to Fitchburg should be removed from cost of service because they are not recurring (Attorney General Brief at 66). The Company counters that its test-year legal expenses of \$198,039 reflect a typical or representative range of outside legal expenses (Company Brief at 115-116).

The majority of legal costs incurred by Unitil in the test year relate to the sale of streetlights to Fitchburg (i.e., \$172,104) (Exh. AG 20-10; RR-AG-2). While the record shows

that the Company incurs outside legal costs on a regular basis, there is no evidence that the sale of streetlights to a city or town within the Company's service territory will occur on an annual or periodic basis.¹¹⁶ Nor is there any evidence that Unutil will require a comparable level of legal services in the future. As such, we find that the costs related to the sale of streetlights to Fitchburg are non-recurring.

Because the costs are non-recurring, the Company must demonstrate that the costs are extraordinary. While the amount incurred in the test year is an increase of approximately \$180,000 over legal expenses incurred in the prior two years combined, we find that this amount does not rise to the level of an extraordinary expense based on the Company's size (Exhs. AG 20-10; DPU-FGE 3-15, Att.; RR-AG-2).¹¹⁷ See D.P.U. 11-43, at 174; Oxford Water Company, D.P.U. 88-171, at 28-29 (1989); Wylde Wood Water Works, Inc., D.P.U. 86-93, at 14 (1987); D.P.U. 84-32, at 23. Therefore, the Company's proposal to include these legal costs in its test-year cost of service is denied. Accordingly, the Department decreases Unutil's proposed cost of service by \$172,104.

N. Inflation Allowance

1. Introduction

Unutil originally proposed an inflation adjustment of \$132,026, of which \$5,921 was assigned to internal transmission and \$126,106 was assigned to base distribution service (Exhs. Unutil-DLC-1, at 31; Sch. RevReq 3-21, at 1). The Company subsequently revised its

¹¹⁶ As outlined in Section VIII.G.3 below, the Department has determined that the Company must list streetlight-related fees in its customer-owned equipment tariff because such fees are a required element of the tariff. Our decision there is not based on the likelihood that the sale of streetlights will occur in the future.

¹¹⁷ Having found that the costs are non-recurring and not extraordinary, we need not determine whether the costs are reasonable.

inflation adjustment to \$123,666 based on updated expense reporting (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-21, at 1). In calculating the inflation allowance, the Company used the gross domestic product implicit price deflator (“GDPIPD”) (Exhs. Unutil-DLC-1, at 31; Sch. RevReq 3-21, at 2). The Company calculated the change in the GDPIPD from the midpoint of the test year to the midpoint of the rate year, to compute a 3.72 percent inflation factor (Exhs. Unutil-DLC-1, at 31; Sch. RevReq 3-21, at 2).¹¹⁸ The Company then multiplied the inflation factor by its residual O&M expense of \$3,324,366, producing an inflation adjustment of \$123,666 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-21, at 1). Of this amount, \$5,666 is assigned to internal transmission and \$118,000 is assigned to base distribution service.

2. Position of the Company

Unutil contends that it has calculated its inflation allowance consistent with Department precedent (Company Brief at 111, citing D.P.U. 11-01/D.P.U. 11-02, at 299-300, 302). Moreover, the Company maintains that it has undertaken a number of cost containment initiatives in the areas of health care expense, vegetation management, and employee compensation, and that the Department has previously relied on this type of evidence to determine that Unutil has implemented cost containment measures (Company Brief at 111). No other party addressed this issue on brief.

3. Analysis and Findings

The inflation allowance recognizes that known inflationary pressures tend to affect a company’s expenses in a matter than can be measured reasonably. D.T.E. 02-24/25, at 184;

¹¹⁸ The test-year period used for the revenue requirement analysis is the twelve-month period ending December 31, 2012 (Exh. Unutil-MHC-1, at 10). Given the ten-month suspension period applicable to this case, the “rate year” for this proceeding is the period June 1, 2014 through May 31, 2015, and the midpoint of the rate year is November 30, 2014 (Exh. Unutil-DLC-1, at 31; Sch. RevReq 3-21, at 2).

D.T.E. 01-56, at 71; D.T.E. 98-51, at 100-101; D.P.U. 96-50 (Phase I) at 112-113. The inflation allowance is intended to adjust certain O&M expenses for inflation where the expenses are heterogeneous in nature and include no single expense large enough to warrant specific focus and effort in adjusting. D.P.U. 1720, at 19-21. The Department permits utilities to increase their test-year residual O&M expense by the projected GDPIPD from the midpoint of the test year to the midpoint of the rate year. D.P.U. 08-35, at 154-155; D.T.E. 02-24/25, at 184; D.P.U. 95-40, at 64; D.P.U. 92-250, at 297-298. For the Department to allow a utility to recover an inflation adjustment, the utility must demonstrate that it has implemented cost-containment measures. D.P.U. 09-30, at 285; D.P.U. 08-35, at 154; D.T.E. 02-24/25, at 184.

In the instant case, Unitil calculated its inflation allowance from the midpoint of the test year to the midpoint of the rate year, using the GDPIPD as an inflation measure (Exhs. Unitil-DLC-1, at 31; Sch. RevReq 3-21, at 2). We find that this calculation method and the use of the GDPIPD are consistent with Department precedent. D.P.U. 08-35, at 154-155; D.T.E. 02-24/25, at 184; D.P.U. 95-40, at 64; D.P.U. 92-250, at 97-98. Further, we conclude that the Company properly derived its proposed 3.72 percent inflation factor through the aforementioned calculation method (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-21, at 2).

Next, we turn to the cost-containment measures undertaken by the Company. Unitil has undertaken a number of efforts to reduce the Company's O&M costs. For health care costs, the Company began offering a health plan with a health savings account (Exhs. DPU-FGE 6-17; DPU-FGE 11-14, at 1-2; AG 1-52, at 1). Unitil also added a coinsurance feature of ten percent to the health plan and increased the stop-loss limit on claims from \$125,000 to \$200,000 (Exhs. DPU-FGE 6-17; DPU-FGE 11-14, at 2; AG 1-52, at 1). Effective January 1, 2014, Unitil

also closed its preferred provider plan to all union employees hired before June 1, 2013, with an associated cost savings anticipated to be approximately \$71,151 (Exhs. DPU-FGE 6-19; DPU-FGE 11-14, at 2; AG 1-52). Additionally, the Company offers each employee two months' worth of the Company's portion of medical plan contributions as an incentive if the employee waives medical coverage and reduces Company costs (Exhs. DPU-FGE 11-14, at 2; AG 1-52, at 1).

With respect to other benefits, the Company has closed its defined-benefit pension plan to new union employees hired on or after June 1, 2013, enrolling them instead in an enhanced 401(k) plan (Exh. DPU-FGE 11-14, at 2). Finally, the Company has implemented the recommendations of its vegetation management consultants in the area of contract strategies, thus securing favorable unit cost contracts from vendors (Exh. DPU-FGE 3-3; Tr. 6, at 765; RR-DPU-12, Att. 1). Based on the above considerations, the Department finds that the Company has implemented cost-containment measures that provide direct customer benefits to warrant the allowance of an inflation adjustment.

If an O&M expense has been adjusted or disallowed for ratemaking purposes, such that the adjusted expense is representative of costs to be incurred in the year following new rates, the test-year expense also is removed in its entirety from the inflation allowance. D.P.U. 09-39, at 322-323; D.T.E. 05-27, at 204; D.T.E. 02-24/25, at 184-185; Blackstone Gas Company, D.T.E. 01-50, at 19 (2001); D.P.U. 88-67 (Phase I) at 141; Commonwealth Gas Company, D.P.U. 87-122, at 82 (1987). Unitil has removed test-year expenses associated with various O&M expense items that have been either separately adjusted for ratemaking purposes or are not subject to inflationary pressures, as listed in Table 1, below. The Department has excluded from the residual O&M expense the test-year costs associated with its vegetation management

program (see Section VI.H, above), legal expenses incurred in the sale of streetlights (see Section VI.M, above), and storm trust fund assessments (see Section VI.P, above). The Department has also included in the residual O&M expense the test-year costs associated with the Company's arrearage management program (see Section VIII.F, below).

Based on the above findings, the Department concludes that an inflation allowance adjustment based on the most recent forecast of GDPIPD from the midpoint of the test year to the midpoint of the rate year, applied to the Company's approved level of residual O&M expense less the Department's adjustments, is proper in this case. As shown in Table 1 below, the resulting inflation allowance for Until is \$81,268.¹¹⁹ Accordingly, the Department will decrease the Company's proposed cost of service by \$42,398.

¹¹⁹ Of this amount, \$5,666 is assigned to internal transmission and \$75,602 is assigned to base distribution service.

Table 1: Inflation Allowance

Test Year O&M Expense per Books	10,787,536
Less Normalizing Adjustments:	
Payroll Expense	3,340,361
Medical & Dental Insurance	358,559
Property & Liability Insurance	175,383
401(k) Costs	128,959
Lesser Storms Expense	367,012
Rate Case Cost Normalization	406,145
Audit Fees	80,002
Postage	142,357
Banking and Commitment Fees	(11,497)
Street Lights O&M Expenses	13,370
Legal Expenses related to DPU 10-53, Purchase and Receivables	13,948
Shareholder Expenses	26,104
Sales for Resale Adjustment	709,645
Other Adjustments	165,558
Total Normalizing Adjustments	5,915,906
Less: Non-Inflationary Items	
Pension	108,400
PBOPs	445,534
Bad Debts	742,364
Amortizations - USC Charge	19,784
Facility Leases - USC Charge	231,181
Total items not Subject to Inflation	1,547,263
Residual O&M Expense Subject to Inflation per Company	3,324,367
Less: Department Adjustments	
Streetlight Legal Expense	172,104
Storm Trust Fund Assessment	2,205
Arrearage Management Program Budget	(221,070)
Vegetation Management	1,186,503
Subtotal	1,139,742
Projected Inflation Rate from Midpoint of Test Year to Midpoint of Rate Year	3.72%
Inflation Allowance per Company	123,666
Inflation Allowance per DPU	81,268
Assigned to Internal Transmission	5,666
Actual Inflation Allowance	75,602
Reduction to Cost of Service	(42,398)

O. Interconnection Study Costs

When a third party seeks to attach to Unital's distribution system, the Company conducts an interconnection study to determine the feasibility of the project (RR-AG-4). During the test year, Unital incurred \$89,105 related to these interconnection studies (RR-AG-3, Att.; Tr. 9, at 1031-1032).

The Attorney General asserts that the Company acknowledged that the interconnection study costs were non-recurring and should be removed from the cost of service (Attorney General Brief at 67, citing RR-AG-4; Tr. 9, at 1032). Therefore, the Attorney General maintains that the Company's cost of service should be reduced by \$89,105 to eliminate these interconnection study costs (Attorney General Brief at 67). No other party addressed this issue on brief.

Shortly after the conclusion of the evidentiary hearings, the Company submitted its fifth supplement to its revenue requirements on February 7, 2014 (Exh. DPU-FGE 3-16 (Supp. 5)). Based on our review of the record, the Department is satisfied that the Company made the appropriate adjustment to remove the \$89,105 related to the interconnection studies (Exh. DPU-FGE 3-16 (Supp. 5), Att. 1, Sch. 2 & Sch. RevReq 3-26). Accordingly, we find that no further adjustment to the Company's proposed cost of service is needed.

P. Storm Trust Fund Assessment

1. Introduction

In 2012, the Legislature created a storm trust fund to enable the Department to investigate electric companies' preparation for and response to storms and other emergency events. See G.L. c. 25, § 12P, as added by St. 2012, c. 216. To provide the Department with the required additional operating funds, the Legislature established an assessment to be made against each electric company under the jurisdictional control of the Department. See G.L. c. 25, § 18, as

amended by St. 2012, c. 216 (“Assessment Statute”). The Assessment Statute requires each electric company to pay its proportional share of the annual assessment. Assessment Statute 3. With respect to cost recovery of the assessment amount, the Assessment Statute provides: “[n]otwithstanding any general or special law to the contrary, no electric company may seek recovery of any assessments made under this paragraph in any rate proceeding before the [D]epartment.” Assessment Statute 3.

During the test year, the Department assessed electric companies under its jurisdictional control \$191,153, representing a prorated storm trust fund assessment for the period October 1, 2012, to June 30, 2013. Storm Trust Fund Assessment, D.P.U. 12-ASMT-5, at 1-2 (2012). Of this amount, Unital’s share of the assessment was \$2,205. D.P.U. 12-ASMT-5, at 1. No party addressed this issue on brief.

2. Analysis and Findings

In general, a company’s share of assessments made by the Department and other agencies is recognized as a component of its cost of service. Milford Water Company, D.P.U. 12-86, at 154-155 (2013); D.P.U. 85-137, at 83-85; Boston Edison Company, D.P.U. 160, at 48-49 (1980). As noted above, in September 2012, the Department issued an Order requiring each electric company to pay its proportional share of the total \$191,153 storm trust fund assessment for October 2012 through June 2013. D.P.U. 12-ASMT-5, at 1. Consistent with the Assessment Statute, the Department’s Order included the following language: “no electric company may seek recovery of any amount assessed herein in any rate proceeding before the Department.” D.P.U. 12-ASMT-5, at 2. While the Company paid its \$2,205 share of the storm trust fund assessment on October 25, 2012, it did so under protest and, with the other electric companies, appealed the Department’s Order in D.P.U. 12-ASMT-5 to the Supreme Judicial Court. On April 14, 2014, the Supreme Judicial Court denied the Company’s appeal and affirmed the Department’s Order. Fitchburg Gas and Electric Light Company et al. v. Department of Public Utilities, 467 Mass. 768, 786-787 (2014).

There is no evidence that the Company removed the storm trust fund assessment paid in 2012 from the overall level of regulatory assessments proposed in its cost of service (see Exhs. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-26; AG 1-34, Att. 1). Therefore, consistent with the Assessment Statute and 467 Mass. 768, the Department reduces the Company's proposed cost of service by \$2,205. Of this amount, 10.77 percent, or \$237, is assigned to internal transmission and \$1,968 is assigned to base distribution service.

While there may be a time when legislative action prevents a company from earning a fair and reasonable return on its investment, the Company makes no such argument here. Nor could it. The removal of \$2,205 from Unital's proposed distribution cost of service of \$26,885,484 will not affect the Company's financial soundness and it will not prevent the Company from maintaining its credit or raising the money necessary for the proper discharge of its public duties. Bluefield Water Works Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679, 693 (1923) ("Bluefield"). Moreover, in Section VII.E, below, the Department has established a reasonable rate of return that will preserve investor confidence in the Company despite the exclusion of the assessment costs from the calculation of base rates.

Q. Property Taxes

1. Introduction

During the test year, Unital booked \$1,340,173 in property tax expense to its electric division (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-24). The Company proposes to increase its test-year cost of service by \$271,650 related to property tax expense, of which \$22,727 will be assigned to internal transmission (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-24). The remaining \$248,923 will be assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-24).

On February 4, 2013, Unitil sold its streetlighting plant to Fitchburg (Exhs. Unitil-MHC-1, at 13; DPU-FGE 5-12). In recognition of this transaction, the Company partially offset its proposed property tax increase by the test-year property tax expense associated with the streetlighting plant (Exh. DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq 3-4, RevReq 3-24). Thus, the Company reduced its test-year property tax expense by \$10,817, of which \$905 was assigned to internal transmission and \$9,912 was assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Schs. RevReq 3-4, RevReq 3-24).¹²⁰

2. Positions of the Parties

Unitil maintains that it has appropriately calculated its property tax expense and, therefore, that it should be approved (Company Brief at 109-110). No other party addressed this issue on brief.

3. Analysis and Findings

The Department's general policy is to base property tax expense on the most recent property tax bills a utility receives from communities in which it has property. D.P.U. 08-35, at 150; D.P.U. 96-50 (Phase I) at 109; D.P.U. 86-280-A at 7, 17; D.P.U. 84-94, at 19. The Department has rejected the use of projected data to determine a company's municipal tax expenses. D.P.U. 09-39, at 244; D.P.U. 96-50 (Phase I) at 109-110.

The Company's final property tax expense adjustments are based on actual tax bills received as of January 21, 2014 (RR-DPU-31, Att.). In deriving the proposed adjustments, the Company first determined that the overall amount of property tax expense based on its most

¹²⁰ Unitil's revenue requirement schedules account separately for overall property taxes and streetlighting property taxes (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-3).

recent property tax bills was \$2,921,482 and then removed \$10,478 in property taxes associated with land held for future use. The Company allocated 55.37 percent of the resulting \$2,911,004 to its electric division (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-24; RR-DPU-31, Att.). The Company also removed from the property tax expense allocated to the electric division \$22,727 in property taxes assigned to internal transmission (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-24).

The Department has reviewed the property tax bills submitted by Until and find that they support the overall property tax expense (RR-DPU-31, Att.). We further find that the Company's calculations are consistent with Department precedent in that they exclude property taxes on land held for future use, appropriately allocate costs between Until's electric and gas divisions, and distinguish the Company's internal transmission functions from its other electric operations. D.P.U. 11-01/D.P.U. 11-02, at 281-282. Therefore, the Department accepts the Company's proposed adjustment.

With regard to Until's proposed property tax adjustment arising from the sale of its streetlighting plant in Fitchburg, the Department finds that the Company has appropriately removed property taxes associated with this plant. Accordingly, the Department accepts Until's proposed adjustment.

R. Depreciation Expense

1. Introduction

During the test year, the Company booked \$5,153,588 in depreciation expense, of which \$343,683 was assigned to internal transmission and \$4,809,905 was assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-22). Until calculated its proposed depreciation expense by applying its current depreciation accrual rates to its test-year-end depreciable plant in service as of December 31, 2012 (Exh. DPU-FGE 3-16 (Supp. 7), Att.,

Sch. RevReq 3-22). The proposed depreciation expense of \$5,177,244, less \$390,971 assigned to internal transmission, results in a distribution-related depreciation expense of \$4,786,273 or a decrease of \$23,632 from the test-year level of distribution-related depreciation expense (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-22).

Unitil did not perform a depreciation study as part of this proceeding. Instead, the Company relied on the depreciation study provided to the Department in D.P.U. 11-01/D.P.U. 11-02 where the Department accepted all proposed electric plant accrual rates with the exception of one account (Exh. Unitil-DLC-1, at 33-34). See D.P.U. 11-01/D.P.U. 11-02, at 282-292.¹²¹ The Company reviewed the accrual rates approved in D.P.U. 11-01/D.P.U. 11-02, as well as the nature of plant activity since the last rate case, and determined that a new study was not necessary at this time (Exh. Unitil-DLC-1, at 33-34).

2. Positions of the Parties

Unitil contends that given the short period of time since its previous depreciation study, there would be no material change in accrual rates as a result of a new depreciation study (Company Brief at 110, citing Exh. Unitil-DLC-1, at 34). The Company maintains that, in view of that outcome, it decided to forgo the cost of a new depreciation study in the interest of managing rate case expense (Company Brief at 110). The Company argues that it has properly applied its recently authorized depreciation accrual rates to its respective test-year-end depreciable plant balances and, therefore, the Department should approve its calculation of depreciation expense (Company Brief at 110). No other party addressed this issue on brief.

¹²¹ In its prior rate case, the Company proposed a depreciation accrual rate of 10.13 percent for Account 370 - meters; the Department approved an accrual rate of 8.09 percent for this account (Exh. DPU-FGE 2-11). See also D.P.U. 11-01/D.P.U. 11-02, at 290-292.

3. Standard of Review

Depreciation expense allows a company to recover its capital investments in a timely and equitable fashion over the service lives of the investments. D.T.E. 98-51, at 75; D.P.U. 96-50 (Phase I) at 104; Milford Water Company, D.P.U. 84-135, at 23 (1985); see D.P.U. 1350, at 97-98. Depreciation studies rely not only on statistical analysis but also on the judgment and expertise of the preparer. The Department has held that when a witness reaches a conclusion about a depreciation study that is at variance with that witness' engineering and statistical analysis, the Department will not accept such a conclusion absent sufficient justification on the record for such a departure. D.P.U. 92-250, at 64; D.P.U. 905, at 13-15; Massachusetts Electric Company, D.P.U. 200, at 21 (1980).

