at 71). Further, National Grid argues that the Department's approval of New England Gas Company's proposal renders the Company's own wage and salary adjustments appropriate (Company Brief at 71). Therefore, the Company asserts that the Department should approve the proposed adjustments (Company Brief at 71).

c. Analysis and Findings

Employee staffing levels routinely fluctuate because of retirements, resignations, hirings, terminations, and other factors. Massachusetts-American Water Company D.P.U. 88-172, at 12 (1989); D.P.U. 1270/1414, at 16-17. 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. 90-121, at 80-81; D.P.U. 88-172, at 12.

National Grid asserts that the Department's approval of New England Gas Company's proposal to include a vacancy is analogous to its own proposal to include 37 vacancies (Company Brief at 71, citing D.P.U. 10-114, at 135). In fact, New England Gas Company's proposal was different in two significant ways. First, in D.P.U. 10-114, the position proposed for inclusion in the pro forma cost of service was not vacant at the end of the 2009 test year, while the positions in the instant case were vacant at the end of National Grid's test year. D.P.U. 10-114, at 135. Therefore, the positions in the instant case, unfilled on June 30, 2015, are rightfully excluded from an employee complement taken on that date. Additionally, New England Gas Company had removed temporary employee costs from 175 contract labor accounts, and the purpose of the proposed adjustment was to move the temporary employee cost into that company's pro forma payroll expense account. D.P.U. 10-114, at 135. Therefore, the

Department's decision in D.P.U. 10-114 allowed a proposal to move incurred, known, and measurable salary costs to the correct, permanent payroll expense account. This proposal is fundamentally different from National Grid's proposal in the instant case to increase the test year-end employee complement and associated payroll expense by 37 vacant positions.

Additionally, the Company argues that the 37 positions it proposes to include in its pro forma cost of service are appropriate because these positions were in place during the test year, temporarily vacated as of June 30, 2015, and filled before the expiration of this case (Company Brief at 70). The selection of the test year, however, is largely a matter of a distribution company's choice. See D.P.U. 07-50-A at 51. Of its own volition, the Company selected the twelve-month period ending June 30, 2015, as the test year (see Exhs. NG-MLR-1, at 3; NG-RRP-1, at 6). Subsequently, National Grid annualized base wages of its employee complement as of June 30, 2015 (Exh. NG-RRP-1, at 27). Any changes to the employee complement after this date would be considered a post-test year change, including those positions vacated as of June 30, 2015 and filled thereafter. Therefore, the Company must demonstrate that the filling of the 37 positions constitutes a significant post-test year change above and beyond the normal ebb and flow of employment levels in order for the Department to grant the proposed adjustments to payroll expense. D.P.U. 90-121, at 80-81; D.P.U. 88-172, at 12.

The Company made no explicit effort to demonstrate that the post-test year changes to employee levels were significant or outside the normal ebb and flow of the workplace. Nonetheless, the Department has analyzed the impact of filling the proposed vacancies on payroll expense levels as well as employee staffing levels. The four proposed union vacancies' wages and salaries represent 0.46 percent of total test year union payroll O&M expense (Exh. NG-RRP-2, at 8 (Rev. 3)). The Company's share of the eight proposed union and 25 proposed non-union vacancies' wages and salaries represents 0.82 percent and 0.73 percent of the Company's shares of total union and non-union test year NGSC payroll O&M expense, respectively (Exh. NG-RRP-2, at 9 (Rev. 3)). These amounts, both less than one percent, do not represent significant changes to test year payroll expense. D.P.U. 90-121, at 80-81. Alternatively, using monthly employee levels, the four proposed union vacancies constitute 0.37 percent of the 1,070 union Company employees present in the last month of the test year (Exh. DPU-8-21, Att.). The eight proposed union and 25 proposed non-union vacancies comprise 0.57 percent of the 1,405.5 union and 0.66 percent of the 3,782 non-union NGSC employees present in the last month of the test year (Exh. DPU-8-22, Att.). These amounts, both less than one percent, also do not represent significant changes to test year employee levels.

Based on evidence provided in the instant case, the Department concludes that the 37 proposed vacancies do not constitute a significant post-test year change. Thus, the Department rejects the portion of the proposed salary and wage adjustments related to the approved positions vacated during the test year. The Department reduces the Company's proposed cost of service by $526,169.[121] In accordance with the above staffing level

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121 Of this amount, $145,273 reduces proposed adjustments to MECo and Nantucket Electric payroll expense and $380,896 reduces proposed adjustments to the Company's share of NGSC payroll expense. The two reductions are further broken down as follows: (1) $267,010 proposed union vacancy salaries * 1.025 union wage increase * 0.5308 O&M percentage of base wages = $145,273 reduction to proposed MECo and Nantucket Electric payroll expense adjustment; (2) ($97,542 proposed union vacancy salaries * 1.025 union wage increase * 0.5577 O&M percentage of base wages = $55,756) + ($447,076 proposed non-union vacancy salaries * 1.032 non-union wage increase * 0.7047 O&M percentage of base wages = $325,140) = $380,896 reduction to proposed

adjustments, concordant adjustments to health care expense will be addressed below. Further, concordant adjustments to payroll tax expense, group insurance expense, and employee thrift expense will be addressed in the payroll taxes section, below.

5. Variable Compensation

a. Introduction

National Grid's variable compensation program is called the "Annual Performance Plan" (Exh. NG-MPH-1, at 17). There are three components to the variable pay program: (1) performance metrics tied to overall Company financial results, including earnings per share and ROE; (2) performance metrics based on safety, reliability, customer responsiveness, cost competitiveness, and stewardship (collectively referred to as "Elevate targets"); and (3) performance metrics based on individual objectives (Exhs. NG-MPH-1, at 19; NG-MPH-4, at 1; NG-MPH-5, at 1; NG-MPH-6, at 1). The Company's non-union employees are classified into six salary categories ("Salary Bands") (see Exh. NG-MPH-1, at 19-20). Salary Band A consists of National Grid's most senior executives, Salary Bands B and C includes officers/directors, and Salary Bands D through F include managers, analysts, and all other non-union Company employees (Exh. NG-MPH-1, at 19-20). Each of the six Salary Bands, as well as all union employees, are assigned a particular combination of the above three components to arrive at the total Annual Performance Plan award (Exh. NG-MPH-1, at 19, 21). An eligible employee's maximum Annual Performance Plan award ranges from five percent to 40 percent of the same year's base wages, and varies by Salary Band (Exhs. NG-MPH-4, at 1; NG-MPH-5, at 1; NG-MPH-6, at 1).

Company share of NGSC payroll expense adjustment (see Exh. NG-RRP-2, at 8-9 (Rev. 3)).

For employees in Salary Bands A, B, and C, 20 percent of the Annual Performance Plan award is based on attaining Elevate targets, 40 percent is based on attaining financial metrics, and 40 percent is based on attaining employee-specific goals (Exhs. NG-MPH-1, at 19; NG-MPH-4, at 1; NG-MPH-5, at 1). For employees in Salary Bands D, E, and F, 50 percent of the Annual Performance Plan award is based on attaining Elevate targets and 50 percent is based on attaining employee-specific objectives (Exhs. NG-MPH-1, at 19; NG-MPH-6, at 1). In the case of all union employees, 100 percent of the Annual Performance Plan award is based on attaining Elevate targets (Exh. NG-MPH-1, at 19).

During the test year, the Company booked $10,638,165 in variable compensation for non-union personnel (Exh. NG-RRP-2, at 8-10). Of that amount, MECo and Nantucket Electric directly incurred $491,622 in variable compensation expense (Exh. NG-RRP-2, at 8). NGSC and other National Grid plc affiliates allocated $9,737,387 and $409,156, respectively, to the Company's test year variable compensation expense (Exh. NG-RRP-2, at 9-10). During the test year, National Grid also booked $2,349,884 in variable compensation for union personnel (Exh. NG-RRP-2, at 8-10). Of that amount, MECo and Nantucket Electric directly incurred $1,992,598 in variable compensation expense (Exh. NG-RRP-2, at 8). NGSC and other National Grid plc affiliates allocated $230,535 and $126,751, respectively, to the Company's test year variable compensation expense (Exh. NG-RRP-2, at 9-10).

National Grid initially proposed to increase non-union and union variable compensation by $346,642 and $56,160, respectively, to recognize the proposed 3.5 percent and 2.5 percent increases to test year wages (Exh. NG-RRP-2, at 8-10). Based on revisions made during the proceeding, the Company now proposes to increase non-union and union variable compensation by $316,929 and $56,160, respectively (Exh. NG-RRP-2, at 8-10 (Rev. 3)). As noted above, this change results from a reduction to the 2016 non-union wage increase from 3.5 percent to 3.2 percent (Exhs. NG-RRP-2, at 8-10 (Rev. 3); NG-MPH-Rebuttal-1, at 8; NG-MPH-Rebuttal-3). Additionally, National Grid's proposed cost of service removes variable compensation for Salary Band A employees, the Company's most senior executives (Exh. NG-MPH-1, at 20).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Department should remove the financial component of incentive compensation costs from National Grid's cost of service (Attorney General Brief at 31). The Attorney General claims that the Department has made it clear that if financial goals are used in incentive plans, they should be used as a threshold component only (Attorney General Brief at 31). Further, she notes that while the Company's efforts to reduce the portion of variable pay tied to meeting financial goals are commendable, the record shows that 40 percent of the potential incentive plan awards for Salary Bands B and C employees are based on financial targets such as earnings per share and ROE (Attorney General Brief at 34). The Attorney General maintains that the goals of earnings per share and ROE clearly focus on shareholder interests (Attorney General Brief at 35). Thus, she argues that the costs associated with the attainment of such goals should be excluded from costs charged to Massachusetts ratepayers (Attorney General Brief at 35). Specifically, she recommends reducing the Company's pro forma cost of service by $847,532 (Attorney General Brief at 35). The recommended reduction includes $756,422 to remove variable pay associated with achieving financial metrics and $91,110 in concordant adjustments to group insurance, employee thrift, and payroll taxes (Attorney General Brief at 35).

ii. Company

The Company argues that the costs of its incentive compensation plan are reasonable and that the plan itself is reasonably designed to encourage good employee performance (Company Brief at 100). National Grid contends that excluding the entire variable pay component for its most senior executives, as it did in D.P.U. 09-39, contributes to the reasonableness of its overall incentive compensation cost level included in rates (Company Brief at 100). The Company also claims that the current incentive compensation structure is similar to plans previously approved by the Department in which a higher percentage of non-union variable pay was tied to meeting financial performance objectives (Company Brief at 101, citing D.P.U. 10-55; D.P.U. 09-39).

Nonetheless, National Grid recounts several steps it took to modify its variable pay program to better align with the Department's expectations following the Department's decision in D.P.U. 10-55 (Company Brief at 101). These steps include reducing the amount of variable pay tied to financial performance from 60 percent for Band A and B employees and 50 percent for Band C employees to 40 percent across all employees in Bands A through C, eliminating financial targets altogether for employees in Bands D through F, and adding customer satisfaction, safety and reliability targets for its officers and directors (Company Brief at 101). Finally, with respect to the financial metrics themselves, the Company states that it replaced line of business financial targets with earnings per share and ROE goals to emphasize quality of financial management, particularly in the area of internal cost containment (Company Brief at 101). Finally, National Grid claims that implementing cost containment measures, in pursuit of a ROE goal, will delay base rate cases or limit the impact of those cases and thus will benefit customers (Company Brief at 102).

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 plan is reasonably designed to encourage good employee performance. D.P.U. 07-71, at 82-83; Massachusetts Electric Company, D.P.U. 89-194/195, at 34 (1990). 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 the costs associated with National Grid's Annual Performance Plan are reasonable in amount. First, the Company does not seek to recover variable pay for its most senior executives (Exh. NG-MPH-1, at 20). Next, the Company has provided the 2015 results of a Towers Watson assessment that compared total cash compensation, defined as base pay plus any incentive or variable compensation, to the median of the marketplace (Exh. NG-MPH-2, at 5). The Towers Watson study concluded that National Grid's non-union compensation levels are competitive against similarly sized energy services companies (those with revenues greater than $6 billion) as well as total sample energy services companies (Exh. NG-MPH-2, at 5). Based on our review of this evidence, the Department finds that National Grid has demonstrated that its incentive compensation costs are reasonable in amount. See D.P.U. 10-70, at 103; D.P.U. 09-39, at 140.

The Department must next determine whether the Company's Annual Performance Plan is reasonable in design. A portion of the Annual Performance Plan expense is tied to meeting financial metrics such as earnings per share and ROE (Exhs. NG-MPH-1, at 19; NG-MPH-4, at 1; NG-MPH-5, at 1). The Attorney General argues that the Department should deny recovery of variable compensation related to financial metrics because the Company chose to continue to make financial goals components of the plan design upon which payouts are based, despite what the Attorney General maintains is the Department's clear parameters in a decision involving the Company's affiliate, Boston Gas Company (Attorney General Brief at 31, citing D.P.U. 10-55, at 253-254).

The Department has articulated its expectations on the use of financial targets in variable compensation plans and the burden to justify recovery of such costs in rates. D.P.U. 15-80/D.P.U. 15-81, at 115-116; D.P.U. 13-90, at 82-83; 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, customer satisfaction goals) used as the basis for determining individual incentive compensation awards. D.P.U. 13-90, at 82-83; 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. 13-90, at 83; 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.

National Grid's financial metrics do not operate as a threshold component, but rather are a direct component of overall incentive compensation plan design (Exh. NG-MPH-1, at 19-20). While we acknowledge the Company's decisions to reduce the portion of variable pay tied to financial metrics and to introduce customer satisfaction, safety, and reliability targets for officers and directors, the financial metrics still represent 40 percent of the incentive compensation payment calculation for employees in Salary Bands A, B, and C (Exhs. NG-MPH-1, at 19; NG-MPH-4, at 1; NG-MPH-5, at 1; NG-MPH-Rebuttal-1, at 6). Thus, National Grid must demonstrate direct ratepayer benefit from the attainment of earnings per share and ROE goals to recover this portion of incentive compensation costs from ratepayers. D.P.U. 10-55, at 253-254. The Company acknowledges this recovery standard and contends that customers benefit from cost containment measures that may be implemented in the pursuit of ROE and earnings per share goals, but has made no substantive demonstration of this claim (Exhs. NG-MPH-Rebuttal-1, at 5-6; DPU-8-28). Therefore, consistent with Department precedent, the Department finds that National Grid has failed to demonstrate that the financial metrics components of its incentive compensation plan are reasonably designed to encourage good employee performance and result in direct ratepayer benefits.

Accordingly, the Department reduces National Grid's proposed cost of service by $754,230[122] to remove the portion of the Company's incentive compensation expense attributable to the earnings per share and ROE measures (see Exh. DPU-8-29). In recognition of the above variable compensation expense adjustments, concordant adjustments to payroll tax expense will be addressed below.

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122 The Department's adjustment incorporates the non-union salary update of 3.2 percent provided in Exhibit NG-RRP-2, at 8-10 (Rev. 3).

B. Payroll Taxes

1. Introduction

During the test year, National Grid booked $10,584,314 in adjusted payroll taxes after removing $163,969 in qualified storm costs eligible for recovery through the storm fund (Exh. NG-RRP-2, at 29). The Company originally proposed to increase its cost of service by $819,226 to recognize the additional payroll taxes associated with its pro forma wage and salary expense (Exhs. NG-RRP-1, at 39; NG-RRP-2, at 29). Based on revisions made during the proceeding, National Grid now proposes to increase payroll tax expense by $388,624 (Exh. NG-RRP-2, at 29 (Rev. 3)). This change represents the removal of energy efficiency-related payroll taxes and the application of wage-based caps to several payroll tax categories (Exhs. NG-RRP-2, at 29 (Rev. 3); AG-20-16; Tr. 9 at 1420-1421; RR-DPU-2).

2. Positions of the Parties

a. Attorney General

As stated in Section VIII.A.4.b.i above, the Attorney General argues that the Department should reject National Grid's proposal to include four Company and 33 NGSC vacant positions in its cost of service (Attorney General Brief at 24-25). The Attorney General subsequently recommends associated payroll, payroll tax, and other employee compensation-related expense reductions (Attorney General Brief at 24-25). The Attorney General recommends a payroll tax expense reduction of $38,731, consisting of $10,825 in payroll taxes associated with the four Company vacant positions, and $27,906 in payroll taxes associated with the 33 NGSC vacant positions (Attorney General Brief at 24-25, citing Exhs. AG-DJE-Rebuttal-1, Sch. DJE-1; NG-RRP-Rebuttal-2, column NG(c)).

b. Company

National Grid argues that it calculated the change in payroll tax in proportion to its proposed labor and incentive compensation adjustments (Company Brief at 93, citing Exhs. NG-RRP-1, at 39; NG-RRP-2, at 29 (Rev. 2)). The Company claims that it increased payroll tax expense by 6.31 percent to account for a 6.31 percent increase in rate year salaries and wages as compared to test year salaries and wages (Company Brief at 93). National Grid argues that the Department should approve the Company's proposed adjustments to taxes other than income taxes (Company Brief at 93).

3. Analysis and Findings

The Department has examined the record related to the Company's payroll tax calculations (e.g., Exhs. NG-RRP-2, at 29 (Rev. 3); DPU-8-31; AG-20-16; Tr. 1, at 108-117; Tr. 9, at 1420-1421; RR-DPU-1; RR-DPU-2), and we find that three revisions must be made. First, the Department revises the percentage change in rate year salaries and wages used to calculate the initial payroll tax adjustment (Exh. NG-RRP-2, at 29, line 4 (Rev. 3)). Second, the Department revises the percentage of rate year payroll expense subject to increased Social Security tax used to calculate the final payroll tax adjustment (RR-DPU-1, Att. at 183; RR-DPU-2, Att.). Third, the Department will make necessary revisions to the Company's group insurance expense and employee thrift expense. These are explained in further detail below.

First, based on staffing level and incentive compensation expense adjustments discussed in Sections VIII.A.4.c and VIII.A.5.c above, the Department reduces the Company's most recent rate year O&M salaries and wages figure by $1,280,399.[123] This reduction yields a revised percentage change in rate year salaries and wages of 5.41 percent.[124] Second, based on the disallowance of 37 vacancies discussed in Section VIII.A.4.c above, the Company's most recent calculation of rate year labor subject to payroll tax must not include these vacancies' salaries and wages (RR-DPU-1, Att. at 183). Removing these salaries and wages yields a revised percentage of rate year payroll expense subject to increased Social Security tax of 54.8 percent.[125] Applying these two changes yields a final payroll tax expense adjustment of $332,952.[126] Therefore, the Department reduces the Company's proposed cost of service by $55,672 ($388,624 - $332,952).

