The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 09-39 November 30, 2009

Petition of Massachusetts Electric Company and Nantucket Electric Company, pursuant to G. L. c. 164, § 94, and 220 C.M.R. § 5.00 et seq., for a General Increase in Electric Rates and Approval of a Revenue Decoupling Mechanism.

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I. INTRODUCTION

On May 15, 2009, Massachusetts Electric Company ("MECo") and Nantucket Electric Company ("Nantucket Electric"), together doing business as National Grid ("National Grid" or "Company") filed a petition with the Department of Public Utilities ("Department") for an increase in base distribution rates for their electric customers. The Department docketed the petition as D.P.U. 09-39 and suspended the effective date of the tariffs until December 1, 2009, for further investigation.[1] MECo is currently operating under the terms of a rate settlement approved by the Department in Massachusetts Electric Company, D.T.E. 99-47 (2000). Nantucket Electric's last litigated rate case was in 1991. Nantucket Electric Company, D.P.U. 91-106/91-138 (1991). On March 26, 1996, Nantucket Electric was acquired by New England Electric System, the predecessor holding company of National Grid (Nantucket Electric Company, 1996 Annual Return at 123.1).[2] As part of the acquisition, Nantucket Electric's distribution rates were made identical to those of MECo, with the exception of a surcharge covering the cost of the underwater cables connecting Nantucket Electric to the mainland. See New England Electric System/Nantucket Electric Company, D.P.U. 95-67, at 17-18, 20 (1995); Nantucket Electric Company, D.T.E. 06-106-A at 1

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[1] The Company filed tariffs M.D.P.U. No. 1148 through M.D.P.U. No. 1175 for approval. National Grid proposes to implement its tariffs and any associated increase in distribution rates on January 1, 2010.

[2] The Department hereby takes administrative notice of Nantucket Electric's 1996 annual return.

(2007). National Grid provides electric services to approximately 1.2 million customers in 169 cities and towns throughout Massachusetts (Exh. NG-JP at 4).

On May 21, 2009, the Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a notice of intervention pursuant to G.L. c. 12, § 11E. On June 22, 2009, the Department granted intevenor status to the Massachusetts Department of Energy Resources ("DOER"), the Brotherhood of Utility Workers Council ("BUW"),[3] the Conservation Law Foundation ("CLF"), Environment Northeast ("ENE"), The Energy Network ("TEN"), the Low-Income Weatherization and Fuel Assistance Program Network and Massachusetts Energy Directors Association ("Network"), and the Western Massachusetts Industrial Group ("WMIG"). Also on June 22, 2009, the Department granted limited participant status to Cape Light Compact, Fitchburg Gas and Electric Light Company d/b/a Unitil, International Brotherhood of Electrical Workers, Local 103 ("IBEW"), NSTAR Electric Company, Solar Energy Business Association of New England and Northeast Energy Efficiency Council, United Steelworkers, Local 12003, and Western Massachusetts Electric Company ("WMECo"). On July 16, 2009, the Department granted limited participant status to the Retail Energy Supply Association.

Pursuant to notice duly issued, the Department held five public hearings: (1) in Andover on July 9, 2009; (2) in Nantucket on July 7, 2009; (3) in North Adams on July 15,

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[3] On September 8, 2009, BUW withdrew its intervention.

2009; (4) in Quincy on July 14, 2009; and (5) in Worcester on July 8, 2009. The Department held 21 days of evidentiary hearings from August 3, 2009, to September 9, 2009.[4]

On September 24, 2009, CLF submitted an initial brief. The Attorney General, DOER, ENE, TEN, Network, and WMIG submitted initial briefs on September 28, 2009. National Grid submitted its initial brief on October 7, 2009. The Attorney General, CLF, ENE, IBEW, Network, and TEN submitted reply briefs on October 14, 2009. The Company submitted two separate reply briefs on October 19, 2009, one pertaining to rate case legal expenses ("Company Reply Brief on Legal Services") and the other addressing the remaining issues in the rate proceeding ("Company Reply Brief"). The Attorney General and Network submitted supplemental reply briefs on October 23, 2009.[5] The Company submitted a supplemental reply brief on October 27, 2009. The evidentiary record consists of 1,995 exhibits and responses to 126 record requests.

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[4] On September 8, 2009, National Grid submitted a motion to amend the August 17, 2009 transcript to change 18 words or short phrases ("Motion"). On September 11, 2009, the Attorney General submitted an opposition to the Motion, and on September 17, 2009, the Company submitted a response to the Attorney General's opposition. In its Motion, the Company merely asserted that the transcript needs to be corrected but did not make an adequate offer of proof (e.g., it did not include an affidavit). In addition, in making its decisions in this Order, the Department did not rely on any of the portions referenced by the Company. Further, a transcript need not be correct in every detail, it need only "report proceedings with reasonable completeness and substantial accuracy." Bailey v. United States, 642 F.2d 344, 346-347 (9th Cir. 1981). For these reasons, even assuming that the Company is correct regarding the claimed specific errors in the transcript, we do not find any prejudice to the Company. Therefore, the Department denies the Motion.

[5] On October 19, 2009, the Department, on its own motion, modified the briefing schedule to permit the filing of supplemental reply briefs by all parties. D.P.U. 09-39, Hearing Officer Ruling on Filing of Supplemental Reply Briefs (October 19, 2009).

In support of its filing, National Grid sponsored the testimony of 16 witnesses: (1) Thomas B. King, president of National Grid USA;[6] (2) John Pettigrew, executive vice-president and chief operating officer of electric distribution operations for National Grid USA; (3) Rudolph L. Wynter, Jr., senior vice-president of customer services for National Grid USA; (4) William F. Dowd, senior vice-president of United States labor relations for National Grid USA; (5) John E. Walter, manager of outdoor lighting for National Grid; (6) Carmen Fields, director of community relations/economic development NE for National Grid USA Service Company, Inc. ("NG Service"); (7) Alejandro J. Mango, co-director of National Grid's corporate audit function; (8) Robert J. Bowcock, lead analyst for National Grid; (9) Michael D. Laflamme, vice-president of regulation and pricing for electric distribution and generation for NG Service; (10) Julie M. Cannell, president, J.M. Cannell, Inc.; (11) Howard S. Gorman, principal with Black & Veatch; (12) Robert B. Hevert, president of Concentric Energy Advisors, Inc.; (13) Kimbugwe A. Kateregga, vice-president and consultant of Foster Associates, Inc.; (14) Paul R. Moul, principal of P. Moul and Associates; (15) Susan F. Tierney, managing principal for Analysis Group, Inc.; and (16) Joseph T. Trainer, senior consultant at Black & Veatch.[7]

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[6] National Grid USA is the parent corporation of MECo and Nantucket Electric (Exh. AG 1-98, Att. at 2).

[7] The following individuals did not testify at evidentiary hearings and, instead, provided responses to information requests on behalf of National Grid and submitted sworn affidavits attesting to the veracity of the testimony: (1) Johanna M. Chung; (2) John O. Curran, Jr.; (3) Andrew E. Dinkel; (4) Linda H. Doering; (5) Jeanne A. Lloyd; (6) Robert J. Maher; (7) Alfred P. Morrissey, Jr.; (8) Timothy M. Stout; (9) Carol Teixeira; and (10) Joseph F. Weber.

The Attorney General sponsored the testimony of: (1) David E. Dismukes, consulting economist with Acadian Consulting Group; (2) David J. Effron, an independent consultant; (3) Richard S. Hahn, principal consultant for La Capra Associates, Inc.; (4) Timothy Newhard, financial analyst with the Attorney General's Office of Ratepayer Advocacy; (5) Lee Smith, managing consultant and senior economist at La Capra Associates; and (6) J. Randall Woolridge, professor of finance at Pennsylvania State University.[8] DOER sponsored the testimony of Paul Chernick, president of Resource Insight, Inc. TEN sponsored the testimony of (1) Alan Kessler, senior consultant with Accion Group, Inc., and (2) Elaine Saunders, independent consultant.

II. REVENUE DECOUPLING

A. Introduction

In Investigation Into Rate Structures that will Promote Efficient Deployment of Demand Resources, D.P.U. 07-50 (2007), the Department investigated rate structures and revenue recovery mechanisms that may reduce disincentives to the efficient deployment of demand resources in Massachusetts.[9] The Department stated that we would consider how the electric and natural gas distribution companies' existing cost recovery mechanisms could be changed to better align the companies' financial interests with policy objectives regarding the deployment

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[8] Professor Woolridge is also the Goldman, Sachs & Co. and Frank P. Smeal Endowed University Fellow in business administration at the University Park Campus of Pennsylvania State University, director of the Smeal College Trading Room, and president of the Nittany Lion Fund, LLC.

[9] Demand resources are installed equipment, measures, or programs that reduce end-use demand for electricity or natural gas. Such measures include, but are not limited to, energy efficiency, demand response, and distributed resources. D.P.U. 07-50, at 1.

of demand resources,[10] while ensuring that the companies are not financially harmed by increased use of demand resources. D.P.U. 07-50, at 1, 11. The Department noted that the existing cost recovery mechanisms provided the companies with incentives to increase sales and avoid any decrease in sales; incentives that conflict with the reduced consumption that results from the use of demand resources. D.P.U. 07-50-A at 10.

The Department examined several alternative ratemaking mechanisms, including base rate redesign,[11] lost base revenue recovery,[12] and revenue decoupling. See Id. at 25-26. The Department concluded that revenue decoupling mechanisms would effectively eliminate the financial disincentives the distribution companies currently face regarding the deployment of

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[10] We stated that these incentives may not be well aligned with important state, regional, and national goals to promote the most efficient use of society's resources, lower customer bills through increased end-use efficiency, enhance the price-responsiveness of wholesale electricity markets, mitigate the social and economic risks associated with climate change, and minimize the environmental impacts of energy production, transportation, and use. D.P.U. 07-50, at 2.