The Department recognizes that the determination of depreciation accrual rates requires both statistical analysis and the application of the preparer's judgment and expertise. D.T.E. 02-24/25, at 132; D.P.U. 92-250, at 64. Because depreciation studies rely by their nature on examining historic performance to assess future events, a degree of subjectivity is inevitable. Nevertheless, the product of a depreciation study consists of specific accrual rates to be applied to specific account balances associated with depreciable property. A mere assertion that judgment and experience warrant a particular conclusion does not constitute evidence. See Eastern Edison Company, D.P.U. 243, at 16-17 (1980); D.P.U. 200, at 20-21; Lowell Gas Company, D.P.U. 19037/19037-A at 23 (1977).

It thus follows that the reviewer of a depreciation study must be able to determine, preferably through the direct filing, and at least in the form of comprehensive responses to well-prepared discovery, the reasons why the preparer of the study chose one particular life span curve or salvage value over another. The Department will continue to look to the expert witness for interpretation of statistical analyses but will consider other expert testimony and evidence

that challenges the preparer's interpretation and expects sufficient justification on the record for any variances resulting from the engineering and statistical analyses. D.P.U. 89-114/90-331/91-80 (Phase One) at 54-55. To the extent a depreciation study provides a clear and comprehensive explanation of the factors that went into the selection of accrual rates, such an approach will facilitate Department and intervenor review.

4. Analysis and Findings

Unitil's last base distribution rate case was based on a 2009 test year. As noted above, the Department reviewed the Company's depreciation study in that proceeding and approved the Company's proposed accrual rates with one modification. See D.P.U. 11-01/D.P.U. 11-02, at 282-292. A company is not prohibited from applying the approved accrual rates developed from a plant balance as of a specific date to those plant balances in service on a different date, provided there are no significant changes in plant composition in the intervening period. D.P.U. 08-35, at 145; D.P.U. 92-250, at 70.

In the instant case, the Company applied the account-specific accrual rates approved in the last rate case to its 2012 test-year-end depreciable plant (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-22). The Company has demonstrated that there have been no significant changes in plant composition between the time that the current accrual rates were approved and the end of the Company's test year in this proceeding (compare Exhs. AG 1-2, Att. 7A at 45-48 with DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-22). For this reason, we will permit Unitil to apply the account-specific accrual rates approved by the Department in D.P.U. 11-01/D.P.U. 11-02 in this proceeding.

Nonetheless, based on our findings in Section V.B above, concerning plant additions, we conclude that Unitil's proposed depreciation expense requires modification. As discussed above, the Department has excluded from rate base \$22,145 in plant booked to Account 362, station

equipment, and \$6,023 in plant booked to Account 366, underground conduits. These amounts have, therefore, been excluded from the depreciable plant balances used to derive the Company's pro forma depreciation expense. Plant booked to Account 362 uses a depreciation accrual rate of 5.18 percent, and plant booked to Account 366 uses a depreciation accrual rate of 3.06 percent (Exh. AG 1-24, Att.).

Application of the accrual rates approved in D.P.U. 11-01/D.P.U. 11-02 to Unitil's depreciable plant balances as of December 31, 2012, net of the plant disallowances noted above, results in an annual depreciation accrual of \$5,175,913 (see Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-22). Application of the Company's internal transmission allocators of 8.3662 percent for transmission-related plant and 10.770 percent for general and common plant results in the assignment of \$390,971 to internal transmission and \$4,784,942 to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Sch. RevReq 3-22 & WP 1). Accordingly, the Department will reduce the Company's proposed depreciation expense by \$1,331 (\$4,784,942 - \$4,786,273).¹²²

S. Software Amortization Expense

1. Introduction

During the test year, the Company booked \$1,926,700 in amortization expense (Exhs. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-1, at 1; DPU-FGE 2-14). Of this amount, \$1,629,184 is associated with a seven-year amortization of the December 2008 ice storm approved by the Department in D.P.U. 11-01/D.P.U. 11-02, at 71-73, and \$176,557 represents net FAS 109 regulatory asset amortizations (Exh. DPU-FGE 2-14). The remaining \$120,959

¹²² Because the disallowed depreciable plant is related exclusively to distribution plant, no assignment to internal transmission is necessary (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-22).

represents computer software amortization booked to Account 303 - intangible plant and Account 399 - other intangible plant (Exhs. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-23 & WP 5; DPU-FGE 2-14).¹²³ An additional \$22,477 represented test year amortization expense associated with computer software allocations from Unitil Service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-23 & WP 5).

Unitil proposes to increase its recorded test-year Company and Unitil Service computer software amortization expense of \$142,166 to \$206,731, an increase of \$64,565 (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-23).¹²⁴ The Company derived its proposed software amortization expense by first annualizing the amortization of its various software applications in 2013, producing a total expense of \$237,380, and then removing \$30,649 in amortizations associated with software applications that will be fully amortized before the end of the midpoint of the rate year (i.e., November 30, 2014) (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-23 & WP 5). No party addressed this issue on brief.

2. Analysis and Findings

The Department has found that software costs are a routine and continuing part of a company's business and that these expenses are recurring in nature. D.P.U. 07-71, at 119-120; D.P.U. 92-111, at 67; D.P.U. 89-114/90-331/91-80 (Phase One) at 152-153. At the same time, the Department will adjust test-year expense levels for known and measurable changes to the test year. D.P.U. 87-260, at 75; D.P.U. 1270/1414, at 33.

¹²³ Unitil actually recorded \$119,689 in software amortizations during the test year (Exhs. DPU-FGE 2-14; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-23). The Company attributes the difference of \$1,270 to the use of an erroneous electric and gas allocation factor during the first two months of 2012 that was corrected on its general ledgers in 2013 (Exh. DPU-FGE 2-14). The Company's cost of service schedules are based on the \$119,689 expense recorded during the test year. (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-23).

¹²⁴ Of this amount, 10.77 percent, or \$6,954, is assigned to internal transmission and \$57,612 is assigned to base distribution service (Exh. DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq 3-23).

The Department has examined Unital's proposed software amortization expense. The Department finds that test-year software amortization expense was appropriately adjusted to correct the erroneous allocation factor applied during the first part of the year (Exh. DPU-FGE 2-14). Further, the Department finds that the Company has appropriately excluded amortization expense associated with software applications that are scheduled to be fully amortized by the midpoint of the rate year. See D.P.U. 11-01/D.P.U. 11-02, at 297-299; Western Massachusetts Electric Company, D.P.U. 87-260, at 75 (1988).

To calculate Unital's annual software amortization expense, the Department has applied the amortization rates approved in this Order to the Company's amortizable plant and other balances. As discussed in Section V.B.3.e above, the Department has excluded from rate base \$27,829 in software associated with the Company's MDS and PowerPlant systems. Because the Company amortizes computer software over a period of five years, the annual amortization associated with these disallowances is \$5,566. Accordingly, the Department will reduce the Company's proposed amortization expense by \$5,566.¹²⁵

VII. CAPITAL STRUCTURE AND RATE OF RETURN

A. Introduction

The Company calculates a proposed weighted average cost of capital ("WACC") of 8.55 percent, representing the rate of return to be applied to Unital's rate base to determine the total return on its investment (Exhs. Unital-DLC-1, at 35; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-5). The WACC is based on: (1) a proposed capital structure comprised of

¹²⁵ Of this amount, 10.77 percent, or \$599, is assigned to internal transmission and \$4,967 is assigned to base distribution service.

52.22 percent long-term debt and 47.78 percent common equity;¹²⁶ (2) a proposed cost of long-term debt of 6.99 percent; and (3) a proposed rate of return on common equity ("ROE") of 10.25 percent (Exhs. Unitil-DLC-1, at 35; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-5).

In determining its proposed ROE, the Company used three equity cost models: (1) two variants of the discounted cash flow ("DCF") model (i.e., the constant growth and the multi-stage growth forms); (2) the capital asset pricing model ("CAPM"); and (3) the bond yield plus risk premium approach (Exh. Unitil-RBH-1, at 3, 54-56). For each model, the Company used market and financial data developed from a proxy group of 16 electric companies (Exh. Unitil-RBH-1, at 14).

The Attorney General calculates a proposed WACC of 7.85 percent, based on an ROE of 8.80 percent (Exhs. AG-JRW-1-Direct at 44, 46-47; AG-JRW-1). The Attorney General's proposed ROE was developed using the DCF and CAPM models, with financial data from a proxy group of 33 electric companies (Exhs. AG-JRW-1-Direct at 11; AG-JRW-4, at 1). We discuss the components of the Company's and the Attorney General's proposals below.

B. Capital Structure and Cost of Debt/Preferred Stock

1. Company's Proposal

As of the end of the test year, the Company's capital structure consisted of 52.22 percent long-term debt and 47.78 percent common equity (Exhs. Unitil-DLC-1, at 35; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-5). As noted above, the Company proposes a rate of 6.99 percent for its long-term debt (Exhs. Unitil-DLC-1, at 35; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-5).

¹²⁶ The Company redeemed all of its outstanding preferred stock on December 1, 2012 (Exh. AG 1-2, Att. 7C at 39).

The Attorney General accepts the Company's proposed capital structure and proposed cost of long-term debt (Attorney General Reply Brief at 16). No other party addressed these issues on brief.

2. Analysis and Findings

A company's capital structure typically consists of long-term debt, preferred stock, and common equity. D.P.U. 08-35, at 184; D.T.E. 05-27, at 269; D.T.E. 03-40, at 319; D.T.E. 01-56, at 97; Pinehills Water Company, D.T.E. 01-42, at 17-18 (2001). The ratio of each capital structure component to the total capital structure is used to weight the cost (or return) of each capital structure component to derive a WACC. The WACC is used to determine the return on rate base for calculating the appropriate debt service and capital costs for the company to be included in its revenue requirements. D.P.U. 07-71, at 122; D.T.E. 03-40, at 319; D.T.E. 01-42, at 18; D.P.U. 86-149, at 5.

The Department will normally accept a utility's test-year-end capital structure, allowing for known and measurable changes, unless the capital structure deviates substantially from sound utility practice. D.T.E. 03-40, at 319; High Wood Water Company, D.P.U. 1360, at 26-27 (1983); Blackstone Gas Company, D.P.U. 1135, at 4 (1982). Adjustments to test-year-end capitalization to recognize redemptions, retirements, or issuances of new debt or equity are allowed, provided that they are known and measurable and the proposed issuance or retirement of securities has actually taken place by the date of the Order. D.T.E. 03-40, at 323. In reviewing and applying utility company capital structures, the Department seeks to protect ratepayers from the effect of excessive rates of return. D.T.E. 03-40, at 319; Assabet Water Company, D.P.U. 1415, at 11 (1983); see Mystic Valley Gas Company v. Department of Public Utilities, 359 Mass. 420, 430 & n.14 (1971).

As noted above, no party objected to the Company's proposed capital structure. There have been no new securities issuances or retirements since the end of the test year. The Company's redemption of its preferred stock has resulted in a capital structure of 52.22 percent debt and 47.78 percent common equity, which is typical in utility capitalization. (Exhs. Unutil-DLC-1, at 35; DPU-FGE 3-16 (Supp. 7), Att., Sch. RevReq-5; AG 1-2, Att. 7C at 39). See, e.g., D.P.U. 13-75, at 276 (53.68 percent common equity); Bay State Gas Company, D.P.U. 12-25, at 388 (2012) (53.7 percent common equity); D.P.U. 10-114, at 291, 383 (50.17 percent common equity). As Unutil's proposed capital structure is identical to its test-year-end capital structure and is consistent with sound utility practice, the Department accepts the Company's proposed capital structure consisting of 52.22 percent long-term debt and 47.78 percent common equity.

No party objected to the Company's proposed costs of long-term debt of 6.99 percent. We find that the Company calculated its cost of long-term debt in a manner consistent with Department precedent. D.P.U. 90-121, at 159-161. Accordingly, the Department accepts Unutil's effective cost of long-term debt of 6.99 percent for use in determining an appropriate WACC.

C. Proxy Groups

1. Company's Proxy Group

Unutil is a wholly-owned subsidiary of Unutil Corporation and, therefore, has no public market for its stock. Accordingly, Unutil presented its cost of equity analysis using the capitalization and financial statistics of a proxy group of 16 electric companies (Exh. Unutil-RBH-1, at 14). The Company started with a group of 49 companies classified as electric utilities by Value Line Investment Survey ("Value Line") (Exh. Unutil-RBH-1, at 11). From that group, the Company chose companies that met the following selection criteria: (1) are

included in Value Line; (2) have investment grade senior bond and/or corporate credit ratings from Standard & Poor's Financial Services, LLC ("S&P"); and (3) have been covered by at least two utility industry equity analysts (Exh. Unitil-RBH-1, at 11). In addition, Unitil excluded companies with the following characteristics: (1) a regulated operating income over the three most recently reported fiscal years comprised of less than 60 percent of the total income for that company; (2) a regulated electric operating income over the three most recently reported fiscal years represented less than 90 percent of total regulated operating income; (3) do not consistently pay quarterly cash dividends; and (4) are currently involved in merger activities or other significant transactions (Exh. Unitil-RBH-1, at 11-12).

2. Attorney General's Proxy Group

In her cost of equity analysis, the Attorney General evaluated the return requirements of investors on the common stock of a proxy group of 33 publicly held electric companies (Exhs. AG-JRW-1-Direct at 11; AG-JRW-4, at 1). These companies are listed in Value Line as electric utilities and in AUS Utility Reports as electric utilities or combination electric and gas utilities (Exh. AG-JRW-1-Direct at 11).

The Attorney General's median proxy group has an earned ROE of 9.5 percent, a current median common equity ratio of 46.5 percent, an S&P corporate credit rating between A- and BBB+,¹²⁷ and receives on average 84 percent of its revenues from regulated electric operations (Exhs. AG-JRW-1-Direct at 12; AG-JRW-4, at 1).

¹²⁷ A company with a credit rating of "A" is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories ("AAA" and "AA"). Nonetheless, the company's capacity to meet its financial commitments is still strong. A company with a credit rating of "BBB" exhibits adequate protection parameters although adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity to meet its financial commitments. The use of a "+" or "-" sign shows the relative standing of the company within the rating category. See S&P Ratings Definitions at 5, available at <http://www.standardandpoors.com/ratings/articles/en/us/?articleType=HTML&assetID=1245365752249>.

3. Positions of the Parties

a. Attorney General

The Attorney General argues that when she applied four different measures to gauge the risk profile of Unitil's parent company (i.e., Unitil Corporation) vis-à-vis the risk profiles of her proxy group and the Company's proxy group, the results show, on balance, Unitil Corporation is comparable in risk to both proxy groups (Attorney General Brief at 81-82, citing Exhs. AG-JRW-1; AG-JRW-4, at 3-4). Nonetheless, the Attorney General argues that her proposed proxy group of 33 publicly held electric utility companies provides a more comprehensive sample to estimate an ROE for Unitil as compared to the Company's proposed proxy group of only 16 companies (Attorney General Brief at 81, citing Exhs. AG-JRW-1; AG-JRW-4).

b. Company

The Company argues that its proxy group is consistent with Department precedent because the 16 companies in the group have common stock that is publicly traded and the companies are generally of comparable investment risk to Unitil (Company Brief at 121, citing D.T.E. 05-27, at 296-297; D.P.U. 08-35, at 176). Moreover, the Company argues that, consistent with precedent, it provided detailed information about the companies in its proxy group that is sufficient to allow the Department to assess the merits of the measures it used to draw conclusions about relative risk (Company Brief at 122, citing D.P.U. 87-59, at 68; Boston Gas Company, D.P.U. 1100, at 135-136 (1982)). Accordingly, the Company argues that its recommended ROE, based on the analysis of data from its proxy group, is appropriate (Company Brief at 122).

The Company argues that, for several reasons, the companies in the Attorney General's proxy group are not sufficiently comparable to Unitil (Company Brief at 128, citing Attorney General Brief at 80-81; Exh. Unitil-RBH-Rebuttal, at 14). For example, the Company claims that, unlike Unitil, the companies in the Attorney's General's proxy group are predominantly vertically integrated electric utilities (Company Brief at 129). In addition, Unitil claims that the screening criteria used by the Attorney General to select her proxy group are flawed because they rely, in part, on a company's level of revenues, when measures of income are far more likely to be considered by the financial community in making credit assessments and investment decisions (Company Brief at 128, citing Exh. Unitil-RBH-Rebuttal, at 15).

4. Analysis and Findings

The Department has accepted the use of a proxy group of companies for evaluation of a cost of equity analysis when a distribution company does not have publicly traded common stock. See D.P.U. 08-35, at 176-177; D.T.E. 99-118, at 80-82; D.P.U. 92-78, at 95-96. The Department has stated that companies in the proxy group must have common stock that is publicly traded and must be generally comparable in investment risk. D.P.U. 1300, at 97.

In our evaluation of the proxy groups used by the Company and the Attorney General, we recognize that it is neither necessary nor possible to find a group that matches the Company in every detail. See D.T.E. 99-118, at 80; D.P.U. 87-59, at 68; D.P.U. 1100, at 135-136. Rather, we may rely on an analysis that employs valid criteria to determine which utilities will be in the proxy group, and then provides sufficient financial and operating data to discern the investment risk of the Company in relation to the proxy group. See D.T.E. 99-118, at 80; D.P.U. 87-59, at 68; D.P.U. 1100, at 135-136.

The Department expects diligence on the part of parties in assembling proxy groups that will produce statistically reliable analyses. See D.P.U. 13-75, at 286; D.P.U. 12-25, at 401; D.P.U. 10-55, at 480-482. Overly exclusive selection criteria may affect the statistical reliability of a proxy group, especially if such screening criteria result in a limited number of companies in the proxy group. The Department expects parties to limit criteria to the extent necessary to develop a larger as opposed to a narrower proxy group. See D.P.U. 13-75, at 286; D.P.U. 12-25, at 401; D.P.U. 10-55, at 481-482. To the extent that a particular company's characteristics differ from those of the others in a proxy group, those differences should be identified in sufficient detail to enable a reviewer to discern any effects on investment risk. D.P.U. 10-114, at 299; D.P.U. 87-59, at 68.

We find that the Company and the Attorney General each employed a set of valid criteria to select their respective proxy groups, and that they each provided sufficient information about the proxy groups to allow the Department to draw conclusions about the relative risk characteristics of the Company versus the members of the proxy groups. See D.P.U. 12-25, at 402; D.P.U. 09-30, at 307. Therefore, the Department will rely on those proxy groups to determine the Company's required cost of equity. Our acceptance of these groups notwithstanding, we raise two factors that we will take into consideration when assessing the relative risk of Unitil versus the proxy groups. First, we recognize that some of the companies in the Company's proxy group are involved in non-regulated businesses beyond distribution activities, potentially making these companies more risky, all else being equal and, in turn, potentially more profitable than the Company. D.P.U. 11-01/D.P.U. 11-02, at 385; D.P.U. 10-114, at 300; D.P.U. 09-30, at 309; D.P.U. 07-71, at 135. Second, we note that Unitil's approved decoupling mechanism is but one form of a range of revenue recovery mechanisms used by companies in each proxy group that the financial markets consider to be revenue-stabilization mechanisms. D.P.U. 13-75, at 287; D.P.U. 10-114, at 300; D.P.U. 10-55,

at 482. Therefore, while we accept the parties' proxy groups as a basis for cost of capital proposals, we also will consider the particular characteristics of the Company in comparison to members of the proxy groups when determining the appropriate ROE.

D. Return on Equity

1. Company's Proposal

The Company applied the financial data from its proxy group to three cost of equity models: (1) the DCF model (both constant growth and multi-stage) (2) the CAPM; and (3) the bond yield plus risk premium model (Exh. Unitil-RBH-1, at 3, 54-56). Based on the results of these models¹²⁸ and considering the Company's business risks relative to its proxy group, Unitil determined that its ROE is in the range of 10.25 percent to 10.75 percent (Exh. Unitil-RBH-1, at 6). The Company recommends that the Department approve an ROE for Unitil of 10.25 percent (Exh. Unitil-RBH-1, at 6).

2. Attorney General's Proposal

The Attorney General proposes an ROE of 8.8 percent based on the DCF and CAPM models (Exh. AG-JRW-1-Direct at 2, 44). The Attorney General's DCF analysis resulted in an estimated ROE of 8.6 percent, while her CAPM analysis resulted in an estimated ROE of 7.5 percent (Exhs. AG-JRW-1-Direct at 43-44; AG-JRW-11, at 1). Giving greater weight to the DCF model, the Attorney General concludes that the appropriate ROE for Unitil is 8.8 percent (Exh. AG-JRW-1-Direct at 44).¹²⁹

¹²⁸ On the low end, the Company's constant growth DCF analysis produced an ROE of 8.48 percent (Exh. Unitil-RBH-1, at 21, Table 4 & 55). On the high end, the Company's CAPM analysis produced an ROE of 12.39 percent (Exh. Unitil-RBH-1, at 30, Table 8 & 56).