Finally, in accordance with the above revision to the percentage change in rate year salaries and wages used to calculate the payroll tax adjustment, the Department makes necessary revisions to group insurance expense and employee thrift expense adjustment calculations that

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123 This amount includes a $526,169 staffing level reduction to payroll expense and a $754,230 variable compensation reduction to payroll expense (<u>see</u> <u>also</u> Exh. DPU-8-29).

124 (($151,010,695 proposed rate year O&M wages - $1,280,399 Department reduction to rate year O&M wages) - $142,044,523 test year O&M wages)/$142,044,523 = 0.0541 percentage change in rate year O&M wages (<u>see</u> Exh. NG-RRP-2, at 29, line 8-13 (Rev. 3)).

125 $813,257,570 total rate year labor below SS-FICA cap /$1,482,901,070 total rate year SS-FICA taxable labor = 0.548 proportion of rate year labor subject to tax increase (<u>see</u> RR-DPU-1, Att. at 183).

126 ($7,773,787 adjusted test year FICA expense * 0.0541 percentage change in rate year O&M wages * 0.548 proportion of rate year labor subject to tax increase = $230,646) + ($1,818,063 adjusted test year Medicare expense * 0.0541 percentage change in rate year O&M wages = $98,357) + ($68,744 adjusted test year NY Commuter Tax * 0.0541 percentage change in rate year O&M wages = $3,719) + ($4,236 adjusted test year Other payroll tax expense * 0.0541 percentage change in rate year O&M wages = $229) = $332,952 final payroll tax adjustment (<u>see</u> Exh. NG-RRP-2, at 29, line 5d (Rev. 3); RR-DPU-1, Att. at 183; RR-DPU-2).

use the percentage change figure. Using the 5.41 percentage change figure to increase adjusted test year expense, the Department finds that National Grid's final group insurance expense adjustment is equal to $74,455.[127] The Company proposed an adjustment to group insurance expense of $83,378 (Exh. NG-RRP-2, at 12 (Rev. 3)). Therefore, the Department reduces the Company's proposed cost of service by $8,923 ($83,378 - $74,455). Further, the Department increases National Grid's adjusted test year employee thrift expense by 5.41 percent to determine the final employee thrift expense adjustment of $259,221.[128] The Company proposed an adjustment to employee thrift expense of $302,492 (Exh. NG-RRP-2, at 13 (Rev. 3)). The Department thus reduces the Company's proposed cost of service by $43,272 ($302,492 - $259,221).

C. Medical and Dental Expenses

1. Introduction

National Grid's health care plans are self-insured (Exh. NG-MPH-1, at 23). National Grid booked $18,946,518 in test year medical and dental costs (Exh. NG-RRP-2, at 11). Of that amount, MECo and Nantucket Electric directly incurred $8,450,973 in health care expense (Exh. DPU-8-2). NGSC and affiliated companies allocated $10,260,676 and $234,869 to the Company's test year medical and dental expense, respectively (Exh. DPU-8-2). The Company

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127 ($1,466,588 adjusted test year group insurance expense * 0.0541 percentage change in rate year O&M wages = $79,331) – $4,877 Company adjustment for management program = $74,455 final group insurance expense adjustment (see Exh. NG-RRP-2, at 12 (Rev. 3)).

128 $4,792,161 adjusted test year thrift expense * 0.0541 percentage change in rate year O&M wages = $259,221 final thrift expense adjustment (see Exh. NG-RRP-2, at 13 (Rev. 3)).

initially proposed a decrease to test year medical and dental expense of $250,830 based on 2016 working rates,[129] which also includes adjustments for five proposed Company positions and 36 proposed NGSC positions (Exhs. NG-RRP-1, at 29-30; NG-RRP-2, at 11). Based on revisions made during the proceeding, National Grid now proposes to decrease test year medical and dental expense by $263,968 (Exh. NG-RRP-2, at 11 (Rev. 3)). This change reflects a reduction to the total proposed Company positions from five to four, and a reduction to the total proposed NGSC positions from 36 to 33 (Exh. NG-RRP-2, at 11 (Rev. 3)).

2. Positions of the Parties

a. Attorney General

The Attorney General's comments regarding medical and dental expense adjustments are specific to those made to include vacant positions and are addressed in Section VIII.A.4.b.i above (Exhs. AG-DJE-1, at 6-7; AG-DR-1, at 8; AG-DJE-Rebuttal-1, at 2-3; AG-DR-Rebuttal-1, at 4).

b. Company

National Grid argues that its medical and dental costs are reasonable in amount (Company Brief at 104). Further, the Company contends that the Towers Watson studies included in the initial filing illustrate that the health care plans offered to non-union and union employees are close to and above the market medians, respectively (Company Brief at 104, citing Exh. NG-MPH-1, at 22). Additionally, National Grid claims that it has taken several steps

129 Working rates are Towers Watson's, the Company's healthcare consultant, estimates of plan costs for the upcoming plan year. The working rates are based on enrollment data, at least twelve months of historical claims experience, marketplace trends, plan design changes, compliance-related fees, and other relevant factors that impact the cost of claims to be paid by the Company (Exhs. DPU-8-5; AG-13-17; AG-13-17, Atts. 1-2).

to control its medical and dental expenses (Company Brief at 104). In particular, the Company describes cost containment steps such as self-insuring its health and welfare plans, obtaining a volume discount for its new prescription drug plan, periodically soliciting bids for alternative health care providers, and moving benefits administration to a new, third party to provide better service at lower costs (Company Brief at 104).

National Grid also argues that its proposed adjustment to test year health costs conforms to Department requirements (Company Brief at 107). The Company explains that its rate year level of medical and dental expense is based on the test year-end actual employee plan elections and associated individual plan cost rates that are in effect for calendar year 2016 (Company Brief at 108, citing Exhs. NG-MPG-1, at 26; AG-13-17). Further, National Grid explains that the individual plan cost rates, developed by its external benefits consultant, Towers Watson, are derived on the basis of current and historical information pertaining to National Grid's employee base, including past claims experience, administrative fees and other elements (Company Brief at 108, citing Exh. AG-13-17). The Company argues that the Department should rely on the working rates because they are developed using actuarial principles similar to the analysis formerly used to generate insurance premiums, which the Department accepts as the basis for post-test year changes in health care insurance costs (Company Brief at 109). The Company also contends that its decision to self-insure and use working rates that do not include additional costs present in insurance premiums produces substantial benefits for customers in the form of reduced benefit costs (Company Brief at 109). Finally, the Company claims that the Department has expressly recognized that the use of working rates to identify the representative level of costs on a post-test year basis is a reasonable method for the rate-setting process (Company Brief at 110, citing D.P.U. 92-210, at 43-44; D.P.U. 95-40, at 22). Thus, the Company asserts that the Department should rely on the working rates (Company Brief at 108).

3. Analysis and Findings

To be included in rates, medical and dental insurance expenses must be reasonable. D.P.U. 92-78, at 29-30; Nantucket Electric Company, D.P.U. 91-106/91-138, at 53 (1991). Further, companies must demonstrate that they have acted to contain their health care costs in a reasonable, effective manner. Berkshire Gas Company, D.T.E. 01-56, at 60 (2002); 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; 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 National Grid's medical and dental insurance expenses are reasonable and that the Company has taken reasonable and effective measures to contain health care costs (Exhs. NG-MPH-1, at 22-25; NG-MPH-3, at 23-30; NG-MPH-10, at 24-31; DPU-8-11; DPU-8-13; DPU-8-14). For example, the Company disaggregated its prescription drug programs from each medical plan and replaced them entirely with a CVS Caremark plan, providing volume discounts (Exh. NG-MPH-1, at 24). Additionally, National Grid introduced generic step therapy to the CVS Caremark plan in order to lower prescription drug costs (Exh. NG-MPH-1, at 24). The Company also held a competitive bidding process for alternative health care providers in 2015 that produced a five percent reduction in administrative fees beginning in 2016 across all populations administered by Blue Cross Blue Shield of Massachusetts, the Company's current national medical vendor (Exh. DPU-8-14).

Turning to National Grid's proposed post-test year decrease in medical and dental expense, the Company maintains that the working rates provided by Towers Watson are developed similarly to the historical insurance premiums that the Department accepts as the basis for post-test year changes in health care insurance costs and therefore should be relied upon (Company Brief at 108-109). The Department has previously denied recovery of pro forma health care expenses based on working rates derived from actuarial estimates encompassing a broad based pool of insured parties. D.P.U. 15-80/D.P.U. 15-81, at 137; D.P.U. 14-150, at 151; D.P.U. 13-90, at 94. In the current case, however, National Grid's working rates are derived using almost exclusively Company-specific data such as medical and prescription drug claims experience, enrollment figures, plan design details, administration costs, and fees (Exhs. DPU-13-10, Att.; DPU-28-1, Att.; DPU-28-2; DPU-28-3; Tr. 4, at 551-553; RR-AG-4; RR-AG-9; RR-AG-11). The Company's working rates rely in part on industry-wide "trend rates" and "margins" (Tr. 4, at 551-553; RR-DPU-20). The "trend rate" represents the expected annual increase in the average cost of medical services ("medical inflation") and is derived using historical gross cost experience from 467 employers including National Grid, other employers in the energy services sector, and general industry employers (Exh. DPU-28-2; RR-DPU-20). The "trend rate" is used to adjust National Grid's 2014 medical and prescription drug claims to 2016 dollars (Tr. 4, at 534-535; RR-AG-5). The "margin" is a load applied to the final working rates to account for fluctuations in claims and is derived by comparing National Grid's own claims experience to the market (Exh. DPU-28-2, at 2; Tr. 4, at 542 and 552). The "trend rate" and "margin" components both include Company data and would be included in rate year insurance cost calculations regardless of whether the Company chose to self-insure or rely on third-party insurance carriers (Tr. 4, at 542). Based on the foregoing analysis, the Department finds that National Grid's working rates are sufficiently correlated with the Company's own experience (i.e., versus that of a broad based pool of insured entities) to warrant their use in determining the Company's health care expense in this proceeding.

Additionally, National Grid's decision to self-insure its medical and dental plans results in direct savings to ratepayers in the form of lower employee benefit costs (Tr. 4, at 523-524 and 542-543). The Department recognizes that disallowing National Grid's post-test year adjustments on the basis of working rates would provide a disincentive for companies to implement aggressive cost control measures, such as switching to self-insurance, when such measures otherwise would be deemed cost-effective. D.P.U. 95-40, at 26; D.P.U. 92-210, at 22. Therefore, the Department accepts the Company's proposed decrease to medical and dental expense of $263,968 (Exh. NG-RRP-2, at 11 (Rev. 3)).

In addition to National Grid's proposed medical and dental expense adjustment, the Department removes post-test year medical and dental expenses of $86,778 associated with 37 vacancies previously excluded from the Company's proposed cost of service in Section VIII.A.4.c.[130] Accordingly, the Department reduces the Company's proposed cost of service by $86,778.

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130 ($63,043 medical and dental costs for proposed Company vacancies * .5234 O&M percentage of base wages = $32,994) + ($415,448 medical and dental costs for proposed NGSC vacancies * .1920 percentage of NGSC salary expenses allocated to Company payroll expense * .6744 O&M percentage of base wages = $53,783) = $86,778 reduction to proposed Company medical and dental expense adjustment (see Exh. NG-RRP-2, at 11 (Rev. 3)).

D. Uncollectible Expense

1. Introduction

During the test year, National Grid booked $62,292,694 in bad debt expense (uncollectible expense) related to its total operations (Exh. NG-RRP-2, at 4, 5, 19 (Rev. 3)). The Company proposes to decrease its total bad debt expense by $44,676,591 over the test year level based on the application of a bad debt ratio of 1.23 percent to delivery service revenues to arrive at delivery-related bad expense of $17,616,103 (Exhs. NG-RRP-1, at 23; NG-RRP-2, at 19 (Rev. 3)).[131]

The Company calculated its delivery service related bad debt ratio by dividing its total delivery service net write-offs for the twelve-month periods ending on June 30, 2013, June 30, 2014, and June 30, 2015 of $46,996,526 by its total delivery service retail revenues for that same three-year period of $3,826,016,551 (Exh. NG-RRP-2, at 19 (Rev. 3)). This calculation results in a bad debt ratio of 1.23 percent (Exh. NG-RRP-2, at 19 (Rev. 3)). The Company then multiplied the bad debt ratio of 1.23 percent by test year normalized delivery service revenues of $1,434,137,931,[132] to arrive at a bad debt expense of $17,616,103 (Exh. NG-RRP-2, at 19 (Rev. 3)).[133] The resulting bad debt expense of $17,616,103 represents a decrease of

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131 The supply-related portion of the bad debt expense is recovered through basic service rates. Therefore, the bad debt ratio is applied to only the delivery service revenues.

132 In the calculation of delivery service revenues in its initial filing, the Company did not include the adjustments for the low-income discount (a $61,180,895 credit) and the net metering lost distribution revenues (a $23,760,587 credit) (RR-DPU-49 & Att.).

133 Any discrepancies in amounts are the result of rounding the bad debt ratio, which the Company computes using a floating decimal of 1.2283409 (see Exh. NG-RRP-2, at 19 (Rev. 3)).

$44,676,591 when compared to the Company's test year level of expense of $62,292,694 (Exh. NG-RRP-2, at 19 (Rev. 3)).

The Company also calculated a bad debt expense associated with the proposed revenue increase. The Company multiplied the bad debt ratio of 1.23 percent by its proposed revenue increase of $201,900,249, to arrive at a proposed bad debt adjustment of $2,480,023 (Exh. NG-RRP-2, at 2, 19 (Rev. 3)).

2. Positions of the Parties

The Company asserts that it has properly calculated its uncollectible expense adjustment consistent with the Department precedent (Company Brief at 54-55, citing D.P.U. 14-150, at 158; D.P.U. 07-71, at 106-109; D.P.U. 96-50 (Phase I) at 71). No other party addressed the Company's bad debt calculations on brief.

3. Analysis and Findings

The Department permits companies to include for ratemaking purposes a representative level of bad debt in their cost of service. D.P.U. 09-39, at 164; D.P.U. 96-50 (Phase I) at 70-71; Commonwealth Electric Company/Cambridge Electric Light Company, D.P.U. 89-114/90-331/91-80 (Phase I) at 137-140 (1991). The Department has found that the use of the most recent three years of data available is appropriate in the calculation of bad debt expense. D.P.U. 96-50 (Phase I) at 71. A company's bad debt ratio is derived by dividing the three-year delivery service net writ-offs by the delivery service billed revenues for the same period. Western Massachusetts Electric Company, D.P.U. 84-25, at 113-114 (1984); D.P.U. 1720, at 27; Massachusetts-American Water Company, D.P.U. 1700, at 22 (1984). This bad debt ratio is then multiplied by test year delivery service billed revenues, adjusted for any distribution revenues 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.

The Department has reviewed the Company's bad debt calculations, the materials supporting the calculations, and other related record evidence (Exhs. NG-RRP-1, at 23; NG-RRP-2, at 2, 4, 5, 19 (Rev. 3); WP-NG-RRP-12; AG-DJE-1, at 7-10 & Sch. DJE-2; NG-RRP-Rebuttal-1, at 37-39; AG-DJE-Rebuttal-1, at 3; DPU-12-8; DPU-12-9; DPU-12-10; AG-2-30; AG-14-8; Tr. 14, at 1574-1576; RR-DPU-49). The Department concludes that the method used by the Company to calculate its uncollectible expense adjustments is consistent with the Department precedent. D.P.U. 09-39, at 164; 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 I) at 137-140. Therefore, the Department approves the application of the Company's delivery service related bad debt ratio of 1.23 percent, applied to test year delivery service revenues (Exh. NG-RRP-2, at 2, 19 (Rev. 3)).

As set forth above, application of the 1.23 percent bad debt ratio to the test year normalized delivery service revenues of $1,434,137,931, produces a bad debt expense of $17,616,103 (Exh. NG-RRP-2, at 19 (Rev. 3)). During the test year, the Company booked $62,292,694 in bad debt expense related to its total operations (Exh. NG-RRP-2, at 4, 5, 19 (Rev. 3)). Accordingly, the Department approves the Company's proposed decrease to its test year cost of service in the amount of $44,676,591.

Further, as set forth above, the Company calculated a bad debt expense of $2,480,023 associated with its proposed revenue increase (Exh. NG-RRP-2, at 2, 19 (Rev. 3)). Applying the same 1.23 percent bad debt ratio set forth above to the distribution revenue increase approved in this case of $169,670,239 results in a bad debt expense in the amount of $2,084,129. Accordingly, the Department reduces the Company's proposed cost of service by $395,894.

E. Depreciation Expense

1. Introduction

During the test year, National Grid booked $123,025,248 in depreciation expense (Exh. NG-RRP-2, at 27 (Rev. 3)).[134] The Company proposes to increase its depreciation expense by $3,650,455 to $126,675,703, based on a "technical update" of the depreciation study provided in the Company's previous rate case, D.P.U. 09-39 ("2009 Depreciation Study") (Exhs. NG-RRP-2, at 27 (Rev. 3); NG-REW-1, at 3; NG-REW-2). The technical update results in a reduction in the Company's current composite depreciation accrual rate from 3.19 percent to 3.18 percent (Exh. NG-REW-2, at 36).

The Company's depreciation accrual rates include a provision for salvage (Exhs. NG-REW-1, at 7; NG-REW-2, at 5). When National Grid retires plant, the associated scrap materials are initially returned to crew barns, where they are then transferred to 40-foot containers (Tr. 2, at 212-213). These containers are periodically shipped to National Grid's investment recovery operation in Syracuse, New York, where the materials are processed and sold at auction, with the proceeds credited to standing retirement work in progress blanket work

134 This amount excludes $2,527,499 in depreciation expense associated with Nantucket Electric's submarine cables and $1,671,463 in depreciation expense associated with SmartGrid (Exh. NG-RRP-2, at 27 (Rev 3)). The Company excluded this depreciation expense because the cost of the Nantucket submarine cables and these SmartGrid expenses are recovered through separate mechanisms (Exhs. DPU-31-6; DPU-31-7).

orders[135] (Exh. AG-18-9; Tr. 2, at 213). In March of 2015, National Grid transferred to their respective plant accounts $26,225,351 in salvage that had been accumulated in MECo's blanket work orders between 2007 and March 2015 to their respective plant accounts (Exhs. AG-18-9; AG-30-1, Att.).