[11] While the Department considered implementing full cost-based rates, which some commenters recommended, ultimately, we decided that this would eliminate our ability to factor in important considerations such as key ratemaking principles, law and precedent, the unique practical circumstances of individual companies, the realities of prevailing energy market circumstances, and the overarching public policy objectives of the Commonwealth. D.P.U. 07-50-A at 26-28.

[12] The Department also considered implementing lost base revenue or targeted decoupling mechanisms, which would include changes in consumption that can be directly attributed to actions and activities undertaken by a distribution company. We noted, however, that the shortcomings of this approach are that it would require identification of the demand resource-related activities to be included in the mechanism, as well as a savings level for each activity, which would continue to provide distribution companies with a financial disincentive to seek or support demand resource activities that are not specifically identified in the mechanism. D.P.U. 07-50-A at 29-30.

demand resources because these mechanisms sever the link between the companies' revenue and reductions in sales that result from such deployment. D.P.U. 07-50, at 3; D.P.U. 07-50-A at 30-31.[13]

Decoupling mechanisms sever the link between revenue and sales through a periodic reconciliation of the actual revenue that a company collects from its ratepayers with a specified target revenue level. In D.P.U. 07-50-A, the Department considered two types of decoupling mechanisms: (1) a full decoupling mechanism, under which a company would use its actual revenue collected from ratepayers to reconcile against the target revenue level; and (2) a partial decoupling mechanism, under which a company would adjust its actual revenue to take into account the effect of factors such as weather and the economy. The Department concluded that, in principle, both types of decoupling mechanisms would remove the financial disincentive that distribution companies currently face regarding the deployment of demand resources because, under both approaches, companies' revenue would be decoupled from a reduction in sales that result from such deployment. D.P.U. 07-50-A at 30. However, the Department concluded that the administrative burden, complexity, and potential for manipulation and error inherent in implementing a partial decoupling approach outweigh its advantages, relative to full decoupling. Id. at 30-31.

A second way in which decoupling mechanisms may differ is in the manner in which a company's target revenue level is determined. In D.P.U. 07-50-A, the Department endorsed a

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[13] In contrast, the Department concluded that base rate redesign and targeted decoupling would not sufficiently meet our policy objectives regarding the full deployment of all cost-effective demand resources. D.P.U. 07-50-A at 26-30.

revenue per customer approach, in which a company would determine a benchmark revenue per customer amount for each of its rate classes in a base rate proceeding, and would adjust its target revenue periodically based on the number of customers it serves. See Id. at 48-49, 85. The Department recognized, however, that while a change in the number of customers served is a significant driver of the change in the cost to operate gas and electric distribution systems, it is not the sole driver of changes in costs associated with providing distribution services. Id. at 48. The Department recognized that the need for investment in distribution infrastructure and inflationary pressures could also result in changes in distribution–related costs. Id. at 49-50. The Department concluded that it would not require distribution companies to reconcile actual revenue to a revenue target based solely on the number of customers, and would "consider company-specific ratemaking proposals that account for: (1) the impact of capital spending on a company's required revenue target; and (2) the inflationary pressures with respect to the prices of goods and services used by distribution companies." Id. at 50.

In this proceeding, National Grid proposes a revenue decoupling plan pursuant to the Department's directives in D.P.U. 07-50-A (Exh. NG-SFT at 10).[14] The Company proposes a full revenue decoupling approach (i.e., no adjustments to actual revenue) in which its target revenue level would be adjusted annually to take into account the effect of inflation and its capital expenditures on its cost to serve (id. at 14-15).

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[14] The Department stated that each distribution company should submit a proposal for revenue decoupling in its next general distribution rate case. D.P.U. 07-50-A at 75-84.

The Attorney General recommends that the Department revise the Company's proposed plan in two important ways. First, the Attorney General proposes that the Company adjust its actual billed revenue to account for weather and recent trends in usage per customers, similar to the partial decoupling approach considered by the Department in D.P.U. 07-50-A (Attorney General Brief at 31, 36). Second, the Attorney General proposes that the Company adjust its target revenue level on a revenue per customer basis, similar to the approach endorsed by the Department in D.P.U. 07-50-A (Attorney General Brief at 25-28). The Attorney General and other intervenors recommend a number of other adjustments to the Company's proposed plan that they characterize as consumer protection mechanisms.

B. Company's Proposal

1. Introduction

National Grid's revenue decoupling proposal calls for the annual calculation, for each rate class, of a cent per kWh adjustment factor that would modify the base rates set for each rate class in the current proceeding (Exh. NG-SFT at 13). In addition to decoupling revenue from kWh sales, the Company's proposal includes revenue adjustment mechanisms to address the impact of inflation and cumulative capital additions that occur after the issuance of this Order (id. at 14).

2. Adjustments to Target Revenue Level

a. Introduction

Under its proposal, the Company would submit a filing on or before November 1st of each year to support the calculation of: (1) the target revenue level that would apply to the

current year;[15] and (2) the adjustment factors that would be in effect during the following year (id. at 68). The proposed adjustment factors are comprised of four components:

1. a component to reconcile the difference between the Company's actual distribution revenue and annual target revenue for the current year ("revenue decoupling adjustment");

2. a component to recover the revenue requirement associated with the Company's net distribution capital expenditures ("CapEx") since the test year used in this rate case (i.e., distribution capital expenditures above the amount supported in base rates approved in this proceeding);

3. a component to recover the revenue requirement associated with the Company's projected net distribution CapEx in the following year, based on National Grid's recent levels of such expenditures;[16] and

4. an adjustment to account for net inflation ("net inflation adjustment").

(id. at 14-15, 49, 68).

b. Reconciliation Mechanism

Under the proposed reconciliation mechanism, National Grid would calculate, on a rate class-specific basis, the difference between (1) the actual distribution revenue billed to its customers during the current calendar year through distribution rates,[17] and (2) the annual target revenue for that calendar year (id. at 47-52). Each rate class's annual target revenue

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[15] In this Order, the Department refers to the year in which the Company makes its filing as the current year.

[16] This projected component of National Grid's plan is called the "current year CapEx adjustment" in the Company's terminology (Exh. NG-SFT at 64).

[17] For the purpose of the reconciliation mechanism, distribution rates refer to the customer charge, distribution energy and demand charges, and the revenue decoupling adjustment factor in effect for each rate class during the calendar year (Exh. NG-SFT at 49).

would be comprised of three components: (1) the base rate revenue requirement approved by the Department in this rate case proceeding; (2) the revenue associated with Department-approved cumulative net capital distribution expenditures, as allocated to the rate class; and (3) revenue associated with its net inflation adjustment (id. at 49-52). For each rate class, the difference between actual billed distribution revenue and annual target revenue would be summed to arrive at a Company-wide reconciliation amount; that amount would be divided by the Company-wide kWh deliveries forecasted for the upcoming year to arrive at a cent per kWh reconciliation charge or credit (id. at 62-63).

National Grid states that it will not include in the proposed revenue decoupling reconciliation mechanism those costs that it reconciles outside of base distribution rates (id. at 48). These include: (1) costs associated with energy supply for basic service customers; (2) transmission costs; (3) costs recovered through the transition charge; (4) costs recovered through the residential assistance adjustment factor; and (5) costs associated with the distribution adjustment provision (id.).

The Company will report to the Department if at any time during the calendar year: (1) the difference between the year-to-date billed revenue and the year-to-date annual target revenue is ten percent greater than or less than the year-to-date annual target revenue; and (2) the Company anticipates that the difference will fall outside of the ten percent threshold in coming months (id. at 71, citing D.P.U. 07-50-A). To avoid an interim adjustment immediately prior to National Grid's scheduled rate adjustment, the Company proposes to

notify the Department of variances exceeding ten percent of annual target revenue no later than August 31st of each year (Exh. NG-SFT at 71).

c. Net Historic Distribution Capital Expenditure Adjustment

The Company proposes to implement a distribution CapEx adjustment mechanism that would allow it to collect additional revenue for incurred distribution capital expenditures above that which can be supported by the depreciation expense embedded in the base rate revenue requirement approved in this proceeding (id. at 49-54). The adjustment would apply to all capital expenditures incurred by the Company for distribution system investments after the test year used in its most recent rate case (id.). On an annual basis, National Grid would file with the Department documentation in support of the distribution capital expenditures that it has incurred since the Department's review of the Company's expenditures during the previous revenue decoupling annual filing (id. at 53, 63-64). National Grid proposes that the Department then review the filing to determine the prudence of the incremental expenditures as well as whether such expenditures are used and useful (id. at 53). The Company would allocate the Department-approved net expenditures to rate classes based on the manner in which capital is allocated in the allocated cost of service study approved in this proceeding (id. at 64-65).

For each rate class, the allocated revenue requirement associated with net distribution capital expenditures in the current revenue decoupling annual filing would be summed with the revenue requirement associated with the net distribution capital expenditures allocated to the rate class in previous revenue decoupling annual filings. This total would be the cumulative

net distribution capital expenditures included in, for each rate class: (1) annual target revenue; and (2) the revenue decoupling adjustment factor for the following year (id. at 64).

d. Projected Net Distribution Capital Expenditure Adjustment

National Grid proposes to implement a projected net distribution capital expenditure adjustment mechanism that would allow it to collect revenue for costs associated with distribution capital expenditures it anticipates to incur during the following year (id.). The Company would calculate its projected expenditures based on 75 percent of its average annual investment in distribution capital undertaken during the prior two years (id.). To the extent that the 75 percent amount exceeds the allowance in base rates for depreciation expense, the Company would allocate the revenue requirement associated with the net amount to each rate class and would include that amount in each rate class's revenue decoupling adjustment factor for the following year (id.).[18]

e. Net Inflation Adjustment

National Grid proposes to implement a net inflation adjustment that would allow it to collect revenue associated with the cumulative impact of inflation since this rate case proceeding,[19] net of a productivity offset (id. at 55). The Company states that this adjustment captures two key factors affecting a company's cost of operations: (1) changes in the cost of

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[18] National Grid proposes to use the rate base allocator from the allocated cost of service study approved in this proceeding to assign these costs to each rate class (Exh. NG-SFT at 64-65).