¹²⁹ The Attorney General's recommended ROE is the average of a DCF analysis using data from her proxy group (i.e., 8.6 percent) and a DCF analysis using data from the Company's proxy group (i.e., 9.0 percent) (Exh. AG-JRW-1-Direct at 44).

3. Positions of the Parties

a. Attorney General

In support of her recommended ROE of 8.8 percent, the Attorney General states that, due to the essential nature of their business as well as their regulated status, public utilities are exposed to a lesser degree of business risk than other, non-regulated businesses (Attorney General Brief at 80, citing D.P.U. 01-56, at 116; D.P.U. 96-50 (Phase I) at 132; D.P.U. 92-250, at 160-161; D.P.U. 92-111, at 280-281; D.P.U. 905, at 48-49; see Exh. AG-JRW-1-Direct at 19). In particular, the Attorney General states that the electric industry is among the lowest risk of all industries in the United States, as measured by beta (see Attorney General Brief at 77-78; see also Exhs. AG-JRW-1-Direct at 46; AG-JRW-8). Further, the Attorney General argues that the ROEs of distribution-only electric companies like Unitil are below those of other electric utilities (Attorney General Brief at 78-79, citing Exhs. Unitil-RBH-Rebuttal Sch. 6; AG-JRW-Surrebuttal at 17). After excluding companies with ROE adders, the Attorney General contends that distribution-only electric companies had ROEs approximately 30 basis points below the average ROE associated with electric utilities in 2013 (Attorney General Brief at 78-79, citing Exhs. Unitil-RBH-Rebuttal Sch. 6; AG-JRW-Surrebuttal at 17; Attorney General Reply Brief 20).

The Attorney General disputes the Company's contention that recent increases in interest rates necessarily result in higher ROEs for electric utilities (Attorney General Brief at 77-78; Attorney General Reply Brief at 19-20, citing Exh. AG-JRW-1-Direct at 46-47). The Attorney General maintains that capital costs for utilities, as indicated by long-term bond yields, are still at historically low levels, even given the increase in interest rates over the past year (Attorney General Brief at 77, citing Exh. AG-JRW-1-Direct at 46-47). Further, the Attorney General notes that the increase in interest rates that occurred between 2012 and 2013 did not necessarily result in higher equity capital costs for electric companies (Attorney General Brief at 77; Attorney General Reply Brief at 19-20, citing Exh. AG-JRW-1-Direct at 46-47).

Finally, the Attorney General argues that growth in the economy is tepid, unemployment is still at 7.30 percent, and interest rates and inflation are at relatively low levels, all resulting in expected returns on financial assets remaining low (Attorney General Brief at 77, citing Exh. AG-JRW-1-Direct at 47). The Attorney General disputes the Company's contention that the financial uncertainty created by the Federal Reserve System's tapering of its bond buying program implies that capital costs are rising and that they will be higher in the future (Attorney General Brief at 76-77). Instead, the Attorney General contends that the Federal Reserve System has extended its commitment to keep short-term interest rates "exceptionally low" until either the unemployment rate falls to around 6.5 percent or the inflation rate exceeds 2.5 percent (Attorney General Brief at 76, citing Exh. AG-JRW-Surrebuttal at 17).

b. Company.

Unitil argues that its proposed 10.25 percent ROE is reasonable as it reflects current capital market conditions and is the result of the application of three common, accepted equity cost models (Company Brief at 120, citing Exh. Unitil-RBH-1, at 2, 6, 54). The Company argues that its management performance and commitment to implementing the Commonwealth's energy policy goals warrant a return at the higher end of the range of reasonable returns (Company Brief at 134-137).

By contrast, the Company argues that the Attorney General's proposed ROE is below the range of reasonable returns (Company Brief at 134). The Company argues that the ROE authorized in this case must allow Unitil to maintain its credit and ability to attract capital (Company Brief at 119-120, citing Boston Edison v. Department of Public Utilities, 375 Mass. 305, 315 (1978), citing Federal Power Commission v. Hope Natural Gas Company,

320 U.S. 591, 603 (1944) ("Hope"). Until argues that the Attorney General's proposed ROE would put it at a disadvantage as compared to other utilities in terms of attracting capital and, thereby, could result in negative financial consequences for the Company and its customers (Company Brief at 134, citing Attorney General v. Department of Public Utilities, 392 Mass. 262, 266 (1982)).

Finally, the Company asserts that the Attorney General's reliance on arguments about the impact of the Federal Reserve System's decision-making on interest rates is misplaced (Company Brief at 127, citing Attorney General Brief at 76). In this regard, Unutil maintains that ROE models focus mainly on long-term interest rates as opposed to short-term interest rates as suggested by the Attorney General (Company Brief at 127, citing Exh. AG-JRW-1-Direct at 37). The Company notes that long-term interest rates have increased despite the fact that the Federal Reserve System has stated that, as a matter of fiscal policy, it will continue to maintain lower short-term interest rates (Company Brief at 127, citing Exhs. Unutil-RBH-Rebuttal at 3-6; Unutil-RBH-Rebuttal WP Charts 1-4).

4. Discounted Cash Flow Model

a. Company's Proposal

The DCF model is based on the premise that a stock's current price is equal to the present value of the future dividends that investors expect to receive (Exh. Unutil-RBH-1, at 16). The Company used both a constant growth and a multi-stage DCF model (Exh. Unutil-RBH-1, at 16, 22).

The constant growth DCF model is comprised of a forward-looking dividend yield component and an expected dividend growth rate into perpetuity as represented by the following formula:

$$P_0 = D_1 / (1+k) + D_2 / (1+k)^2 + \dots + D_Y / (1+k)^Y$$

where P_0 is today's stock price; D_1 , D_2 , etc. are all expected future dividends, and k is the discount rate (i.e., the investor's required ROE) (Exh. Unutil-RBH-1, at 16-18). The Company calculated the dividend yield component based on the current annualized dividends of its proxy group (Exh. Unutil-RBH-1, at 17). For the expected growth rate, the Company used a consensus of the Zacks, First Call, and Value Line surveys to estimate a long-term earnings growth rate (Exhs. Unutil-RBH-1, at 20-21; Sch. Unutil-RBH-2).

To address certain limiting assumptions underlying the constant growth model, Unutil also used a multi-stage DCF model (Exh. Unutil-RBH-1, at 22).¹³⁰ The Company applied a three-stage model that employs multiple earnings growth rate and payout rate assumptions (Exh. Unutil-RBH-1, at 22-26). Earnings growth and payout ratio assumptions change throughout the three stages of this model (Exh. Unutil-RBH-1, at 22-26). In particular, the Company employed a long-term gross domestic product ("GDP") growth rate¹³¹ of 5.75 percent (Exh. Unutil-RBH-1, at 25-26).¹³²

¹³⁰ Unlike the constant growth mode, the multi-stage DCF model enables the analyst to specify growth rates over multiple time periods (Exh. Unutil-RBH-1, at 22).

¹³¹ The Company's GDP growth rate is the compound growth rate in chain-weighted GDP for the period from 1929 through 2012. The rate of inflation is a compound annual forward rate starting in ten years (i.e., 2023) and is based on 30-day average projected spread between yields on long-term nominal treasury securities and long-term treasury inflation-protected securities (Exh. Unutil-RBH-1, at 25-26).

¹³² In the first stage, earnings growth is based on average earnings per share growth as reported by Value Line, Zacks, and First Call and a company-specific payout ratio from Value Line is used. In the second stage, earnings growth transitions to a long-term GDP growth rate and company-specific payout ratios transition to the long-term industry payout ratio. In the third stage, earnings growth is based on the long-term GDP growth rate, while the payout ratio is based on the long-term expected payout ratio. The terminal value is based on the expected dividend divided by the difference between the cost of equity (i.e., the discount rate) and the long-term expected growth rate (Exh. Unutil-RBH-1, at 22-26).

Based on the above analysis, Unital's constant growth DCF model produced a cost of equity range of 8.48 percent to 11.39 percent (Exhs. Unital-RBH-1, at 21; Sch. Unital-RBH-2). Alternately, Unital's multi-stage DCF model produced a cost of equity range of 9.26 percent to 10.84 percent (Exhs. Unital-RBH-1, at 26; Sch. Unital-RBH-3).

b. Attorney General's Proposal

The Attorney General relied exclusively on a constant growth DCF model, reasoning that public utilities have reached the steady state of growth (Exh. AG-JRW-1-Direct at 24-25). To determine the cost of capital, the Attorney General calculated an estimated dividend yield and growth rates for her proxy group (Exhs. AG-JRW-1-Direct at 27, 35; AG-JRW-10, at 1). The cost of equity indicated by the Attorney General's DCF analysis is 8.6 percent (Exhs. AG-JRW-1-Direct at 35; AG-JRW-10, at 1).

Using two different approaches, the Attorney General calculated a growth adjusted dividend yield of 4.1 percent (Exhs. AG-JRW-1-Direct at 25-26; AG-JRW-10, at 2).¹³³ The Attorney General then used several different approaches to develop historic and projected growth rates in: (1) earnings per share; (2) dividends per share; and (3) book value per share (Exhs. AG-JRW-1-Direct at 27-28; AG-JRW-10, at 1).¹³⁴ The historic growth rate indicators of the Attorney General's proxy group suggest a baseline growth rate of 3.3 percent (Exh. AG-JRW-1-Direct at 34). The overall range of the Attorney General's projected growth

¹³³ To account for the expected growth over the coming year, the Attorney General multiplied her calculated yield of 4.0 percent by one-half the expected growth rate, producing a yield of 4.1 percent (Exhs. AG-JRW-1 Direct at 27 and 35; AG-JRW-10, at 1).

¹³⁴ The average of the projected earnings per share, dividends per share, and book value per share growth rates from Value Line is 4.0 percent, and Value Line's projected sustainable growth rate is 3.9 percent (Exh. AG-JRW-1-Direct at 34). The high end of the range for her proxy group is 4.7 percent, which represents the projected earnings per share growth rate of financial analysts (Exh. AG-JRW-1-Direct at 34).

rate indicators was 3.9 percent to 4.7 percent (Exh. AG-JRW-1-Direct at 34). Placing more weight on the projected earnings per share growth rates of financial analysts, the Attorney General determined that an appropriate growth rate is 4.5 percent (Exhs. AG-JRW-1-Direct at 34-35; AG-JRW-10, at 1). Finally, the Attorney General added the adjusted dividend yield of 4.1 percent to the estimated growth rate of 4.5 percent to determine a cost of equity of 8.6 percent (Exhs. AG-JRW-1-Direct at 35; AG-JRW-10, at 1).

c. Positions of the Parties

i. Attorney General

The Attorney General argues that her estimated cost of equity of 8.60 percent using the DCF model (based on a 4.1 percent growth adjusted dividend yield and a 4.5 percent growth rate) is an appropriate means to derive a required ROE for the Company (Attorney General Brief at 84). The Attorney General maintains that her DCF model incorporates a growth rate that is not exclusively reliant on earnings per share forecasts of financial analysts (Attorney General Brief at 87, citing Exh. AG-JRW-1-Direct at App. B).

Regarding Unitil's constant growth DCF model, the Attorney General argues that the Company inappropriately eliminated all low-end DCF results from consideration (Attorney General Brief at 86). The Attorney General argues that this elimination biases the Company's results by: (1) ignoring one-third of the DCF results used to establish equity cost rates for the Company's proxy group; (2) reporting a higher DCF equity cost rate than the data indicate because Unitil eliminated low-end outliers while keeping high-end outliers; and (3) not including all data in the Company's analysis (Attorney General Brief at 86-87, citing Exh. AG-JRW-1-Surrebutal at 4).

In addition, the Attorney General argues that the Company's DCF analysis relies excessively on the earnings per share growth forecasts of financial analysts and Value Line,

which she considers to be overly optimistic and upwardly biased (Attorney General Brief at 86, citing Exh. AG-JRW-1-Direct at 50-54 & App. B). The Attorney General also asserts that the projected GDP growth rate of 5.75 percent used in the Company's multi-stage DCF model is excessive and not reflective of recent and projected economic growth (Attorney General Brief at 86, citing Exh. Unutil-RBH-1, at 49).

Finally, the Attorney General argues that any consideration of ROE should exclude the Company's incorporation of flotation costs (i.e., the costs of issuing and selling a security) (Attorney General Brief at 90, citing Exh. AG-JRW-1-Direct at 62-64). The Attorney General contends that the Company has not identified any flotation costs that it actually incurs and, therefore, there is no reason to compensate the Company with a higher ROE to cover flotation costs that it does not pay (Attorney General Brief at 90). The Attorney General notes that utilities like Unutil that are part of a holding company structure typically have no flotation costs because all stock is issued to the parent company (Attorney General Brief at 90, citing Massachusetts Electric Company, D.P.U. 800, at 51 (1982); Western Massachusetts Electric Company, D.P.U. 20279, at 37 (1980); Massachusetts Electric Company, D.P.U. 19376, at 7-13 (1978)). The Attorney General contends that the Department has consistently rejected flotation cost adjustments in determining ROE because investors already take into account issuance costs in their decision to purchase stock at a given price (Attorney General Brief at 90, citing D.P.U. 90-121, at 180; D.P.U. 88-67 (Phase I) at 193; D.P.U. 86-280-A at 112; D.P.U. 85-137, at 100).

ii. Company.

The Company argues that the Attorney General's constant growth DCF results of 8.60 percent and 9.0 percent, based on her proxy group and the Company's proxy group, respectively, do not provide meaningful estimates of the Company's cost of equity (Company

Brief at 129, citing Exh. Unutil-RBH-Rebuttal at 16; Attorney General Brief at 84). Unutil maintains that the Attorney General's DCF results and recommendation cannot be reconciled with prevailing and expected market conditions that suggest increasing, rather than decreasing, capital costs (Company Brief at 130, citing Exh. Unutil-RBH-Rebuttal at 28). In addition, the Company notes that the Attorney General's DCF results are: (1) as much as 60 basis points below the ROE allowed by the Department in the Company's last rate case;¹³⁵ and (2) below authorized utility ROEs reported since 2010 (Company Brief at 129, citing Exh. Unutil-RBH-Rebuttal at 17; Tr. 9, at 977).

Further, the Company argues that the Attorney General's criticism of Unutil's reliance on financial analysts' forecasts for earnings per share growth as upwardly biased has no basis (Company Brief at 130, citing Exh. Unutil-RBH-Rebuttal at 23). Instead, Unutil contends that the use of analysts' earnings growth projections in the context of a DCF analysis is supported by peer-reviewed financial literature (Company Brief at 130, citing Exh. Unutil-RBH-Rebuttal at 24).

Turning to the Attorney General's criticism of Unutil's alleged asymmetric elimination of low-end DCF results, the Company argues that these low results are highly improbable in light of the fact that of 1,407 reported electric utility rate cases since 1980, only two had an authorized ROE of 9.0 percent or lower (Company Reply Brief at 29, citing Exh. Unutil-RBH-1, at 21-22). Further, the Company contends that it also discounted the mean high results, thus limiting the upper end of its DCF range to 10.75 percent (Company Reply Brief at 29, citing Tr. 9, at 980-981).

¹³⁵ The Company notes that the Attorney General's ROE recommendation is 40 basis points below the Company's current authorized ROE that the Department set at the low end of the reasonable range due to the Company's storm response (Company Brief at 130, citing Exh. Unutil-RBH-Rebuttal at 27).

Finally, regarding the issue of flotation costs, the Company argues that it merely considered the effect of such costs as one more business risk facing the Company (Company Brief at 125-126). The Company maintains that, contrary to the Attorney General's assertion, it has not requested any specific adjustments for flotation costs (Company Brief at 125-126, citing Attorney General Brief at 90-91).

d. Analysis and Findings

The Company has proposed an ROE of 10.25 percent, which is in the range of results from its application of both a constant growth and a multi-stage DCF analysis (Exh. Unutil-RBH-1, at 3, 54-56). The Attorney General has proposed an ROE of 8.8 percent based on her application of a constant growth DCF analysis (Exh. AG-JRW-1-Direct at 2, 44). Both the Company and the Attorney General use a form of the DCF model that assumes an infinite investment horizon and a constant growth rate (Exhs. Unutil-RBH-1, at 18; AG-JRW-1-Direct at 24). This model has a number of very strict assumptions (e.g., the infinite investment horizon and dividend growth at a constant rate in perpetuity) (Exh. Unutil-RBH-1, at 18). These assumptions affect the estimates of cost of equity. D.P.U. 10-114, at 312; D.P.U. 09-39, at 387.

Because regulation establishes a level of authorized earnings for a utility that, in turn, implicitly influences dividends per share, estimation of the growth rate from such data is an inherently circular process. D.P.U. 10-114, at 312; D.P.U. 10-55, at 512; D.P.U. 09-30, at 357-358. In addition, the DCF model includes an element of circularity when applied in a rate case, because investors' expectations depend upon regulatory decisions. D.P.U. 10-70, at 258; D.P.U. 09-30, at 357-358. Consequently, this circularity affects the reliability of the Company's and the Attorney General's DCF models. The Attorney General's DCF model places less emphasis on analyst forecasts of earnings per share growth rates which, to some extent, compensates for this circularity (see Exh. AG-JRW-1-Direct at 31-35).

The Company and Attorney General arrive at their respective estimates based on different data sources to estimate the dividend yield and growth rates (Exhs. Unutil-RBH-1, at 17-22; AG-JRW-1-Direct at 25-35). The Company uses the Bloomberg Professional estimates, adjusting them by one-half of the growth rate, while the Attorney General calculates the dividend yield by applying one-half of the growth rate to a six-month average dividend yield (Exhs. Unutil-RBH-1, at 17-22; Sch. Unutil-RBH-2; AG-JRW-1-Direct at 27; AG-JRW-10). The Department finds that both the Company's and the Attorney General's approaches are logical and reasonable; further, there is no evidence on the record to establish that investors rely overwhelmingly on one approach over the other. Therefore, we find that the two approaches provide a credible basis for evaluating a determination of the Company's allowed ROE.

In addition, the Company and the Attorney General use different growth rates in their respective DCF analyses (Exhs. Unutil-RBH-1, at 18-20; Sch. Unutil-RBH-2; Sch. Unutil-RBH-3; AG-JRW-1-Direct at 27; AG-JRW-10). Determining the appropriate long-term growth expectations of investors in a DCF analysis can be difficult and controversial (Exhs. Unutil-RBH-1, at 18; AG-JRW-1-Direct at 24-25, 27). The Company relies on a forward-looking growth analysis using earnings per share, based on the assumption that investors form their investment decisions based on expectations of growth in earnings, not dividends (Exhs. Unutil-RBH-1, at 20; Sch. Unutil-RBH-2; Sch. Unutil-RBH-4). The Attorney General bases her growth rate on a historical and forward-looking growth analysis using earnings per share, dividends per share, book value per share, and retention growth rates (Exh. AG-JRW-10, at 8). The Attorney General emphasizes dividend growth with less reliance on earnings per share

because of the alleged upward bias of forecasts by financial analysts, which she claims investors are aware of (Exhs. AG-JRW-1-Direct at 3, 27, 31 & App. B; AG-JRW-10, at 4, 6, 8). The Department has noted that investors' heavy reliance on earnings per share forecasts gives credit to the Attorney General's argument that investors are aware of upward biases. D.P.U. 13-75, at 302. Accordingly, the Department will take these biases into consideration in evaluating the Company's DCF analysis.

An additional point of contention between the Company and the Attorney General concerns the Company's elimination of low-end DCF results (Exhs. Unutil-RBH-1, at 21-22; AG-JRW-1-Direct at 49-50). The Company argues that such elimination was appropriate because the low-end results are well below any reasonable estimate of the Company's cost of equity (Exh. Unutil-RBH-1, at 21-22). The Attorney General counters that the Company has eliminated only low-end results, thereby skewing the DCF results (Attorney General Brief at 86, citing Exh. AG-JRW-1-Direct at 48-49).

The Department has found that, to some extent, errors in the DCF model's assumptions are responsible for DCF cost of equity anomalies. D.P.U. 13-75, at 303. Because of the limitations of these models, the Department has found that it is appropriate to consider all of the DCF estimates when evaluating the Company's ROE. D.P.U. 13-75, at 303. Here, we find that the Company's DCF analysis overestimates the cost of equity by eliminating results of the low-outlier estimates.