2. Company's Depreciation Technical Update

The Company did not perform a full depreciation study in which projection curves, projection lives and future net salvage rates are estimated from a statistical analysis of recorded retirements and net salvage realized in the past (Exh. NG-REW-1, at 3). Instead, the Company performed a technical update ("2015 Technical Update") of the 2009 Depreciation Study (Exhs. NG-REW-1, at 3; NG-REW-2). A technical update generally retains the parameters developed and/or approved in the most recent full depreciation study, and adjusts depreciation rates for known and measurable changes in the age distributions of surviving plant, depreciation reserves, and average net salvage rates that have occurred over the passage of time (Exh. NG-REW-1, at 3). A technical update, therefore, is intended to align a company's depreciation rates with the accounting year during which the rates will become effective (Exh. NG-REW-1, at 3).

The 2009 Depreciation Study was based on plant data as of the end of the test year used in D.P.U. 09-39 (i.e., December 31, 2008), and employed the remaining life method (Exh. AG-3-40, at 19). Under the remaining life method, the net un-depreciated plant investment, net of salvage, is assigned through equal annual depreciation charges over the

135 Because of the limited amount of scrap materials generated by Nantucket Electric and prohibitive transport costs associated with ferrying containers off the island, scrap sales associated with Nantucket Electric are minimal (Exh. NG-DJD-Rebuttal-1, at 13; Tr. 2, at 220).

remaining estimated life of the property (Exh. AG-3-40, at 19). For most of its plant accounts, the Company uses the retirement rate method[136] to develop an average service life ("ASL") for each account by plotting life table data that were then fitted to Iowa-type survivor curves[137] to determine the appropriate survivor curve for these accounts[138] (Exh. NG-REW-1, at 6-7).

The steps involved in preparing a technical update generally include: (a) data collection; (b) calculation of service life statistics; (c) computation of average net salvage rates; (d) rebalancing of depreciation reserves; and (e) development of accrual rates (Exh. NG-REW-1, at 5). The Company explains that data was collected and applied by documenting plant accounting and depreciation reserve transactions from 2009 through 2014, and age distributions of surviving plant until December 31, 2014, which the Company's depreciation consultants then added to its 2009 Depreciation Study data (Exh. NG-REW-1, at 3). The Company matched accounting entries with transaction codes to identify and distinguish various types of plant accounting transactions (Exh. NG-REW-1, at 3-4).

The Company states that with the exception of certain general plant categories for which amortization accounting previously has been approved, the depreciation rates developed in the

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136 The retirement rate method is an actuarial method of deriving survivor curves based on the average rates at which property of each age group is retired by the Company over the period of time included in the depreciation study (Exh. NG-6, at 77).

137 Iowa curves are frequency distribution curves that were initially developed at the Iowa State College Engineering Experiment Station during the 1920s and 1930s; these curves are widely accepted in determining average life frequencies for utility plant. Boston Edison Company/Cambridge Electric Light Company/Commonwealth Electric Company/Canal Electric Company, D.T.E. 06-40, at 66-67 n.44 (2006). Initially, 18 curve types were published in 1935; four additional survivor curves were identified in 1957. D.P.U. 09-39, at 168 n.106.

138 The ASL and Iowa curve are customarily reported as a combined figure; for example, a "75-R2.5" curve refers to an ASL of 75 years combined with an R2.5 Iowa curve.

2015 Technical Update were calculated using the straight line method, vintage group procedure, and remaining life techniques (Exh. NG-REW-1 at 7). The Company then developed composite life statistics for each required account (Exh. NG-REW-1, at 7).

3. Attorney General's Depreciation Analysis

The Attorney General challenges the underlying premises of the Company's proposed depreciation accrual rates. According to the Attorney General, National Grid's 2015 Technical Update was limited to updating various balances and salvage data, and that its failure to update projection curves, projection lives, future cost of removal and gross salvage rates resulted in accrual rates that are virtually identical to the Company's existing rates (Exh. AG-WDA-1, at 8-10).

The Attorney General identifies other deficiencies indicated by the 2015 Technical Update. First, the Attorney General contends that while the 2015 Technical Update indicates that National Grid's theoretical depreciation reserve[139] should be $1,492,421,587, the Company's salvage practices have resulted in a recorded depreciation reserve of $1,655,620,338, indicating a depreciation reserve surplus of $163,198,751 as of December 31, 2014[140] that continues to grow (Exhs. AG-WDA-1, at 8, 10, 13-15).

The Attorney General states that this surplus situation has been further exacerbated by the Company's failure to properly treat salvage (Exh. AG-WDA-1, at 10-15). The Attorney General

139 The theoretical depreciation reserve represents the amount that should be in the depreciation reserve if the depreciation accrual rates presently in effect were to remain in use until all of that company's plant in service as of that date of the reserve calculation has been retired (Exh. AG-WDA-5, at 3; Tr. 13, at 1509).

140 The Attorney General adds that because of the Company's failure to properly record salvage, the depreciation reserve surplus was actually $189,048,306 as of that date (Exh. AG-WDA-1, at 10).

explains that while the USOA-Electric Companies requires that salvage be credited to the depreciation reserve, the Company accumulated salvage in blanket work orders for a number of years, and only credited the salvage on March 15, 2015, after the completion of the 2015 Technical Update (Exh. AG-WDA-1, at 4-7). The Attorney General states that if the Company had adhered to the salvage recording requirements of the USOA-Electric Companies, an additional $25,849,645 relating to salvage for the years 2007 through 2014 would have been credited to National Grid's depreciation reserve as of December 31, 2014 (Exh. AG-WDA-1, at 5-8).[141]

Further, the Attorney General notes that according to the National Association of Regulatory Utility Commissioners' Public Utility Depreciation Practices Manual (August 1996) ("NARUC Manual"), a utility should take immediate action to reduce depreciation imbalances, such as the implementation of revised depreciation accrual rates (Exh. AG-WDA-1, at 12, 16-18), Despite this obligation, however, the Attorney General estimates that under the Company's proposed accrual rates, it would take over 500 years to pass this surplus back to customers (Exh. AG-WDA-1, at 10-11),

Next, the Attorney General contests National Grid's proposed accrual rates. Specifically, the Attorney General notes that National Grid's proposed ASLs are, on average, shorter than the Department-approved ASLs currently in use by Western Massachusetts Electric Company ("WMECo") and NSTAR Electric Company ("NSTAR Electric") for most of the larger plant

141 In her initial testimony, the Attorney General added the $25,849,645 surplus back to the Company's depreciation reserve to develop her proposed accrual rates (Exh. WDA-1, at 8; AG-WDA-3). On rebuttal testimony, the Attorney General determined that, given the complexities and relatively small dollar effects, no such adjustment was necessary, and thus revised her accrual rates accordingly (Exhs. AG-WDA-Rebuttal-1, at 4-5; AG-WDA-Rebuttal-2).

accounts (Exhs. AG-WDA-1, at 21; AG-WDA-4). The Attorney General performed an actuarial analysis for each Company plant account developing ASLs, Iowa curves, and salvage factors using the formulas and requirements for an actuarial analysis that are set forth in the NARUC Manual (Exhs. AG-WDA-34, at 9; AG-WDA-1, at 20-21; AG-WDA-4). Based on her analysis, the Attorney General calculated different accrual rates for 26 of the Company's 31 transmission, distribution, and depreciable general plant accounts (Exhs. AG-WDA-3, at 5, 9; AG-WDA-Rebuttal-2; AG-WDA-Rebuttal-3). These accrual rates produce a composite accrual rate of 2.77 percent versus the Company's proposed composite accrual rate of 3.18 percent (Exhs. AG-WDA-Rebuttal-1, at 4-5; AG-WDA-Rebuttal-2, at 2).

4. Positions of the Parties

a. Attorney General

i. Introduction

The Attorney General offers a number of recommendations concerning the Company's depreciation rates and practices (Attorney General Brief at 63-64). First, the Attorney General recommends that the Department require the Company to record salvage within 18 months of the retirement of its assets (Attorney General Brief at 63). Second, the Attorney General recommends that the Department adopt her depreciation accrual rates and reject the Company's 2015 Technical Update (Attorney General Brief at 63, citing Exhs. AG-WDA-1; AG-WDA-2; AG-WDA-3; AG-WDA-4; AG-WDA-Rebuttal-1; AG-WDA-Rebuttal-2). Finally, the Attorney General recommends that the Company's depreciation rates should be recalculated to account for retired plant that she contends had not been removed from National Grid's gross plant accounts (Attorney General Brief at 63-64).

ii. Salvage Accounting

The Attorney General argues that National Grid misrepresents its net rate base, that the Company has been doing so for several years, and has been commensurately over charging ratepayers (Attorney General Brief at 64). The Attorney General contends that from 2007 through 2014, National Grid failed to record $25,849,645 of salvage to its plant accounts at the time plant was retired, and instead allowed this balance to accumulate in retirement work in progress blanket work orders that had been kept open (Attorney General Brief at 65, citing Exhs. AG-18-9, AG-30-9). Further, the Attorney General claims that National Grid did not credit the accumulated salvage for those years to the depreciation reserve until March 31, 2015, as opposed to crediting salvage to the depreciation reserve when the assets were retired (Attorney General Brief at 65, citing Exh. NG-DJD-Rebuttal-1, at 4). In addition, she asserts that National Grid's failure to record salvage cannot be reasonably attributed to National Grid's SAP implementation issues because the Company had stopped recording salvage several years before the inception of the SAP project on November 5, 2012 (Attorney General Brief at 65-66, citing Exh. NG-MLK-1, at 29).

The Attorney General argues that National Grid's failure to properly record salvage violated the Department's accounting requirements (Attorney General Brief at 64-65; Attorney General Reply Brief at 46-47). More specifically, she contends that the Department requires electric distribution companies to maintain their books in accordance with the USOA-Electric Companies (Attorney General Brief at 65). According to the Attorney General, the USOA-Electric Companies requires that at the time depreciable utility plant is retired, the account shall be charged with both the book cost of the property being retired and the cost of removal, and shall be credited with the salvage value and any other amounts recovered, such as insurance proceeds (Attorney General Brief at 65, citing 18 CFR Part 101, Account 108(B)).[142] Instead, the Attorney General alleges that the Company accumulated $25,849,645 of salvage in retirement work in progress blanket work orders from 2007 through 2014 that it kept open during this period (Attorney General Brief at 65, citing Exhs. NG-DJD-Rebuttal-1, at 4; AG-18-9; AG-30-9).

The Attorney General argues that the Company's violations of salvage accounting requirements had the effects of both inflating the Company's rate base and making it "impossible" to properly evaluate the Company's salvage rates used to derive its depreciation accrual rates (Attorney General Brief at 66, 69-70). According to the Attorney General, the Company's failure to record salvage in 2007 and 2008 attributable to MECo resulted in a rate base that was overstated by $4,992,994 (Attorney General Brief at 66, citing Exh. AG-30-1, Att. at 1). The Attorney General calculates that, based on the 7.85 percent overall rate of return granted to National Grid in D.P.U. 09-39, the Company has collected $391,950 in excessive returns during each of the years that the rates set by D.P.U. 09-39 have been in effect, thus producing an over-collection of over $2 million over the past six years (Attorney General Brief at 66-67). Moreover, the Attorney General points out that, because these dollars were included in base rates, the Department is "powerless" to return the money to customers due to the prohibition on retroactive ratemaking (Attorney General Brief at 67, citing Fitchburg Gas and Electric Light Company v. Department of Telecommunications and Energy, 440 Mass. 625,

142 The Attorney General points out that there is nothing in 220 C.M.R. § 51.02 or § 51.03 that modifies the USOA-Electric Companies' requirements regarding the recording of salvage (Attorney General Brief at 65).

637–38 (2004), citing Boston Edison Company v. Department of Public Utilities, 375 Mass. 1, 6 (1978)).

Further, the Attorney General argues that the Company's failure to properly record salvage has resulted in excessive charges being recovered through the CapEx mechanism (Attorney General Brief at 67).[143] Specifically, the Attorney General alleges that because the Company continued to withhold tens of millions of dollars in salvage since 2008 (the Company's test year in D.P.U. 09-39), this failure to properly record salvage would have caused the Company to overcharge customers in each and every year up to and including the 2014 reconciliation year in its CapEx dockets (Attorney General Brief at 67, citing Exh. AG-30-1, Att. 1).[144] However, the Attorney General asserts that because the CapEx is a reconciling mechanism, the Department can order retroactive adjustments and return these excess collections to ratepayers with interest (Attorney General Brief at 67, citing Fitchburg Gas and Electric Light Company v. Department of Telecommunications and Energy, 440 Mass. at 637–38 (holding that the rule against retroactive ratemaking does not apply to rate mechanisms outside of base rates); Fitchburg Gas and Electric Light Company, D.T.E. 99-66-A at 28 (2001)). Consequently, the Attorney General recommends that the Department open a proceeding to return the over-collection with interest to ratepayers (Attorney General Brief at 67).[145]

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143 As discussed in Section V above, the Company's CapEx mechanism is now known as the CIRM.

144 The Attorney General identifies the following CapEx dockets: D.P.U. 10-79 (2009); D.P.U. 11-60 (2010); D.P.U. 12-48 (2011); D.P.U. 13-84 (2012); D.P.U. 14-95 (2013); and D.P.U. 15-82 (2014) (Attorney General Brief at 67).

145 The Attorney General provides that in the alternative, if the Department elects to keep the Company's capital tracker, the Department could direct the Company to refund

Additionally, the Attorney General recommends that the Department direct National Grid, on a to going forward basis, to credit salvage amounts to the accumulated provision for depreciation as required by the USOA-Electric Companies, and record such salvage amounts to the data file that would be used in a depreciation study within 18 months of National Grid's selling any Company asset or otherwise accruing salvage (Attorney General Brief at 68-69).

Finally, the Attorney General recommends that the Department set National Grid's allowed return on common equity at the lowest end of the range of reasonability, as a result of the Company's alleged systematic failure to maintain its salvage records in accordance with Department requirements (Attorney General Brief at 67-68; Attorney General Reply Brief at 47). The Attorney General considers this reduction to be reasonable and appropriate, and asserts that it will prevent National Grid and other companies from engaging in practices that result in the misrepresentation of their rate base in the future (Attorney General Brief at 69).

iii. Depreciation Analysis

The Attorney General notes that National Grid relies on the same life-curves as those approved in D.P.U. 09-39 (Attorney General Brief at 70; Attorney General Reply Brief at 36). The Attorney General maintains that as a result of the Company's use of these life-curves, National Grid has proposed to use in most cases shorter depreciation lives that are appropriate (Attorney General Brief at 70; Attorney General Reply Brief at 36). The Attorney General asserts that the Department should lengthen the Company's proposed depreciation lives for a number of reasons.

customers as part of its next capital investment report filing (Attorney General Brief at 67 n.26).

First, the Attorney General argues that the use of life curves will assist in remedying what she considers to be excess depreciation reserves. According to the Attorney General, the Company has a relatively large $163 million reserve surplus, a disparity that she maintains is growing and warrants immediate adjustment (Attorney General Brief at 70; Attorney General Reply Brief at 36, 40, citing Exh. NG-6, at 189). The Attorney General rejects the notion that when delayed retirements are included, the Company's pro forma excess reserve balance was only $77 million at the end of 2015 (Attorney General Reply Brief at 40-41). According to the Attorney General, the Company's reserve calculations fail to credit approximately $130 million in depreciation expense booked to both MECo's and Nantucket Electric's reserves for 2015 (Attorney General Reply Brief at 41, citing Exhs. NG-DJD-Rebuttal-2; AG-5; Tr. 2, at 202; Tr. 13, at 1486–1487). Thus, the Attorney General contends that had National Grid conducted its own analysis properly, factoring delayed retirements into the calculation actually suggests that the Company's depreciation reserve would have been $200 million, which is even higher than the surplus reported in its 2015 Technical Update (Attorney General Reply Brief at 41).

Second, the Attorney General argues that her proposed life curves fit the data better than those that the Company proposes to continue using (Attorney General Brief at 71). In this regard, the Attorney General contends that the Company's SAP implementation issues had no effect on her analysis of post-2008 data, because (1) the Company did not begin the SAP implementation process until late in 2012, and (2) her own sensitivity analyses demonstrates that, even if all of the data from the SAP implementation period were excluded, her recommended life curves still fit the data better than the Company's current life curves for all but one account (Attorney General Reply Brief at 37-38).

Third, the Attorney General points out that the Company's current ASLs are comparably shorter than those in effect for NSTAR Electric and WMECo (Attorney General Brief at 71; Attorney General Reply Brief at 36). The Attorney General argues that National Grid has failed to offer any evidence that a comparison of the Company to either NSTAR Electric or WMECo is inappropriate (Attorney General Reply Brief at 42).[146]

Finally, the Attorney General contends her depreciation witness is highly familiar with electric utility facilities, and was able to obtain all necessary information through the discovery process in order to analyze the Company's ASLs (Attorney General Reply Brief at 39-40). In this regard, she asserts that the Company's criticism that her witness failed to conduct a site visit of National Grid's facilities is without merit (Attorney General Reply Brief at 39).

Based on her analysis, the Attorney General proposes increased ASLs and different net salvage amounts for the Company's transmission and distribution plant accounts (Attorney General Brief at 71; Attorney General Reply Brief at 36). The Attorney General calculates that her recommended accrual rates produce a reduction of $15,937,950 in the Company's proposed annual depreciation expense (Attorney General Brief at 70, citing Exhs. AG-WDA-3-Rebuttal, at 2; NG-RRP-2, at 27.).

iv. Delayed Retirement

The Attorney General recommends that the Department adjust the Company's proposed depreciation expense for delayed retirements that are included in the Company's plant in service (Attorney General Brief at 82). According to the Attorney General, the Company concedes that

146 By way of example, the Attorney General contends that there is no record evidence suggesting that National Grid's underground conduit can be expected to have a shorter life than underground conduit installed in the service territories of other Massachusetts electric distribution companies (Attorney General Reply Brief at 39).

it overstates its gross plant in service for the test year by amounts that actually should have been booked as retirements (Attorney General Brief at 82, citing Tr. 2, at 228; RR-AG-28). The Attorney General claims that the Company's delinquency in reporting delayed retirements in the year in which they occurred is specifically prohibited by FERC and Department regulations (Attorney General Reply Brief at 45-46).[147] The Attorney General recommends that the Department set the Company's ROE at the lowest end of the range of reasonableness for its purported misrepresentation of gross and net plant resulting from delayed retirements (Attorney General Reply Brief at 46-47).