[19] Under the Company's proposal, the net inflation adjustment would reflect changes in its net costs relative to mid-year 2010 because its revenue requirement already includes an adjustment to account for inflation from the mid-year of the test year (i.e., 2008) to the mid-year of the rate year (i.e., 2010) (Exh. NG-SFT at 55-56).

its inputs to production, including labor, materials, and services; and (2) potential increases in the productive efficiency with which a company provides goods and services to its customers (id. at 56).

The Company would calculate its net inflation adjustment by multiplying: (1) the applicable operating expenses of the Company's base distribution revenue requirement, as determined in this proceeding;[20] with (2) a net inflation factor, based on the gross domestic product price index ("GDP-PI"), compounded over the relevant time period, minus a productivity factor (Id. at 55-57). The Company would allocate the net inflation adjustment to each rate class based on the allocation of operating expenses in this rate case and would include it, for each rate class, in: (1) the annual target revenue for the current year; and (2) the revenue decoupling adjustment factor for the upcoming year (id. at 66).[21]

The Company proposes to use a fixed productivity offset of 0.5 percent, based on its assessment of recent utility productivity studies submitted in the context of various regulatory proceedings addressing utility ratemaking issues (id. at 58-59).[22] The Company calculated its

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[20] The Company proposes to include in the net inflation adjustment only that portion of operating expenses that is subject to inflationary pressures and not subject to recovery through a separate cost tracker mechanism (Exh. NG-SFT at 55-56). The Company states that amount, which would remain constant through the term of the revenue decoupling proposal, is equal to $346,505,120 (Exh. NG-HSG-RR-8 (R) at 2).

[21] The GDP-PI value to be used in the mechanism would be calculated as the average of the four quarterly measures of GDP-PI as of the second quarter of each year (Exh. NG-SFT at 57).

[22] The Company stated that it relied on studies developed from 2003 to the present so as to capture recent trends in industry productivity (Exh. NG-SFT at 58).

proposed offset as the average of four productivity offset estimates from the following sources: (1) an offset of negative 0.37 percent prepared by Boston Gas Company;[23] (2) an offset of 0.24 percent prepared by Central Maine Power; (3) an average of 1.09 percent from four studies conducted by the Maine Public Utilities Commission staff using a range of sensitivity analyses; and (4) an offset of 0.18 percent prepared by Central Vermont Public Service (id. at 59-60; Exhs. NG-SFT-2; NG-SFT-3). Based on the productivity studies, the Company calculated a productivity offset of 0.28 percent. The Company, however, proposed a productivity offset of 0.5 percent, stating that, as its proposed productivity offset is higher than the average, it implicitly includes a "consumer dividend" that is often a component of PBR plans (Exh. NG-SFT at 61-62).

f. Calculation of Revenue Decoupling Adjustment Factors

For each rate class, National Grid would sum the adjustments allocated to the rate class for: (1) net historic distribution capital expenditures; (2) net projected distribution capital expenditures; and (3) net inflation (id. at 66). The Company would divide this sum by the forecasted kWh deliveries for each rate class for the following year in order to calculate a cost per kWh adjustment (id.). The Company would then add this cost per kWh adjustment to the Company-wide cost per kWh reconciliation adjustment to calculate the revenue decoupling adjustment factor for each rate class (id. at 66-67). For each rate class, the cost per kWh rate

[23] A negative offset indicates that the companies included in this study became less productive over the time period of the study.

that would be in effect for the following year would be the sum of the: (1) revenue decoupling adjustment factor; and (2) base rate established in the current proceeding (id. at 13).

3. Schedule of Filings

The Company proposes to make two filings each year (id. at 67). The first filing, which the Company proposes to submit on or about July 1st, would include information regarding National Grid's distribution capital expenditures during the previous fiscal year, ending March 31st (id.). This filing would be for information purposes only (id. at 68).

The second filing, which the Company proposes to submit on or before November 1st, would include additional months of more recent distribution capital expenditures (id.). Based on these updated data, the filing would include the following information: (1) reconciliation of billed revenue versus targeted revenue for the current year, based on actual data through September, and estimated data for October through December; (2) final reconciliation of billed actual versus targeted revenue for the previous year;[24] and (3) proposed target revenue levels, for each rate class, for the current year; (4) proposed revenue decoupling adjustment factors, for each rate class, for the following year. National Grid proposes that the Department conclude its review of the second filing in time for the proposed adjustment factors would go into effect for usage on or after January 1st of the following year (id.).

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[24] In particular, the Company would reconcile October through December of the previous year (Exh. NG-SFT at 68).

C. Positions of the Parties

1. Attorney General

a. Introduction

The Attorney General argues that the Company's proposed revenue decoupling plan: (1) goes far beyond the Department's directives in D.P.U. 07-50-A; (2) is in conflict with Department policy and precedent on issues such as forecasted test years, weather stabilization, and performance-based regulation ("PBR"); and (3) violates a number of traditional rate design goals, including efficiency, simplicity, rate continuity, and fairness (Attorney General Brief at 3, 10, 12, 14). The Attorney General argues that the proposal eliminates virtually all business risk that a regulated distribution company ordinarily bears, including the risks based upon capital cost, operation and maintenance ("O&M") cost, weather, commodity pricing, and economic growth or contraction, thus making the Company indifferent to traditional utility cost containment principles (id. at 14). The Attorney General asserts that implementation of the proposal would result in higher rates for customers, with little or no consumer benefits or protections (id. at 3, 10-12, 16).

The Attorney General argues that her proffered revisions to the Company's decoupling proposal would correct the deficiencies and inequities in the Company's proposal and the guidelines set out in D.P.U. 07-50-A (id. at 24). The Attorney General proposed revisions would: (1) adjust actual billed revenue to take into account the effects of weather and recent trends in usage per customer; (2) adjust the annual target revenue levels using a revenue per customer mechanism, as opposed to the net inflation and capital expenditure mechanisms

proposed by the Company; and (3) introduce ratepayer protection measures such as a cap on the allowed annual reconciliation amount and a set term for the decoupling plan (id.).[25]

b. Adjustments to Actual Billed Revenue

i. Weather Adjustment

The Attorney General proposes that the Department revise the Company's revenue decoupling plan to include an adjustment of its actual billed revenue that takes into account the effects of weather (id. at 31, citing Exh. AG-62, at 34-36). The Attorney General argues that her proposed revision is consistent with Department precedent, asserting that the Company's proposed plan represents a type of weather stabilization that the Department has repeatedly rejected for gas distribution companies because it would result in a considerable shift in risk from the distribution company shareholders to customers (Attorney General Brief at 31, 34, citing Bay State Gas Company, D.P.U. 92-111, at 60-61 (1992), Berkshire Natural Gas Company, D.P.U. 92-210, at 163-164 (1993), and Boston Gas Company, D.T.E. 03-40, at 423 (2003)).

The Attorney General asserts that the Company's proposed plan could increase ratepayer's weather-related risk, stating that under the plan, ratepayers will essentially be providing the Company with insurance against significant weather effects, without receiving a corresponding benefit (Attorney General Brief at 35-36). The Attorney General asserts that the Company's proposed plan is inferior to the approach generally adopted by other utilities and

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[25] The Attorney General asserts that a set term addresses the Department's request for means to mitigate the risk-shifting nature of revenue decoupling (Attorney General Brief at 36, citing D.P.U. 07-50-A at 74).

regulatory commissions in other jurisdictions, because it proposes to defer decoupling adjustments to the following year, rather than including the effects of weather in current bills (id., citing Tr. 16, at 2714-2715).[26] Because of this, the Attorney General contends that the Company's plan could actually increase customers' weather risk in instances when a mild summer is followed by an unusually hot one, in which case adjustments from the first year would increase customer bills at the same time customers are faced with high energy costs in the second year (Attorney General Brief at 35).

ii. Recent Trends in Usage Per Customer

The Attorney General also requests that the Department revise the Company's proposal to include an adjustment that takes into account recent trends in usage per customer (id. at 36, citing Exh. AG-62, at 43-48). In particular, the Attorney General proposes that the Department establish a deadband of 0.4 percent, which the Attorney General states represents the average annual decrease in usage per customer over the most recent five-year period (Attorney General Brief at 41-42). Under this proposal, the Company would apply an adjustment only if usage per customer increases or decreases by more than 0.4 percent per year -- revenue deficiencies or surpluses within the deadbead would be absorbed by the Company (id. at 25, 42). The Attorney General recommends that the deadband increase by 0.4 percent annually (e.g., the deadband would be 0.8 percent in 2011, 1.2 percent in 2012, and so forth) (id. at 25).

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[26] The Attorney General notes that the Colorado Public Utilities Commission has adopted this protection mechanism (Attorney General Brief at 43, citing AG-62, at 41).