Finally, as noted by the Attorney General, the Department has consistently rejected flotation cost adjustments in determining ROE because investors already take into account these costs in their decision to purchase stock at a given price (Attorney General Brief at 90, citing D.P.U. 90-121, at 180; D.P.U. 88-67 (Phase I) at 193; D.P.U. 86-280-A, at 112;

D.P.U. 85-137, at 100). Although the Company maintains that it has not made specific adjustments in its DCF models for flotation costs, the record indicates that: (1) the Company modified its DCF calculation by 13.0 basis points to provide a dividend yield that would reimburse investors for issuance costs; and (2) considered the effect of this flotation cost in determining its proposed ROE (Company Brief at 125-126; Exh. Unitil-RBH-1, at 34-35, Sch. Unitil-RHB-8). As a subsidiary of Unitil Corporation, the Company has failed to demonstrate that it actually incurs flotation costs of any magnitude. Consistent with our precedent, the Department will exclude consideration of flotation costs when determining an appropriate ROE for Unitil. D.P.U. 13-75, at 328.

5. Capital Asset Pricing Model

a. Company's Proposal

The Company also used the CAPM to estimate the cost of equity for its proxy group (Exh. Unitil-RBH-1, at 27). The application of the Company's CAPM resulted in twelve individual cost of equity estimates, ranging from 9.87 percent to 12.39 percent (Exhs. Unitil-RBH-1, at 56; Sch. Unitil-RBH-6).¹³⁶

The CAPM is a market-based investment model based on capital market theory and modern portfolio theory. In the CAPM, the required rate of return is equal to the expected risk-free rate of return plus a premium for the implicit systematic risk of the security (Exh. Unitil-RBH-1, at 27). There are three necessary components to calculate the cost of equity with the CAPM: (1) an expected risk-free rate of return; (2) the market risk premium; and (3) the beta, a measure of systematic risk (Exhs. Unitil-RBH-1, at 27; Sch. Unitil-RBH-4; Sch. Unitil-RBH-6).

¹³⁶ On rebuttal, the Company removed the long-term projected 30-year Treasury bond yield of 5.10 percent from its analysis, reducing the number of cost of equity estimates to eight, ranging from 9.96 percent to 11.81 percent (Company Brief at 124; Exh. Unitil-RBH-Rebuttal, Sch. 5).

The Company used the current and forecasted 30-year Treasury bond yields to arrive at current, near-term, and long-term risk-free rates (Exhs. Unitil-RBH-1, at 29-30; Sch. Unitil-RBH-6). The CAPM market risk premium is derived from the total return on the overall market minus the risk-free rate of return. The Company developed an ex-ante market risk premium by calculating the estimated market required return¹³⁷ less the Treasury bond yield (Exhs. Unitil-RBH-1, at 29; Sch. Unitil-RBH-4; Sch. Unitil-RBH-6).

The Company obtained beta coefficients for its proxy group from Bloomberg (0.697) and Value Line (0.722) (Exhs. Sch. Unitil-RBH-5; Sch. Unitil-RBH-6). Using the Bloomberg and Value line beta coefficients in combination with a current, near-term, and long-term risk-free rate, Unitil calculated three Bloomberg market DCF derived CAPM results and three Value Line market DCF derived CAPM results (Exh. Sch. Unitil-RBH-6). Likewise, using the Value Line beta coefficient in combination with a current, near-term, and long-term risk-free rate, Unitil calculated three Bloomberg market DCF derived CAPM results and three Value Line market DCF derived CAPM results (Exh. Sch. Unitil-RBH-6).

b. Attorney General's Proposal

In estimating the Company's cost of equity, the Attorney General also performed a CAPM analysis (Exh. AG-JRW-1-Direct at 35). The Attorney General used the traditional CAPM approach in which the cost of equity is equal to the sum of the interest rate on risk-free bonds and an equity risk premium or the excess return that an investor expects to receive above

¹³⁷ The estimated market required return is based on a market capitalization-weighted average DCF result, which consists of an expected dividend yield combined with the market capitalization-weighted projected earnings growth rate (Exhs. Unitil-RBH-1, at 29; Sch. Unitil-RBH-4).

the risk-free rate for investing in risky stocks (Exh. AG-JRW-1-Direct at 35-36). The Attorney General's CAPM analysis resulted in a cost of equity of 7.5 percent (Exh. AG-JRW-1-Direct at 40-44).

In her analysis, the Attorney General used the upper bound of the six-month average yield on 30-year Treasury bonds (i.e., 4.0 percent) as the risk-free rate (Exh. AG-JRW-1-Direct at 37). The Attorney General then calculated an estimated market risk premium of 5.0 percent, based on the midpoint of a range of market risk premiums of 4.0 percent to 6.0 percent (Exhs. AG-JRW-1-Direct at 42; AG-JRW-11, at 1, 5-6). To calculate the beta coefficient, the Attorney General performed a regression analysis of the returns of the companies in her proxy group against the return of the S&P 500 representing the market, resulting in a median beta coefficient of 0.70 percent (Exhs. AG-JRW-1-Direct at 37-38; AG-JRW-11, at 3). The Attorney General multiplied the estimated market risk premium of 5.0 percent by the beta coefficient of 0.70 percent to produce an expected equity risk premium of 3.5 percent (Exh. AG-JRW-1-Direct at 36). Adding the risk-free rate of 4.0 percent to the expected risk premium of 3.5 percent results in a cost of equity of 7.5 percent (Exh. AG-JRW-1-Direct at 40-44).

c. Positions of the Parties

i. Attorney General

The Attorney General argues that the Company's CAPM analysis is flawed and, therefore, "useless" (Attorney General Brief at 95-97). She argues that the Company uses an unrealistic risk-free rate of 5.10 percent, which is well above current market yields, including the yield on a 30-year Treasury bond rate (Attorney General Brief at 95, citing Exh. AG-JRW-1-Direct at 56). The Attorney General notes that the yield on 30-year Treasury bonds was in the 2.5 percent to 4.0 percent range over the 2012-2013 time period and is currently 3.6 percent (Attorney General Brief at 93, citing Exh. AG-JRW-1-Direct at 37). Instead, the Attorney General argues that her use of 4.0 percent is a conservatively high estimate of the risk-free rate for the CAPM (Attorney General Brief at 93, citing Exh. AG-JRW-1-Direct at 37).

The Attorney General contends that the Company's equity risk premium range of 10.69 percent to 10.90 percent is also flawed (Attorney General Brief at 95). In addition, the Attorney General claims that the projected five-year earnings per share growth rates the Company uses are unrealistic and result in overstated expected market returns and corresponding market risk premiums (Attorney General Brief at 95). The Attorney General argues that the Department should rely on a maximum market equity risk premium of no more than 5.0 percent in any CAPM analysis it uses to determine the cost of equity capital for the Company (Attorney General Brief at 94, citing Exh. AG-JRW-1-Direct at 42, 43).

ii. Company

The Company argues that the CAPM cost of equity of 7.50 percent developed by the Attorney General is flawed as it relies on an unrealistic market risk premium assumption of 5.0 percent (Company Brief at 132, citing Exh. Unitil-RBH-Rebuttal at 34-35). Further, the Company disputes the Attorney General's position that Unitil's expected market return is overstated (Company Brief at 132). In this regard, Unitil argues that surveys the Attorney General relied upon to challenge the Company's expected market return are of limited use (Company Brief at 132, citing Exh. Unitil-RBH-Rebuttal at 36-37).

Regarding the Attorney General's argument that Unitil has used earnings per share growth rates that are too high, the Company argues that its analysis of the annual capital appreciation return on large company stocks reported by Morningstar from 1926 through 2012 demonstrates that capital appreciation rates of 10.0 percent to 11.0 percent and higher actually occur quite often (Company Brief at 132, citing Exh. Unitil-RBH-Rebuttal at 38). In this regard, Unitil claims that the 10.69 percent to 10.90 percent estimates the Attorney General criticizes as overstated represent approximately the 50th percentile of the actual capital appreciation rates observed from 1926 to 2012 (Company Brief at 132, citing Exh. Unitil-RBH-Rebuttal at 38-39).

Based on the above, the Company argues that the Attorney General's market risk premium assumption results in an unreasonably low cost of equity (Company Brief at 133). Instead, the Company concludes that the Department should employ Unitil's ex-ante market risk premium estimate when determining the Company's cost of equity capital (Company Brief at 132-133).

d. Analysis and Findings

The Department has previously found that the traditional CAPM as a basis for determining a utility's cost of equity has limited value because of a number of questionable assumptions that underlie the model. See D.P.U. 10-114, at 318; D.P.U. 10-70, at 270; D.P.U. 08-35, at 207; ¹³⁸ D.T.E. 03-40, at 359-360; Commonwealth Electric Company, D.P.U. 956, at 54 (1982).¹³⁹ For example, the Department has not been persuaded that long-term government bonds are the appropriate proxy for the risk-free rate, and has found that the coefficient of determination for beta is generally so low that the statistical reliability of the results is questionable. D.T.E. 01-56, at 113; D.P.U. 93-60, at 256-257; D.P.U. 92-78, at 113; D.P.U. 88-67 (Phase I) at 182-184.

¹³⁸ In D.P.U. 08-35, at 207 n.131, the Department identified the following questionable assumptions used in the CAPM: (1) capital markets are perfect with no transaction costs, taxes, or impediments to trading, all assets are perfectly marketable, and no one trader is significant enough to influence price; (2) there are no restrictions to short-selling securities; (3) investors can lend or borrow funds at the risk-free rate; (4) investors have homogeneous expectations (i.e., investors possess similar beliefs on the expected returns and risks of securities); (5) investors construct portfolios on the basis of the expected return and variance of return only, implying that security returns are normally distributed; and (6) investors maximize the expected utility of the terminal value of their investment at the end of one period.

¹³⁹ Originally developed in the early 1960s for investment analysis purposes, the CAPM is considered an ex-ante, forward-looking model that recognizes that investors are generally risk averse and will demand higher returns in exchange for assuming higher levels of investment risk (see Exhs. Unitil-RBH-1, at 29-30; AG-JRW-1-Direct at 29, 35-36).

The Attorney General's CAPM analysis employs a risk-free rate of 4.0 percent, using the upper bound of the prior six months' 30-year Treasury bond rates as a proxy (Exh. AG-JRW-1-Direct at 37).¹⁴⁰ Current federal monetary policy that is intended to stimulate the economy has pushed treasury yields to near-historic lows (Exh. AG-JRW-1-Direct at 47). Consequently, a CAPM analysis based on current treasury yields may tend to underestimate the risk-free rate over the long term, and thereby understate the required ROE. See D.P.U. 12-25, at 427; D.P.U. 11-01/D.P.U. 11-02, at 416.

The Company's CAPM analysis develops a risk-free rate range of 3.05 percent to 5.10 percent relying on the current 30-year Treasury, as well as the near and long-term projected 30-year Treasury based on an evaluation of interest rate forecasts from Blue Chip Financial (Exhs. Unutil-RBH-1, at 28 & nn.26, 27; Sch. Unutil-RBH-4; Sch. Unutil-RBH-6). The CAPM is based on investor expectations and, therefore, it is appropriate to use a prospective measure for the risk-free rate component. The Blue Chip Financial estimate is widely relied on by investors and provides a useful proxy for investor expectations for the risk-free rate. D.P.U. 13-75, at 314.

The Attorney General calculated a market risk premium of 5.0 percent, based on her analysis of numerous surveys of financial professionals, including financial forecasters, chief financial officers, and academics (Exhs. AG-JRW-1-Direct at 41-42; AG-JRW-11, at 5-6). Alternatively, the Company calculates a market risk premium range of 9.79 percent to 10.10 percent based on DCF analyses (Exhs. Unutil-RBH-1, at 29; Sch. Unutil-RBH-4, at 1, 8). The Department finds the Company's approach to be less reliable than the survey results of financial professionals.

¹⁴⁰ The yield on the 30-year Treasury bond is currently at 3.6 percent, and has been as high as 4.0 percent over the 2011-2013 time period (Exhs. AG-JRW-1-Direct at 37; AG-JRW-11).

The Company has stated that investors rely on financial analysts' forecasts in making investment decisions (see Exh. Unitil-RBH-1, at 19). We note that a recent survey of over 6,000 financial analysts estimates a market risk premium of 5.70 percent, which is more in line with the 5.00 percent used in the Attorney General's analysis than the 9.79 percent to 10.10 percent range used in the Company's analysis (Exhs. AG-JRW-1-Direct at 42; AG-JRW-11, at 5-6, Unitil-RBH-1, at 29; Sch. Unitil-RBH-4, at 1, 8). The Department finds that the Attorney General's approach to developing a market risk premium is preferable.

Based on the above considerations, the Department will place limited weight on the results of the respective CAPM estimates in determining the appropriate ROE. To the limited extent that we rely on CAPM estimates, the Department gives more weight to the Attorney General's proposed CAPM because the magnitude of the deficiencies within the Company's proposed CAPM is greater.

6. Bond Yield Plus Risk Premium Model

a. Company's Proposal

The risk premium model is based on the concept that investing in common stock is riskier than investing in debt, thus requiring that investors receive a higher rate of return for equity (Exh. Unitil-RBH-1, at 30-31).¹⁴¹ The bond yield plus risk premium model used by the Company is derived by calculating a risk premium over the returns available to bondholders

¹⁴¹ The risk premium method of determining the cost of equity recognizes that common equity capital is more risky than debt from an investor's standpoint, and that investors require higher returns on stocks than on bonds to compensate for the additional risk. The general approach is relatively straightforward: (1) determine the historical spread between the return on debt and the ROE; and (2) add this spread to the current debt yield to derive an estimate of current equity return requirements. D.P.U. 13-75, at 316 n.201.

(Exh. Unitil-RBH-1, at 30). The Company's risk premium analysis produced a cost of equity range of 10.24 percent to 10.77 percent (Exh. Unitil-RBH-1, at 33, citing Exh. Sch. Unitil-RBH-7).

Unitil calculated the risk premium¹⁴² as the difference between actual authorized returns for electric utilities using data from 1,407 electric utility rate proceedings between January 1, 1980 and May 31, 2013 and the then-prevailing long-term (i.e., 30-year) Treasury yield (Exh. Unitil-RBH-1, at 31). To account for the forward-looking return and interest rates, Unitil calculated the average return period between the filing of the case and the approval of rates, as well as the level of interest rates during the pendency of the proceedings (i.e., the average 30-year Treasury yield) (Exh. Unitil-RBH-1, at 31). To account for the statistically significant negative relationship between the 30-year Treasury yield and the equity risk premium, Unitil relied on a statistical analysis (Exh. Unitil-RBH-1, at 33, citing Exh. Sch. Unitil-RBH-7).

b. Positions of the Parties

i. Attorney General

The Attorney General identifies what she contends are several errors in the Company's application of the bond yield plus risk premium model (Attorney General Brief at 98). First, she argues that by using authorized ROEs as an input to the model, Unitil's approach is more of a gauge of commission behavior than a consideration of investor behavior (Attorney General Brief at 98). In this regard, the Attorney General posits that in setting ROEs, regulatory commissions evaluate capital market data such as dividend yields, expected growth rates, interest rates, as well as rate-case-specific regulatory information (Attorney General Brief at 98). The Attorney General argues that the Company's risk premium approach relies on regulatory factors that go beyond pure considerations of capital market data (Attorney General Brief at 98).

¹⁴² The equity risk premium is defined as the incremental return that an equity investment provides over the risk-free rate (Exh. Unitil-RBH-1, at 31).

Second, the Attorney General argues that Unital's method produces an inflated measure of the risk premium because it is based on historic authorized ROEs less Treasury yields, and then is applied to projected Treasury yields that are always forecasted to increase (Attorney General Brief at 98-99, citing Exh. AG-JRW-1-Direct at 62). The Attorney General argues that Unital's risk premium would have been smaller had the Company correctly used projected Treasury yields instead of the historic Treasury yields (Attorney General Brief at 99).

Third, the Attorney General notes that 22 of the 1,407 electric utility rate decisions relied on by the Company were settlements, thereby raising questions about the applicability of these returns for determining Unital's cost of capital (Attorney General Brief at 99, citing Exh. AG-JRW-Surrebuttal at 15-16). Moreover, she notes that the authorized returns used as inputs to this model also included five rate cases that contained ROE adders (Attorney General Brief at 99, citing Exh. AG-JRW-Surrebuttal at 15-16).¹⁴³

Fourth, the Attorney General argues the Company's analysis overstates the required return because it considers the returns for all electric utilities in 2013. The Attorney General contends that when only the returns of pure electric distribution companies are considered, these distribution-only returns are 30 basis points below the average associated with all electric utilities in 2013 (Attorney General Brief at 99).

¹⁴³ For example, the Attorney General argues that Virginia law provides for ROE adders of up to 200 basis points for specific generation projects (Attorney General Brief at 78 n.15).

ii. Company.

The Company asserts that its bond yield plus risk premium approach is appropriate and supports its proposed ROE of 10.25 percent (Company Brief at 133-134). Because the data are publicly available, the Company argues that it is reasonable to assume that authorized returns are a reasonable measure of investor-required returns over time (Company Brief at 133, citing Exh. Unutil-RBH-Rebuttal at 41).

Unutil disagrees with the Attorney General's criticism of the Company's reliance on historical Treasury yields to determine the equity risk premium (Company Brief at 133). The Company maintains that both current and projected Treasury yields are applied to regression coefficients developed from historical data rather than to an average risk premium (Company Brief at 133, citing Exh. Unutil-RBH-Rebuttal at 42). Further, the Company asserts that it properly accounted for projected increases in rates by using regression coefficients that recognize the inverse relationship between interest rates and the equity risk premium (Company Brief at 133, citing Exh. Unutil-RBH-Rebuttal at 42).

The Company argues that its analysis of 1,400 cases over many economic cycles should mitigate the Attorney General's concerns that Unutil's risk premium approach does not consider the specific aspects of this proceeding (Company Brief at 133, citing Exh. Unutil-RBH-Rebuttal at 42). Finally, Unutil argues that its data and the data of the Attorney General reveal an inverse relationship between the Treasury yield and the equity risk premium, thereby confirming the premise that, as interest rates increase, the cost of equity increases (Company Brief at 133-134, citing Exh. Unutil-RBH-Rebuttal at 43; Company Reply Brief at 30, citing Exh. Unutil-RBH-Rebuttal at 44).

c. Analysis and Findings

The Department has repeatedly found that an equity risk premium analysis can overstate the amount of company-specific risk and, therefore, the cost of equity. See, D.P.U. 10-114, at 322; D.P.U. 10-70, at 269; D.P.U. 88-67 (Phase I) at 182-184. More specifically, the Department has found that the return on long-term corporate or public utility bonds may have risks that could be diversified with the addition of common stock in investors' portfolios and, therefore, that the risk premium model overstates the risk accounted for in the resulting cost of equity. D.P.U. 10-114, at 322; D.P.U. 10-70, at 269; D.P.U. 90-121, at 171; D.P.U. 88-67 (Phase I) at 182-183. Nonetheless, the Department has acknowledged the value of the risk premium model as a supplemental approach to other ROE models. D.P.U. 10-114, at 322; D.P.U. 10-70, at 269; D.P.U. 07-71, at 137; D.T.E. 99-118, at 85-86.

In this particular case, the Company's risk premium analysis suffers from a number of limitations. First, the Department has recognized the circularity inherent in the use of authorized utility returns to derive the risk premium. D.P.U. 13-75, at 319; D.P.U. 90-121, at 171; D.P.U. 88-67 (Phase I) at 182-183. In addition, the Department has criticized the use of corporate bond yields in determining the base component of the risk premium analysis and we are not convinced that the Company's substitution of projected Treasury debt yields is a better approach. D.P.U. 09-39, at 388-389; D.P.U. 08-35, at 202; D.P.U. 90-121, at 171. The Company argues that the risk premium approach is forward-looking and, therefore, that using the projected cost of Treasury debt is appropriate (Company Brief at 30). The Department disagrees with the Company in that the risk premium model used here is not a forward-looking approach and that the current treasury yields would be the appropriate basis to use in this analysis. Accordingly, the Department finds that Unitil's bond yield plus risk premium model tends to overstate the required ROE for the Company.