Further, the Attorney General recognizes that when National Grid retires plant booked to Account 101, it appropriately makes a corresponding adjustment to the accumulated depreciation reserve in Account 108, thus producing a rate base-neutral outcome (Attorney General Reply Brief at 43 n.14). Despite this rate base neutrality, however, the Attorney General points out that because depreciation expense is calculated based on gross plant in service and not net rate base, debits entries to Account 108 do not make the delayed retirements revenue neutral in terms of depreciation expense (Attorney General Reply Brief at 43). The Attorney General notes that while National Grid is correct in that delayed retirements should not trigger a rate base adjustment, the Company does not dispute that a commensurate accounting of depreciation expense is required (Attorney General Reply Brief at 43, citing Company Brief at 160).

In her initial brief, the Attorney General proposed to calculate the depreciation expense adjustment by multiplying her recommended composite depreciation accrual rate of 2.77 percent

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147 The Company defines asset unitization as the process by which the charges accumulated in the completed construction not classified account at a gross level are classified by accounts and retirement units (Exh. NG-DJD-Rebuttal-1, at 10).

by $107,400,000 in gross plant, producing an adjustment of $2,974,980 (Attorney General Brief at 84-85). On her reply brief, the Attorney General accepted the Company's proposal to calculate the adjustment by multiplying a composite depreciation accrual rate by $52,697,141 in plant that actually had been physically retired prior to the end of the test year, but remained recorded on the books after June 30, 2015 (Attorney General Reply Brief at 43). Based on her proposed depreciation accrual rates, the Attorney General calculates an adjustment of $1,459,711 under this approach[148] (Attorney General Reply Brief at 43).

b. Company

i. Introduction

National Grid defends its decision to confine its depreciation analysis in this proceeding to its 2015 Technical Update (Company Reply Brief at 55-56). According to National Grid, the SAP stabilization process occurred from November 2012 to September 2014 (Company Reply Brief at 56). The Company argues that the stabilization process resulted in what it considered to be "unavoidable" disruptions in the processing of plant transactions and that these disruptions could have affected retirement and net salvage data recorded during this period, and, therefore, would have adversely affected the Company's ability to estimate projection curves, projection lives, and future net salvage rates (Company Reply Brief at 56, citing Exhs. NG-MLR-1, at 26-29; AG-3-1). Thus, the Company asserts that under these conditions, a full depreciation study using plant data documented before the SAP stabilization would have taken considerable time and effort to conduct, and had the potential to produce results that were unreliable and inconsistent with reasonable utility practice (Company Reply Brief at 56, citing Exh. AG-3-1,

148 $52,697,141 * 2.77 percent = $1,459,711.

at 2). As such, the Company concludes that although under normal circumstances a full depreciation study would have been warranted, in this case, a technical update could support the analysis required for calculating depreciation expense, with the 2009 Depreciation Study being used for limited support (Company Reply Brief at 56).

ii. Salvage Accounting

National Grid argues that the Attorney General's recommendations concerning the crediting of salvage to accumulated depreciation are unnecessary (Company Brief at 157). According to the Company, after it first experienced SAP implementation issues, National Grid encountered delays in processing plant transactions, such as asset unitization and retirements (Company Brief at 157-158, citing Exhs. NG-DJD-Rebuttal-1, at 5; AG-29-4). The Company argues that even after the SAP system was stabilized, there was a backlog of transactions to be processed that caused a delay in recording salvage, as well as the need to resolve conversion, data, and mapping errors that had occurred (Company Brief at 157-158, citing Exh. NG-DJD-Rebuttal-1, at 6). The Company contends that had the retirements and associated cost of removal pertaining to work orders placed in service prior to December 31, 2014 been accounted for in the proper period, rather than through a retrospective correction, the pro-forma excess reserve would be approximately $77 million, an imbalance that National Grid represents as being within the ten-percent deviation that is acceptable in the utility industry (Company Brief at 159, citing Exh. NG-DJD-Rebuttal-1, at 12; Tr. 2, at 239).

Moreover, the Company attributes delays in unitizing the salvage proceeds associated with blanket work orders to the logistical challenge associated with classifying physical containers full of scrap materials generated from capital work orders for identification and disaggregation into their respective FERC accounts (Company Brief at 156, citing Exh. NG-DJD-Rebuttal-1, at 10-11). National Grid maintains that it currently is not experiencing any undue delays in recording salvage due to SAP implementation issues, and considers there to be no need for an "arbitrary" 18-month requirement, particularly for situations where reasonable delays can occur in recording all transactions associated with asset retirements (Company Brief at 158).

Additionally, the Company denies the Attorney General's assertion that net rate base in any year 2007 through 2015 was overstated for ratemaking purposes (Company Brief at 155-156, citing Exh. AG-WDA-Rebuttal-1, at 4).[149] The Company contends that the delays cited by the Attorney General were primarily due to the delays in processing salvage material as noted above, and that such delays did not purposefully distort its net rate base or erroneously postpone booking salvage for the period of 2007 through 2014 (Company Brief at 155). As such, the Company argues that the Attorney General's assertions on this point should be disregarded (Company Brief at 156).

The Company also contends that the Attorney General's assertions regarding over-collection through the CapEx are groundless, because total plant additions and cost of removal surpassed the $170 million cap each year from 2009 through 2015 (Company Brief at 155, citing RR-DPU-13). The Company asserts that the annual accumulations totaling $25,849,645 of salvage would not have altered recovery under the CapEx in any one year (Company Brief at 155, citing RR-DPU-13). Thus, the Company rejects any notion that it

149 National Grid asserts that the Attorney General's depreciation witness made no further mention of the Attorney General's allegations of an overstated rate base once the Company demonstrated that the witness's proposed adjustment was actually one-sided (Company Brief at 155-156).

"overstated" its net rate base in both D.P.U. 09-39 and its annual CapEx filings, and over-collected more than $2 million during the period in question through base rates and the CapEx (Company Brief at 155-157). For these reasons, National Grid argues that the Attorney General's recommendation to decrease the Company's ROE is baseless (Company Brief at 155).

iii. Depreciation Analysis

National Grid submits that it is not proposing to change the ASLs and survivor curves approved in its last rate case, D.P.U. 09-39 (Company Brief at 152, citing Exhs. NG-REW-1, at 4; NG-REW-2, at 17-18; AG-3-1). The Company asserts that its survivor curves were estimated in the 2009 Depreciation Study from a statistical analysis of past retirement experience along with forecasting for future changes (Company Brief at 152, citing Exh. NG-REW-1, at 4-5). The Company notes that beginning with its 2009 Depreciation Study, it next recorded statistics for each vintage in its technical update to account for known and measurable changes in the age distributions of surviving plant from December 31, 2008 through December 31, 2014 (Company Brief at 152, citing Exh. NG-REW-1, at 5).

The Company questions the Attorney General's proposed longer survivor curves, and denies the assertion that the Attorney General's curves have a statistically superior fit and that the reserve balance is increasing (Company Brief at 158, citing Attorney General Brief at 70-71). Rather, National Grid argues that the Attorney General's proposed ASL curves are faulty because they are based on inadequate historical data from 2009 and 2014, which was the result of the Company's SAP implementation issues (Company Brief at 158, citing Exh. AG 3-1).

iv. Delayed Retirement

The Company disputes the level of the Attorney General's proposed depreciation expense calculation (Company Brief at 160-161). National Grid contends that when it retires plant booked to Account 101, it appropriately makes a corresponding adjustment to the accumulated depreciation reserve in Account 108, which produces a rate base-neutral outcome and obviates the need for any rate base adjustment (Company Brief at 160). Moreover, the Company contends that the Attorney General's claimed $107,400,000 in retired plant actually includes $56,682,851 in plant that had been retired prior to December 31, 2014, but recorded on the Company's books prior to the end of the test year, and thus not recorded in the test year-end balance of gross plant (Company Brief at 161, citing RR-AG-28). Based on its determination that $52,697,141 in retirements was still on the Company's books as of the end of the test year, the Company considers that a depreciation expense adjustment of $1,675,769 would be warranted (Company Brief at 161).

5. Analysis and Findings

a. 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); Boston Edison Company, D.P.U. 1350, at 97 (1983). 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 company reaches a conclusion about a depreciation study that is at variance with that witness's 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; The Berkshire Gas Company, D.P.U. 905, at 13-15 (1982); 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.[150] 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. 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 I) at 54-55. To the extent a depreciation study provides a

150 Subjectivity is especially relevant in the calculation of net salvage factors where the cost to demolish or retire facilities cannot be established with certainty until the actual event occurs. D.P.U. 92-250, at 66; D.P.U. 1720, at 44; D.P.U. 1350, at 109-110.

clear and comprehensive explanation of the factors that went into the selection of accrual rates, such an approach will facilitate Department and intervenor review.

b. Salvage Accounting

The USOA-Electric Companies specifies that salvage shall be charged or credited, as appropriate, to the depreciation reserve. 18 CFR Part 101, Electric Plant Instructions, § 10(B)(2), Account 108; 220 C.M.R. § 51.01. There is no specific time limit beyond a requirement that proper distributions be made upon the completion of a work order. 18 CFR Part 101, Electric Plant Instructions, § 10(B)(2), Account 108; 220 C.M.R. § 51.01.

While National Grid objects to the Attorney General's proposal that salvage be credited within 18 months, the Company recently has instituted measures intended to improve its recording of salvage. Until recently, it was not possible for the Company's investment recovery staff to develop engineering estimates that would allow scrap material to be unitized by FERC plant account (Tr. 2, at 215). The Company has now implemented a process wherein the plant accounting department and investment recovery staff will collaborate to generate engineering estimates to support the unitization of scrap metal proceeds associated with standing blanket work orders (Exh. NG-DJD-Rebuttal-1, at 13; Tr. 2, at 215, 234). The Company represents that this procedure will provide sufficient salvage data to conduct depreciation study analysis at least annually (Exh. NG-DJD-Rebuttal-1, at 13). The Department expects that National Grid's new unitization procedure will allow the Company to complete the salvage recording process well within the 18 months proposed by the Attorney General. We are aware that there may be situations where salvage may remain in a blanket work order for a longer period of time, but we expect that those situations will be relatively rare. Based on the foregoing analysis, the

Department finds that 18 months represents a reasonable period for National Grid to complete the recording of salvage. While we do not mandate the imposition of an 18-month turnaround period at this time, we expect the Company to take reasonable measures to achieve this 18-month objective.

The Company and Attorney General have raised issues concerning depreciation reserve balances, and their effect on both base rates and the CapEx. By their very nature, depreciation accruals are imprecise because they attempt to evaluate the effect of innumerable factors on a particular asset over the useful life of that asset, a process that is necessarily wrought with uncertainty and requires constant review and modification. D.P.U. 12-25, at 308; D.P.U. 200, at 20; Boston Gas Company, D.P.U. 19470, at 48-49 (1978). Consequently, a utility may have shortfalls or surpluses in its depreciation reserve. In the absence of evidence of mismanagement of a company's depreciation accrual rates, the Department will not substitute its own judgment for that of management. D.P.U. 12-25, at 90; Barnstable Water Company, D.P.U. 93-223-B at 6-7 (1994); D.P.U. 19470, at 49-50. Cf. Wannacomet Water Company, D.P.U. 13525 (1962) (company continued to use inadequate depreciation accrual rates even after Department directed corrective action, resulting in depreciation shortfall of 115 percent).

The 2015 Technical Update indicates a theoretical depreciation reserve of \$1,492,421,587 as of December 31, 2014, versus a booked depreciation reserve of \$1,655,620,338 as of that same date (Exh. NG-REW-2, at 40). While the Attorney General and Company each advocate various adjustments associated with retirements and cost of removal through June 30, 2015, even using the numbers offering the most favorable light to the Attorney General's position, the depreciation reserve surplus would be \$189,348,096, representing 12.66

percent of the theoretical reserve provided in the 2015 Technical Update (Exh. NG-DJD-Rebuttal-2). The Department does not consider this depreciation reserve imbalance to be so excessive as to warrant corrective measures. D.P.U. 93-223-B at 5, 6-7 (no adjustment for depreciation reserve shortfall of 11.38 percent).[151] To the extent that National Grid's new salvage recording procedures produce a more accurate depiction of the role salvage plays in the development of National Grid's depreciation reserve and depreciation accrual rates, these improvements will be incorporated in the Company's next depreciation study.

Based on these considerations, the Department finds that the Company's salvage practices have not resulted in an overstatement of its rate base. The Department further finds that the Company's salvage practices have not resulted in an over-recovery of costs through the CapEx component. Accordingly, the Department declines to make any adjustment to the Company's ROE for its salvage recording practices. The Department directs National Grid to conduct a full depreciation study in conjunction with its next base rate case, and to provide that study as part of its initial filing in that case.

c. Depreciation Analysis

National Grid relies on the 2015 Technical Update as the basis for its proposed accrual rates. As described above, a technical update generally retains the parameters developed and/or approved in a company's most recent full depreciation study, and adjusts depreciation rates for known and measurable changes in the age distributions of surviving plant, depreciation reserves, and average net salvage rates that have occurred since the period covered by the full depreciation

151 Even at the $200 million depreciation reserve surplus claimed by the Attorney General on brief, the surplus would represent only 13.4 percent of the 2015 Technical Update's theoretical reserve.

study (Exh. NG REW-1, at 3). The Department has accepted the use of technical updates in lieu of a full analysis. See D.P.U. 95-118, at 159-161 (Department accepted technical update of cost allocation study originally based on 1989 data). In this case, however, a number of difficulties have been identified, particularly with respect to the recording of salvage. While the Department is persuaded that the Company's salvage recording practices have not resulted in excessive depreciation surpluses, we find that National Grid's salvage and retirement recording practices are such as to raise questions as to the validity of the 2015 Technical Update. Given these concerns, the Department finds that the 2015 Technical Update does not provide sufficient basis on which to revise National Grid's depreciation accrual rates. Therefore, the Department will not use the results of the 2015 Technical Update to determine the Company's depreciation accrual rates.

Turning to the Attorney General's depreciation analysis, the Company raises a number of concerns as to its reliability. First, National Grid challenges the Attorney General's consultant for his failure to conduct a site visit of the Company's facilities. As noted above, depreciation studies rely not only on statistical analysis, but also on the judgment and expertise of the preparer. Because depreciation studies involve consideration of a company's physical assets, the Department has emphasized the importance of a physical inspection of plant assets when conducting a depreciation study. D.P.U. 19037/19037-A at 23; see also D.T.E. 05-27, at 257-258. The Attorney General's consultant obtained what he considered to be all of the necessary information from Company management through discovery, supplemented by his familiarity with other electric distribution facilities (Tr. 13, at 1446-1448). While the Department recognizes that the Attorney General conducted extensive discovery on the issue of depreciation, a site visit would have provided additional information that could have put the Company's written responses into perspective. At the very least, a site visit would have assisted in confirming the Company's responses to the witness through his own observations.

National Grid also challenges the Attorney General's comparison of the Company's ASLs with those of other Massachusetts utilities. While the Attorney General emphasized the dissimilarities of National Grid's ASLs to those of NSTAR Electric and WMECo, she did not demonstrate a significant level of familiarity with the latter two companies (Tr. 14, at 1467-1469). While different companies may have generally similar depreciation accrual rates, a greater familiarity with the characteristics of companies being used as comparisons to the company under examination will assist in identifying differing physical characteristics that may have an effect on depreciable lives and salvage factors.

Further, the Attorney General's analysis relies heavily on historical data from 2009 through 2014 (Exh. AG-WDA-9). Because of the implementation issues the Company experienced during the SAP implementation process, there were unavoidable disruptions in the processing of plant transactions (Exh. AG-3-1). These system disruptions could have affected retirement and net salvage data recorded during this period, and thus affected the statistical analyses required to estimate projection curves, projection lives, and future net salvage rates (Exh. AG-3-1).

More significantly, the Company's salvage and retirements recording practices resulted in the lack of sufficient data to develop a full depreciation study. During the first six months of calendar year 2015 (January 1, 2015 through June 30, 2015), the Company recorded approximately $56.7 million of retirements related to plant placed in service over the years prior to December 31, 2014 (RR-AG-28). While this amount was recorded prior to the test year end and is appropriately recognized in this proceeding, these retirements were not included in the Company's December 31, 2014 plant balances, the point in time used by both the Company and Attorney General for the depreciation database (RR-AG-28, at 2-3). In addition, $50,695,664 in retirements associated with plant placed into service prior to December 31, 2014 was recorded by the Company after the end of the test year, June 30, 2015 (RR-AG-28). Had this information been fully accounted for, it is likely that a more reliable depreciation analysis could have been completed.

Finally, the Attorney General's analysis is largely confined to analysis of the Company's historic database, including partial retirement data through December 31, 2014 (Tr. 13, at 1446-1447). The Attorney General's analysis does not identify any physical changes in property attributable to retirement forces acting outside of the historical data (Tr. 13, at 1447). Although the Department has recognized that consideration of polynomials, conformance indices or hazard rates, can support the robustness of a depreciation study, the Attorney General's analysis does not take these factors into consideration (Exh. AG-WDA-2). See D.P.U. 15-81/D.P.U. 15-81, at 198 n.144; D.P.U. 09-39, at 183-190. Based on the foregoing analysis, the Department finds that the Attorney General's depreciation analysis does not provide a sufficient basis on which to revise National Grid's depreciation accrual rates.

In the absence of an acceptable depreciation study from either party, the Department has relied on the use of a company's then-current depreciation accrual rates. D.P.U. 13-75, at 216; D.P.U. 10-114; D.P.U. 243, at 17. In this case, the Department has rejected the use of both the Company's 2015 Technical Update and the Attorney General's depreciation study. Therefore, the Department finds it appropriate to maintain the use of the Company's current depreciation accrual rates as derived in the 2009 Depreciation Study, and as modified in D.P.U. 09-39. The Department's calculation of the Company's depreciation expense is provided below.

d. Delayed Retirement

In order to derive a company's depreciation expense, depreciation accrual rates are applied to a company's gross depreciable plant in service. D.P.U. 14-150, at 199; D.P.U. 12-25, at 323. Both National Grid and the Attorney General agree that the Company's test year-end plant in service accounts include $52,697,141 in retirements that had been made prior to the end of the test year, but nonetheless remained in the Company's plant investment accounts (Company Brief at 161; Attorney General Reply Brief at 43). This error has no effect on the Company's rate base because when plant is retired, a corresponding entry is credited against the depreciation reserve. 18 CFR Part 101, Electric Plant Instructions, § 10(B); 220 C.M.R. § 51.01. Nonetheless, both parties agree that because depreciation expense is calculated on the basis of gross (versus depreciated) plant, an adjustment to depreciation expense remains warranted. Because this plant has been retired, the Department finds it appropriate to exclude any depreciation expense on these assets from cost of service. D.P.U. 14-120, at 36-37; Hutchinson Water Company, D.P.U. 85-194, at 7, 13 (1986).