The Attorney General contends that under her proposed revision, the Company (and its shareholders) would bear risks of changes in usage per customer (id. at 42-43). The Attorney General argues that this proposed adjustment should not discourage the Company from achieving its energy efficiency goals because it will allow the Company to recover all revenue deficiencies associated with new, incremental usage changes outside of the historic five-year average growth trends (id. at 43). The Attorney General disputes the Company's claim that this adjustment would effectively deny the Company the opportunity to earn its allowed ROE, stating that the revenue potentially at risk amounts to a projected $2 million, which translates to a 0.17 percent reduction on ROE (Attorney General Reply Brief at 22).

c. Adjustments to Annual Target Revenue Levels

i. Revenue Per Customer Adjustment Mechanism

The Attorney General recommends that the Department reject the Company's proposed net inflation adjustment and both CapEx adjustment mechanisms and, instead, require the Company to include a revenue per customer adjustment mechanism in its revenue decoupling plan (Attorney General Brief at 25-26). The Attorney General states that her proposed revenue per customer adjustment mechanism (1) is consistent with D.P.U. 07-50-A because serving new customers is a major driver of utility costs, and (2) would provide the Company with the necessary level of revenue to meet its service requirements (id. at 27-28; Attorney General Reply Brief at 17, 20).

The Attorney General identifies two benefits of a revenue per customer adjustment mechanism as compared to the Company's proposed mechanisms. First, under a revenue per

customer mechanism, revenue losses associated with decreases in the number of customers would be borne by the Company, while under the Company's proposed mechanisms, the risk of decreases in the number of customers would be borne by customers (Attorney General Brief at 21). Second, unlike the Company's proposed mechanisms, a revenue per customer approach provides the Company with an incentive to add new customers, which may benefit existing customers (id. at 21-22).

ii. Net Inflation Factor

(A) Introduction

The Attorney General states that the Department should reject the Company's proposed net inflation adjustment mechanism, arguing that it: (1) is not necessary; (2) is supported by flawed analysis; and (3) would shift costs and risk onto ratepayers, which would invite the Company to become less efficient (id. at 49-51; Attorney General Reply Brief at 17). The Attorney General argues that these deficiencies would be exacerbated if the net inflation factor failed to include a meaningful consumer dividend or earnings sharing mechanism to allow ratepayers to benefit from any improved efficiency of operations (Attorney General Brief at 51).

The Attorney General asserts that the Company failed to: (1) provide sufficient support for the its proposal; and (2) demonstrate that it is faced with high commodity and price inflation that would compromise its ability to provide safe, reliable, and economic service (id.). The Attorney General asserts that the Company did not sufficiently explain how the evidence of cost trends it presented will impact its O&M costs, asserting that the Company's

analysis neglects to present price indices for more important commodities and components of distribution-related service (id. at 49-52; Attorney General Reply Brief at 16-17, citing Exh. AG-62, at 62-64).[27]

Additionally, the Attorney General argues that, even if the Department were to accept the Company's claims regarding overall price increases, the Company: (1) failed to show that this inflationary trend is likely to continue; and (2) biased its representations by relying on statistics from a period of time when prices were temporarily distorted (Attorney General Brief at 49-50).[28] The Attorney General states that the short and sudden price inflation was the result of global economic growth which has ceased and is unlikely to resume any time soon (id. at 51).

(B) Productivity Offset

The Attorney General recommends that the Department reject the Company's proposed productivity adjustment factor of 0.5 percent because it: (1) is based upon an inadequate survey of productivity studies and regulatory decisions from other states; and (2) lacks a consumer dividend factor (id. at 13). The Attorney General argues that the Company had ample time and resources to perform a Massachusetts-specific study but instead chose to use estimates from various other states (id. at 52-53).

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[27] The Attorney General's examples of more important commodity price indices include machinery and equipment, electric conduit and conduit fittings, switchboard equipment, poles, piles, and posts (Attorney General Brief at 50).

[28] The Attorney General claims that current trends show that prices have fallen almost as dramatically as they have increased (Attorney General Brief at 49-50).

The Attorney General identifies a number of problems with the manner in which the Company developed its proposed productivity estimate. First, she argues that the Company estimate is biased downward because it includes productivity factors proposed by utilities as well as those determined by public utility commissions ("PUCs"), contending that productivity factors proposed by utilities are generally higher than those determined by PUCs (id. at 52, 56-57). The Attorney General claims that the Company should have included a number of estimates used by the Maine Public Utilities Commission, which would have resulted in a more appropriate estimate and higher productivity offset value (id. at 54-55). Second, the Attorney General states that the Company inappropriately included two natural gas productivity study estimates, asserting that electric and gas distribution companies have very different technologies, work on different scales, and have different customer mixes and cost structures (id. at 56). Third, the Attorney General asserts that the Company inappropriately based its estimate on a number of total factor productivity studies which measure all factors of production, including capital (id. at 57). The Attorney General argues that, because the Company's proposed productivity estimate would be applied to adjust only non-capital costs, a non-capital productivity measure or one based upon a differing mix of input weights, would be more appropriate (id.).

Finally, the Attorney General asserts that the Company's productivity offset should include a specific adjustment for a consumer dividend (id. at 58). The Attorney General disputes the Company's claim that its proposed productivity offset implicitly includes a customer dividend because the Company's witness was unable to identify the implied consumer

dividend factor in her analysis (id. at 58-59). The Attorney General argues that Department precedent requires that if a company is not a superior cost performer, it must include a meaningful consumer dividend in its productivity offset, based upon the theory that if the company has been unable to keep its O&M costs lower than its peers, then it should have a greater opportunity for future efficiencies (id., citing Exh. AG-62, at 62).[29] The Attorney General states that the evidence demonstrates that the Company is an average, not superior, cost performer and that it has the ability to attain greater efficiencies with a PBR-like inflation adjustment factor that includes a meaningful consumer dividend (Attorney General Brief at 60). Finally, the Attorney General disputes the Company's claim that a fixed term is a critical component for a PBR proposal that includes a consumer dividend. The Attorney General argues that if a fixed term is required to guarantee improved performance, than a net inflation factor must also require a fixed term (id. at 58).

iii. Capital Expenditures Adjustment Mechanism

The Attorney General states that, while she supports the Company's goal of recovering prudent capital expenditures that are necessary to maintain its distribution system and provide safe and reliable service, she is opposed to the Company's proposed CapEx adjustment

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[29] For example, the Attorney General states that the Department found that Bay State Gas Company ("Bay State") was an average cost performer compared with the distribution companies included in the sample and that Bay State had the potential to achieve significant cost savings and efficiency gains during the term of the PBR plan (Attorney General Brief at 59, citing D.T.E. 05-27, at 393). Therefore, the Department rejected Bay State's proposed 0.3 percent consumer dividend factor and, instead, imposed a 0.4 percent factor in the price-cap formula (Attorney General Brief at 59, citing D.T.E. 05-27, at 393).

mechanism, stating that it will: (1) increase almost automatically every year without any guaranteed reduction in O&M costs or increased reliability; (2) provide an incentive to the Company to increase its capital expenditures; and (3) result in excessive administrative burden for the Department (id. at 24, 72, 84, 87). The Attorney General asserts that the Company failed to demonstrate that: (1) its plant is old and in dire need of substantial and immediate investments; (2) its current spending levels are insufficient to maintain service on its distribution system; and (3) that a specialized capital recovery mechanism is required to pay for necessary investments (id. at 72, 77). In addition, the Attorney General asserts that the Company did not propose, develop, or provide sufficient and timely information regarding how to evaluate and track the costs, benefits, and performance of its proposed CapEx mechanism (id. at 82).

Finally, the Attorney General states that the Department has previously rejected the use of automatic cost recovery mechanisms similar to the one proposed by the Company because the companies proposing them failed to provide convincing evidence that: (1) capital replacement costs would far exceed historic costs; (2) the costs of future investments would exceed (and grow more rapidly than) revenue collected from customers; and (3) the expenditures are outside of the companies' control (id. at 83, citing Exh. AG-61, at 36, Exh. NG-MDL-1, at 3, line 5; Bay State Gas Company, D.T.E. 05-27, at 44 (2005); Bay State Gas Company, D.P.U. 07-89, at 41-45 (2008); Consumers Organization for Fair Energy Equality v. DPU, 368 Mass. 599, 601-608 (1975)).

The Attorney General rejects the Company's claim that its distribution plant is old and that a specialized capital recovery mechanism is needed to pay for its replacement (Attorney General Brief at 77). The Attorney General asserts that the Company's depreciation study shows that the life expectancy of Company assets has increased (extending the average remaining life by almost seven years, with larger increases for some categories of assets) (id. at 77, 80). The Attorney General argues that the Department should not rely on the evidence provided by the Company which shows the age and number of distribution breakers and transformers, stating that it is inconclusive and fails to provide sufficient context about the age of the Company's distribution system (id. at 78).[30] The Attorney General states that she compared the Company to a peer group of Northeastern utilities which showed that the majority of the Company's assets have remaining lives that are similar to the assets of its peer utilities. In instances where the lives of the Company's assets are shorter, the Attorney General contends that they are not dramatically different from the comparison group (id. at 79).

The Attorney General argues that, even if the Company could make a convincing argument regarding the need for emergency investments, it would be unable to show that it had performed proper maintenance and undertaken necessary improvements consistently over the

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[30] The Attorney General states that this evidence also demonstrates that nearly half of the distribution breakers and transformers have a remaining average life of around 45 years each (Attorney General Brief at 78, citing AG-62, at 66). In addition, the Attorney General states that the evidence demonstrates that almost 80 percent of pole top transformers and over 50 percent of breakers and reclosers are less than 30 years old (Attorney General Brief at 78).

term of its ten-year merger rate plan (id. at 72). The Attorney General states that the Company was penalized by the Department for poor service quality from 2002 to 2006, but not in the last two years, which demonstrates that effective system improvements were made (id.). The Attorney General concludes that because these costs were recovered through base rates, a special recovery mechanism is unwarranted (id. at 72-73).

The Attorney General asserts that the Company's plan to invest $293 million in capital improvements by 2013 (an increase of 85 percent over current levels) would outpace any incremental capital spending that could be reasonably attributed to sales growth (id. at 73). The Attorney General asserts, while that the Company has projected significant increases in capital spending from 2008 to 2013, the Company's actual levels of capital expenditures declined between 2006 and 2008 (id. at 74). The Attorney General states that it is particularly problematic that the Company is proposing to increase spending during the current economic downturn and it begs the question of why such sizable expenditures were not made in the past (id. at 74-75). The Attorney General also notes that the Company's proposal creates intergenerational inequities because current and future customers will pay for investments that should have been made in the past (id. at 75).