In addition, the estimation of the market risk premium in this model suffers from the same limitations as discussed above for the CAPM. Specifically the estimation of the market risk premium: (1) is based, in part, on a DCF analysis, thereby incorporating the strict assumptions of that model; and (2) relies on historical data that are skewed by survivorship bias. D.P.U. 13-75, at 319. Accordingly, we will place limited weight on the results of the Company's bond yield plus risk premium model.

E. Conclusion

The standard for determining the allowed ROE is set forth in Bluefield at 692-693 and Hope at 603. The allowed ROE should preserve a company's financial integrity, allow it to attract capital on reasonable terms, and be comparable to returns on investments of similar risk. See Bluefield at 692-693; Hope at 603, 605. It should be determined "having regard to all relevant facts." Bluefield at 692.

The Company recommends that the Department approve an ROE of 10.25 percent (Exh. Unitol-RBH-1, at 6). Alternately, the Attorney General recommends an ROE of 8.8 percent (Exh. AG-JRW-1-Direct at 2, 44). The Department has found that both quantitative and qualitative factors must be taken into account in determining an allowed ROE. See, e.g., Boston Edison Company v. Department of Public Utilities, 375 Mass. 1, 11, cert. denied, 439 U.S. 921 (1978); Boston Gas Company v. Department of Public Utilities, 359 Mass. 292, 305-306 (1971); D.P.U. 11-01/D.P.U. 11-02, at 424; D.P.U. 08-27, at 134-138; D.T.E. 02-24/25, at 229-231; D.P.U. 92-78, at 115; D.P.U. 89-114/90-331/91-80 (Phase I) at 224-225. Thus, in determining an appropriate ROE for Unitol, the Department first evaluates the quantitative factors presented in this case.

In support of its recommended ROE, Unitil has presented quantitative analyses using the DCF model, the CAPM, and a bond yield plus risk premium approach, each incorporating the financial data of its electric proxy group. The Attorney General has presented her own analyses using the DCF model and the CAPM, incorporating the financial data of her electric proxy group. The use of empirical analyses in this context is not an exact science. A number of judgments are required in conducting a model-based rate of return analysis. Even in studies that purport to be mathematically sound and highly objective, crucial subjective judgments are made along the way and necessarily influence the end result. Western Massachusetts Electric Company, D.P.U. 18731, at 59 (1977). Each level of judgment to be made in these models contains the possibility of inherent bias and other limitations. D.T.E. 01-56, at 117; D.P.U. 18731, at 59.

As discussed above, the record demonstrates that each equity cost model used by the Company and the Attorney General suffers from a number of simplifying and restrictive assumptions. Applying them to the financial data of a proxy group of companies could provide results that may not be reliable for the purpose of setting the Company's ROE. For example, we note the limitations of the DCF models used by both the Company and the Attorney General, including the simplifying assumptions that underlie the constant growth form of the model, its element of circularity, as well as the inherent limitations in comparing the Company to publicly traded companies. In particular, we find that the Company's DCF analysis overestimates the cost of equity by eliminating results of the low-outlier estimates. We note that the CAPM analyses relied upon by the Company and the Attorney General are also flawed because of the simplifying assumptions underlying CAPM theory and the subjectivity inevitable in estimating market risk premiums. To the extent we rely on the CAPM estimates, we give more weight to the Attorney General's proposal because the magnitude of the deficiencies within the Company's proposed CAPM, including the estimate of a market risk premium, is greater. Finally, we find that the Company's bond yield plus risk premium approach suffers from a number of limitations and tends to overstate Unitil's required ROE.

We recognize that the RDM employed by Unitil reduces the variability of the Company's revenues and, accordingly, reduce its risks and its investors' return requirement. See D.P.U. 09-30, at 371-372; D.P.U. 07-50 A at 72-73. Although many companies in the proxy groups employ some form of revenue stabilization or decoupling mechanism, the degree of revenue stabilization varies among the companies and, on the whole, is not as comprehensive as the Company's decoupling mechanism (Exhs. AG 2-42, Att.; AG 5-13, Atts. 1-4).

Further, we note that a portion of the revenues of the companies in the proxy groups is derived from unregulated and competitive lines of business (Exh. AG-JRW-4). All else equal, this mix of regulated and unregulated operations would tend to overstate the proxy groups' risk profiles relative to that of the Company. In addition, certain of the electric companies included in the proxy groups are vertically integrated companies. Such companies must bear the additional risk inherent in the ownership of electric generation, unlike the Company, which owns no generation. See D.P.U. 95-40, at 96; D.P.U. 92-78, at 110. We will consider such risk differentials when weighing the results of the models used to estimate the Company's allowed ROE.

While the results of analytical models are useful, the Department must ultimately apply its own judgment to the evidence to determine an appropriate rate of return. We must apply to the record evidence and argument considerable judgment and agency expertise to determine the appropriate use of the empirical results. Our task is not a mechanical or model-driven exercise. D.P.U. 08-35, at 219-220; D.P.U. 07-71, at 139; D.T.E. 01-56, at 118; D.P.U. 18731, at 59; see also 375 Mass. 1, 15.¹⁴⁴ The Department must account for additional factors specific to a company that may not be reflected in the results of the models.

¹⁴⁴ As the Department stated in New England Telephone and Telegraph Company, D.P.U. 17441, at 9 (1973):

Advances in data gathering and statistical theory have yet to achieve precise prediction of future events or elimination of the bias of the witnesses in their selection of data. Thus, there is no irrefutable testimony, no witness who has not made significant subjective judgments along the way to his conclusion, and no number that emerges from the welter of evidence as an indisputable "cost" of equity.

In determining the allowed ROE, the Department has considered Unitil's use of reconciling mechanisms to recover certain costs, dollar-for-dollar, outside of base rates. The Company presently has in place reconciling mechanisms for a range of expense categories, including electricity supply costs, energy efficiency costs, pension/PBOP expense, Attorney General consultant costs, net metering costs, and supply-related bad debt (see, e.g., Unitil M.D.P.U. No. 198, at 2). As a result of this Order, Unitil will retain these reconciling mechanisms, as well as its RDM. The use of these reconciling mechanisms covering a significant portion of the Company's expenses results in lower risk for Unitil than otherwise would be the case. We acknowledge, however, that our decision not to establish a storm fund and to maintain a traditional ratemaking treatment for storm costs may add somewhat to the Company's risk.

Finally, there are other qualitative factors that the Department will consider in determining a company's allowed ROE. It is both the Department's longstanding precedent¹⁴⁵ and accepted regulatory practice¹⁴⁶ to consider qualitative factors such as management performance and customer service in setting a fair and reasonable ROE. With respect to a company's performance, we have determined that where a company's actions have had the potential to affect ratepayers or have actually done so, the Department may take such actions into consideration in setting the ROE. D.P.U. 11-01/D.P.U. 11-02, at 424; D.T.E. 02-24/25, at 231; D.P.U. 85-266-A/271-A at 6-14. Thus, the Department may set ROEs that are at the higher or lower end of the reasonable range based on above average or subpar management performance and customer service. See, e.g., D.P.U. 12-86, at 257-258; D.P.U. 11-01/D.P.U. 11-02, at 424, 427.

¹⁴⁵ For example, the Department has set a utility's ROE at the low end of a range of reasonableness upon a showing that a utility's management performance was deficient. D.P.U. 12-86, at 257-258 (deficiencies regarding affiliate transactions and selection of rate case consultants warranted ROE at lower end of reasonable range); D.P.U. 11-43, at 218-222 (company's improper handling of a billing error, failure to provide acceptable unaccounted for water report, improper flushing practices, and insufficient communication with customers warranted ROE at lower end of reasonable range); D.P.U. 11-01/D.P.U. 11-02, at 424-426 (company shortcomings in storm response warranted ROE at lower end of reasonable range); D.P.U. 10-114, at 339-340 (company activities related to Department-ordered audit warranted ROE at lower end of reasonable range); D.P.U. 08-35, at 220 (customer service deficiencies warranted ROE at lower end of reasonable range); D.P.U. 08-27, at 136, 137 (failure to conduct competitive bidding for outside consultants and provide detailed rate case expense invoices warranted ROE at lower end of reasonable range); see also D.P.U. 85-266-A/271-A at 172 (failure to fulfill public service obligations warranted ROE at lower end of reasonable range).

¹⁴⁶ See, e.g., In re Citizens Utilities Company, 171 Vt. 447, 453 (2000) (general principle that rates may be adjusted depending on the adequacy of the utility's service and the efficiency of its management); US West Commc'ns, Inc. v. Washington Utils. and Transp. Comm'n, 134 Wash.2d 74, 121 (1998) (a utility commission may consider the quality of service and the inefficiency of management in setting a fair and reasonable rate of return); North Carolina ex rel. Utils. Comm'n v. Gen. Tel. Company of the Southeast, 285 N.C. 671, 681 (1974) (the quality of the service rendered is, necessarily, a factor to be considered in fixing the just and reasonable rate therefore); Gulf Power Company v. Wilson, 597 So.2d 270, 273 (1992) (regulator was authorized to adjust rate of return within reasonable range to adjust for mismanagement); Wisconsin Pub. Serv. Corp. v. Citizens' Util. Bd., Inc., 156 Wis.2d 611, 616 (1990) (prudence is a factor regulator considers in setting utility rates and can affect the allowed ROE).

In D.P.U. 09-01-A at 46-53, 58-60, 68-72, 97-102, 119-128, 132-136, 198-199, the Department found that there were numerous deficiencies surrounding the Company's failure to properly plan and prepare for the winter storm that occurred on December 12, 2008, and that these failures constituted a failure to meet the Company's public service obligation to provide safe and reliable service. In its last rate case, D.P.U. 11-01/D.P.U. 11-02, at 424-426, the Department found that the ROE allowed the Company should be at the lower end of the reasonable range to account for the Company's subpar management performance and customer service.

In the present case, the Company argues that its management performance, particularly with respect to storm response, warrants a return at the higher end of the range of reasonable returns (Company Brief at 134-137). As discussed in Section II.C above, the Company has undertaken efforts to improve its storm response performance, and those efforts appear to have met with success. Accordingly, the Department makes no downward adjustment to ROE with respect to the Company's storm performance.

Based on a review of the evidence presented in this case, the arguments of the parties, and the considerations set forth above, the Department finds that an allowed ROE of 9.70 percent is within a reasonable range of rates that will preserve the Company's financial integrity, will allow it to attract capital on reasonable terms and for the proper discharge of its public duties, will be comparable to earnings of companies of similar risk and, therefore, is appropriate in this case. In making these findings, we have considered both qualitative and quantitative aspects of the parties' various methods for determining the Company's proposed ROE, as well as the arguments of and evidence presented by the parties in this proceeding.

VIII. RATE STRUCTURE

A. Introduction

Rate structure defines the level and pattern of prices charged to each customer class for its use of utility service. The rate structure for each rate class is a function of the cost of serving that rate class and how rates are designed to recover the cost to serve that rate class. The Department has determined that the goals of designing utility rate structures are to achieve efficiency and simplicity as well as to ensure continuity of rates, fairness between rate classes, and corporate earnings stability. D.P.U. 10-114, at 341; D.P.U. 09-39, at 401; D.T.E. 03-40, at 365; D.T.E. 02-24/25, at 252; D.T.E. 01-56, at 134; D.T.E. 01-50, at 28.

Efficiency means that the rate structure should allow a company to recover the cost of providing the service and should provide an accurate basis for consumers' decisions about how to best fulfill their needs. The lowest-cost method of fulfilling consumers' needs should also be the lowest cost means for society as a whole. Thus, efficiency in rate structure means that it is cost based and recovers the cost to society of the consumption of resources to produce the utility service. D.P.U. 10-114, at 342; D.P.U. 09-39, at 401; D.T.E. 03-40, at 365-366; D.T.E. 02-24/25, at 252; D.T.E. 01-56, at 135.

The Department has determined that a rate structure achieves the goal of simplicity if it is easily understood by consumers. Rate continuity means that changes to rate structure should be gradual to allow consumers time to adjust their consumption patterns in response to a change in structure. Fairness means that no class of consumers should pay more than the costs of serving that class. Earnings stability means that the amount a company earns from its rates should not vary significantly over a period of one or two years. D.P.U. 10-114, at 342; D.P.U. 09-39, at 402; D.T.E. 03-40, at 366; D.T.E. 02-24/25, at 252-253; D.T.E. 01-56, at 135.

There are two steps in determining rate structure: cost allocation and rate design. Cost allocation assigns a portion of the company's total costs to each rate class through an embedded allocated cost of service study ("COSS"). The COSS determines the cost of serving each rate class at equalized rates of return given the company's level of total costs. D.P.U. 10-114, at 342; D.P.U. 09-39, at 402; D.T.E. 03-40, at 366; D.T.E. 02-24/25, at 253; D.T.E. 01-56, at 135; D.T.E. 01-50, at 29.

There are four steps in developing a COSS. The first step is to functionalize costs. In this step, costs are separated into the service function for which they are incurred (i.e., transmission or distribution). The second step is to classify expenses in each functional category according to the factors underlying their causation (i.e., demand-, energy-, or customer-related). The third step is to identify an appropriate allocator for each relevant component of a company's cost of service to allocate costs to each rate class, in each classification, and within each function based on cost causation. The fourth step is to allocate costs to each rate class based on the cost groupings and the allocators chosen, and then to sum the costs allocated to each rate class to determine the total cost of serving each class. D.P.U. 09-39, at 402-403; D.T.E. 03-40, at 366-367; D.T.E. 02-24/25, at 253; D.T.E. 01-56, at 136; D.T.E. 98-51, at 131-132; D.P.U. 96-50 (Phase I) at 133-134.

The results of the COSS are compared to the revenues collected from each rate class in the test year. If these amounts are close, then the revenue increase or decrease may be allocated among the rate classes so as to equalize the rates of the return and ensure that each rate class pays the cost of serving it. If, however, the differences between the allocated costs and the test-year revenues are significant, the revenue increase or decrease may be allocated so as to reduce the difference, but not to equalize the rates of return in a single step for reasons of continuity. D.P.U. 09-39, at 403; D.T.E. 02-24/25, at 253-254; D.T.E. 01-56, at 135; D.T.E. 01-50, at 29.

As the previous discussion indicates, the Department does not determine rates based solely on costs but also explicitly considers the effect of its rate structure decisions on customers' bills and the Department's goals with respect to rate structures. For instance, the pace at which fully cost-based rates are implemented depends, in part, on the effect of the changes on customers. D.P.U. 13-75, at 332-333; D.P.U. 09-39, at 403-404; D.T.E. 03-40, at 367; D.T.E. 02-24/25, at 254. To reach fair decisions that encourage efficient utility and consumer actions, the Department's rate structure goals must balance the often divergent interests of various customer classes and work to decrease inter-class subsidies unless a clear record exists to support — or a statute requires — such subsidies. See, e.g., G.L. c. 164, § 1F(4)(i) (requiring discounted rates for low-income customers). The Department reaffirms the appropriateness of its rate structure goals as, together, they result in rates that are fair, cost based, and enable customers to adjust to rate changes. D.P.U. 13-75, at 332-333; D.P.U. 09-39, at 403-404; D.T.E. 03-40, at 367; D.T.E. 02-24/25, at 254.

The second step in determining rate structure is rate design. The level of revenues to be generated by a given rate structure is governed by the cost allocated to each rate class in the cost allocation process. The pattern of prices, which produces the given level of revenues, is a function of rate design. The rate design for a rate class is constrained by the requirement that it should produce sufficient revenues to cover the revenue requirement for the given class and, to the extent possible, meet the Department's rate structure goals discussed above. D.P.U. 09-39, at 404; D.T.E. 03-40, at 368; D.T.E. 02-24/25, at 254-255; D.T.E. 01-56, at 136-137; D.T.E. 01-50, at 30.

B. Cost Allocation

1. Introduction

Unitil performed a COSS for its electric division in order to assign to each of its rate classes the proper costs for each component of the Company's overall cost of service (Exh. Unitil-PMN-1E at 4). Unitil's COSS reflects those costs that have been incurred to serve the distribution function only (Exh. Unitil-PMN-1E at 7).

The Company assigned costs to each rate class using one of the following four methods: (1) direct assignment (e.g., based on test-year revenues); (2) a special study designed to replicate the intended use of a specific plant investment or expense and then assigning that cost based on the specific use of that asset in the test year; (3) an external allocator that assigns costs using an allocation factor that is developed outside of the COSS (e.g., the number of bills produced for each customer class in the test year); and (4) an internal allocator, which uses a combination of costs previously allocated in the COSS to allocate remaining costs (e.g., internal plant allocator for property taxes comprises the sum of each individual item of plant in service, where each item has been previously allocated in the COSS) (Exh. Unitil-PMN-1E at 6-7).

Certain distribution asset costs were allocated based on a combination of factors that reflect load diversity across the Company's distribution system (Exh. Unitil-PMN-1E at 7). For example, substations were allocated based on the average of the twelve-month coincident peak ("12CP") demands (Exh. Unitil-PMN-1E at 7).

For the purpose of the COSS, no costs were allocated to those customers who are served under special contracts because these rates are negotiated rather than based on the results of the COSS (Exh. Unitil PMN-1E at 12). In addition, the Company made a pro forma adjustment to special contract revenues and allocated that adjustment as a credit to the revenue requirement for all rate classes except outdoor lighting (Exh. Unitil-PMN-1E at 20).

2. Positions of the Parties

Unitil argues that it prepared its COSS consistent with the method approved in the Company's most recent base rate proceeding (Company Brief at 139, citing D.P.U. 11-01/D.P.U. 11-02, at 434-437). Therefore, the Company asserts that the Department should accept its proposed COSS (Company Brief at 139). No other party addressed the Company's COSS on brief.

3. Analysis and Findings

The Department has reviewed the Company's COSS and finds that it is reasonable and consistent with Department precedent. D.P.U. 11-01/D.P.U. 11-02, at 434-437; D.P.U. 10-70, at 296-297. Accordingly, we accept Unitil's COSS as proposed.

C. Marginal Cost of Service

1. Introduction

A marginal cost study provides estimates of the cost of providing an additional unit of service. The use of a marginal cost study facilitates the development of rates that provide consumers with price signals that accurately represent the costs associated with consumption decisions. D.P.U. 11-01/D.P.U. 11-02, at 438; D.P.U. 10-55, at 524; D.P.U. 09-30, at 377; D.P.U. 08-35, at 227; D.T.E. 03-40, at 372. Rates based on a marginal cost study allow consumers to make informed decisions regarding their use of utility services, promoting efficient allocation of societal resources. D.P.U. 11-01/D.P.U. 11-02, at 438; D.P.U. 10-55, at 524; D.P.U. 09-30, at 378; D.P.U. 08-35, at 227; D.P.U. 07-71, at 159.

Rather than prepare a new marginal cost study, Unitil used the marginal cost study developed in D.P.U. 11-01 and updated key parameters to apply the results to the new projected rate year (Exhs. Unitil-PMN-1E, at 16; Sch. Unitil-PMN-2E-S). Unitil estimated the marginal costs to serve each of its rate classes based on 2013 rate year costs (Exhs. Unitil-PMN-1E, at 16; Sch. Unitil-PMN-2E-S). First, the Company applied regression techniques to estimate the hypothetical plant-related distribution cost of serving an increment of customer load (Exh. Unitil-PMN-1E, WP at 92-94). Next, the Company used regression techniques to estimate the capacity-related distribution cost of serving marginal load, including costs for O&M and an

allocation of common costs such as administration and general costs (Exh. Unitil-PMN-1E, WP at 99-101). Finally, the Company developed the annual distribution capacity-related revenue requirements to serve each of its electric rate classes (Exh. Unitil-PMN-1E, WP at 118-124). The Company's proposed per unit marginal costs for residential and commercial and industrial ("C&I") classes are shown in the table below:

Proposed Per-Unit Marginal Costs:

	Residential R1, R2, R4	Small C&I G1	Med. C&I G2, G5 Sec.	Med. C&I G2, G4 Pri.	Large C&I G3 Sec.	Large C&I G3 Pri.
Demand Chg.(\$/kW)			6.31	3.96	7.44	5.15
Or						
Energy Chg.(\$/kWh)	0.02826	0.02796	0.02348	0.01562	0.0198	0.01172
Or						
Or Facility Chg.(\$/mo.)	17.00	5.60	118.36	332.71	3936.68	8364.45

(Source: Exh. Unitil-PMN-1E, WP at 124).