The Company proposes to decrease depreciation expense by $1,675,769 (Company Brief at 161).[152] This adjustment appears to represent the $52,697,141 in retired plant multiplied by the Company's proposed composite depreciation accrual rate of 3.18 percent. The Attorney

152 Examination of National Grid's revised revenue requirement schedules indicates that this adjustment has not been incorporated into the Company's revenue requirement calculations (Exhs. NG-RRP-2, at 5, 27 (Rev. 3); NG-RRP-8 (Rev. 3)).

General proposes to decrease depreciation expense by $1,459,711, which she derived by multiplying the $52,697,141 in retired plant by her proposed composite depreciation accrual rate of 2.77 percent (Attorney General Reply Brief at 43). In the absence of detailed plant accounts associated with these retired assets, the Department finds that the use of a composite depreciation accrual rate produces a reasonable level of depreciation expense associated with these retirements.

Neither the Company's nor the Attorney General's selected composite rates, however, had been in use at the time of these plant retirements. The Company's current depreciation accrual rates had been in effect at the time of the retirements; applying these rates to the December 31, 2014 plant balances used as the basis of the parties' depreciation calculations produce a composite accrual rate of 3.19 percent (Exh. NG-REW-1, at 9). On this basis, the Department finds it appropriate to base the depreciation adjustment on a composite depreciation accrual rate of 3.19 percent.

The $52,697,141 in retired plant, multiplied by a composite depreciation accrual rate of 3.19 percent, produces a depreciation expense associated with delayed retirements of $1,680,847. Accordingly, the Department reduces the Company's proposed depreciation expense by $1,680,847 for delayed retirements. Because the Company has made the necessary accounting adjustments to recognize the delayed retirements, the Department declines to make any adjustment to the Company's ROE related to delayed retirements.

e. Conclusion

In order to calculate National Grid's annual depreciation expense, the Department has applied the accrual rates approved by this Order to the Company's depreciable plant balances included in rate base.[153] Based on this analysis, the Department calculates an annual depreciation expense, excluding depreciation associated with SmartGrid investments and Nantucket Electric's undersea cables, of $126,925,161 (Exh. NG-RRP-2, at 27 (Rev. 3)). Excluding the $1,680,847 in depreciation expense associated with unrecorded plant retirements produces a net overall depreciation expense of $125,244,314. This net overall depreciation expense represents an increase of $2,219,066 to the Company's test year depreciation expense, excluding that associated with SmartGrid investments and Nantucket Electric's undersea cables, of $123,025,248. National Grid has proposed an increase of $3,650,455 to its test year depreciation expense. Accordingly, the Department reduces the Company's proposed depreciation expense by $1,431,389.

F. Postage Expense

1. Introduction

During the test year, MECo booked $6,595,462 in postage expense (Exh. AG-1-34, Att. 6, at 17). The Company did not propose any adjustments to its test year postage expense, and thus included postage expense in the balance of test year O&M expenses subject to inflation ("residual O&M expense") component used to derive the inflation allowance (see Exh. NG-RRP-2, at 5-6, 23 (Rev. 3); Tr. 8, at 1358-1359).

153 For Accounts 392 (Transportation Equipment) and 396 (Power Operated Equipment), the Department applied a 6.67 percent amortization rate based on the 15-year amortization of general plant currently in use (Exh. NG-REW-2, at 46).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company failed to recognize that the United States Postal Service ("USPS") postage rates are decreasing, and proposes that the Department reduce the Company's proposed cost of service to eliminate the postage surcharge that was in effect during the test year (Attorney General Brief at 58). The Attorney General contends that the Postal Regulatory Commission ordered the USPS to remove a 4.3 percent exigent surcharge once it had collected $4.6 billion in surcharge revenues, which was expected to occur by April 10, 2016 (Attorney General Brief at 58, citing Exh. AG-14). The Attorney General asserts that the Company's test year cost of service should thus be reduced by $283,605,[154] in order to eliminate the now-terminated postage surcharge from postage expense (Attorney General Brief at 58).

Further, the Attorney General claims that National Grid has overstated its postage expense because the Company includes postage expense in its residual O&M expense (Attorney General Brief at 58). Thus, the Attorney General argues that the Company's residual O&M expense must be reduced by $6,595,462 to recognize that postage expense has been specifically adjusted in the cost of service (Attorney General Brief at 58).

b. Company

National Grid agrees with the Attorney General's recommendation to reduce test year postage expense by $283,605 in order to account for the elimination of the USPS's exigent surcharge of 4.3 percent (Company Brief at 75). The Company also agrees to reduce its residual O&M expense by $283,605 (Company Brief at 76). However, National Grid opposes the

154 $6,595,462 x 0.043 = $283,605

Attorney General's proposal to exclude the remaining $6,311,857 in test year postage expenses from the residual O&M expense, because it maintains that postage rates are likely to experience inflationary pressures (Company Brief at 76).

The Company argues that the expiration of the exigent surcharge was the result of a regulatory directive to the USPS, rather than the product of reduced postal service operating costs, and it further notes that USPS rates are capped by law at the rate of inflation (Company Brief at 75, citing Exh. AG-14). Thus, National Grid contends that the Attorney General unreasonably assumes that USPS services are not subject to inflation, or that there will be no postage rate increases in the future to counteract, or mitigate, the termination of the exigent surcharge (Company Brief at 75). The Company asserts that given the "significant" strain that the elimination of the 4.3 percent surcharge will have on the USPS, the only reasonable conclusion is that postage rates will increase at the rate of inflation in the near future (Company Brief at 76). Therefore, the Company states that its adjusted postage expense should be included in the residual O&M expense (Company Brief at 76).

3. Analysis and Findings

The Department recognizes postage expense as a legitimate cost of doing business. If a postal rate increase – or, in this case, a decrease - occurs prior to the issue of an Order, that resulting rate fluctuation is eligible for inclusion in cost of service as a known and measurable change to test year expense. D.P.U. 14-150, at 206; D.P.U. 10-55, at 286; D.P.U. 08-35, at 108; D.T.E. 05-27, at 194; D.P.U. 88-172, at 23-24; Massachusetts Electric Company, D.P.U. 800, at 29-30 (1982). The elimination of the USPS' 4.3 percent exigent surcharge already has occurred and is quantifiable, and, therefore it is a known and measurable change (Exh. AG-14).

Accordingly, the Department accepts the proposed reduction of $283,605 to test year postage expense.

Turning to the remaining $6,311,857 in postage expense that National Grid seeks to retain in the residual O&M expense, the Company's argument that postage rates could increase in the near future due to inflationary pressures or due to the expiration of the exigent surcharge fails to recognize that postage rate changes are not subject to the same general pressure of inflation. While postage increases may be capped at the level of inflation, such increases are not automatic, but rather result from actions by the Postal Regulatory Commission. D.P.U. 1720, at 21-22. Consequently, future postage rate changes are not known and measurable. Accordingly, the Department rejects the Company's proposal to include postage expense in the residual O&M expense. Therefore, the Department will remove the full test year postage expense of $6,595,462 from the Company's residual O&M expense. The effect of this adjustment is shown on Table 1 of this Order.

G. Property Tax Expense

1. Introduction

During the test year, the Company booked $56,944,818 in property tax expense (Exhs. NG-RRP-1, at 2; NG-RRP-2, at 28 (Rev.3)). National Grid seeks to increase this amount by $2,331,371 to reflect the expected level of property taxes in the rate year (Exhs. NG-RRP-1, at 38; NG-RRP-2, at 28 (Rev. 3)). The Company calculated the estimated rate year level of property tax expense by applying current municipal tax rates to the latest property valuations provided by the Company to each municipality (Exhs. NG-RRP-1 at 38, NG-RRP-2, at 28

(Rev. 3); WP-NG-RRP-17 (Rev. 3); DPU-22-3).[155] The Company excluded from its proposed property tax expense third-party reimbursements associated with the rate year estimated figure, estimated Smart Grid-related property taxes, and property taxes related to construction work in progress ("CWIP") (Exhs. NG-RRP-1, at 39; NG-RRP-2, at 28 (Rev. 3); WP-NG-RRP-17 (Rev. 3); DPU-31-11; DPU-31-12; DPU-31-13).[156]

2. Positions of the Parties

National Grid argues that its proposed municipal property tax expense is calculated in a manner that is consistent with Department precedent, as the proposed expense is based on the most recent property tax bills that the Company received from the various municipalities in which it owns property (Company Brief at 92, citing D.T.E. 02-24/25 at 123; D.P.U. 96-50, at 109). The Company notes that it calculated the proposed adjustment beginning with an adjusted test year municipal tax expense of $56,944,818, and then calculated the estimated rate year level by applying current municipality tax rates to the latest property valuations provided by each municipality (Company Brief at 92, citing Exhs. NG-RRP-1, at 38, NG-RRP-2, at 28 (Rev. 2)). No other party addressed the Company's proposed property tax expense on brief.

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155 For those communities that rely on the Reproduction Cost New Less Depreciation method (see Section IX below) to determine property valuations, the Company estimated the assessed values by first determining the percentage by which the assessed value exceeded the net book value of the Company's personal property in that community for the previous tax year, and then multiplying that percentage by the net book value of the personal property in that community for the current tax year (Exhs. NG-RRP-1, at 38-39; DPU-22-3).

156 The Company received third-party reimbursements from Lightower, a former affiliate of MECo (Exh. DPU-22-11). National Grid pays property taxes on Lightower assets that are attached to the Company's poles, and Lightower reimburses the Company for the property taxes on those assets (Exh. DPU-22-11).

3. Analysis and Findings

The Department's general policy is to base pro forma level of property taxes that should be included in the revenue requirement on the most recent property tax bills from communities in which it has property. D.P.U. 15-80/D.P.U. 15-81, at 166; D.P.U. 14-150, at 209; D.P.U. 12-25, at 330; D.P.U. 08-35, at 150; D.P.U. 96-50 (Phase I) at 108-109; Colonial Gas Company, D.P.U. 84-94, at 19 (1984). The Department holds the record open in a proceeding to receive from the utility the most current tax bills issued by cities and towns. D.P.U. 14-150, at 209; D.P.U. 88-67 (Phase I) at 165-166; D.P.U. 84-94, at 19.

The Company proposes to base its property tax expense on current tax assessments and tax rates, increased by a projection of future increases (Exhs. NG-RRP-1, at 38-39; NG-RRP-2, at 28 (Rev. 3); WP-NG-RRP-17 (Rev. 3); DPU-22-3). The Department generally has rejected the use of projected data to determine a company's property tax expenses. D.P.U. 14-150, at 209-210; D.P.U. 11-01/D.P.U. 11-02, at 280-281; D.P.U. 10-114, at 263; D.P.U. 09-39, at 244; D.P.U. 08-35, at 150; D.P.U. 96-50 (Phase I) at 109-110. Rather, the test year level of property tax expense, adjusted for known and measurable changes (i.e., the most recent property tax bills provided at the close of the record), provides the most reasonable representation of a company's property tax expense and fairly represents this component of its cost to provide service.[157] National Grid's projection of future increases of property tax expense, though derived

157 In certain cases, such as where no property tax bills have yet been issued for a large post-test year plant addition that is being placed into service near the issue date of the Department's Order, the Department has allowed the associated property taxes to be based on the cost of the plant multiplied by the most recent property tax rate. D.P.U. 12-86, at 243-245; D.P.U. 95-118, at 148. That fact situation does not apply here. Further, the Department notes that in D.P.U. 13-75 and D.P.U. 12-25, it appears from the records that the subject company derived its post-test year property tax expense

from current tax assessments, is speculative and does not constitute a known and measurable change based on Department precedent. The Company has offered no persuasive reason to depart from our precedent here. Therefore, we decline to adopt the Company's proposed property tax calculation.

Based on the Company's most recent property valuations and actual property tax rates, National Grid's current property taxes payable to municipalities, fire districts, and water districts total $61,548,504 (Exh. DPU-22-4 & Atts.). The Department accepts this amount as known and measurable. The Department excludes from this total the property taxes associated with Lightower, Smart Grid and CWIP in the amount of $2,516,346 (Exh. NG-RRP-2, at 28 (Rev. 3)). Thus, the Company's final property tax expense is $59,032,158, which represents an increase over the test year amount of $2,087,340. The Company proposed to increase the test year amount of property tax expense by $2,331,371. Accordingly, we will reduce the Company's proposed cost of service by $244,031 ($2,331,371 minus $2,087,340).

Finally, we recognize that the recovery of property taxes is an important element of a company's operations. In addition to recovering a representative level of property tax expense through base rates, companies have proposed cost recovery mechanisms to address changes in property tax levels that occur between rate cases. For example, the Department has examined proposals to establish property tax recovery mechanisms outside of base rates to address fluctuations associated with the change in property valuation method used by municipalities.

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adjustment based on a composite rate formula. However, neither Order discusses the reasons for this treatment or contains a justification for the departure from the Department's otherwise long-standing precedent. We find that there was no express intention on the Department's part to change its long-standing precedent on property tax expense and, therefore, neither case is dispositive of our treatment of the matter here.

D.P.U. 14-150, at 269-282; D.P.U. 12-25, at 324-334 (see also Section IX below). We also have examined proposals to include the recovery of property taxes as part of a capital investment recovery tracker. D.P.U. 15-80/D.P.U. 15-81, at 54-55 (see also Section V.D.4 above). The Department acknowledges that, with the exception of application for abatements where warranted, property taxes are largely outside of a company's control. We also recognize that a consistent ratemaking approach to property taxes may increase efficiencies and reduce administrative burdens.

Given these considerations, the Department will consider whether it is appropriate to explore alternative ratemaking proposals from distribution companies to address property tax changes between rate cases. Without prejudging the question of the propriety of any alternative ratemaking proposal, a company must demonstrate in its proposal that there would be no double recovery of property tax expense. The Department will consider such proposals in the context of an individual company's base rate proceeding.

H. Insurance Expense

1. Introduction

During the test year, the Company booked $5,909,663 in insurance premium expense (Exh. NG-RRP-2, at 17 (Rev. 3)). The Company has proposed to reduce its test year cost of service by $1,033,234 based on the most recently received insurance premium billings and their respective allocations to MECo and Nantucket Electric (Exhs. NG-RRP-1, at 33: NG-RRP-2, at 17 (Rev. 3)). Of the 14 types of insurance coverage represented by the proposed adjustment, four policies (i.e., Public (Excess) Liability, Business Interruption, Property, and Property

Terrorism insurance) are provided to the Company by National Grid Insurance USA LLC ("NGI USA"), a wholly owned subsidiary of National Grid USA (Exh. NG-RRP-2, at 17 (Rev. 3)).

2. Positions of the Parties

a. Attorney General

The Attorney General argues the Company's premium payments to NGI USA should not be included in insurance expense because (1) the Company has not demonstrated that it took reasonable measures to control costs associated with its NGI USA policies; (2) the Company has not complied with the Department's regulations on affiliate transactions; and (3) the NGI USA business interruption policy allows for double recovery (Attorney General Brief at 50-55). The Attorney General asserts that removing payments to NGI USA will result in a $2,414,233 reduction to the Company's insurance expense (Attorney General Brief at 50, citing Exh. NG-RRP-2, at 17 (Rev. 3)).

First, regarding cost containment, the Attorney General argues that the Department includes the most current cost of liability and property insurance as a reasonable cost of service. (Attorney General Brief at 50, citing Boston Gas Company/Essex Gas Company/Colonial Gas Company, D.P.U. 10-55, at 276 (2010)). However, to be included in the cost of service, the Attorney General contends that the Company must provide evidence that it undertook reasonable measures to control property and liability insurance expense (Attorney General Brief at 50, citing D.P.U. 10-55, at 275-276; New England Gas Company, D.P.U. 08-35, at 119-120 (2009); D.T.E. 05-27, at 133-134; Boston Gas Company, D.T.E. 03-40, at 184-185 (2003)). Further, the Attorney General claims that the Company's evidence of cost containment should be provided as a narrative in its initial filing (Attorney General Brief at 51, citing D.P.U. 10-55, at 276).

The Attorney General argues that despite these requirements, the Company's prefiled testimony is limited to representations that its proposed insurance expense is known and measurable on the basis of recent insurance bills received, and there is no demonstration that the Company undertook reasonable measures to controls such expenses (Attorney General Brief at 51, citing Exh. RRP-1, at 33). Further, the Attorney General contends that during the proceedings, the Company was unable to explain: (1) the measures it took to control costs related to NGI USA; (2) the basis for selecting NGI USA as the Company's carrier for public excess liability insurance, business interruption insurance, property insurance, and property terrorism insurance; and (3) the basis for any premium charged under any insurance policy (Attorney General Brief at 51-52, citing Exh. AG-1-63; Tr. 6, at 862, 864). Based on these considerations, the Attorney General asserts that there is no evidence in the record that would support how the premiums are determined and whether or not they were reasonable or prudent (Attorney General Brief at 52, citing Town of Hingham v. Department of Telecommunications and Energy, 433 Mass. 198, 213-214 (2001), citing Metropolitan District Commission v. Department of Public Utilities, 352 Mass. 18, 24 (1967); Wannacomet Water Company v. Department of Public Utilities, 346 Mass. 453, 463 (1963)).

Next, the Attorney General argues that even if the Department finds that the Company provided sufficient explanation of cost containment measures, the Company's premium payments to NGI USA should not be allowed as part of its cost of service because the payments violate the Department's affiliate transaction regulations (Attorney General Brief at 52).

According to the Attorney General, NGI USA is an affiliate of the Company, as defined by G.L. c. 164, § 85 ("§ 85") (Attorney General Brief at 53).[158]

In particular, the Attorney General contends that NGI USA was established to provide insurance coverage to National Grid's operating companies, thus being created to serve and benefit the Company (Attorney General Brief at 53, citing RR-AG-33). Further, the Attorney General claims that the Company discusses its "insurance captives" and "insurance subsidiary undertakings" in its annual reports to shareholders (Attorney General Brief at 53, citing Exh. AG-1-2-3(1g), Att., at 119, line 2-3, 133, 190).