The Attorney General argues that the Company can rely upon depreciation, retained earnings, and other sources of internally-generated funds for financing capital investments, noting that, to the extent that these sources prove incapable of supporting the Company's capital spending, the Company can issue new debt and equity or file a petition for a rate

increase (id. at 74).[31] Further, the Attorney General claims her analysis shows that if the CapEx is approved and the Company continues its history of financing capital expenditures with short-term debt, it will earn exorbitant profits (id. at 75-77).

The Attorney General disputes the Company's claim that without its proposed CapEx mechanism it would immediately need to file a new rate case. The Attorney General argues that this claim is without realistic and sound quantitative support, arguing that the quantitative analysis the Company provided included several flawed assumptions and understates the Company's potential to earn its allowed return under decoupling (Attorney General Reply Brief at 6-8, 12).[32] The Attorney General contends that the potential revenue shortfall depicted by the Company is partly due to its use of a total revenue decoupling approach, as opposed to a revenue per customer approach, stating that the Company conceded during evidentiary hearings that a revenue per customer approach would mitigate the potential earnings shortfall depicted in the Company's analysis (id. at 7-8, 11, citing Tr. 21, at 4026).

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[31] The Attorney General states that her analysis shows that the Company's financing approach will allow it to finance future capital additions under decoupling without CapEx (Attorney General Brief at 77).

[32] For example, the Attorney General notes that the analysis did not include deferred income taxes and used year end instead of average rate base (Attorney General Reply Brief at 7-8). Further, the Attorney General asserts that the Company included an unrealistically high growth rate for capital expenditures using an 11 percent growth forecast for capital expenditures which is well beyond historic levels (id. at 8). The Attorney General notes that, over the last ten years, the Company never experienced growth in annual capital expenditures of more than 7.5 percent and its averages of capital expenditures were 5.5 percent over the last ten years and 6.1 percent over the last five years (id. at 9). The Attorney General also notes that, for the last four years, the number of residential customers has grown by 0.79 percent and sales growth has averaged 0.26 percent per year (id., citing Exh. AG-62, Sch. 4).

The Attorney General asserts that because the Company's proposed CapEx mechanism includes a return and income taxes, the Company's earnings will increase in proportion to its capital expenditures (Attorney General Brief at 84). As such, the Attorney General asserts that, under decoupling, implementation of the CapEx mechanism is the easiest way for the Company to increase earnings and, thus, will induce: (1) the Company's employees to increase capital expenditures (asserting that the Company's employees have specific financial incentives included in their compensation); and (2) the Company to increase capital expenditures to avoid refunding revenue collected from customers, stating that if capital expenditures fall below the level of allowed depreciation in base rates, the Company would be required to refund the difference to customers (id. at 84-87; Attorney General Reply Brief at 24).[33]

The Attorney General contends that approval of the CapEx mechanism: (1) would reinforce the problematic incentive a utility has to substitute suboptimal capital investment for non-capital expenditures; (2) may bias the Company's technological and investment decisions; and (3) could lead to situations where the Company's management would be biased toward solving problems through capital investments rather than increased O&M because capital investments will result in higher earnings for the Company (Attorney General Brief at 20-21,

[33] The Attorney General notes that managers, including numerous witnesses who testified during this proceeding, own significant holdings in the stock of National Grid plc. (Attorney General Brief at 86-87).

Attorney General Reply Brief at 24).[34] The Attorney General states that this is especially a concern because the Company has not proposed any benchmarks to ascertain benefits such as improved reliability or operational efficiencies (Attorney General Brief at 21).

The Attorney General asserts that approval of the CapEx mechanism will result in excessive administrative burden for the Department and will fundamentally shift the burden of proof regarding necessary, economic, used and useful from the electric and gas distribution companies to the Department, thus changing regulatory practice in Massachusetts (id. at 18, 87-88). The Attorney General states that because the Company's proposal would provide the Department with only 60 days to decide on the prudence and reasonableness of past capital expenditures, the Department would not have sufficient time to perform an adequate review, especially because such proceedings would likely be contentious, complex, and cumbersome (id. at 87). Additionally, the Attorney General argues that if the Department approves the Company's proposed CapEx mechanism, other electric and gas distribution companies would likely seek similar mechanisms, resulting in 17 annual capital expenditure proceedings (id.).

The Attorney General further asserts that the Company's proposal is an attempt to eradicate regulatory lag, which imposes a certain amount of discipline on spending between rate cases (id. at 18-20, 88). The Attorney General explains that management has little incentive to control costs if it will have no effect on profits, which would occur if the Company

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[34] The Attorney General states that this perverse incentive exists because distribution companies earn a return on capital but do not earn a return on costs included in rate base, referring to this as the "Averch Johnson effect" (Attorney General Reply Brief at 24).

were able to pass its costs through to customers with little or no regulatory scrutiny (id. at 20).[35]

d. Other Issues

i. Introduction

The Attorney General proposes the following mechanisms that should be included in the Company's revenue decoupling plan as ratepayer protections: (1) a cap on the amount the Company would recover through its annual decoupling reconciliations, in order to minimize the possibility of large adjustments to rates; and (2) a three-year term for the plan, after which the plan would terminate if the Company does not meet certain pre-defined terms (id. at 25, 37, 41).

ii. Cap on Annual Reconciliation Amount

The Attorney General proposes that, if the Department does not accept her proposal regarding an adjustment of actual billed revenue to take into account recent trends in usage per customer, the Department should adopt, as an alternative risk mitigation measure, a cap on the reconciliation amount that the Company could recover (or credit to) for its ratepayers (Attorney General Reply Brief at 42-45). The Attorney General proposes setting the cap at two percent of the Company's base revenue, which would equal $12.6 million (Attorney

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[35] The Attorney General claims that in order to maintain low costs, traditionally, electric and gas distribution companies have evaluated the cost-effectiveness of performing capital investments versus increasing labor, buying versus leasing, replacing versus repairing because companies would have to live with the results for several years (Attorney General Brief at 88).

General Brief at 42). Under this recommendation, the Company would absorb annual revenue deficiencies or surpluses that exceed the cap (id.).

iii. Evaluation/Termination of the Decoupling Plan

The Attorney General proposes that the Department require a formal evaluation of the Company's revenue decoupling plan after three years to determine whether: (1) the decoupling plan is operating as intended; and (2) the Company is meeting its energy efficiency goals, stating that the Company's energy efficiency performance provides a good indication of whether the decoupling plan has been successful (id. at 46). The Attorney General states that this type of review is appropriate to protect ratepayers from unanticipated outcomes resulting from revenue decoupling, asserting that an overwhelming majority of states that have adopted revenue decoupling have done so for a limited period and have included program evaluations (id. at 48).[36] The Attorney General argues that the review process should be clearly established in advance so it can be understood by all parties, and that the Department should establish a rebuttable presumption that the decoupling plan will be terminated if energy efficiency goals and standards are not being met, stating that this would place the burden of proof to continue decoupling on the utility (id. at 47).

e. Conclusion

In conclusion, the Attorney General recommends that the Department reject the Company's decoupling mechanism and adopt her proposal (Attorney General Reply

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[36] The Attorney General notes that several states, including Oregon and North Carolina, have completed primary review evaluation processes that indicated positive results and, therefore, have decided to continue revenue decoupling (Attorney General Brief at 48).

Brief at 230). The Attorney General contends that her decoupling proposal contains sufficient customer protections to prevent the harms that resulted from revenue decoupling in Maine in the early 1990s, where recession coincided with the establishment of revenue decoupling and revenue decoupling was ultimately terminated (Attorney General Brief at 44-45).[37] The Attorney General states that Maine's experience proves that revenue decoupling must have "circuit breakers" to prevent shifting an inordinate amount of risk away from shareholders and onto ratepayers (id. at 45).

2. Conservation Law Foundation

a. Introduction

CLF generally supports the Company's revenue decoupling proposal, stating that it will provide significant benefits to ratepayers as part of a comprehensive plan to ramp up energy efficiency and demand resources in the Commonwealth (CLF Reply Brief at 2-3). CLF states that while the proposal largely meets the directives of the Department's Order in D.P.U. 07-50-A, the Department should require the Company to more fully develop it prior to implementation to include: (1) performance standards for the CapEx mechanism;[38] (2) a comprehensive evaluation of the decoupling mechanism; and (3) additional detail regarding the interim adjustment mechanism (CLF Brief at 7-8, 13-17).

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[37] Revenue decoupling in Maine resulted in large deferrals, reaching $52 million, of which only a small portion was attributed to conservation efforts and most being due to the recession (Attorney General Brief at 45).

[38] CLF recommends that the Department treat the CapEx adjustment mechanism as distinct from the Company's proposed decoupling plan (CLF Brief at 16).