2. Positions of the Parties

The Company asserts that it developed a full and detailed marginal cost study in its last electric base distribution rate proceeding, D.P.U. 11-01 (Company Brief at 139). Rather than conduct a new study at what Unitil asserts would be a significant cost, the Company argues that its decision to update the prior marginal cost study was reasonable and cost-effective (Company Brief at 139). Therefore, Unitil asserts that the Department should accept its marginal cost study. No other party addressed this issue on brief.

3. Analysis and Findings

As noted above, to determine marginal cost estimates, the Company started with the marginal cost study approved by the Department in D.P.U. 11-01/D.P.U. 11-02 and updated key parameters such as measures of inflation and rate of return (Exhs. Unitil-PMN-1E at 15; Sch. Unitil-PMN-2E-S). The Department finds that Unitil's marginal cost study incorporates

sufficient detail to allow a full understanding of the methods used to determine its marginal cost estimates. Consistent with the Department's directives in D.P.U. 07-71, at 164, the Company used proper econometric techniques to provide a statistically reliable estimate of the marginal expense (see Exh. Unutil-PMN-1E, WP at 92-94). Further, consistent with the Department's directives in D.T.E. 05-27 at 322, the Company has excluded from its marginal cost study all production, transmission, and customer costs, and it relies upon econometric methods wherever possible (Exh. Unutil-PMN-1E at 15). Based on the foregoing, we conclude that the Company used the most robust marginal cost study model available. D.P.U. 07-71, at 164.

The Company complied with Department directives and used more than 30 years of historical data in its regression analysis (i.e., 1970 to 2009) (Exh. Unutil-PMN-1E, WP at 92-94, 99-101).¹⁴⁷ We find that the Company has used sufficient and reliable data to develop its marginal cost estimates (Exh. Unutil-PMN-1E, WP at 92-94, 99-101). See D.P.U. 07-71, at 164; D.T.E. 03-40, at 377; D.T.E. 02-24/25, at 243. Based on the findings above, the Department accepts Unutil's proposed marginal cost study.

D. Rate Design

1. Introduction

The Company designed rates to produce a target revenue requirement for distribution service of \$25,680,536, which includes a rate of return of 8.55 percent (Exh. Unutil-PMN-1E at 18). The Company set its initial revenue requirement target for each rate class such that equalized rates of return would be generated (Exh. Unutil-PMN-1E at 19). The Company states that adjustments to these targets were required, however, because the initial targets for the residential and outdoor lighting rate classes resulted in rates that were in excess of the cap discussed below (Exh. Unutil-PMN-1E at 19).

¹⁴⁷ In D.T.E. 02-24/25, at 243, the Department stated that in future marginal cost studies, companies must use historical (time series) data sets that are not less than 30 years in length in order to improve the accuracy of the econometric analyses.

Unitil proposes to cap the rate increase for any one rate class at 110 percent of the overall average base rate increase (Exh. Unitil-PMN-1E at 19).¹⁴⁸ The Company states that its proposed rate design is consistent with the ten-percent cap contained in G.L. c. 164, § 94I, which was added by Section 20 of the 2012 Energy Act (Exh. Unitil-PMN-1E at 19).¹⁴⁹ Unitil states that additional movement towards equalized rates of return will be made in the Company's next base rate proceeding (Exh. Unitil-PMN-1E at 19). Unitil proposes to allocate the revenue shortfall from the residential and outdoor lighting rate classes generated by the cap to the general service classes that were under the cap (i.e., GD-2, GD-3, GD-4, and GD-5) based on their current base revenue levels (Exh. Unitil-PMN-1E at 20).

When designing rates for the individual rate classes, the Company used a five-step process (Exh. Unitil-PMN-1E at 21). First, the class revenue requirement targets were established as described above (Exh. Unitil-PMN-1E at 20-21). Second, the rate structure for

¹⁴⁸ Unitil proposes an overall percentage increase to its current base distribution rates of 33.09 percent (Exh. Unitil-PMN-1E at 19). Applying the cap, the Company proposes to limit the increase to any one customer class to 36.40 percent (33.09 percent x 1.10) (Exh. Unitil-PMN-1E at 19).

¹⁴⁹ Section 20 of the 2012 Energy Act revises G.L. c. 164, § 94, by inserting Section 94I:

In each base distribution rate proceeding conducted by the [D]epartment under Section 94, the [D]epartment shall design base distribution rates using a cost-allocation method that is based on equalized rates of return for each customer class; provided, however, that if the resulting impact of employing this cost-allocation method for any [one] customer class would be more than [ten] percent, the [D]epartment shall phase in the elimination of any cross subsidies between rate classes on a revenue neutral basis phased in over a reasonable period as determined by the [D]epartment.

each rate class (i.e., flat rates versus inclining block rates, or revenue recovery through both energy and demand charges versus an energy charge alone) was determined (Exh. Unitil-PMN-1E at 21). Third, customer charges were established by balancing the goal of setting the charges at the level indicated in the COSS with the goal of moderating increases to the customer charge (Exh. Unitil-PMN-1E at 21-22). Fourth, tail block prices were derived by setting the price at five percent above the average energy price for each rate class (Exh. Unitil-PMN-1E at 21-22). Fifth, the residual revenue requirement was calculated and the head block rates were set at the price that would collect the residual revenue requirement (Exh. Unitil-PMN-1E at 21).

The Company proposes to maintain inclining block volumetric rates for the RD-1, RD-2, GD-1, and GD-5 rate classes (Exh. Unitil-PMN-1E at 21). Unitil proposes to maintain the current block break for the RD-1 and RD-2 rate classes at 600 kilowatt hours (“kWh”) (Exh. Unitil-PMN-1E at 21). Likewise, the Company proposes to maintain the current block break for the GD-1 and GD-5 rate classes at 200 kWh and 2,500 kWh, respectively (Exh. Unitil-PMN-1E at 21). Finally, Unitil proposes to establish a new outdoor lighting rate class for customer-owned facilities (Exh. Unitil-PMN-1E at 23-24). The Company’s rate design proposal for each rate class is discussed further, below.

Unitil proposes moderate increases to the customer charges for the RD-1, RD-2, GD-1, GD-2, and GD-4 rate classes (Exhs. Unitil-PMN-1E at 22; Sch. Unitil-PMN-1E-6, at 3). The Company proposes to maintain the current customer charges for the GD-3, GD-5, and outdoor lighting rate classes (Exhs. Unitil-PMN-1E at 22; Sch. Unitil-PMN-1E-6, at 3). The Company states that it considered the embedded customer costs from the COSS and Department precedent when designing the proposed customer charges (Exh. Unitil-PMN-1E at 22). The Company’s proposed customer charges are discussed further, below.

2. Positions of the Parties

a. Attorney General

The Attorney General argues that inclining block rates can create cross-subsidies within a rate class, which violates the Department's rate design goal of fairness (Attorney General Brief at 101). The Attorney General avers that the Company does not oppose a move to flat rates (Attorney General Reply Brief at 36). The Attorney General maintains that the Department's experiment with inclining block rates should end and that the Department should direct Unitil to move to flat rates (Attorney General Brief at 101-102; Attorney General Reply Brief at 36). The Attorney General recommends that if the move to flat rates results in excessive bill impacts for low-use customers, then it should be done in steps as to avoid rate shock (Attorney General Brief at 102).

b. Company

The Company maintains that it designed rates consistent with Department precedent (Company Brief at 140-142). Unitil states that it does not oppose a move to flat rates, as suggested by the Attorney General (Company Brief at 140-141). The Company contends that flat rates result in greater equity in terms of revenue recovery and that there is no evidence that inclining block rates send a superior price signal (Company Brief at 140-141, citing Tr. 7, at 792; D.P.U. 13-75, at 360-361).

3. Analysis and Findings

a. Compliance with Section 20 of the 2012 Energy Act

The Department's long-standing policy regarding the allocation of class revenue requirements is that a company's total distribution costs should be allocated, to the extent possible, based on equalized rates of return. See D.T.E. 03-40, at 384; D.T.E. 02-24/25, at 256; D.T.E. 01-56, at 139; D.P.U. 92-210, at 214. This allocation method satisfies the Department's rate structure goal of fairness. Further, Section 20 of the 2012 Energy Act requires the Department, in each base distribution rate proceeding, to design rates based on equalized rates of return by customer class as long as the resulting impact for any one customer class is not more than ten percent. See G.L. c. 164, § 94I. The ten percent cap established by Section 20 of the 2012 Energy Act meets our rate structure goals of fairness and continuity by ensuring that: (1) the final rates to each rate class represent or approach the cost to serve that class; (2) the limited level of cost subsidization created by the cap will not unduly distort rate efficiencies; and (3) the magnitude of change to any one class is contained within reasonable bounds. D.P.U. 13-75, at 362. The Department has interpreted the requirements of Section 20 of the 2012 Energy Act such that no rate class shall receive an increase greater than ten percent of the total revenues generated by each rate class. D.P.U. 13-75, at 338, 363.

As noted above, to develop its proposed rate design, the Company evaluated revenue targets to determine if any customer class would receive a base rate increase greater than 110 percent of the proposed overall base rate increase (Exhs. Unitil-PMN-1E at 19; Sch. Unitil-PMN-1E-6). While Unitil considered the impact on each rate class in the context of the overall base distribution rate increase, the Company did not consider the impact on the total revenues for each rate class (Exh. Unitil-PMN-1E at 19). Therefore, the Department finds that the Company's proposed rate design is not consistent with Section 20 of the 2012 Energy Act.

To conform to Section 20 of the 2012 Energy Act, the Company must take the following steps. First, Unitil shall calculate the total revenues generated by each rate class using the most recently effective rates. Second, the Company shall calculate the revenue cap for each rate class

as being ten percent of the total revenues for each rate class. Third, the Company shall determine if any rate class will receive a base rate increase greater than this revenue cap when designing rates at equalized rates of return. For those rate classes that have a base rate increase that exceeds the cap, the Company shall allocate the total amount over the cap to the rate classes that are under the cap based on their current base rate revenue levels.¹⁵⁰ The Department directs Unitil to design rates as shown on Schedule 10.

b. Inclining Block Rates

The Department has found that the design of distribution rates should be aligned with important state, regional, and national goals to promote the most efficient use of society's resources and to lower customers' bills through increased end-use efficiency. D.P.U. 08-35, at 249. To best meet these goals, the Department has found that rates should have an inclining block rate structure and that any resulting loss in revenues from declining sales should be recovered through a decoupling mechanism. D.P.U. 08-35, at 249. The Department noted, however, that the consumer price signal is from the total bill and not only the distribution portion of the bill, and that, because the commodity portion of the bill is the relatively greater portion of the total cost, consumers who reduce load will see their overall costs come down. D.P.U. 08-35, at 248. Although sending efficient price signals is a fundamental objective of rate design, it is always part of the balancing the Department applies in setting rates in a manner that is consistent with law and precedent. D.P.U. 07-50-A at 28.

The Department recently expressed concern regarding an inclining block rate structure. D.P.U. 12-25, at 468. In particular, the Department stated that it was no longer persuaded that inclining block rates encourage end-use energy efficiency. D.P.U. 12-25, at 468. First, the

¹⁵⁰ If after performing these steps a rate class exceeds the ten percent cap, the Company shall continue to perform these steps until no class is above the ten percent cap.

Department noted that the difference between the head and tail block rates generally are small. D.P.U. 12-25, at 468. Second, inclining block rates, as designed to date, apply only to the distribution charge, which is a relatively small portion of the entire bill. Third, the Department noted that customers currently have no information as to when they are about to hit the tail block and, thus, do not have a signal to help them conserve energy. D.P.U. 12-25, at 469. As a result of these concerns, the Department required Bay State Gas Company to eliminate its inclining block rates. D.P.U. 13-75, at 358-361.

These same concerns are present here. The difference in price between Unitil's head and tail blocks is relatively small (i.e., a range of approximately seven percent higher for residential customers to approximately 20 percent higher for large C&I customers) (Exh. Sch. PMN-1E-6, at 3). In addition, the majority of the Company's customers currently have no ability to track energy usage on an hourly or even a daily basis (Tr. 7, at 798-799). This fact makes it difficult for customers to determine when their rates have switched from the lower head block rate to the higher tail block rate. Thus, Unitil's customers are not able to reduce their usage in response to the impact of an inclining block rate structure.

In addition, we are concerned that Unitil's inclining block rate structure creates intra-class subsidies between the high-use and low-use customers in a rate class (Tr. 7, at 789). D.P.U. 13-75, at 360-361. The Company's inclining block rate structure causes a shift of the volumetric revenue requirement to high-use customers within a rate class and, therefore, higher user customers pay more than their equitable share of the volumetric portion of the distribution revenue requirement than smaller use customers (Tr. 7, at 789). This is true because the unit (or marginal) cost of incremental electricity distribution is relatively minimal and delivering additional amounts of electricity does not increase the embedded costs of providing delivery service.

Based on the foregoing, the Department finds that there is insufficient evidence to establish that Unitil's inclining block rate structure sends the appropriate price signals to customers to conserve consumption or that such a rate structure results in cost-based rates that recover the cost to society of the consumption of resources used to produce the utility service. Accordingly, we direct the Company to redesign its rates with a flat volumetric distribution rate. That is, the head block rate and tail block rate should be set at the same volumetric price. We find that this rate structure best meets our rate design goals of efficiency and simplicity, and it ensures fairness between rate classes.¹⁵¹ We note that this decision is limited to the facts of this case.

Finally, when designing the rates for the individual rate classes, Unitil shall truncate the distribution rates at five decimal places so that rates are designed to collect no more than the allowed revenue requirement. See D.P.U. 10-70, at 333.

c. Conclusion

For the reasons discussed above, the Department rejects the Company's rate design as proposed. Unitil shall follow the Department's directives regarding base rate design. The Department will make a determination of the proper level to set the customer charge and volumetric rates for each residential and commercial rate class on a rate class by rate class basis based on a balancing of our rate design goals.

¹⁵¹ No party objected to moving to a flat volumetric distribution rate to recover revenues in excess of the revenues collected through the customer charge.

E. Rate-by-Rate Analysis

1. Rates RD-1 and RD-2

a. Company Proposal

Rates RD-1 and RD-2 are available for all domestic purposes in individual private dwellings and in individual apartments (Exh. Unitil-1, proposed M.D.P.U. Nos. 230, 231). Rate RD-2 is a subsidized rate available to customers who are recipients of any means-tested public benefit program, the low-income home energy assistance program, or its successor program, for which eligibility does not exceed 60 percent of the median income in Massachusetts based on a household's gross income, or other criteria approved by the Department (Exh. Unitil-1, proposed M.D.P.U. No. 231). Customers who qualify for this subsidy are required to certify their continuing eligibility each year (Exh. Unitil-1, proposed M.D.P.U. No. 231).

The Company proposes to increase its current customer charge for both rate RD-1 and rate RD-2 from \$5.29 to \$7.00 (Exh. Sch. Unitil-PMN-1E-6, at 3). The Company proposes to collect the remaining class revenue requirement through inclining block volumetric charges with the block break set at 600 kWh for both rate RD-1 and rate RD-2 (Exh. Sch. Unitil-PMN-1E-6, at 1). For rate RD-1 and rate RD-2, the Company proposes a head block charge of \$0.07367 per kWh and a tail block charge of \$0.07888 per kWh (Exh. Sch. Unitil-PMN-1E-6, at 3).

b. Analysis and Findings

According to the Company's COSS, the embedded customer charge for rate RD-1 and rate RD-2 is \$15.25 (Exh. Sch. Unitil-PMN-1E-6, at 3). Based on a review of the embedded costs and the bill impacts on customers, the Department finds that a monthly customer charge of \$7.00 for rate RD-1 and rate RD-2 is reasonable. Based on our findings in Section VIII.D.3., above, the Department directs the Company to modify its volumetric charges for rate RD-1 and rate RD-2 so that these rate classes are charged based on a flat rate structure. Such rate design

satisfies our simplicity goal, as well as our continuity goal because it produces bill impacts that are moderate and reasonable, considering the size of the increase. Therefore, the Department directs the Company to set the volumetric charges for rate RD-1 and rate RD-2 to collect the remaining class revenue requirement approved in this Order.

2. Rate GD-1

a. Company Proposal

Rate GD-1 is available to all customers with non-residential loads consistently under four kilowatts (“kW”) and energy consumption less than 850 kWh per month (Exh. Unitil-1, proposed M.D.P.U. No. 232). The Company proposes to increase the current monthly customer charge for rate GD-1 from \$8.23 to \$10.00 (Exh. Sch. Unitil-PMN-1E-6, at 3). The Company proposes to collect the remaining class revenue requirement through inclining block volumetric charges with the block break set at 200 kWh (Exh. Sch. Unitil-PMN-1E-6, at 1, 3). Unitil proposes a head block charge of \$0.08326 per kWh and a tail block charge of \$0.09168 per kWh (Exh. Sch. Unitil-PMN-1E-6, at 3).

b. Analysis and Findings

According to the Company’s COSS, the embedded customer charge for rate GD-1 is \$15.20 (Exh. Sch. Unitil-PMN-1E-6, at 3). Based on a review of the embedded costs and the bill impacts on customers, the Department finds that a monthly customer charge of \$10.00 for rate GD-1 is reasonable. Based on our findings in Section VIII.D.3 above, the Department directs the Company to modify its volumetric charges for rate GD-1 so that this rate class is charged based on a flat rate structure. Such rate design satisfies our simplicity goal, as well as our continuity goal because it produces bill impacts that are moderate and reasonable, considering the size of the increase. Therefore, the Department directs the Company to set the volumetric charges for rate GD-1 to collect the remaining class revenue requirement approved in this Order.

3. Rates GD-2, GD-4, and GD-5a. Company Proposal

Rate GD-2 is available to commercial customers with demands (excluding space heating and water heating loads eligible under rate GD-5) consistently greater than or equal to four kW or energy consumption consistently greater than or equal to 850 kWh per month and generally less than 120,000 kWh per month (Exh. Unitil-1, proposed M.D.P.U. No. 232). Rate GD-4 is an optional general delivery time-of-use ("TOU") rate (Exh. Unitil-1, proposed M.D.P.U. No. 232). Rate GD-5 is a water and/or space heating delivery rider rate for rate GD-2 (Exh. Unitil-1, proposed M.D.P.U. No. 232).

Unitil proposes to increase the current customer charges from \$8.23 to \$10.00 and increase the demand charges by 15 percent for rate GD-2 and rate GD-4 (Exhs. Unitil-PMN-1E at 23; Sch. Unitil-PMN-1E-6, at 3). Both increases are below the average increase for the classes as a whole (Exhs. Unitil-PMN-1E at 23; Sch. Unitil-PMN-1E-6, at 3). Because the Company proposes to increase the customer charges and demand charges by less than the average increase, Unitil was able to increase the volumetric charges more than average, which the Company states is consistent with recent Department policy to increase energy charges to promote energy conservation (Exh. Unitil-PMN-1E at 23).

For rate GD-2, Unitil proposes to increase the energy charge from \$0.01837 per kWh to \$0.02519 per kWh (Exh. Sch. Unitil-PMN-1E-6, at 3). In addition, the Company proposes to increase the demand charge for rate GD-2 from \$7.65 per kW to \$8.80 per kW (Exh. Sch. Unitil-PMN-1E-6, at 3). For rate GD-4, the Company proposes to increase the on-peak energy charge from \$0.00831 per kWh to \$0.01251 per kWh and increase the off-peak energy charge from \$0.00183 per kWh to \$0.00271 per kWh (Exh. Sch. Unitil-PMN-1E-6, at 3). In addition, the Company proposes to increase the demand charge for rate GD-4 from \$3.09 per kW to \$3.55 per kW (Exh. Sch. Unitil-PMN-1E-6, at 3). For rates GD-2 and GD-4, the Company also proposes to increase the transformer ownership credit¹⁵² from \$0.14 per kW to \$0.17 per kW (Exh. Sch. Unitil-PMN-1E-6, at 3).

¹⁵² The transformer ownership credit is available to any C&I customer who furnishes all transformers required for service such that the Company is not required to furnish any transformers to that customer (Exh. Unitil-1, proposed M.D.P.U. No. 232, at 5-6).