The Attorney General asserts that Department regulation[159] and good utility practice require evidence that any affiliate services are priced at no more than market value. According

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158 G.L. c. 164, § 85, provides, in pertinent part:

> . . . "affiliated company" shall mean any corporation, society, trust, association, partnership or individual (a) controlling a company subject to this chapter, either directly, by ownership of a majority of its voting stock or of such minority thereof as to give it substantial control of such company, or indirectly, by ownership of such a majority or minority of the voting stock of another corporation or association so controlling such company; or (b) so controlled by a corporation, society, trust, association, partnership or individual controlling as aforesaid, directly or indirectly, a company subject to this chapter; or (c) standing in such a relation to a company subject to this chapter that there is an absence of equal bargaining power between the corporation, society, trust, association, partnership or individual and the company so subject, in respect to their dealings and transactions.

159 220 C.M.R. § 12.04(3) provides:

> An Affiliated Company may sell, lease, or otherwise transfer an asset to a Distribution Company, and may also provide services to a Distribution Company, provided that the price charged to the Distribution Company is no greater than the market value of the asset or service provided.

to the Attorney General, the Department is required to carefully scrutinize affiliate transactions because "the exercise of control and the absence of an arm's length bargaining" may lead to "'excessive charges for services . . . .'" (Attorney General Brief at 53, citing D.P.U. 12-86, at 11; Public Utility Holding Co. Act of 1935, P.L. No. 333 (1935), 49 Stat. 803, § 1 (1935); Report of the Special Committee on Control and Conduct of Public Utilities, (1930 H. 1200, § 31)). Consequently, the Attorney General argues that if affiliate costs are excessive, they should be excluded from the revenue requirement (Attorney General Brief at 53-54, citing G.L. c. 164, § 94B)). In this regard, the Attorney General contends that National Grid failed to offer any evidence to demonstrate that the amount of premiums charged to the Company by NGI USA are at or below the market price (Attorney General Brief at 54, citing Exh. NG-RRP-2, at 17 (Rev. 3)). Thus, the Attorney General asserts that the Department should disallow these payments to be included in rates and the cost of service should be reduced by $2,414,233 (Attorney General Brief at 54).[160]

Finally, the Attorney General argues that the Company's cost for its business interruption insurance should be disallowed because a claim for loss of income under the policy would amount to double recovery (Attorney General Brief at 54). According to the Attorney General, the Company already is made whole for reductions to income through its RDM (Attorney General Brief at 54). Specifically, the Attorney General contends that National Grid pays annual premiums of $103,968 for a business interruption policy that indemnifies the Company for

160 The Attorney General provides a breakdown of the premiums as follows: (1) $965,005 in Public (Excess) Liability Insurance premiums; (2) $103,968 in Business Interruption Premiums; (3) $1,296,816 in Property Insurance premiums; and (4) $48,444 in Property Terrorism Insurance premiums (Attorney General Brief at 54, citing Exh. NG-RRP-2, at 17 (Rev. 3)).

reductions to income as a result of the interruption or interference with the business (Attorney General Brief at 55, citing Exh. NG-RRP-2, at 17 (Rev. 3); RR-AG-30, Att. at 49). The Attorney General notes that "income" is defined in the policy as "the sum of gross earnings and/or sales and/or income and/or revenue derived from the [b]usiness." (Attorney General Brief at 53, citing RR-AG-30, Att. at 50). The Attorney General reasons that because National Grid's RDM makes the Company whole for reductions in revenues, the Company receives the same amount of revenue for its distribution services regardless of whether there is an interruption to the Company's operations (Attorney General Brief at 55, citing Exhs. NG-MLR-1; NG-RRP-1). Consequently, the Attorney General argues that a claim under the business interruption policy for reduced income would amount to a double recovery from customers (Attorney General Brief at 55). Therefore, the Attorney General asserts that costs for the Company's business interruption policy should be excluded from insurance expense and the Company's proposed cost of service should be reduced by $103,968 (Attorney General Brief at 55).

b. Company

First, regarding cost containment, National Grid disputes the Attorney General's claim that the Company has not demonstrated that it undertook reasonable measures to control costs associated with NGI USA, and challenges the Attorney General's position that such a demonstration is required a part of the initial filing (Company Brief at 61). The Company contends that in each of the cases relied on by the Attorney General, the petitioner sought an increase to test year insurance expense, and that the Department's reference to "reasonable efforts to control costs" pertained to the requested increase in expense (Company Brief at 61, citing D.P.U. 10-55, at 274-276 (requesting a post-test year increase of $376,488); D.P.U. 08-35, at 119-120 (requesting a post-test year increase $225,993); D.T.E. 05-27, at 132 (requesting a post-test year increase of $94,997, subsequently adjusted); D.T.E. 03-40, at 184-185 (requesting a post-test year increase of $607,287)). National Grid notes that, in this case, the Company is seeking to decrease its test year expense, which, in itself, demonstrates that the Company has controlled costs so that the rate-year expense is less than the test year expense (Company Brief at 61). According to National Grid, there is no basis for disallowance of a significant amount of expense on the basis that the Company had an affirmative obligation to demonstrate cost control in the prefiled testimony where there is no increased cost requiring such demonstration (Company Brief at 63).

National Grid also challenges the Attorney General's claim that during the proceedings the Company was unable or failed to adequately respond to inquiries regarding the selection of NGI USA or the basis for recovery of insurance expense (Company Brief at 62-63, citing Exh. AG-1-63; Tr. 6, at 862-865; RR-AG-33). In this regard, National Grid notes that the Attorney General made no attempt to examine the reasons that insurance expense is decreasing (Company Brief at 63-64). The Company asserts that there is no basis for disallowance of insurance expense where there is no reasonable inquiry made into the proposed adjustment (Company Brief at 63).

Turning to its use of NGI USA, National Grid argues that the Department has previously found that the procurement of insurance coverage through "captive" or affiliated insurance companies can be effective to reduce costs to customers (Company Brief at 64). According to the Company, captive insurance companies are known to be a cost-efficient alternative to risk transfer because the arrangement leverages the use of reinsurance markets and puts the captive insurance carriers in competition against markets that underwrite in the conventional direct insurance marketplace, thereby driving down the cost below what would be available solely by using conventional direct writing insurers (Company Brief at 64, citing Bay State Gas Company, D.P.U. 13-75, at 181, 193-194 (2013)).

Second, the Company argues that there is no evidence that the premium cost charges by NGI USA are "excessive" or above market (Company Brief at 64). According to the Company, mandates of NGI USA include providing insurance coverage to National Grid USA's operating companies at rates that are at or below those that can be achieved in the commercial insurance markets, as well as enhanced policy coverage beyond what is available in those markets (Company Brief at 64-65, citing RR-AG-33).

Moreover, the Company contends the Department does not routinely review or render determinations on whether insurance premiums charged by affiliates are at or below the market price where the petitioning utility is not asking for any increase in the test year amount (Company Brief at 65). The Company claims that a petitioning company cannot foresee every specific area of inquiry of interest to the other parties, and that the law places some obligation on other parties to raise issues during the preceding so that there is an opportunity for rebuttal (Company Brief at 65, citing Fitchburg Gas & Electric Light Co. v. Department of Public Utilities, 375 Mass. 571, 578 (1978); NYNEX, D.P.U. 86-33-G at 74 (1989); Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 33 (1983)). Therefore, the Company asserts that its arrangement with NGI USA does not result in a violation of the Department's affiliate regulations (Company Brief at 65).

Finally, the Company disputes the Attorney General's claim that the business interruption policy constitutes "double recovery" of expenses (Company Brief at 66). In this regard, the Company argues that it would never make an insurance claim, nor would it be lawfully eligible for a claim of lost revenues, where the revenues were recovered through the revenue-decoupling mechanism (Company Brief at 66). Further, the Company contends that the Attorney General ignores the other coverage protections that are not driven by reductions in consumption and would not be recovered through the ratemaking process, primarily relating to continuing operations, contractual agreements and other items (Company Brief at 66, citing RR-AG-30, Att.). National Grid claims that it would be unreasonable and imprudent for the Company to forego business interruption coverage and that the ultimate cost of not carrying such insurance would fall on the customers (Company Brief at 66-67). For these reasons, the Company concludes there is no unwarranted cost or "double recovery" of revenue loss that occurs due to the availability of this policy (Company Brief at 67).

3. Analysis and Findings

a. Introduction

Under current ratemaking practice, the Department will include the most current cost of liability and property insurance, based on a signed agreement, as a reasonable cost of service. D.P.U. 10-55, at 276; D.P.U. 09-30, at 218; D.T.E. 02-24/25, at 161; North Attleboro Gas Company, D.P.U. 86-86, at 8-10 (1986); D.P.U. 84-94, at 44. The Department requires companies to provide evidence that they undertook reasonable measures to control property and liability insurance expenses. D.P.U. 08-35, at 119-120; D.T.E. 05-27, at 133-134; D.T.E. 03-40, at 184-185.

b. Cost Containment

Concerning National Grid's efforts to control costs associated with its NGI USA policies, the cases relied on by the Attorney General each involve proposed increases to test year insurance expense. D.P.U. 10-55, at 274-276 (requesting a post-test year increase of $376,488); D.P.U. 08-35, at 119-120 (requesting a post-test year increase $225,993); D.T.E. 05-27, at 132 (requesting a post-test year increase of $94,997, subsequently adjusted); D.T.E. 03-40, at 184-185 (requesting a post-test year increase of $607,287). In this case, the Company is seeking to decrease test year insurance expense by $1,033,234 (Exhs. NG-RRP-1, at 33; NG-RRP-2, at 17 (Rev. 3)). In this instance, the Department finds that the reduced premium billings from NGI USA and the Company's proposed reduction in the cost of service constitute sufficient evidence that the Company has controlled its insurance costs.[161]

As stated above, the Department considers measures by utilities to control property and liability insurance expense to be important in reviewing a company's cost of service. The Department's review of these cost control measures typically focused on instances of increased costs. Efforts by utilities to manage their insurance coverage with a consideration of costs also are important where premium costs are decreased. Thus, the Department requires companies in their base rate cases to identify reasonable measures to control property and liability insurance expenses, whether the insurance costs are increasing or decreasing.

161 While the Company's insurance expense has increased since the 2008 test year used in its previous rate case, we are unable to conclude that an increase in costs over an eight-year period is in itself evidence of a failure in cost-containment efforts.

c. Affiliate Transactions

The Attorney General argues that, even if the Department finds that the Company demonstrates cost-control measures associated with its NGI USA insurance policies, the Company's premium payments to NGI USA should not be allowed as part of its cost of service because they violate the Department's affiliate transaction regulations (Attorney General Brief at 31). Specifically, the Attorney General claims that the Company has not demonstrated that its payments to NGI USA are not excessive, and that there is no evidence that the amount NGI USA charges the Company for premiums are at or below market price (Attorney General Brief at 31).

NGI USA provides insurance coverage to National Grid as a "captive" or affiliate insurance company. The Department previously has found that procurement of insurance coverage through "captive" or affiliated insurance companies can be effective to reduce costs to customers. Captive insurance companies are known to be a cost-efficient alternative to risk transfer because the arrangement leverages the use of reinsurance markets and puts the "captive" insurance carriers in competition against markets that underwrite in the conventional direct insurance marketplace, thereby driving down the cost below which would be available by solely using conventional direct writing insurers. Bay State Gas Company, D.P.U. 13-75, at 181, 193, 194; see also Boston Edison Company, D.P.U. 376, at 13-14 (1981).

We affirm our findings regarding the benefits of the procurement of insurance coverage through "captive" or affiliate insurance companies. Given this precedent and the absence of evidence in this case of excessive or above-market premiums paid by the Company to NGI USA, the Department allows these costs and finds no grounds to assert a violation of the Department's affiliate transaction rules. Further, within a substantial range, business decisions are matters for a company's determination. Fitchburg Gas and Electric Light Company, 375 Mass. 571, 578 (1978). However, when a company's determination is challenged, it must come forward with evidence to support its decisions and show that they are not inconsistent with valid policies of the Department. 375 Mass. at 578-579. Regarding the use of affiliate insurance companies, the Department has not established any specific filing requirements or analysis for companies to support the associated insurance expenses. Also, the Attorney General's challenge was on brief, eliminating the opportunity for the Company to present evidence in support of its procurement of insurance coverage from NGI USA. See D.P.U. 95-118, at 143; The Berkshire Gas Company, D.P.U. 92-210, at 102 (1993); Commonwealth Gas Company, D.P.U. 87-122-B at 54 (1989). Based on the circumstances of this case, we rely on the business judgment of National Grid in procuring insurance coverage from NGI USA, and we do not reduce the Company's cost of service based on the challenge of the Attorney General.

Although the Department continues to recognize the benefits of jurisdictional companies' procuring insurance through affiliate insurance companies, we find that our review of this type of arrangement would be served by a company's production of specific information. Accordingly, where a company procures insurance coverage from an affiliate insurance company, the jurisdictional company shall in its base rate case provide the following information: (1) whether comparative studies are performed to identify the relationship between affiliate premiums and premiums available in commercial markets; (2) whether such a comparative analysis was performed during the test year; (3) whether there is documentation that the affiliate insurance company's premiums are lower than premiums to the company for comparable coverage in the commercial insurance markets; and (4) whether affiliate insurance providers are able to provide broader coverage to the company than what is commercially available in the marketplace.

d. Business Interruption Policy

Finally, the Attorney General challenges the need for the Company's business interruption policy, because of the potential for "double recovery" through costs both recovered under the policy and recovered through the RDM (Attorney General Brief at 54). On a basic level, business interruption insurance covers the loss of income that a business suffers after a disaster. Under the coverage provided by NGI USA, National Grid is indemnified for "actual loss sustained" resulting directly from interruption of or interference with National Grid's operations, activities, or services due to an "occurrence"[162] affecting National Grid's property (RR-AG-30, Att. at 9, 27, 49). Actual loss sustained includes reduction in income, continuing obligations payable following the interruption or interference, the amount of a loss under a contractual agreement payable as a result of the interruption or interference, and extra expense incurred to continue usual operations, which are over and above normal costs to conduct operations (RR-AG-30, Att. at 49-51).

Based on our review of the record, we find that the Company's business interruption insurance coverage would not lead to double recovery. As National Grid represented, the Company could not make a claim for lost under its business interruption policy where the

162 An occurrence includes such events as windstorm, tornadoes, hail, rainstorm, electrical storm, cyclones, hurricanes, similar storms and systems of winds of a violent and destructive nature, earthquake shock, volcanic eruption, tsunami, seaquake, tidal wave, sub-sea mud slide (RR-AG-30, Att. at 10).

revenues were recovered through its RDM.[163] In addition, the Company's policy covers more than a reduction in income, such as obligations payable following the interruption or interference, losses under contractual agreements that are payable as a result of the interruption or interference, and expenses incurred over and above the usual costs of operations (RR-AG-30, Att. at 49-51). These losses are not associated with customers' usage or distribution revenues.

Also, as stated above regarding National Grid's procurement of insurance coverage from NGI USA, with the absence of evidence in this case of double recovery or unreasonable insurance costs, the Department relies on the business judgment of National Grid in procuring business interruption insurance. Therefore, the Department does not reduce the Company's cost of service for its costs for business interruption insurance.

e. Conclusion

Based on the foregoing, the Department finds that the Company's insurance expense premiums are based on actual policy rates, and are thus known and measurable. Therefore, the Department approves the Company's proposed adjustments. Accordingly, the Department accepts the Company's proposal to reduce its test year insurance expense by $1,033,234.

I. Rate Case Expense

1. Introduction

Initially, the Company estimated it would incur $1,512,785 in rate case expense (Exhs. NG-RPP-1, at 35; NG-RRP-2, at 22). Based on its final invoices and projected costs to

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163 Under the Company's RDM, the Department establishes the Company's target annual distribution revenues in base rate case. On an annual basis, the Company reconciles its actual distribution revenues to the target revenues, and collects from customers an amount less that its target revenues (or returns to customers an amount greater that its target revenues) (Revenue Decoupling Mechanism Provision, M.D.P.U. No. 1289).

complete the compliance filing, the Company proposes a final rate case expense of $1,245,607 (Exh. NG-RRP-2, at 22 (Rev. 3)). National Grid's proposed rate case expenses include costs related to legal support services, miscellaneous expenses associated with preparing the rate case (e.g. compact disc and flash drive preparation, bound copies of filings, tabs, couriers, etc.), and expert services related to the following: (1) marginal distribution cost study; (2) depreciation study; and (3) cost of capital/ROE (Exhs. NG-RRP-2, at 22 (Rev. 3); DPU-7-1; DPU-7-14 (Supp. 2); RR-AG-32, Atts.).

National Grid proposes to normalize its rate case expense over a period of five years (Exhs. NG-RRP-1 at 35; DPU-7-20). The Company argues that this normalization period is consistent with the provisions of § 94, which requires electric companies to file general rate cases no less frequently than at five-year intervals (Exhs. NG-RRP-1, at 35; DPU-7-20). Normalizing the Company's proposed rate case expense of $1,245,607 over five years produces an annual expense of $249,121 (Exh. NG-RRP-2, at 26 (Rev. 3)).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company has not met its burden to justify full recovery of rate case expense in this proceeding (Attorney General Brief at 60). Specifically, the Attorney General contends that the Company failed to limit the costs associated with outside witnesses, particularly in the areas of cost of capital/ROE and legal services, and failed to offer a proposal for shareholders to bear a portion of rate case expenses (Attorney General Brief at 61). According to the Attorney General, a request for proposals ("RFP") process is insufficient to adequately control rate case expense (Attorney General Brief at 61).

With respect to the retention of outside witnesses, the Attorney General argues that because National Grid is a large company, it should have assigned more internal company employees to sponsor testimony and more internal counsel to perform legal work on the rate case (Attorney General Brief at 61). Thus, the Attorney General asserts that the Department should exercise its discretion and reduce recovery of expenses associated with the Company's cost of capital witness and outside legal services by 50 percent (Attorney General Brief at 61).