CLF opposes the Attorney General's proposed revisions, arguing that the revisions flatly contradict findings and directives from the Department's earlier decoupling Orders (id. at 8-9). CLF disputes the Attorney General's assertion that the Company's proposal does not contain consumer protections or benefits, arguing that because decoupling supports the deployment of demand resources, it will provide benefits to all ratepayers (i.e., unlike energy efficiency programs, where most benefits accrue to the participants). Specifically, CLF claims that ratepayers will benefit from decoupling mainly through the demand reduction induced price effect, or DRIPE (id. at 3, 9, citing D.P.U. 07-50-A at 23; RR-CLF-1, Att.).

b. Adjustments to Actual Billed Revenue

CLF states that the Company's proposal for a full decoupling mechanism is consistent with the Department's Order in D.P.U. 07-50-A (CLF Brief at 7, citing Exh. NG-SFT at 47, 62-63; Tr. 4, at 740-742). In contrast, CLF asserts that the Attorney General's proposed revisions, which include adjustments to account for the effects of weather and recent trends in usage per customer, represent a partial decoupling mechanism (CLF Brief at 8-12). CLF argues that the Department rejected partial decoupling in D.P.U. 07-50-A on the basis that it would not completely remove a company's incentive to increase its throughput (id. at 8-12). CLF argues that any party who attempts to deviate from policies set forth in a generic proceeding bears the burden of demonstrating the reasonableness of the departure and the compelling nature of the request, which, CLF asserts, the Attorney General has not accomplished in this proceeding (id. at 9).

c. Adjustments to Annual Target Revenue

CLF states that, to help ensure that the Company's CapEx adjustment mechanism produces substantial benefits to ratepayers, the Department should require the Company to include the following information in its annual revenue decoupling reconciliation filings: (1) expected increases in service quality and performance from replacement of existing infrastructure; (2) accommodations made for energy efficiency and demand side management; (3) an analysis of whether an investment in energy efficiency and demand side management could obviate the need for the specific capital investment; (4) a review of whether past capital expenditures have produced expected increases in service quality and performance; and (5) a qualitative assessment of the impacts of capital investments on the reliability of the system and the deployment of additional energy efficiency and demand side resources (id. at 16-17).[39]

d. Other Issues

i. Evaluation of the Company's Performance

CLF recommends that because National Grid would be the first electric distribution company in the Commonwealth to implement a revenue decoupling mechanism, the Department should review the Company's performance under the plan after three years, in conjunction with a review of the Company's implementation of its initial three-year energy efficiency plan (id. at 13-14).[40] CLF states that the Company should provide the following

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[39] CLF notes that its recommendations are consistent with those put forth by DOER and TEN (CLF Brief at 16-17).

[40] CLF notes that revenue decoupling is being implemented in conjunction with the ambitious plans for energy efficiency programs pursuant to An Act Relative to Green Communities, Acts of 2008, chapter 169 (CLF Brief at 14).

information for the purpose of this review: (1) a qualitative analysis of the effect of revenue decoupling on the Company's energy efficiency targets and its customer service; (2) reports on the three-year energy efficiency plans; (3) information about customer growth; (4) information about the decoupling adjustments made for each class during the operation of the mechanism; (5) unexpected results; and (6) any other information that the Department deems important (id. at 14). Countering the Attorney General's recommendation, CLF argues that the Department should not establish a presumption that revenue decoupling will be eliminated at the end of the first review period (id. at 15).

ii. Cap on Annual Reconciliation

CLF asserts that the Attorney General's concern about the potential for large reconciliation adjustments, as well as her assertion that ratepayers are highly unlikely to ever receive any refunds through revenue decoupling adjustments, are unfounded (id. at 11, CLF Reply Brief at 2). CLF cites to studies of existing decoupling mechanisms in the United States that show that revenue decoupling adjustments: (1) tend to be small (i.e., no greater than one to two percent of retail sales; and (2) provide both refunds and charges to customers (CLF Brief at 11, citing CLF-1 at 4; Tr. 13, at 2173-2177; CLF Reply Brief at 2).

Addressing the Attorney General's argument that Maine's difficult experience with decoupling supports her proposed consumer protection measures, CLF claims that the Attorney General failed to provide any context that would allow the Department to draw useful comparisons between Maine's experience and National Grid's proposed decoupling plan (CLF Brief at 9-10, citing Exh. AG-62, at 19). Specifically, CLF claims that the Attorney General

failed to explain: (1) what type of revenue decoupling mechanism(s) Maine had adopted; (2) whether revenue decoupling was adopted as part of a full rate case or a settlement agreement; and (3) what portion of the deferred revenue decoupling adjustments were attributable to high fuel costs (CLF Brief at 10).[41] CLF asserts that the Maine experience has been largely dismissed as an isolated incident where the poor results were primarily attributable to changes in economic conditions and not the revenue decoupling mechanism itself (CLF Brief at 10, citing Exh. NG-SFT-Rebuttal at 22 n.44).

3. Department of Energy Resources

a. Introduction

DOER argues that, overall, the Company's proposed revenue decoupling plan is reasonable in that it fully decouples sales from revenue and, therefore, achieves the Department's objective of removing the disincentive to adopt energy efficiency and demand response programs (DOER Brief at 3). In contrast, DOER claims that the Attorney General's recommendations to remove the effects of weather and declining use per customer from revenue decoupling would constitute a partial decoupling approach (id. at 4-6). Also, DOER contends that establishing partial decoupling and a two percent cap on annual decoupling reconciliations would provide the Company with a continued incentive to increase or minimize

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[41] CLF notes that, in addition, the Attorney General described some distinguishing factors between the two mechanisms, stating that the Maine plan included: (1) vertically-integrated utilities; (2) decoupling adjustments for more than distribution costs; (3) a limitation on a utility's ability to recover the decoupling adjustment immediately; and (4) a change in accounting rules which required the pass-through of deferrals in a shorter time period than expected (CLF Brief at 10, citing Exh. NG-SFT-Rebuttal at 21-22).

any decline in electricity throughput, which would be inconsistent with the Department's order in D.P.U. 07-50-A (id., citing Exh. AG-62, at 2).

b. Adjustments to Actual Billed Revenue

DOER rejects the Attorney General's recommendation to normalize for weather because it is incompatible with D.P.U. 07-50-A (DOER Brief at 5-6, citing Exh. AG-62, at 36). DOER contends that the Department described a partial decoupling approach as one that excludes factors that change consumption but are unrelated to the deployment of demand resources, specifically identifying weather as one such factor (DOER Brief at 5, citing D.P.U. 07-50-A at 30). Finally, DOER asserts that the Department correctly concluded that the administrative burden, complexity, and potential for manipulation and error inherent in implementing a partial decoupling approach outweighs it advantages relative to full decoupling (DOER Brief at 5, citing D.P.U. 07-50-A at 31).

c. Adjustments to Annual Target Revenue

i. Introduction

DOER states that if the Department does not approve the CapEx mechanism, it should consider imposing a revenue decoupling mechanism based on revenue per customer, which would enable the Company to recover incremental costs and revenue associated with the addition of new customers to its system that would be otherwise non-recoverable under its proposed revenue decoupling mechanism (DOER Brief at 4).

ii. Net Inflation Adjustment

DOER states that the 0.5 productivity offset that the Company proposes to include in its net inflation adjustment is problematic because the Company has failed to demonstrate that the

studies it used will: (1) apply to the Company's specific circumstances or its revenue decoupling proposal (noting that some studies were related to settlement agreements), and (2) represent appropriate productivity improvements for a fundamental transformation in business practices and organizational structure, as the Company has proposed in this proceeding (id. at 8-10, 13-15, citing Exh. NG-JP-1, at 7, 9). DOER states that, while the Company provided information in this proceeding which shows that it expects that the benefits of its proposed capital investment initiative will significantly exceed the costs, it has not presented any evidence or analysis on the productivity improvements that its increase in capital spending (as well as its other initiatives) should produce, both in terms of O&M and capital because the Company does not plan to assess actual productivity gains until its next rate case (DOER Brief at 14-15, citing Exhs. DOER 1-17 and DOER 1-20(b)). DOER states that without such analysis, it is difficult to evaluate whether the proposed O&M adjustments to target revenue are appropriate (DOER Brief at 14, citing DOER 1-17). DOER recommends that the Department require the Company to redevelop its productivity factor to incorporate the specific plans and expected outcomes of the Company's proposed initiatives, noting that this will not delay implementation of the decoupling plan because it will not begin until early 2011 (DOER Brief at 13-15).

iii. Capital Expenditure Adjustment Mechanism

DOER states that it generally supports the Company's proposed CapEx adjustment mechanism, stating that capital investment projects can have significant short-term and long-term benefits for customers and generate significant operational efficiencies (id. at 12).

DOER states that because the Company has traded its reactive, repair-oriented inspection and maintenance approach to a proactive, inspection and replacement-oriented approach, it will incur future capital investment expenses at a significantly higher level than in the past (id. at 8-9). DOER states that it recognizes that the Company's inability to retain revenue from increased sales under revenue decoupling creates a need for additional sources of funds to recover future costs that are not included in base rates (id., citing Exhs. NG-SFT at 12-13, 16-17, 32-33, 36; NG-TBK-1, at 18).

DOER notes, however, that the Company projects to collect $145 million in additional distribution revenue over the first two years of operation, an annual increase in distribution revenue of approximately eleven percent (DOER Brief at 10).[42] DOER argues that such an increase must be accompanied by significant and verifiable benefits, which the Company has yet to develop (id.).[43] DOER states that while it accepts the validity of the Company's expectation regarding the benefits of its changing focus and proposals, the Company has not provided sufficient detail to enable the Department to evaluate whether capital investments were prudent and necessary (id. at 11-12).

DOER recommends that the Department make its approval of the CapEx mechanism contingent upon the Company's identification of performance metrics, so that the Department

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[42] DOER states that that while it requested that the Company provide projections about the amount of revenue during the next five years, the Company provided only projections about revenue for the next two years (DOER Brief at 10).

[43] However, DOER states that the Company did not provide the metrics that it would use to assess the benefits (DOER Brief at 11, citing Exh. DOER-1-22, Tr. at 1728-1731, 1753).

and stakeholders can assess the benefits and cost-effectiveness of the Company's capital investment projects. DOER argues that this proposal is appropriate and will not result in delay because the proposed revenue decoupling plan will not go into effect until the beginning of 2011, which gives the parties one year to develop an appropriate evaluation plan (id. at 13).[44]

Finally, DOER recommends that the Department reject the Company's proposed CapEx "look forward" adjustment, which seeks to recover capital before it has been spent (id. at 16).