For rate GD-5, which is a rider for rate GD-2, the Company proposes to maintain the current monthly customer charge of zero (Exh. Sch. Unitil-PMN-1E-6, at 3). In addition, for rate GD-5, Unitil proposes to collect the remaining class revenue requirement through inclining block volumetric charges with the block break set at 2,500 kWh (Exh. Sch. Unitil-PMN-1E-6, at 1, 3). For rate GD-5, Unitil proposes a head block charge of \$0.05226 per kWh and a tail block charge of \$0.06239 per kWh (Exh. Sch. Unitil-PMN-1E-6, at 3).

b. Analysis and Findings

According to the Company's COSS, the embedded customer charge for rate GD-2 and rate GD-4 is \$42.17 (Exh. Sch. Unitil-PMN 1E-6, at 3). Based on a review of the embedded costs and the bill impacts on customers, the Department finds that a monthly customer charge of \$10.00 for rate GD-2 and rate GD-4 is reasonable. In addition, the Department finds that the Company's proposal to increase the transformer ownership credit to \$0.17 per kW is reasonable.

With respect to the proposed demand and volumetric charges, for large C&I customers the demand charge can send as effective a price signal as the volumetric charge. The Department finds that the Company has not adequately supported its request to increase the demand charge by an amount less than the average increase for the rate class. Instead, the volumetric charge(s) shall be increased by the percentage increase for each rate class, and all remaining revenues shall be recovered through the demand charge for rate GD-2 and rate GD-4.

Regarding the customer charge for rate GD-5, the Company proposed to maintain the customer charge of zero. Because rate GD-5 is a rider to another rate with a monthly customer charge, we find that it is appropriate to set the customer charge for rate GD-5 at zero. Based on our findings in Section VIII.D.3 above, the Department directs the Company to modify its volumetric charges for rate GD-5 so that this rate class is charged based on a flat rate structure. Such rate design satisfies our simplicity goal, as well as our continuity goal because it produces bill impacts that are moderate and reasonable, considering the size of the increase. Therefore, the Department directs the Company to set the volumetric charges for rate GD-5 to collect the remaining class revenue requirement approved in this Order.

4. Rate GD-3

a. Company Proposal

Rate GD-3 is available to industrial and large commercial customers who have monthly usage greater than or equal to 120,000 kWh (Exh. Unitil-1, proposed M.D.P.U. No. 232). Rate GD-3 is a TOU rate (Exh. Unitil-1, proposed M.D.P.U. No. 232). In D.P.U. 11-01/D.P.U. 11-02, at 469, the Department directed Unitil to perform an analysis of the Company's monthly system peaks to determine if a modification to its off-peak hours for TOU rates was warranted. As a result of this analysis, the Company proposes to change the definition of on-peak from energy used between the hours of 7:00 a.m. and 10:00 p.m. for all non-holiday weekdays, to energy used between the hours of 10:00 a.m. and 10:00 p.m. for all non-holiday weekdays; all other hours are considered off-peak (Exhs. Unitil-DJD-1, at 7-8; Unitil-1, proposed M.D.P.U. No. 232). This proposed change would impact customers served under rate GD-3 and rate GD-4 (Exh. Unitil-DJD-1, at 7-8).

The Company proposes to maintain the existing customer charge for rate GD-3 and to increase the demand charge by 15 percent, which is below the average increase for the class as a whole (Exh. Unitil-PMN-1E at 23). As a result, the Company proposes to increase the volumetric charges slightly more than average (Exh. Unitil-PMN-1E at 23).

Unitil proposes to maintain the current monthly customer charge of \$300 for rate GD-3 (Exh. Sch. Unitil-PMN-1E-6, at 3). For rate GD-3, Unitil proposes to increase the on-peak energy charge from \$0.013060 per kWh to \$0.02400 per kWh and increase the off-peak energy charge from \$0.00293 per kWh to \$0.00533 per kWh (Exh. Sch. Unitil-PMN-1E-6, at 3). In addition, the Company proposes to increase the demand charge for rate GD-3 from \$4.24 per kW to \$4.88 per kW (Exh. Sch. Unitil-PMN-1E-6, at 3).

b. Analysis and Findings

The Company proposes to maintain the current customer charge for rate GD-3 of \$300. As stated above, the Department must balance economic efficiency with price signals that promote end-use efficiency. Based on a review of the embedded costs and the bill impacts on customers, the Department finds that a customer charge of \$300 for rate GD-3 is reasonable.

As noted above, with respect to the demand and volumetric charges for large C&I customers, the demand charge can send as effective a price signal as the volumetric charge. The Department finds that the Company has not adequately supported its request to increase the demand charge by less than the average increase for the rate class. Instead, the volumetric charge(s) shall be increased by the percentage increase for the rate class, and all remaining revenues shall be recovered through the demand charge for rate GD-3.

Regarding the proposed modification to on-peak hours for TOU rates, the Department has reviewed the Company's analysis of its system peaks for the years 2009 through 2012 (Exh. Sch. Unitil-DJD-2). Based on our review, the Department finds that the Company's proposed benchmark to define on-peak hours is reasonable (i.e., those hours where the load is at least 90 percent of the system peak). For each year of the study, the Company's analysis

shows consistent results concerning which hours fall within 90 percent of the system peak (Exh. Unitil-DJD-1, at 8). Therefore, the Department accepts the Company's proposed modification to the definition of on-peak hours for its two TOU rates, rates GD-3 and GD-4.

5. Rates SD and SDC

a. Company Proposal

Rate SD is available to all customers for outdoor lighting delivery service with the Company's standard lighting fixtures mounted on existing poles (Exh. Unitil-1, proposed M.D.P.U. No. 233). The Company proposed a new rate SDC for customer-owned outdoor lighting delivery service, which is available to customers who purchase outdoor lighting equipment from the Company (Exh. Unitil-1, proposed M.D.P.U. No. 234). For rate SD, Unitil proposes to increase the fixed rate components for each fixture charge by an equal percentage (36.4 percent) based on the class target revenue requirement (Exhs. Unitil-PMN-1E at 23; Sch. Unitil-PMN-1E-6, at 2, 6). For rate SDC, the Company developed a per kWh charge based on the target revenue requirement for the outdoor lighting rate class (Exhs. Unitil-PMN-1E at 23-24; Sch. Unitil-PMN-1E-6, at 2, 6). Unitil derived the per kWh charge by dividing the capacity-related portion of the total outdoor lighting revenue requirement at equalized rates of return by the total outdoor lighting kWhs (Exhs. Unitil-PMN-1E at 24; Sch. Unitil-PMN-1E-6, at 2, 6). The charge was then reduced to \$0.05461 per kWh so that rate SDC would recover the amount of capped revenues allowed for the outdoor lighting rate class (Exhs. Unitil-PMN-1E at 24; Sch. Unitil-PMN-1E-6, at 6).

b. Analysis and Findings

The Company's proposal to increase all fixture rates for rate SD by an equal percentage based on the class target revenue requirement is identical to the rate design that was approved by the Department in D.P.U. 11-01/D.P.U. 11-02, at 470. Therefore, the Department finds that the

Company's proposed rate design for rate SD is reasonable. In addition, the Department has reviewed the rate design method for the new outdoor lighting class for customer-owned equipment, rate SDC, and finds it reasonable.

F. Elimination of the Residential Assistance Adjustment Factor

1. Introduction

In August 2003, the Department established an automatic enrollment program for the purpose of increasing participation in the low-income discount rate. Low-Income Discount Rate Participation Rate, D.T.E. 01-106-A (2003). The Department directed electric and gas companies to exchange information with the Executive Office of Health and Human Services on a quarterly basis so that every recipient of a means-tested public benefit who is also the electric and/or gas customer of record would be automatically enrolled in the discount rate without the usual paper application. D.T.E. 01-106-A, at 10, 13. In 2006, the Department established standards for electric and gas arrearage management programs ("AMP") to help eligible customers pay overdue utility bills with payment plans, debt forgiveness, or a combination of the two. Order Establishing Standards for Arrearage Programs for Low-Income Customers, D.T.E. 05-86, at 10, 14-15 (2006). The Department determined that the appropriate cost recovery mechanism for both the revenue shortfall caused by the discount rate and incremental AMP expenses was the RAAF. D.T.E. 01-106-C/05-55/05-56, at 11, 14; D.T.E. 05-86, at 12-13.¹⁵³

During this proceeding, the Department raised the prospect of discontinuing the RAAF and, instead, providing Unitil with an alternative means of recovering costs that are now collected through the RAAF (Exhs. DPU-FGE 12-1; DPU-FGE 12-2; DPU-FGE 12-3; Tr. 3, at 272-275; Tr. 6, at 616-620; RR-DPU-7). No party addressed this issue on brief.

¹⁵³ Prior to the establishment of the RAAF in D.T.E. 01-106-C/05-55/05-56, at 14, the revenue shortfall from the low-income discount was recovered in base rates. See, e.g., D.T.E. 03-40, at 385; D.T.E. 01-106-C/05-55/05-56, at 7.

2. Analysis and Findings

The RAAF was initially established as a reconciling mechanism to allow dollar-for-dollar recovery of costs related to the low-income discount when, due to the establishment of the automatic enrollment program, companies were expected to experience an increase in the number of eligible customers receiving the low-income discount. D.T.E. 01-106-C/05-55/05-56, at 1, citing D.T.E. 01-106-B at 9. Indeed, the Department saw the creation of the RAAF as a solution to a short-term problem, stating, “the [a]lternative [m]echanism addresses the short-term concern of a potential revenue shortfall from increased participation in discount rates, resulting from a change in Department policy . . .” D.T.E. 01-106-C/05-55/05-56, at 11. The Department went on to state that it would consider collecting this revenue shortfall through base rates in a subsequent rate case proceeding. D.T.E. 01-106-C/05-55/05-56, at 11.

There are two categories of costs that companies currently recover through the RAAF: (1) the revenue shortfall related to the provision of the low-income discount; and (2) the incremental costs of a company’s AMP. Regarding the first category, it has been over ten years since the establishment of the automatic enrollment program and the short-term problem that drove the need to establish the RAAF (i.e., a potential revenue shortfall from increased participation in discount rates caused by automatic enrollment) has been resolved. In addition, in D.P.U. 11-01/D.P.U. 11-02, at 103-105, the Company implemented an RDM. Because the RDM is based on the reconciliation of actual revenues to target revenues, it provides an alternative means of reconciling the revenue shortfall associated with the provision of the low-income discount. The Company stated that reconciling the revenue shortfall caused by the low-income discount through the RDM instead of the RAAF would cause it no financial harm (Tr. 3, at 274-275). Through the RDM, the Company would continue to receive dollar-for-dollar recovery of the low-income subsidy.

Regarding the second category, the Company maintains that the costs to operate its AMP are volatile and, therefore, warrant continued recovery through the RAAF (Tr. 6, at 617-619). Unutil further maintains that this volatility is based on factors that are outside of the Company's control, such as the general state of the economy and legislative and regulatory mandates (Tr. 6, at 617-618). The Company states, however, that shifting the recovery of AMP costs from the RAAF to base distribution rates would not hinder its ability to operate an AMP that complies with Department directives (Tr. 6, at 619).

While the Company's AMP costs have increased considerably since the AMP was first established (e.g., 2008 AMP costs were \$54,345), Unutil's AMP costs are now much more stable (RR-DPU-7, Att.). Unutil's AMP costs for the previous four years are as follows: (1) 2010 - \$256,045; (1) 2011 - \$215,796; (3) 2012 - \$221,070; and (4) 2013 - \$326,361 (RR-DPU-7, Att.). By comparison, the Company's test year O&M expenses were in excess of \$46 million (Exh. Unutil-DLC-7, at 2). So while the AMP costs vary somewhat from year to year (as do expenses in essentially all O&M cost categories), such fluctuations do not constitute what the Department considers to be volatility. D.P.U. 11-01/D.P.U. 11-02, at 348-349, 351-352 (2011). Accordingly, we find that the volatility in AMP costs does not rise to the level that warrants continued recovery through a reconciling mechanism.

Based on the analysis above, the Department finds that the Company's ability to provide the low-income discount and to operate an AMP will not be compromised if the funds necessary for each are recovered through alternative means. Therefore, the Department directs the Company to terminate the RAAF as of June 1, 2014.

The revenue shortfall associated with the provision of the low-income discount shall be recovered through the Company's RDM. As part of its compliance filing to this Order, the Company is directed to modify its revenue decoupling adjustment clause tariff to ensure that the revenue shortfall associated with the provision of the low-income discount is eligible for recovery through Unitil's RDM.

Consistent with our finding above that AMP costs are not volatile, a representative amount of AMP costs will be included in Unitil's base rates. The Department finds that this amount shall be the test year AMP costs, or \$221,070 (RR-DPU-7, Att.). Accordingly, the Department will increase the Company's test year cost of service by \$221,070. As part of its compliance filing to the Order, Unitil is directed to terminate the RAAF tariff effective June 1, 2014. The Company shall propose a method to reconcile any over- or under-recovery of the RAAF existing as of June 1, 2014, in its next annual transition charge reconciliation filing. In addition, Unitil is directed to revise its RDM to account for the recovery of the low-income discount through this mechanism effective June 1, 2014.

The Department's termination of Unitil's RAAF should be viewed by all electric distribution companies in the Commonwealth as an endorsement of a new method for reconciling the low-income revenue shortfall and AMP costs. The Department expects that each electric distribution company will submit a proposal to terminate the RAAF and reconcile the low-income revenue shortfall and AMP costs by other means in its next base distribution case.

G. Tariff Modifications

1. Introduction

The Company proposed three new tariffs along with modifications to several of its existing tariffs (Exh. Unitil-DJD-1, at 2-5). The proposed new tariffs are as follows: (1) SRAF (Exh. Unitil-1, proposed tariff M.D.P.U. No. 237); (2) RAM (Exh. Unitil-1, proposed tariff M.D.P.U. No. 238); and (3) outdoor lighting delivery service – customer owned equipment (Exh. Unitil-1, proposed tariff M.D.P.U. No. 234) (Exh. Unitil-DJD-1, at 3).

The proposed tariff modifications are as follows: (1) additional language pertaining to active hardship protection accounts in its basic service¹⁵⁴ tariff (Exh. Unutil-1, proposed tariff M.D.P.U. No. 235); (2) updated target revenue values and revised language based on the Company's RAM proposal in the revenue decoupling adjustment clause tariff (Exh. Unutil-1, proposed tariff M.D.P.U. No. 236); and (3) additional outdoor lighting options for metal halide and light emitting diode ("LED") lights for the outdoor lighting delivery service – company owned equipment tariff (Exh. Unutil-1, proposed tariff M.D.P.U. No. 233) (Exh. Unutil-DJD-1, at 3-5).

2. Positions of the Parties

a. Attorney General

The Attorney General recommends that the Company list the fees for the following charges in its outdoor lighting delivery service – customer owned equipment tariff: (1) field survey charge; (2) lighting service charge; (3) disconnect/reconnect charge; (4) underground work/troubleshooting charge; and (5) unauthorized use charge (Attorney General Brief at 103, citing Exh. Unutil-1, proposed tariff M.D.P.U. No. 234). The Attorney General states that an alternative would be to list these charges in the Company's summary of electric service rates tariff, Schedule SR (Attorney General Brief at 103, citing Exh. Unutil-1, proposed tariff M.D.P.U. No. 229). The Attorney General states that, if approved, this outdoor lighting tariff will be available to any municipality that has purchased streetlights from the Company (Attorney General Brief at 103). Consequently, the Attorney General argues that these fees should be listed on the tariff so that customers are fully aware of the costs of streetlight ownership (Attorney General Brief at 103).

¹⁵⁴ The Company refers to basic service as "default service."

b. Company.

The Company states that its proposed new outdoor lighting delivery service – customer owned equipment tariff is needed because of the recent sale of its streetlights to Fitchburg (Company Brief at 141). In addition, the Company argues that the Department should approve the enhanced lighting options for metal halide and LED lights proposed for both of Unitil’s outdoor lighting tariffs (Company Brief at 141).

Unitil disagrees with the Attorney General’s recommendation to list the fees for various services pertaining to customer-owned streetlights on the outdoor lighting delivery service – customer owned equipment tariff (Company Brief at 141). The Company contends that these services were negotiated with Fitchburg during the equipment sale as part of the transfer/license arrangement (Company Brief at 141). The Company argues, therefore, that listing these charges on the tariff is unnecessary and potentially cumbersome (Company Brief at 141). Instead, Unitil offers to list the fees and charges for the services pertaining to customer-owned streetlights on the Company’s website (Company Brief at 141).

3. Analysis and Findings

As an initial matter, in Sections II.C. and IV.D above, the Department rejected the Company’s proposals for an MSRF and a RAM. Consequently, the tariffs that the Company filed to implement those proposals are now moot. In addition, the Department directs the Company to remove from its RDM tariff all language changes related to the proposed RAM.

The Company proposes to include revised language in its basic service tariff to implement its proposal regarding active hardship protected accounts (Exhs. Unitil-1, proposed tariff M.D.P.U. No. 235; Unitil-LMB-1, at 21). In Section VI.K above, the Department rejected

the Company's proposal to recover the supply-related active hardship protected accounts receivables through basic service. Accordingly, the Department directs the Company to remove all language regarding active hardship protected accounts from its basic service tariff (Exh. Unitil-1, proposed tariff M.D.P.U. No. 235).

In addition, Unitil proposes to revise its revenue decoupling adjustment clause tariff to update the target revenues included in that tariff (Exh. Unitil-1, proposed tariff M.D.P.U. No. 236). Because these values need to be refreshed with each base distribution rate proceeding, the Department finds that an update to target revenues in the Company's revenue decoupling adjustment clause tariff is appropriate. D.P.U. 13-75, at 380-381. As part of its compliance filing to this Order, the Company shall update the target revenue values in its revenue decoupling adjustment clause tariff so that those values correspond to the target revenues approved by the Department here.

The Company proposes to expand the options for outdoor lighting service, specifically to include options for metal halide lights and new options for LED lights. These expanded options are available to customers served under either Schedule SD (Company-owned streetlights) or Schedule SDC (customer-owned streetlights) (Exh. Unitil-1, proposed tariff M.D.P.U. Nos. 233 and 234). The Department has reviewed the proposed expanded outdoor lighting service options and finds that they will benefit streetlight customers. Therefore, the Department approves the expanded outdoor lighting options for metal halide and LED lights.

Unitil proposes a new tariff, Schedule SDC, for outdoor lighting delivery service – customer owned equipment (Exh. Unitil-1, proposed tariff M.D.P.U. No. 234). The Department has reviewed the proposed outdoor lighting delivery service tariff for customer owned equipment and finds that it will benefit streetlighting customers. Therefore, the Department approves the proposed outdoor lighting delivery service tariff for customer owned equipment with the modifications addressed below.

As part of its outdoor lighting delivery service for customer owned equipment, the Company proposes to charge fees for the following services: (1) field service charge; (2) lighting service charge; (3) disconnect/reconnect charge; (4) underground work/troubleshooting charge; and (5) unauthorized use charge (Exh. Unutil-1, proposed tariff M.D.P.U. No. 234, at 6-7). The Department has found that fees for various services, such as meter testing, and cross-connection inspection fees, must be based on the costs that the company actually incurred associated with these functions. D.P.U. 11-43, at 249; D.P.U. 08-27, at 46. The Department has reviewed the calculations and assumptions regarding the proposed fees for these services and finds that they are based on the costs that the Company will incur to provide these services (Exhs. DPU-FGE 5-14; DPU-FGE 5-15, DPU-FGE 5-16; DPU-FGE 5-17). Therefore, the Department finds that these proposed fees are reasonable.

A question has been raised by the Attorney General as to whether the Company should be required to list in the tariff the fees for the services that Unutil will provide to outdoor lighting delivery service customers. As discussed above, a company must demonstrate that its fees are cost-based. In addition, under G.L. c. 164, § 94, a utility's proposed rates must be consistent with the public interest. D.P.U. 08-27, at 189. One component of this standard, applicable to tariff construction, requires that a proposed tariff has sufficient detail to explain the basis for the rate to be charged for the offered service. D.P.U. 08-27, at 189. This standard applies not just to the rates charged to customers, but to the fees charged to customers as well. Because the fees for the services listed above are not listed in the Company's proposed tariff, the Department finds that the proposed tariff does not meet the requirement that customers be properly informed of the

rates and terms under which service is provided. Therefore, Unitil shall modify its proposed outdoor lighting delivery service – customer owned tariff by listing the fees for the services the Company will provide.