Alternatively, the Attorney General recommends that shareholders should be assigned at least 30 percent of the cost of outside legal services (Attorney General Brief at 62; Attorney General Reply Brief at 34). In this regard, the Attorney General notes that the Company, after an RFP process, retained a legal service provider whose proposal was 30 percent higher than the next lowest bidder (Attorney General Brief at 62-63; Attorney General Reply Brief at 34). Further, she contends that the next highest bidder had substantial utility experience and prior experience practicing before the Department (Attorney General Brief at 62; Attorney General Reply Brief at 34). The Attorney General asserts that because the Company failed to show that the next highest bidder could not perform the work necessary to litigate this rate case shareholders should be responsible for 30 percent of the costs associated with the retained legal service provider (Attorney General Brief at 62-63; Attorney General Reply Brief at 34).

Finally, the Attorney General rejects any notion that predicting actual costs is difficult or that the bids provided by the selected legal service provider and the next highest bidder were difficult to compare because the providers used different "inputs and assumptions" in developing their respective bids (Attorney General Reply Brief at 34-35). According to the Attorney General, National Grid should have provided adequate inputs and assumptions for the bidding firms to use in their estimates so that the Company could have an objective benchmark of comparison (Attorney General Reply Brief at 35). Further, she asserts that if the price structures and fees of these bids are truly incomparable because of widely different inputs and assumptions, then the Company did not conduct a "fair, open, and transparent" competitive bidding process (Attorney General Reply Brief at 35).

b. Company

The Company argues that it contained rate case expenses in several ways. First, the Company contends that it used internal personnel and resources whenever practicable given internal expertise and existing workload requirements (Company Brief at 80, 82). Second, National Grid claims that for certain non-routine work that required the use of outside consultants with specialized expertise or experience, the Company engaged in an RFP process to select the most qualified and cost-effective service provider (Company Brief at 80, 84-89).

With respect to the RFP process, the Company argues that it used an internal review committee to evaluate bids based on price and non-price factors, including vendor qualifications; relevant experience; capabilities and personnel to support the rate petition; proposed fee structure; and other factors (Company Brief at 79, citing Exh. DPU-7-2).[164] The Company concedes that it did not select the lower cost bidder for its depreciation analysis, cost of capital/ROE analysis, and legal services provider (Company Brief at 80, citing Exh. DPU-7-3).

164 In particular, the Company notes that each outside service provider executed a Project Statement, which contained a detailed scope of work with a "not-to-exceed" cost amount (Company Brief at 82, citing Exhs. DPU-7-15; DPU-7-16). According to the Company, any potential increase in costs would be reviewed, subject to negotiation and documented through a project change request (Company Brief at 82). Further, the Company notes that its engagement with outside service providers included written policies designed to control travel, lodging, meals and other similar expenses, and prohibited markups on expenses or direct costs (Company Brief at 82).

However, the Company argues that it gave proper consideration to price and non-price factors in selecting reasonably priced service providers who possessed expertise and experience, knowledge of Department ratemaking precedent and practice, familiarity with the Company's operations, and a comprehensive understanding of the tasks to be performed (Company Brief at 88, citing D.P.U. 13-75, at 241).

More specifically, National Grid justifies its retention of its depreciation-related service provider based on efficiencies gained through a past relationship and the provider's knowledge of the Company's operations (Company Brief at 80, citing Exh. DPU-7-3). With respect to its cost of capital/ROE service provider, the Company contends that a strict cost comparison among bids would inappropriately favor a bidder who underestimated the level of time and effort for litigation in this case (Company Brief at 80, citing Exh. DPU-7-3). Thus, the Company claims that it reviewed average hourly labor rates for different bidders and compared them on a normalized level of time, which resulted in the selected service provider having the lowest effective bid (Company Brief at 80, citing Exh. DPU-7-3).

Regarding legal counsel, the Company argues that it selected a legal services provider that has extensive rate case experience in Massachusetts, is thoroughly familiar with the Department's practices for rate case management, and offered a fee structure that was competitive with other RFP respondents (Company Brief at 80-81, citing Exh. DPU-7-3). On this last point, National Grid argues that when analyzed on a standard hourly fee basis, the selected service provider offered hourly rates that were significantly lower than other bidders, and its estimate of labor hours was more consistent with the actual number of hours needed to fully support the rate case (Company Brief at 85, citing Exh. DPU-7-3, Att.). National Grid rejects the notion that choosing a legal service provider based solely on estimated costs is appropriate because each bidder uses its own inputs and calculus in developing bids, and total number of hours actually required to litigate the case is largely a function of the number of discovery requests received and the number and nature of the issues raised by intervenors, factors over which the Company has no control (Company Brief at 86). Thus, the Company asserts that a "hard cap" for recovery of rate case expense based on cost estimates is punitive (Company Brief at 86). Further, National Grid contends that there is no evidence to suggest that selecting a different legal service provider would have resulted in a lower actual costs, particularly since the actual hours that ultimately are spent litigating the case are unknown at the time that the RFP responses are submitted (Company Brief at 87).

Finally, National Grid argues that it properly considered shareholder responsibility for a portion of rate case expense (Company Brief at 82-83, citing Exh. DPU-7-20). In this regard, the Company contends that shareholders already bear a portion of rate case expense because: (1) the Department's ratemaking treatment of rate case expense does not guarantee dollar-for-dollar recovery; (2) if the Company files another base rate case before the expiration of the normalization period attributable to the rate case expense in this proceeding, the Company will not fully recover all of such rate expense; (3) to the extent rate case expense is not fully recovered, the Company's earned rate of return will be negatively impacted, which has a direct impact on shareholders; and (4) even if the normalization period matches the period between rate cases exactly, the Company and its shareholders are not reimbursed for actual carrying costs (Company Brief at 83, citing Exhs. DPU-7-20; AG-8-19).[165]

Based on these considerations, the Company asserts that there is no basis for the Department to reduce the Company's rate case expense as recommended by the Attorney General (Company Brief at 85, 89).

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. 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,

165 The Company also argues that, in this particular case, shareholders are bearing the costs related to the PwC Report, which was discussed above in Section III (Company Brief at 83).

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.

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 an 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 service providers to provide complete bids, and provide the company with sufficient time to evaluate the bids. D.P.U. 10-114, at 221; D.P.U. 10-55, at 342-343. Further, the RFP issued to solicit service providers must clearly identify the scope of work to be performed and the criteria for evaluation. 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 service provider 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. National Grid's Request for Proposal Process

The Company conducted a competitive bidding process to retain outside consultants associated with its: (1) marginal distribution cost study; (2) depreciation analysis; (3) cost of capital/ROE analysis; and (4) legal services (Exhs. DPU-7-1; DPU-7-6; AG-8-14). The Company bears the burden to demonstrate that its choices of outside consultants and legal service provider are reasonable and cost effective. D.P.U. 10-55, at 343; D.P.U. 09-30, at 230-231; D.T.E. 03-40, at 153.

As an initial matter, we note that the Company evaluated the capabilities of its internal staff, including access to data, expertise, and experience, in determining whether to retain the selected outside service providers (Exh. DPU-7-5). We find that the Company's decision to retain outside consultants, rather than using internal personnel, to perform these tasks is reasonable given the complexity of the issues and the overall scope of this rate case.

The Company received at least three bids in each of the four categories for which it sought outside consultant services (Exhs. DPU-7-1, at 2; DPU-7-2). The record demonstrates that bids were internally reviewed through an analysis of a number of factors including strength of proposals, familiarity with the Company's operations, industry experience, cost, approach, and project management (Exh. DPU-7-2 & Atts.).

The Department has reviewed the bids associated with the four categories of rate case expense for which the Company conducted a competitive solicitation, as well as the scoring and evaluation material submitted by the Company and other evidence regarding the selection process, and we have considered the related arguments of the parties (Exhs. DPU-7-1 & Atts.; DPU-7-2 & Atts.; DPU-7-3; DPU-7-5). We are satisfied that the selection process was appropriate and that the bidders were scored and evaluated in a reasonable and equitable manner. We decline to substitute our judgment for that of the Company in evaluating each bidder against each criterion. Further, we find that National Grid gave appropriate weight to the billing structures of the various bidders and any differences among them, and considered other important price factors, such as price caps and other cost-containment features, and important non-price factors as well, such as familiarity with Department precedent and the Company's operations (Exhs. DPU-7-1, Atts.; DPU-7-2) & Atts.; DPU-7-3; DPU-7-5; DPU-7-15; DPU-7-16; DPU-7-17).

The Company concedes that it did not select the lowest cost bidder for its depreciation consultant, cost of capital/ROE witness, or legal services provider (Company Brief at 80, citing Exh. DPU-7-3). The Attorney General challenges the retention of National Grid's cost of capital/ROE consultant and legal services provider because of this purported deficiency (Attorney General Brief at 61-62; Attorney General Reply Brief at 34).

The Department does not require a company to choose the lowest bidder, provided that the company adequately justifies its decision to do so. See D.P.U. 10-70 at 153; D.T.E. 03-40 at 153. As an initial matter, we note that although all three selected providers were not the lowest bidders, we conclude that the amount of the respective bids was not unreasonable or disproportionate to the overall scope of work provided by these providers (see Exhs. DPU-7-1, Atts. 2(c); 3(e), 4(b); DPU-7-14, Atts. 2, 3 (Supp. 2)).

With respect to the depreciation analysis, the record shows that the selected provider had performed similar work for the Company in the past and compiled historical asset data necessary to perform services in this case (Exhs. DPU-7-3, at 1; DPU-7-5, at 1-2). As such, it is reasonable to expect that the foundational process required for a new provider would be time consuming and require costs that the selected service provider did not incur (Exh. DPU-7-3, at 1). Based on these considerations, we conclude that it is unlikely that an alternative service provider could duplicate these specialized services for a lower cost. Therefore, we find that the Company's selection of its depreciation-related consultant was reasonable, prudent and appropriate.

With respect to the cost of capital/ROE consultant, the record shows that the bids detailed different estimates of anticipated effort for the adjudicatory phase of the proceeding with no caps on cost (Exhs. DPU-7-1, Atts. 3(a) through (e); DPU-7-2, Att. 3; DPU-7-3, at 1). As a result, the Company performed a more detailed analysis of the bids and cost comparison (Exhs. DPU-7-2, Att. 3; DPU-7-3, at 2). The result of this analysis shows that the selected bidder compares favorably with the remaining bidders in terms of cost (Exh. DPU-7-2, Att. 3; DPU-7-3, at 2). In addition, the Company considered level of expertise, experience and litigation support that the selected provider would contribute to the proceeding, as well as the prior relationship and familiarity with the Company's operations (Exhs. DPU-7-2, Att. 3; DPU-7-3, at 2). In light of these factors, we find that the Company's selection of its cost of capital/ROE consultant was reasonable, prudent and appropriate.

Finally, with respect to the legal services provider, we find that National Grid gave appropriate weight to the billing structures of the various bidders and any differences among them, and considered other price factors, such as price caps, estimated hours of labor, and cost-containment features (Exhs. DPU-7-2 & Att. 4; DPU-7-3, at 2 & Att.). We are not persuaded by the Attorney General's suggestion that a comparison of cost estimates should have been the driving factor in the Company's decision. Rather, we conclude that National Grid appropriately considered other important factors in selecting its legal service provider, including the selected provider's rate case experience, knowledge of the electric industry and Department precedent, previous close working relationship with the Company, and familiarity with Company operations (Exhs. DPU-7-2 & Att. 4; DPU-7-3, at 2 & Att.). Further, as noted above, the cost estimate provided was not unreasonable or disproportionate to the overall scope of work provided by this provider, particularly in light of the complexity of the case and the number of issues presented (see Exhs. DPU-7-1, Att. 4(b); DPU-7-14, Atts. 2, 3 (Supp. 2)). Based on these considerations, we find that the Company's selection of its legal service provider was reasonable, prudent and appropriate.

For all of the foregoing reasons, we conclude that the Company conducted a fair, open and transparent RFP process in selecting all of its outside consultants and legal services provider. Further, we find that the Company provided a sufficient justification for not selecting the lowest bidder for its depreciation analysis, cost of capital/ROE consultant, and legal services provider. Accordingly, we decline to adopt the Attorney General's recommendations to disallow a portion of rate case expense recovery on the basis that the Company failed to control costs by not selecting the lowest bidder.

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-7-14, Att. 1 (Supp. 2)). Further, 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-7-14, Att. 1 (Supp. 2)).

In addition, the Company seeks to include proposed miscellaneous costs of $133,603.64 (Exh. DPU-7-14, Att. 3 (Supp. 2)). These miscellaneous costs include costs related to case production expenses (Exh. DPU-7-14, Att. 3 (Supp. 2)). 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-7-14, Att. 1 (Supp. 2)). Further, given the nature and scope of this complex proceeding, the Department finds that these miscellaneous costs are reasonable and appropriate and were prudently incurred (Exh. DPU-7-14, Att. 1 (Supp. 2)).

d. Fees for Rate Case Completion

The Company has included $30,000 in its proposed rate case expense as a compliance phase flat fee for legal services (Exhs. DPU-7-14, Att. 2 (Supp. 2)). This amount is included in the proposed final rate case expense amount of $1,245,607 (Exhs. DPU-7-14, Att. 2 (Supp. 2); DPU-7-14, Att. 3, at 1 (Supp. 2)).

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 projects 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 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 for 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 a compliance filing. D.P.U. 10-114, at 237; D.P.U. 10-55, at 338.

The Department has reviewed the Company's basis for its proposed fixed fee and has determined that this fixed fee is reasonable and supported by sufficient evidence (Exh. DPU-7-1, Att. 4(b)). Accordingly, we allow the Company to recover these costs as part of its rate case expenses.

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 experience of 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; D.P.U. 1490, at 33. Normalization is not intended to ensure dollar-for-dollar recovery of a particular expense; rather, it is intended to include in the cost of service 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.

Typically, 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).

The Company calculates a normalization period of six years, and states that its calculation is consistent with Department precedent (Exh. AG-8-20, Att.). However, the Company proposes a rate case expense normalization period of five years based on the directives set forth in § 94 that electric companies shall file general rate cases no less frequently than at five-year intervals (Exh. DPU-7-20). Neither the Attorney General nor any other party challenges the Company's proposal to normalize rate case expense over the five year period.

As an initial matter, we note that, under Department precedent, the Company incorrectly calculated its normalization period of six years (see Exh. AG-8-20, Att.). The correct application of Department precedent would result in a normalization period of eight years.[166] However, we find that the § 94 requirement for electric companies to file rate cases every five years effectively caps the normalization period at five years. Therefore, in instances where a normalization period calculated pursuant to Department precedent results in a period greater than five years, such as in the instant case, we will instead impose a five-year normalization period.[167] Accordingly, the Department approves the Company's normalization period of five years.

f. Requirement to Control Rate Case Expense

The Attorney General argues that the Department should reduce a portion of National Grid's recovery of rate case expense because the Company failed to adequately control costs (Attorney General Brief at 62; Attorney General Reply Brief at 34). Based on our findings above, we decline to adopt the Attorney General's recommendations on this basis. Further, the Company has shown that it considered the issue of cost-sharing rate case expense between ratepayers and shareholders, and we find that the Company has provided sufficient justification for not proposing that shareholders bear a portion of the rate case expense incurred in this proceeding (Exhs. DPU-7-20; AG-8-19).

Since the establishment of the requirement for companies to propose a rate case expense cost-sharing arrangement, the Department has had an opportunity to evaluate companies'

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166 Based on the Company's filing dates for the last four rate cases, between D.P.U. 15-155 and D.P.U. 09-39, the interval is 5.5 years; between D.P.U. 09-39 and D.P.U. 95-40, the interval is 14.16 years; and between D.P.U. 95-40 and D.P.U. 92-78, the interval is 3 years. The sum of these intervals, divided by three and rounded to the nearest whole number results in a normalization period of eight years: 22.66 years/3 = 7.55 (rounded to eight).

167 Where a normalization period calculated pursuant to Department precedent is less than five years, this lesser period shall apply.

responses. See, e.g., D.P.U. 14-150, at 224-227; D.P.U. 13-90, at 177-181; D.P.U. 13-75, at 245-246; D.P.U. 12-25, at 204-207. In each instance, we have accepted a company's decision not to propose a specific cost-sharing arrangement. As noted, we accept National Grid's explanation in this case as well.

We recognize that the Department's ability to disallow a company's recovery of rate case expense for failure to adhere to our strict requirements concerning competitive bidding, or for failure to pursue other reasonable cost-containment measures, or for failure to properly itemize rate case expense invoices, provides a sufficient incentive for companies to control rate case expense. Further, we recognize that the nature of normalized rate case expense recovery (i.e., not dollar-for-dollar recovery) is such that shareholders already absorb a portion of rate case expense, even in light of the § 94 requirement for electric companies to file rate cases every five years (see Exh. DPU-7-20).

Based on these considerations, we no longer will require companies to file a specific proposal for shareholders to bear a portion of rate case expense. However, we cannot overemphasize that this decision in no way minimizes our focus on the importance of cost containment. We will continue to closely scrutinize the RFP process to ensure that it is rigorous and demonstrates that outside service providers chosen are reasonable and cost effective. See D.P.U. 14-150, at 226-227; D.P.U. 13-90, at 177-178. In addition to a thorough RFP process, the Department expects cost containment provisions to be included in rate case expense and companies to be aggressive in their cost control measures. D.P.U. 14-150, at 226-227; D.P.U. 13-90, at 177-178. The Department will continue to exercise its discretion to disallow recovery of rate case expense where a company fails to adhere to these requirements, as well as in instances where the amount of overall rate case expense appears to be excessive or disproportionate to the work performed.

4. Conclusion

The Company originally proposed an annual rate case expense of $302,557 based on an estimated total rate case expense of $1,512,785 (Exhs. NG-RPP-1, at 35; NG-RRP-2, at 22). The Company subsequently proposed to reduce the annual level of recovery by $53,436 to $249,121 based on a revised total rate case expense of $1,245,607 (Exh. NG-RRP-2, at 22 (Rev. 3)). Based on our findings above, the Department accepts a total rate case expense of $1,245,607. We also accept a normalization period of five years, which results in an annual level of rate case expense of $249,121. Accordingly, we need not make any further adjustments to the Company's rate case expense.

J. Amortization of Hardship Protected Accounts

1. Introduction

Hardship protected accounts are residential accounts that are protected from shut-off by the utility for nonpayment. 220 C.M.R. §§ 25.03, 25.05. To qualify for protected status from service termination, customers must demonstrate that they have a financial hardship and meet certain other requirements, such as a household member suffering from a serious illness or residing with a child under twelve months of age. See 220 C.M.R. §§ 25.03(1), 25.03(3), 25.05(3).[168] All qualified accounts are protected from shut-off for nonpayment year round,

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168 An account qualifies for protected status where the customer certifies that 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, and the service has not been shut off for nonpayment prior to November 15th; or (4) all adults residing in the

except for heating customers with a financial hardship. These heating accounts are protected from shut-off for nonpayment only during the winter moratorium period, November 15th through March 15th. 220 C.M.R. §§ 25.03(1)(a)3, 25.03(1)(b).