4. Environment Northeast

a. Introduction

ENE supports the Company's proposed revenue decoupling plan, stating that the proposal: (1) is consistent with the Department's generic decoupling Order, D.P.U. 07-50-A; and (2) will further the goals and mandates of An Act Relative to Green Communities, Acts of 2008, chapter 169 ("Green Communities Act"), particularly the accelerated deployment of energy efficiency and demand resources (ENE Brief at 2). ENE states that, because the Company's decoupling proposal will fully separate its revenue from all changes in consumption (regardless of the underlying causes of changes), it will eliminate a financial disincentive which poses a powerful barrier to the successful implementation of demand reducing measures, a disincentive that will increase in impact and size with the energy efficiency mandates of the Green Communities Act (id. at 5-6, citing Tr. 4, at 778; ENE Reply Brief at 2, citing D.P.U. 07-50-A at 31). In addition, ENE contends that full decoupling avoids complex

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[44] DOER states that the identification of performance metrics could be part of this proceeding or a separate proceeding (DOER Brief at 13).

determinations about the causes of changes in consumption and sales (ENE Brief at 8, citing D.P.U. 07-50-A at 30-31).

ENE urges the Department to reject the Attorney General's revenue decoupling proposal because it will not result in full decoupling, contrary to the Department's findings in D.P.U. 07-50-A, and is inconsistent with the Commonwealth's policies on energy efficiency and demand side resources (ENE Brief at 2, 8).

b. Adjustments to Actual Billed Revenue

ENE argues that the Department should reject the Attorney General's attempt to track and adjust for changes caused by weather, stating that the Attorney General's revenue decoupling proposal is actually a partial decoupling approach that would require cause undue administrative burden, through a complex, and resource-intense process (id. at 9-11, citing Exh. AG-62, at 36, D.P.U. 07-50-A at 31). ENE asserts that the Attorney General inaccurately compares the full decoupling mechanism proposed by the Company to weather stabilization clauses proposed by Massachusetts gas companies in the past (ENE Brief at 9, citing Exh. AG-62, at 31-34). ENE states that prior weather stabilization clause proposals involved statistical estimates of normal weather, which are based on historic data, and projections about how future variations will affect sales volume (ENE Brief at 9). ENE claims that this is distinguishable from the Company's proposal, which accounts for the effects of weather and other variables without potential inaccuracies, and it will collect no more and no less than the approved revenue requirement (ENE Brief at 9). ENE disagrees with the Attorney General's claim that the Company presented insufficient evidence for its proposal to

include the effects of weather in its decoupling adjustment (ENE Brief at 9, citing Exh. AG-62, at 36).

ENE also refutes the Attorney General's contention that the Company's proposed decoupling plan shifts risk factors that influence sales, such as weather, from the utility to the ratepayer, stating that the Attorney General's witness recognized the reduction in risk to ratepayers under revenue decoupling (ENE Brief at 11, citing Exh. AG-62, at 18, Tr. 16, at 2734-2735). ENE agrees with the Company that revenue decoupling benefits both customers and shareholders in shifting the risk of sales variations (ENE Brief at 11, citing Exh. NG-SFT-Rebuttal at 11). ENE states that the Attorney General fails to recognize the symmetrical and opposite risks borne by both the Company and its customers for a variety of factors that may impact sales (ENE Reply Brief at 4).[45]

c. Adjustments to Target Revenue Levels

ENE takes no position on the Company's proposed CapEx and net inflation mechanisms. ENE recognizes, however, that full decoupling eliminates sales growth as a means to increase revenue between rate cases and states that a revenue adjustment mechanism is appropriate to enable the Company to recover cost increases over time due to inflation and other factors (ENE Brief at 2).

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[45] ENE states that without revenue decoupling, a customer bears the risk of higher than expected sales and a distribution company bears the risk of lower than expected sales (ENE Reply Brief at 4-5, citing Exh. NG-SFT-Rebuttal at 11). With full decoupling, ENE asserts that the opposite risks of customer overpayment and customer undercollection are reduced (ENE Reply Brief at 5, citing Exh. NG-SFT-Rebuttal at 11).

ENE opposes the Attorney General's proposal to require a revenue per customer approach for the Company's revenue decoupling plan (id. at 14). ENE argues that the Department was clear in D.P.U. 07-50-A that it would not require gas or electric distribution companies to reconcile revenue based on the number of customers when other factors could increase the cost of providing service, such as infrastructure replacement, new technology, patterns of customer growth, increases in load, and inflationary pressures (id. at 14, citing D.P.U. 07-50-A at 48-50). Therefore, ENE concludes that a revenue per customer approach should not be required here (ENE Brief at 14).

d. Other Issues

i. Cap on Annual Reconciliation

ENE recommends that the Department reject the Attorney General's proposed cap on the annual reconciliation adjustment, stating that it would add unnecessary complexity, and would fail to sever the link between the Company's sales and revenue (id. at 12-13, citing Exh. AG-62, at 41-42). ENE asserts that, to the extent that decoupling adjustments will exceed two percent of revenue, the cap will preserve a disincentive for the Company to invest in and deploy energy efficiency (ENE Brief at 13). ENE also claims that this cap is unnecessary because the Department requires interim decoupling adjustments whenever annual decoupling adjustments are projected to exceed ten percent of target revenue (id., citing D.P.U. 07-50-A at 63). ENE claims that the Attorney General's comparisons to Maine's decoupling experience are misplaced and irrelevant to the Company's current structure and revenue decoupling proposal (ENE Brief at 6). Finally, ENE recommends that the Department

reject TEN's proposal to institute a 200 basis point deadband above and below the allowed ROE, which is described further below (ENE Reply Brief at 3-4, citing TEN Brief at 24-25).

ii. Evaluation of Company's Performance Under Decoupling

ENE agrees with the Attorney General's recommendation that the Department should conduct interim reviews of the Company's revenue decoupling mechanism to determine whether it has resulted in unintended consequences, stating that a targeted review of the Company's revenue decoupling mechanism should be conducted after two or three years of operation (ENE Brief at 14-15, citing Exh. AG-62, at 43). However, ENE requests that the Department refrain from establishing a regulatory presumption that revenue decoupling be eliminated after three years, stating that such a proposal runs counter to the Commonwealth's long-term policy goals (ENE Brief at 15).

5. The Energy Network

a. Introduction

TEN identifies several concerns about the Company's proposed revenue decoupling plan, stating that with the inclusion of cost trackers and inflation adjustment factors, the plan goes well beyond revenue decoupling (TEN Brief at 19-20). TEN argues that the Company's revenue decoupling approach will lead to frequent and unpredictable rate changes, which would make it difficult for customers to plan and budget (id. at 20).

b. Adjustments to Target Revenue Levels

TEN supports the Company's proposal to adjust target revenue to account for capital investments that are not included in rate base (id.). TEN contends, however, that the frequency of adjustments and reconciliations must be limited, and the Company must

demonstrate that it is achieving the Commonwealth's goals for energy efficiency (id.). TEN agrees that the Company should be able to recover its necessary and prudently-incurred costs to provide service ratepayers, but only: (1) after a thorough examination of revenue requirements; and (2) if specific performance criteria are met and shareholders' returns are not distorted (id.).

TEN asserts that the Company's proposal to provide the Department with only two months to review rate adjustments is inadequate, particularly because this would be a busy time for the Department and would occur during the holiday season (id. at 27). Thus, TEN encourages the Department to require that filings be submitted no later than August 31st of each year, which would provide a four month review period and include changes in net capital investments based on actual costs incurred through June 30th of that year (id.). TEN recommends the development of standards in advance of any adjustments to measure whether expenditures are reasonable and appropriate, as well as to ensure the effectiveness and efficiency of the review (id. at 28).[46] According to TEN, metrics could include pre-defined reductions in peak load, improved system load factor, reductions in average use per customer, and targets for the percentage of load provided from renewable sources (id., citing Exh. TEN-2, at 38).

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[46] TEN claims that establishing performance goals prior to initiation of the review process will enhance the public's appreciation for rate changes and respect for the regulatory process (TEN Brief at 28). TEN expects the Company to support this approach because it would increase transparency and provide public acceptance of costs, countering the view that automatic adjustments are rubber-stamped by regulators (id. at 28-29, citing Exh. TEN-2, at 34).

Finally, TEN argues that there is no basis for the Company's proposed adjustments for capital investments and O&M expenses, arguing that this appears to be an attempt by the Company to circumvent the Department's prohibition on: (1) the use of a future test year, and (2) including construction work in progress in rate base (TEN Brief at 21-22, citing D.P.U. 07-50-A at 53; Tr. 18, at 3452-3453).[47] TEN argues that, under this proposal, customers would pay for plant which is not yet in service or even identified, and there is no way to evaluate whether the capital investment is prudent, reasonable, or used and useful (TEN Brief at 21, citing Tr. 18, at 3452-3453).

c. Other Issues

i. Revenue Collar

TEN argues that the Company's proposal shifts considerable risk to ratepayers without commensurate benefit (TEN Brief at 23-24, citing Exh. TEN-2, at 29). To appropriately allocate risk and reward between the Company and ratepayers, TEN recommends that the Department establish a symmetrical ROE collar, where the Company could not earn more than a maximum nor less than a minimum ROE, stating that this would reduce the frequency of rate changes and motivate the Company to perform efficiently (TEN Brief at 24, citing Exh. TEN-2, at 39). TEN proposes a collar that is 200 basis points above and below the ROE approved in this proceeding (TEN Brief at 24, citing Tr. 18, at 3327).[48]

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[47] TEN refers to the Company's CapEx "look forward" proposal (TEN Reply Brief at 8).