In addition, the Company's tariffs continue to contain numerous outdated references to the term "default service" (see, e.g., Exh. Unitil-1, proposed tariff M.D.P.U. No. 230, at 1; proposed tariff M.D.P.U. No. 231, at 1; proposed tariff M.D.P.U. No. 232, at 1; proposed tariff M.D.P.U. No. 235). The term "default service" has not been used by the Department since 2005; this supply option is now referred to as "basic service." Procurement of Default Service Power Supply, D.T.E. 04-115-A at 4-6 (2005) (Department found the term default confused consumers because of unintended suggestion of nonfeasance and directed a name change from default service to basic service); see also Order Commencing Rulemaking, D.P.U. 07-105, at 4 (2008). In addition, the Legislature changed the name from default service to basic service on July 2, 2008. See St. 2008, c. 169 § 57; G.L. c. 164, § 1. For sake of clarity, the Company shall, as part of its compliance filing to this Order, remove from its tariffs any references to "default service" and replace, instead, replace them with "basic service."

Finally, the Department notes that in Section VIII.F.2 above, the Company was directed to modify its residential assistance adjustment clause tariff and its revenue decoupling adjustment clause tariff to accommodate the elimination of the RAAF. We reiterate here that the Company shall include all tariff modifications as part of its compliance filing to this Order.

IX. SCHEDULESA. Schedule 1 – Revenue Requirements and Calculation of Revenue Increase

	<u>PER COMPANY</u>	<u>COMPANY ADJUSTMENT</u>	<u>DPU ADJUSTMENT</u>	<u>PER ORDER</u>
COST OF SERVICE				
Total O&M Expense	10,527,151	(147,526)	(706,341)	9,673,284
Depreciation & Amortization	8,912,852	(5,490)	(328,114)	8,579,248
Taxes Other Than Income Taxes	1,449,455	140,413	(11,619)	1,578,249
Income Taxes	1,572,868	75,445	(93,711)	1,554,603
Return on Rate Base	4,423,158	22,848	(148,377)	4,297,630
Total Cost of Service	26,885,484	85,691	(1,288,163)	25,683,013
OPERATING REVENUES				
Total Base Distribution Revenues	20,055,283	0	0	20,055,283
Other Operating Revenues	92,340	(57,000)	0	35,340
Total Operating Revenues	20,147,623	(57,000)	0	20,090,623
Total Revenue Deficiency	6,737,861	142,691	(1,288,163)*	5,592,390

* Amount includes transfer of \$221,070 of arrearage management costs from the RAAF.

B. Schedule 2 – Operations and Maintenance Expenses

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
TOTAL O&M EXPENSE PER BOOKS	46,117,012	0	0	46,117,012
Less:				
Energy Efficiency	4,097,072	0	0	4,097,072
External Transmission	6,029,572	0	0	6,029,572
Transition Charge	9,369,054	0	0	9,369,054
Pension/PBOP Expense	830,338	0	0	830,338
Rental Water Heaters	50,694	0	0	50,694
Default Service	14,722,676	0	0	14,722,676
Residential Assistance Adjustment Expense	221,070	0	0	221,070
Attorney General Consultant Expense	9,000	0	0	9,000
Test Year Distribution/Internal Transmission O&M Expense Per Books	10,787,536	0	0	10,787,536
ADJUSTMENTS TO O&M EXPENSE:				
Payroll Expense	280,048	16,096	(191,163)	104,981
Medical & Dental Insurance	91,887	(23,946)	(62,041)	5,900
401(k) Costs	18,996	0	(6,065)	12,931
Property & Liability Insurance	44,864	(17,028)	0	27,836
Self Insurance	0	0	(149,296)	(149,296)
Bad Debt	(103,202)	1,779	(16,058)	(117,481)
Sundry Bad Debt	182,106	0	(182,106)	0
Storm Resilience Program	501,445	0	0	501,445
Lesser Storm and Unscheduled Maint. Exp.	89,804	(39,809)	(49,995)	0
Rate Case Expense	(195,970)	(22,340)	0	(218,310)
Audit Fees	3,160	18,816	0	21,976
Postage	6,521	6,335	0	12,856
Banking and Commitment Fees	9,655	604	0	10,259
Outdoor Lighting Expense	(13,370)	0	0	(13,370)
Legal Expense related to DPU 10-53, Purchase and Receivables	(13,816)	(132)	0	(13,948)
Hardship Protected Accounts Receivables	99,728	3,138	(102,866)	0
Shareholder Services	(23,293)	0	0	(23,293)
Sales for Resale	(709,645)	0	0	(709,645)
Non-Distribution Bad Debt	(8,632)	0	0	(8,632)
Inflation Allowance	126,106	(8,106)	(42,398)	75,602
Streetlight Legal Expense	0	0	(172,104)	(172,104)
Storm Trust Fund Assessment	0	0	(2,205)	(2,205)
Arrearage Management Program Budget	0	0	221,070	221,070
Transmission Vegetation Expense	0	(12,436)	0	(12,436)
Service Company Out of Period Software Maintenance Exp.	0	2,164	0	2,164
DPU Annual Electric Assesment	0	9,475	0	9,475
Remove Interconnection Study Costs	0	(89,105)	0	(89,105)
FERC Audit Recommendation # 2	0	(1,540)	0	(1,540)
Total O&M Expense Adjustments	386,392	(156,035)	(755,227)	(524,870)
Total O&M Expense	11,173,928	(156,035)	(755,227)	10,262,666
Less: Internal Transmission	646,777	(8,509)	(48,886)	589,382
Total Distribution O&M Expense	10,527,151	(147,526)	(706,341)	9,673,284

C. Schedule 3 – Depreciation and Amortization Expenses

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
DEPRECIATION				
Test Year Depreciation Expense	5,177,180	0	0	5,177,180
Water Heater Rentals	(23,592)	0	0	(23,592)
Test Year Depreciation Expense (Net of TY Water Heater Rental)	5,153,588	0	0	5,153,588
Depreciation Adjustment	23,656	0	(1,331)	22,325
Net Adjusted Depreciation Expense	5,177,244	0	(1,331)	5,175,913
Less:				
Test Year Internal Transmission	(343,683)	0	0	(343,683)
Internal Transmission Adjustment	(47,288)	0	0	(47,288)
Total Net Internal Transmission Adjustment	(390,971)	0	0	(390,971)
Total Depreciation Expense	<u>4,786,273</u>	<u>0</u>	<u>(1,331)</u>	<u>4,784,942</u>
AMORTIZATION				
Software *	120,959	0	(1,270)	119,689
FAS 109	176,557	0	0	176,557
2008 Ice Storm	1,629,184	0	0	1,629,184
Test Year Amortization Expense	1,926,700	0	(1,270)	1,925,430
Amortization Adjustment	64,565	0	(5,566)	58,999
Net Adjusted Amortization Expense	1,991,265	0	(6,836)	1,984,429
Less				
Test Year Internal Transmission	(27,798)	0	0	(27,798)
Internal Transmission Adjustment	(6,954)	0	599	(6,355)
Total Net Internal Transmission Adjustment	(34,752)	0	599	(34,153)
Net Amortization	1,956,513	0	(6,237)	1,950,276
Other Adjustments				
Hardship Protected Accounts Receivables	81,206	0	92,311	173,517
Storm Recovery Amortization	2,088,860	(5,490)	(412,857)	1,670,513
Total Amortization Expense	4,126,579	(5,490)	(326,783)	3,794,306
Total Distribution Depreciation & Amortization Expenses	<u>8,912,852</u>	<u>(5,490)</u>	<u>(328,114)</u>	<u>8,579,248</u>

* Until actual software amortization during the test year was \$120,959.

The Company recorded only \$119,689 because of an error in the electric and gas allocation factor, and the Department's adjustment here is intended to reconcile the Company's reported expense used in its cost of service schedules.

D. Schedule 4 – Rate Base and Return on Rate Base

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Utility Plant in Service	121,233,783	0	(55,997)	121,177,786
Less: Internal Transmission	10,157,750	0	(2,328)	10,155,422
Subtotal	111,076,033	0	(53,669)	111,022,364
Depreciation and Amortization Reserve	47,712,240	0	(11,361)	47,700,879
Less: Internal Transmission	5,226,782	0	(663)	5,226,119
Subtotal	42,485,458	0	(10,698)	42,474,760
Net Utility Plant in Service	68,590,575	0	(42,971)	68,547,604
ADDITIONS TO PLANT:				
Cash Working Capital	953,639	(1,036)	(61,816)	890,786
Materials and Supplies	1,078,355	(10,394)	0	1,067,961
Less: Materials and Supplies Internal Transmission	109,496	0	0	109,496
Total Additions to Plant	1,922,498	(11,430)	(61,816)	1,849,251
DEDUCTIONS FROM PLANT:				
Reserve for Deferred Income Tax	19,389,227	(304,103)	(8,814)	19,076,310
Unclaimed Funds	10,407	0	0	10,407
Customer Deposits	203,276	0	0	203,276
Customer Advances	362,883	0	0	362,883
Less: Deferred Taxes Internal Transmission	1,622,142	(25,442)	(367)	1,596,333
Total Deductions from Plant	18,343,651	(278,661)	(8,447)	18,056,543
Street Light Rate Base Adjustment	(436,574)	0	0	(436,574)
RATE BASE	51,732,848	267,231	(96,340)	51,903,738
COST OF CAPITAL	8.55%	8.55%	-0.27%	8.28%
RETURN ON RATE BASE	4,423,158	22,848	(148,377)	4,297,630

E. Schedule 5 – Cost of Capital

	PER COMPANY			RATE OF RETURN
	PRINCIPAL	PERCENTAGE	COST	
Long-Term Debt	\$ 70,000,000	52.22%	6.99%	3.65%
Common Equity	\$ 64,046,174	47.78%	10.25%	4.90%
Total Capital	\$134,046,174	100.00%		8.55%
Weighted Cost of Debt				3.65%
Equity				4.90%
Cost of Capital				<u>8.55%</u>

	COMPANY ADJUSTMENTS			RATE OF RETURN
	PRINCIPAL	PERCENTAGE	COST	
Long-Term Debt	\$ 70,000,000	52.22%	6.99%	3.65%
Common Equity	\$ 64,046,174	47.78%	10.25%	4.90%
Total Capital	\$134,046,174	100.00%		8.55%
Weighted Cost of Debt				3.65%
Equity				4.90%
Cost of Capital				<u>8.55%</u>

	PER ORDER			RATE OF RETURN
	PRINCIPAL	PERCENTAGE	COST	
Long-Term Debt	\$ 70,000,000	52.22%	6.99%	3.65%
Common Equity	\$ 64,046,174	47.78%	9.70%	4.63%
Total Capital	\$134,046,174	100.00%		8.28%
Weighted Cost of Debt				3.65%
Equity				4.63%
Cost of Capital				<u>8.28%</u>

F. Schedule 6 – Cash Working Capital

	<u>PER COMPANY</u>	<u>COMPANY ADJUSTMENT</u>	<u>DPU ADJUSTMENT</u>	<u>PER ORDER</u>
Total Distribution O&M Expense	10,527,151	(147,526)	(706,341)	9,673,284
Less: Uncollectibles	900,664	4,917	0	905,581
Taxes Other than Income Taxes	1,449,455	140,413	(11,619)	1,578,249
Proforma Working Capital	11,075,942	(12,030)	(717,960)	10,345,952
CWC Allowance (31.41/365)	953,639	(1,036)	(61,816)	890,786

G. Schedule 7 – Taxes Other Than Income Taxes

	<u>PER COMPANY</u>	<u>COMPANY ADJUSTMENT</u>	<u>DPU ADJUSTMENT</u>	<u>PER ORDER</u>
Property Taxes per Books	1,340,173	0	0	1,340,173
Less: Internal Transmission	112,122	0	0	112,122
Total Property Taxes	1,228,051	0	0	1,228,051
FICA Taxes	190,205	0	(13,021)	177,184
Federal Unemployment Taxes	1,566	0	0	1,566
Mass Unemployment Taxes	13,084	0	0	13,084
Less: Payroll Taxes Capitalized	86,647	0	0	86,647
Less: Internal Transmission	12,731	0	(1,402)	11,329
	105,477	0	(11,619)	93,858
Adjustment to Distribution Other Taxes	115,927	140,413	0	256,340
Total Taxes Other Than Income Taxes	<u>1,449,455</u>	<u>140,413</u>	<u>(11,619)</u>	<u>1,578,249</u>

H. Schedule 8 – Income Taxes

	<u>PER COMPANY</u>	<u>COMPANY ADJUSTMENT</u>	<u>DPU ADJUSTMENT</u>	<u>PER ORDER</u>
Rate Base	51,732,848	267,231	(96,340)	51,903,738
Return on Rate Base	4,423,158	22,848	(148,377)	4,297,630
Less:				
Interest Expense	1,888,249	9,754	(3,516)	1,894,486
Total Deductions	1,888,249	9,754	(3,516)	1,894,486
Taxable Income Base	2,534,910	13,094	(144,861)	2,403,143
Gross Up Factor *	1.6205	1.6469	1.6469	1.6469
Taxable Income	4,107,778	88,540	(238,572)	3,957,746
Mass Franchise Tax 6.5% /8% *	267,006	68,699	(19,086)	316,620
Federal Taxable Income	3,840,772	19,840	(219,486)	3,641,126
Federal Income Tax at 34%	1,305,862	6,746	(74,625)	1,237,983
Total Income Taxes	<u>1,572,868</u>	<u>75,445</u>	<u>(93,711)</u>	<u>1,554,603</u>

* Pursuant to MA state franchise tax change.

I. Schedule 9 - Revenues

	<u>PER COMPANY</u>	<u>COMPANY ADJUSTMENT</u>	<u>DPU ADJUSTMENT</u>	<u>PER ORDER</u>
OPERATING REVENUES PER BOOKS	59,194,626	0	0	59,194,626
Less:				
Pension/PBOP Adjustment Factor	1,021,366	0	0	1,021,366
External Transmission	3,788,826	0	0	3,788,826
Transition Charge	13,807,905	0	0	13,807,905
Default Service	13,599,609	0	0	13,599,609
Energy Efficiency	4,898,733	0	0	4,898,733
RAAF	266,244	0	0	266,244
Net Metering	(19,015)	0	0	(19,015)
Revenue Decoupling	(280,299)	0	0	(280,299)
Attorney General Consultant	327,015	0	0	327,015
Internal Transmission	877,336	0	0	877,336
Base Distribution Revenue Adjustment	(851,623)	0	0	(851,623)
Total Revenue Adjustments	39,139,343	0	0	39,139,343
Total Distribution Base Revenues Per Books	20,055,283	0	0	20,055,283
Other Operating Revenues	(428,281)	0	0	(428,281)
Less:				
Pension/PBOP Adjustment Factor	72,194	0	0	72,194
External Transmission	2,282,228	0	0	2,282,228
Transition Charge	(4,438,851)	0	0	(4,438,851)
Default Service	1,179,224	0	0	1,179,224
Energy Efficiency	(571,436)	0	0	(571,436)
Water Heater Rental	44,840	0	0	44,840
RAAF	(45,173)	0	0	(45,173)
Net Metering	19,015	0	0	19,015
Revenue Decoupling	280,299	0	0	280,299
Attorney General Consultant	(318,015)	0	0	(318,015)
Internal Transmission	1,005,053	0	0	1,005,053
Base Distribution Revenue Adjustment	29,999	(57,000)	0	(27,001)
Water Heater Rental	44,840	0	0	44,840
Total Other Operating Revenues	92,340	(57,000)	0	35,340
Adjusted Total Distribution Base Revenues	20,147,623	(57,000)	0	20,090,623

J. Schedule 10

FOR ILLUSTRATIVE PURPOSES ONLY

Department Approved Distribution Revenue Increase \$ 5,592,390

Per Cost of Service Study													
RATE CLASS	Proposed COSS Target Revenue at EROR* (1)	Current Revenue (2)	Proposed Deficiency at EROR (3)	Percent Increase at EROR (4)	Total Revenues Based on Current Rates (5)	Department Approved Revenue Increase at EROR (6)	Department Approved Revenue at EROR % Increase (7)	AMP only RAAF Revenues (8)	Section 20 Total Revenue Increase Cap (9)	Excess Increase to be Re-allocated (10)	Re-allocation to GD-2 through GD-5 (11)	Capped and Re-allocated Department Approved Revenue Increase (12)	Department Approved Revenue Requirement (13)
RD-1/RD-2	\$ 15,869,882	\$ 11,337,093	\$ 4,532,788	39.98%	\$35,864,314	\$ 3,970,322	35.02%	\$ 211,924	\$ 3,586,431	\$ 171,967		\$ 3,586,431	\$ 14,923,525
GD-1	\$ 681,245	\$ 510,141	\$ 171,105	33.54%	\$ 1,183,469	\$ 149,872	29.38%	\$ 4,974	\$ 118,347	\$ 26,552		\$ 118,347	\$ 628,488
GD-2	\$ 5,855,896	\$ 4,950,930	\$ 910,629	18.39%	\$18,167,975	\$ 797,630	16.11%	\$ 102,569	\$ 1,816,798	\$ 0	\$ 184,552	\$ 982,183	\$ 5,933,113
GD-3	\$ 2,789,535	\$ 2,176,939	\$ 612,596	28.14%	\$15,191,352	\$ 536,580	24.65%	\$ 50,016	\$ 1,519,135	\$ 0	\$ 81,241	\$ 617,821	\$ 2,794,760
GD-4	\$ 3,399	\$ 2,923	\$ 528	18.08%	\$ 46,278	\$ 463	15.84%	\$ 339	\$ 4,628	\$ 0	\$ 109	\$ 572	\$ 3,495
GD-5	\$ 23,429	\$ 19,786	\$ 3,643	18.41%	\$ 74,498	\$ 3,191	16.13%	\$ 424	\$ 7,450	\$ 0	\$ 738	\$ 3,930	\$ 23,716
OL	\$ 457,150	\$ 303,788	\$ 153,362	50.48%	\$ 643,977	\$ 134,331	44.22%	\$ 1,811	\$ 64,398	\$ 68,123		\$ 64,398	\$ 368,186
Total	\$ 25,680,536	\$ 19,301,600	\$ 6,384,651	33.08%	\$71,171,862	\$ 5,592,390	28.97%	\$ 372,056		\$ 266,641	\$ 266,641	\$ 5,373,682	\$ 24,675,282

Source:

- (1) Schedule PMN-1E-6, at 2, Column (R).
 - (2) Schedule PMN-1E-6, at 2, Column (O)
 - (3) Column (1) - Column (2) (GD-2 and GD-4 include transformer credits)
 - (4) Column (3) / Column (2)
 - (5) Test Year Billing Determinants multiplied by current rates for each rate class.
 - (6) (Department Approved Distribution Revenue Increase/Column (3) Total) * Column (3) for each rate class
 - (7) Column(6)/Column(2)
 - (8) Test Year kWh * [Current RAAF * 17.5 percent] for each rate class. 17.5 percent is the share of the Company's current RAAF which comprises AMP costs.
 - (9) Column (5) * 10%.
 - (10) [Column (6) - Column (8)] - Column (9), if >0
 - (11) For each uncapped rate class, [Column (2) (uncapped rate class)/Column (2) (uncapped class total)] * Column (10) Total
 - (12) Column (9) if capped rate class, otherwise Column (6) + Column (11).
 - (13) Column (2) + Column (12) (values must be reduced to account for special contract revenue increase)
- * The \$25,680,536 equals \$26,885,484 from Schedule 1 less special contract revenues of \$723,893; PTF revenues of \$57,000; late payment charge revenues of \$63,875, enhanced meter revenues of \$43,842; pole attachment fee revenues of \$117,847; and tree trimming/trans distribution revenues of \$198,491.

X. ORDER

Accordingly, after due notice, hearing, and consideration, it is

ORDERED: That the tariffs M.D.P.U. Nos. 229 through 238 filed by Fitchburg Gas and Electric Light Company on July 15, 2013, to become effective June 1, 2014, are DISALLOWED; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall file new schedules of rates and charges designed to increase annual electric base rate revenues by \$5,592,390; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall file all rates and charges required by this Order and shall design all rates in compliance with this Order; and it is

FURTHER ORDERED: That Fitchburg Gas and Electric Light Company shall comply with all other directives contained in this Order; and it is

FURTHER ORDERED: That the new rates shall apply to electricity consumed on or after June 1, 2014, but unless otherwise ordered by the Department, shall not become effective earlier than seven days after the rates are filed with supporting data demonstrating that such rates comply with this Order.

By Order of the Department,

/s/ Ann G. Berwick

Ann G. Berwick, Chair

/s/ Jollette A. Westbrook

Jollette A. Westbrook, Commissioner

/s/ Kate McKeever

Kate McKeever, Commissioner

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.