The Company states that because hardship protected accounts cannot be disconnected, the accounts remain active and continue to receive service despite slow or non-payment of amounts due (Exh. NG-RRP-1, at 49). Further, the Company notes that if an active hardship protected customer's account balance is in arrears, the Company is prohibited by the Department's regulations from collecting the overdue balance (Exh. NG-RRP-1, at 51). As a result, the active hardship protected customer accounts receivable balances in arrears increase over time (Exh. NG-RRP-1, at 51).

According to the Company, its hardship protected account receivable balance over 360 days[169] was $40,607,637 as of June 30, 2015, the end of the test year (Exhs. NG-RRP-1, at 36, 49-50; NG-RRP-2, at 24). The Company updated its active hardship protected balance over 360 days throughout the proceedings and reported a balance of $52,027,414, as of July 30, 2016 (Exh. WP-NG-RRP-13 (Rev. 3)). The Company proposes to recover the $52,027,414 over a five-year period, which results in an annual amortization expense of $10,405,483 (Exhs. NG-RRP-2, at 24 (Rev. 3); NG-RRP-8, at 2).

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household are age 65 or older and a minor resides in the household. 220 C.M.R. § 25.03. Customers who are unable to pay an overdue bill and 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).

169 That is, hardship protected account receivables overdue for payment more than 360 days.

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Department should reject National Grid's proposal to recover its hardship account receivable balance over 360 days because: (1) approving the recovery of these balances at this point would effectively write-off the accounts as bad debt before such determination can be made; and (2) eventually the Company will recover these balances either from the hardship customers themselves when they pay their bills or from the other customers through the bad debt expense and cash working capital allowance included in the cost of service (Attorney General Brief at 56). Further, the Attorney General contends that if the Company recovers these balances through rates, it will have no incentive to seek recovery of the balances from delinquent customers (Attorney General Brief at 56).

Alternatively, the Attorney General argues that if the Department approves the recovery of National Grid's hardship account receivables balance, the Department also should adjust the Company's cash working capital allowance to reflect the fact that the balances no longer will affect the revenue lag associated with its cash working capital requirement (Attorney General Brief at 57-58; Attorney General Reply Brief at 33). This alternative argument was addressed in Section VII.C.2.a above.

b. Company

The Company argues that the Department should reject the Attorney General's recommendations and instead approve the recovery of the hardship account receivable balance with no corresponding adjustment to its cash working capital allowance (Company Brief at 57-59; Company Reply Brief at 44-46). In particular, the Company contends that its proposal is consistent with Department precedent, as it is limited to balances that are in arrears over 360 days and unlikely to be repaid by the account holders (Company Brief at 57-58; Company Reply Brief at 45). According to National Grid, unless its proposal is approved, the Company will be unable to recover the balances as bad debt until the account holders' protected status expires (Company Brief at 58; Company Reply Brief at 45). National Grid maintains that during this time the arrearages will continue to grow and add to the burden of all customers who eventually will be required to bear the costs through the Company's uncollectible expense (Company Brief at 58; Company Reply Brief at 45). Further, the Company rejects the notion that approval of its proposal would provide a disincentive for it to continue collection methods against delinquent customers (Company Brief at 58, citing Tr. 8, at 1375-1377; Company Reply Brief at 45).

Finally, National Grid argues that if its proposal is approved, the Department should not adjust the Company's cash working capital allowance (Company Brief at 58-59; Company Reply Brief at 45-46). This argument was addressed in Section VII.C.2.b above.

3. Analysis and Findings

Under current ratemaking practice, there is no cost of service mechanism for the Company to recover the balance of protected hardship accounts receivable. See D.P.U. 10-70, at 210-211, n.12. Public policy decisions and economic conditions persuade us to consider whether and how to treat these costs. D.P.U. 10-70, at 214. 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 off. D.P.U. 10-70, at 210-211, n.12. However, because a utility's hardship protected accounts remain active, the utility cannot write off the unpaid balance, and therefore, cannot recover the amounts as bad debt expense on a timely basis. D.P.U. 15-80/D.P.U. 15-81, at 169; D.P.U. 13-90, at 159; D.P.U. 10-70, at 213. Generally accepted accounting principles require that, without probable recovery of outstanding balances, a 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 asset. D.P.U. 10-70, at 214-215.[170]

To provide for the probability of recovery and to avoid an impairment loss, the Department has permitted utilities to collect through distribution rates an amortized amount of significant protected hardship account receivables balances that are over 360 days past due. D.P.U. 15-80\D.P.U. 15-81, at 171; D.P.U. 14-150, at 236; D.P.U. 13-90, at 166; D.P.U. 10-70, at 219. The Company's protected hardship account receivables balance is in line with the levels experienced by Western Massachusetts Electric Company and Fitchburg Gas and Electric Light Company (Exhs. NG-RRP-1, at 36, 49-50; NG-RRP-2, at 3, 24 (Rev. 3)). D.P.U. 13-90, at 165 & n.110; D.P.U. 10-70, at 216 n.115, 219. Therefore, for purposes of determining ratemaking treatment for National Grid's active protected hardship account receivables, we find that its test year end balances are significant.

By allowing recovery in these circumstances, the Department seeks to provide for the probability of recovery of these older outstanding balances. In light of the record in this case, we see no reason to depart from this ratemaking treatment (Exh. NG-RRP-1, at 51-53). Based on these considerations, the Department allows National Grid to recover its test year balance of

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170 See Statement of Financial Accounting Standards No. 144.

protected hardship account receivables in the amount of $40,607,637.[171] Accordingly, we deny the Company's proposal to recover $52,027,414.[172]

As noted above, the Company has proposed to amortize recovery of the balance over five years (Exhs. NG-RRP-1, at 36, 49-50; NG-RRP-2, at 24). Amortization periods are determined based on a case-by-case review of the evidence and underlying evidence. Aquarion Water Company of Massachusetts, D.P.U. 08-27, at 99 (2009); D.P.U. 93-223-B at 14; D.P.U. 84-145-A at 54. 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. Amortizing the amount of $40,607,637 over five years produces an annual expense of $8,121,527 (Exhs. NG-RRP-1, at 36, 50; NG-RRP-2, at 24). Accordingly, we reduce the Company's proposed cost of service by $2,283,956 ($10,405,483 - $8,121,527).

As noted above, the Company sought to update the protected hardship account receivables balance throughout the course of this proceeding, and after the evidentiary hearings concluded (Exhs. NG-RRP-2, at 24 (Rev. 2), (Rev. 3)). However, the Department typically accepts post-hearing updates related to only a limited set of issues – most notably, updated

171 Recovery through amortization of protected account receivables balances greater than 360 days past due, which amounts to $40,607,637 as of June 30, 2015, balances the financial considerations of the Company and the bill impacts to ratepayers without hardship protected status. D.P.U. 10-70, at 219.

172 The Department acknowledges that in the recent NSTAR Gas Company base rate case, we approved the recovery of some post-test year protected hardship receivables account balances over 360 days. D.P.U. 14-150, at 236. In that case, however, the record did not provide the test year balance. We find that there was no express intention on the Department's part to change its precedent.

property tax bills and updated rate case expense totals. See, e.g., D.P.U. 93-223-B at 15; Hutchinson Water Company, D.P.U. 85-194-B at 4 (1986); Western Massachusetts Electric Company, D.P.U. 84-25-A, at 10 (1984). The Department does not find it appropriate to extend its post-hearing update practice to include updated protected hardship account receivable balances. Instead, we find that permitting recovery of the test year amount of receivables provides a measure of assurance of recovery of the older outstanding balances.

In addition, we direct the Company to track the accounts included in the balance of hardship protected receivables accounts allowed for recovery so that the associated costs are excluded from recovery through normal bad debt expense. D.P.U. 10-70, at 220. The Company shall credit through the Residential Assistance Adjustment Factor ("RAAF") any subsequent payments made by customers towards balances that the Company has amortized (Exh. NG-RRP-1, at 52). D.P.U. 10-70, at 221. In this regard, the Company shall modify its Residential Assistance Adjustment Provision accordingly. Finally, we direct each distribution company with hardship protected account receivable balances approved for recovery by the Department to provide as part of the initial filing in the company's next base rate case, the following information: (1) a detailed narrative of the company's collection efforts relative to outstanding hardship account balances recovered through amortization since the prior base rate case; and (2) the annual amount of payments made by customers against these hardship account balances since the prior rate case.

K. Amortization of ASC 740 Regulatory Asset

1. Introduction

On July 24, 2013, the Legislature passed An Act Relative to Transportation Finance, St. 2013, c. 46 ("Transportation Finance Bill"). In pertinent part, the Transportation Finance Bill repealed G.L. c. 63, § 52A, which provided for a state franchise tax rate of 6.5 percent for public utility corporations (see Exh. NG-RRP-1, at 46). See also St. 2013, c. 46, § 39. Consequently, utility corporations lost their separate tax status for tax years beginning on and after January 1, 2014, and became subject to the tax rates applicable to corporations pursuant to G.L. c. 63, § 39. (Exhs. NG-RRP-1, at 46; AG-2-36; Tr. 6, at 956). For National Grid, the tax rate increased from 6.5 percent to 8.0 percent (Exh. NG-RRP-1, at 46; AG-2-36; Tr. 6, at 956).

National Grid states that the increase in the franchise tax rate created an accumulated deferred income taxes deficiency on the Company's books (Exh. NG-RRP-1, at 46; Tr. 6, at 954-957). As a result, pursuant to Accounting Standards Codification 740 ("ASC 740") (formerly Statement of Financial Accounting Standard No. 109 ("FAS 109")), National Grid recorded an additional $11,907,760 in accumulated deferred income tax liability ($11,717,222 for MECo and $190,537 for Nantucket Electric) (Exhs. NG-RRP-1, at 46; NG-RRP-2, at 32 (Rev. 3); DPU-34-6; AG-2-36, Att. 1). The Company proposes to recover the $11,907,760 over a five-year period, which results in an annual deferred income tax amortization expense of $2,381,552 (Exhs. NG-RRP-2, at 32 (Rev. 3); DPU-34-6).

At the same time, the Company proposes to offset the accumulated deferred income tax deficiency with a cumulative deferred tax liability of $14,111,602 associated with a tax basis balance sheet true-up for MECo that also will be amortized over a five year period, which results in a reduction of $2,822,320 in annual amortization expense (Exhs. NG-RRP-1, at 46; NG-RRP-2, at 32 (Rev. 3); AG-2-36-2; Tr. 6, at 957-958). Together, these two adjustments result in a net amortization amount of negative $440,768 ($2,381,552 - $2,822,320), which the Company proposes to record as a reduction to income tax expense (Exhs. NG-RRP-1, at 46; NG-RRP-2, at 32 (Rev. 3); NG-RRP-8, at 8 (Rev. 3); Tr. 6, at 961).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that because the majority of the increase in deferred tax liability was property related, the increase in the deferred tax liability was not payable immediately, and will not be payable over the next five years (Attorney General Brief at 28, citing Exh. AG-DJE-4). Instead, the Attorney General contends that the tax liability will be paid back over the remaining life of the Company's property as that property depreciates (Attorney General Brief at 29). Therefore, the Attorney General asserts that the Company's proposed five-year amortization period is inappropriate because the Company would then recover the increased income taxes more rapidly than they are actually being paid (Attorney General Brief at 29).

The Attorney General argues that consistent with Department precedent, the appropriate amortization period for the plant-related ASC 740 regulatory assets is the estimated remaining service lives of the Company's plant assets (Attorney General Brief at 29, citing D.P.U. 13-75, at 269-270; D.T.E. 05-27, at 227-228 n. 136; D.P.U. 92-111, at 172-173; Attorney General Reply

Brief at 13-14).[173] The Attorney General points out that the Department recently reaffirmed that it was appropriate to recover deferred tax regulatory assets "over an amortization period reflective of the remaining life of the company's utility plant in service at the time" (Attorney General Brief at 29, citing D.P.U. 14-150, at 241). In addition, the Attorney General argues that the Company has provided no compelling reasons to depart from this precedent for plant-related items (Attorney General Reply Brief at 14).

The Attorney General argues that of the $11,907,760 in increased corporate excise tax, $10,077,661 is plant related and subject to an amortization period based on the remaining life of the Company's net plant in service (Attorney General Brief at 28-29, citing Exh. AG-DJE-1, at 13; Attorney General Reply Brief at 13-14). In this regard, the Attorney General argues that the Company's schedules show that the average remaining life of the Company's net plant in service as of the end of the test year is 18 years (Attorney General Brief at 29, citing Exh. NG-RRP-2, at 27). She states that amortizing the plant-related portion of the ASC 740 regulatory assets over 18 years reduces the Company's annual amortization to $559,870, which is $1,455,662 less than proposed by the Company (Attorney General Brief at 29, citing Exh. AG-DJE-1, Sch. DJE-4). Alternatively, the Attorney General notes that her own analysis of National Grid's average service lives and depreciation accrual rates show that the remaining life of the Company's net plant in service is 21 years, which would reduce the annual amortization of the plant-related portion of the regulatory asset to $479,889 ($10,077,661 ÷ 21) (Attorney General Brief at 30).

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173 The Attorney General accepts the Company's proposed five-year amortization of non-plant related ASC 740 regulatory assets (Attorney General Reply Brief at 13-14).

Regarding the Company's proposed five-year amortization period of MECo's excess deferred income tax balance of $14,111,602, the Attorney General does not contest the Company's proposal (Attorney General Reply Brief at 14).

b. Company

The Company concedes in making its proposal that it was mindful of the Department's recent precedent relating to the amortization period of regulatory assets (Company Brief at 52, citing D.P.U. 14-150; D.P.U. 13-75). However, the Company argues that its proposal is intended to return to ratepayers the deferred tax balance sheet true-up over an accelerated period as opposed to returning the net credit to customers over a longer period as proposed by the Attorney General (Company Brief at 52, citing Tr. 6, at 959-960; Tr. 9, at 1482-1483). Therefore, the Company urges the Department to reject the Attorney General's proposed amortization period (Company Brief at 53).

3. Analysis and Findings

ASC 740 requires companies to recognize on their financial statements all previously unrecorded future income tax liabilities (see Exh. NG-RRP-1, at 46). See also D.P.U. 13-75, at 269; D.T.E. 05-27, at 227. The change in National Grid's state income tax expense arising from the enactment of the Transportation Finance Bill results in deficiencies in the Company's deferred state income tax reserve (Exhs. NG-RRP-1, at 46; AG-2-36). The Department has reviewed the Company's proposal and finds that National Grid may recover a regulatory asset of $11,907,760 as a result of the increase in the franchise tax rate (Exh. NG-RRP-2, at 32 (Rev. 3)).

As noted above, the Company claims that its proposed amortization period of five years is intended to return to ratepayers the deferred tax balance sheet true-up over an accelerated period as opposed to returning the net credit to customers over a longer period as proposed by the Attorney General (Company Brief at 52, citing Tr. 6, at 959-960; Tr. 9, at 1482-1483). Notwithstanding the Company's argument, however, in the case of a deficiency in a deferred income tax reserve, such as that associated with the change in state income rate as a result of the Transportation Finance Bill, a longer recovery period serves to reduce the annual amortization, thus benefiting customers. More significantly, the Department has found that it is appropriate to recover ASC 740 regulatory assets over an amortization period reflective of the remaining life of the company's utility plant in service at the time, pursuant to the South Georgia method.[174] See, e.g., D.P.U. 14-150, at 241; D.P.U. 13-75, at 269-270; D.T.E. 05-27, at 227-228 n.136; D.P.U. 95-40, at 50; D.P.U. 92-111, at 172-173; Essex County Gas Company, D.P.U. 87-59, at 55-56 (1987). The Company has provided no compelling reasons to depart from this precedent for plant-related items.

Approximately 15 percent of the Company's accumulated deferred income taxes deficiency, however, is due to non-plant related book tax timing differences, which can be subject to a quicker turnaround than most plant items (Exh. DPU-34-6). The Department finds that it is appropriate to consider the shorter turnaround associated with non-plant related timing differences in determining the appropriate amortization period in this instance. D.P.U. 14-150, at 241-242.

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[174] Pursuant to the South Georgia method, accumulated deferred income tax deficiencies resulting from changes in tax rates are recovered on a straight-line basis, by amortizing the deficiency over the remaining regulatory life of the property. D.P.U. 14-150, at 241 n.145. This approach is referred to as the "South Georgia" method because it was first prescribed by the Federal Power Commission in South Georgia Natural Gas Company, FPC RP-77-32. D.P.U. 92-111, at 171 n.49; D.P.U. 87-59, at 55-56.

National Grid's net plant balance as of October 1, 2016 (proximate to the date of this Order) is calculated at $2,307,263,848 (Exh. NG-RRP-2, at 30 (Rev. 3)). Application of the depreciation accrual rates approved in this Order to the respective plant investment account balances produces a depreciation expense of $125,244,314 (see Exh. NG-RRP-2, at 27 (Rev. 3); Section VIII.E.5.e above). Accordingly, we find that the remaining life of the Company's plant is 18.4 years.[175] The Department will calculate a five-year amortization period for the 15 percent of non-plant-related accumulated deferred income taxes, and an 18.4-year amortization period to the 85 percent of plant-related accumulated deferred income taxes, resulting in a total annual amortization period of 16.39 years.[176] Thus, the Department finds that the appropriate amortization period for the Company's ASC 740 regulatory asset is 16 years. Based on the foregoing, the Department approves the Company's recovery of its regulatory asset of $11,907,760 over a period of 16 years. Application of this amortization period to the approved balance produces an annual amortization of $744,235.

Regarding the Company's excess deferred income taxes resulting from MECO's balance sheet true-up, the Department has examined the Company's calculations (Exh. AG-2-36, Att. 2). Based on this review, we find that the Company has properly calculated the excess deferred taxes of $14,111,602. The Department also finds that five years represents a reasonable amortization period applicable to the deferred tax balance sheet true-up. Application of this amortization period to the approved balance produces an annual amortization of negative $2,822,320.

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175 The $2,307,263,848 net plant balance divided by a depreciation expense of $125,244,314 results in a remaining life equal to 18.4 years.

176 (18.4 years x 0.85) + (5.0 years x 0.15) = 16.39 years.