[48] TEN states that if the Company's actual ROE were to fall within this deadband, there would be no adjustment to rates, but if ROE exceeded the deadband by 200 basis

TEN refutes the Company's argument that a proposed ROE collar is a departure from the Department's directives in D.P.U. 07-50-A, stating that it is no more a departure than the Company's own proposed earnings sharing mechanism (TEN Reply Brief at 9-10). TEN states that this mechanism preserves regulatory oversight in a simple manner while potentially reducing regulatory burden and it provides the Company with an expedited means to adjust rates if its earned rate of return changes significantly (TEN Brief at 24-25).

ii. Evaluation of the Company's Performance under Decoupling

TEN recommends that the Department require regular, comprehensive review of the Company's revenue decoupling plan because the Company may not need to file a rate case for an extended period of time (id. at 26). In addition, TEN urges the Department to require review through a full rate case no less than once every three years, which would allow the Company and ratepayers to anticipate such a review and plan accordingly (id., citing Tr. 18, at 3417).[49]

6. International Brotherhood of Electrical Workers, Local 103

IBEW urges the Department to approve the Company's revenue decoupling proposal on the basis that it constitutes a full decoupling plan and it meets the Department's requirements from D.P.U. 07-50-A (IBEW Reply Brief at 1-2). Specifically, IBEW recommends that the Department approve the Company's proposed net inflation adjustment and CapEx because they

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points, it would trigger a revenue decoupling reconciliation (TEN Brief at 24, citing Exh. TEN-2, at 39).

[49] TEN notes that this would not bar the Company from seeking rate relief more frequently, should the need arise (TEN Brief at 27, citing Tr. 18, at 3400).

will result in significant improvements in safety and reliability (id. at 2-3). Because this enhanced approach will require significant investment above the level recovered in the currently proposed rates, IBEW argues that the Company's proposed adjustment mechanisms are necessary (id. at 3-4).

7. Company

a. Introduction

The Company argues that its revenue decoupling proposal meets the policy goals of the Green Communities Act and conforms to determinations reached by the Department in D.P.U. 07-50-A (Company Brief at 65). The Company claims that its proposal seeks to strike a proper balance between environmental and energy policy concerns, and its need to continue to attract capital at a reasonable cost in a just and reasonable manner (id. at 66).

The Company disputes the Attorney General's argument that the Company's proposal is complex (Company Reply Brief at 9). The Company asserts that the issues which must be balanced are complex, requiring a proposal that addresses such complexity (id.). The Company asserts that its revenue decoupling plan is not complex and allows more frequent review of capital projects, making the Department's work more manageable (id. at 9-10). The Company further states that if the Department determines that more time is required to review its annual filings, the Company will adjust its filing deadlines (id. at 10).

The Company disputes the Attorney General's claim that reconciling mechanisms proposed by the Company will only increase rates (id. at 5). The Company states that its proposed reconciling mechanisms work in both directions (id.). The Company asserts that the

purpose of the mechanisms is to allow the Company to recover its cost of service and that such mechanisms do not cause costs to increase (id.).

The Company disputes the Attorney General's claims that the Company's proposals shift risk to customers, asserting that the Company continues to bear the risk that its investments could be disallowed by the Department (id. at 4-5). The Company asserts that its proposal only shifts the timing of cost recovery but that risk is not shifted as the Company can no longer retain revenue from increased sales (id. at 4). The Company asserts that the proposed adjustment mechanisms are intended to maintain the traditional balancing of risks, not shift them (id. at 5). Finally, the Company argues that the Attorney General is incorrect as referring to the Company's proposal as a PBR plan (id. at 8).[50]

b. Adjustments to Actual Billed Revenue

The Company states its proposed revenue decoupling plan is consistent with the Department's requirements in D.P.U. 07-50-A regarding full decoupling, unlike the proposals put forth by the Attorney General and TEN (Company Brief at 70). The Company asserts the Attorney General and TEN are opposed to decoupling and their proposals are intended to negate or minimize the extent of decoupling (id. at 79). The Company argues that similar proposals were anticipated and rejected by the Department in D.P.U. 07-50-A, particularly the Attorney General's proposal to adjust for the effects of weather and other factors (id. at 69,

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[50] The Company states that a PBR plan typically does not contemplate a full review of new investments before a rate adjustment is granted (Company Reply Brief at 8). The Company notes further that a PBR plan: (1) has a fixed term; (2) adjusts rates based on a pre-established index; (3) ties rate increases to performance metrics; and (4) allows a utility to earn more than the allowed ROE (id.).

citing D.P.U. 07-50-A at 30-32). The Company argues that such proposals would not remove but rather preserve the incentive for the Company to ensure that its sales did not decline (Company Brief at 70, 80). The Company further argues that such proposals would increase impediments to the Company's ability to earn its allowed rate of return, harming the Company, shareholders, and customers (id. at 70, 79).

The Company contends that the Attorney General's proposed deadband, which would impose a continually declining target for usage per customer, is inappropriate (id. at 81, citing Tr. 16, at 2848-2863). The Company asserts that the proposal would expose the Company to an annually increasing level of revenue loss for which there would be no reconciliation, noting that by the fifth year after rates are set, the Company would be fully at risk for the first two percent loss in revenue (Company Brief at 81, citing Tr. 16, at 2848-58). The Company asserts that the Attorney General's proposal would establish ranges where revenue would not be decoupled from sales and, therefore, fails to implement full decoupling as directed by the Department (Company Brief at 83). Similarly, the Company states that TEN's proposal not to adjust rates unless earnings fall outside a collar is also inconsistent with the Department's directive to implement full decoupling (id. at 84, citing Exh. TEN-2, at 39).

c. Adjustment to Target Revenue Level

i. Introduction

National Grid asserts that, without its proposed net inflation and capital expenditure adjustment mechanisms, its rates would fail to compensate the Company for prudently incurred costs, requiring it to file frequent rate cases, an outcome that is not good for the Company, its

customers, shareholders, or regulators (Company Brief at 75-77, citing Tr. 21, at 3946). The Company asserts that there are limits to the cost reductions it that can achieve, and that insufficient capital and operating spending may prevent it from meeting service quality standards that regulators, shareholders, and ratepayers expect and deserve (Company Brief at 76-77). The Company asserts that even in the absence of any increase in investments from those used to determine the Company's revenue requirement, the Company will be unable to earn its allowed rate of return (Company Brief at 67-68, citing Tr. 21, at 3991-3993). The Company notes that, in D.P.U. 07-50-A, the Department reserved consideration of capital spending and inflation adjustment mechanisms, stating that it would address these issues in the context of company-specific proposals (Company Brief at 66, citing D.P.U. 07-50-A).

ii. Revenue Per Customer Adjustment Mechanism

The Company notes that the Attorney General's proposal of a revenue per customer approach fails to address the fact that the opportunity for increased sales through the addition of new customers is not comparable in the gas and electric industries and that, as the Department has observed, there is not necessarily a connection between the need for new capital investment and the addition of new customers (Company Brief at 80, citing Tr. 13, at 2342-43; Tr. 17, at 3173; D.P.U. 07-50-A at 48-49). The Company argues that the Attorney General seems to suffer a misconception in arguing that the revenue per customer approach is necessary to incent the Company to serve new customers (Company Reply Brief at 2-3). The Company notes that it has a legal obligation to serve all retail customers in its

service territory (id. at 3, citing G.L. c. 164, § IB(a); Franklin W. Olin College of Engineering v. Dept. of Telecom. and Energy, 439 Mass. 857, 860 (2003)).

The Company refutes the claim of the Attorney General that her proposed revenue per customer approach would provide the Company with the additional revenue needed for capital investment because it allows for recovery of costs associated with new customers (Company Reply Brief at 3-4). The Company states that, as the Attorney General recognized in her initial brief, the Company's capital expenditures are not materially affected by changes in its level of sales (id. at 4, citing Attorney General Brief at 74). The Company states that the revenue per customer approach would leave the Company without any meaningful opportunity to increase its revenue, in spite of its need to attract and invest significant levels of capital to maintain and improve its system (Company Reply Brief at 4).

iii. Net Inflation Adjustment Mechanism

The Company disputes the Attorney General's argument that its proposed net inflation adjustment mechanism should be rejected because the Company did not conduct a study to determine a productivity offset (Company Brief at 88). The Company states that the productivity offset is meant to shift risk to the Company to achieve efficiencies and constrain costs which would otherwise flow to ratepayers (id. at 89, citing Exhs. DPU-NG 4-19; BUW 3-41, 49, 50, 53). The Company states that the Attorney General focused only on the potential that the Company could achieve efficiencies in excess of the productivity offset and ignored the risk that the Company faced of not achieving that level of efficiencies (Company

Brief at 89).[51] In addition, the Company refutes the Attorney General's claim that the Company could achieve operating efficiencies that would negate the need for the net inflation adjustment mechanism (id. at 86, 89). The Company also asserts it established that the alternative productivity offset provided by the Attorney General was flawed and should be ignored (id. at 89, citing Exh. NG-SFT-Rebuttal at 26-38).

The Company counters DOER's assertion that the Company's inflation adjustment mechanism will not take into account O&M savings achieved through its proposed capital investment and other programs proposed in this rate case (Company Reply Brief at 13). The Company notes that its proposed inflation factor with its proposed productivity offset factor was designed with this in mind (id.; Company Brief at 89; Exhs. DPU-NG 4-19; BUW 3-41, 49, 50, 53; Tr. 4, at 646, 664, 697). The Company notes that while its Electric Distribution Operation ("EDO") program (as discussed further in a subsequent section of this Order) is the primary means by which the Company can achieve the efficiencies assumed by the productivity factor, the Company's asset replacement program cannot be expected to reduce O&M costs in the near term, and is likely to increase them (Company Reply Brief at 13, citing Exhs. NG-JP at 36; AG 9-3; DOER 1-20(b); Tr. 1, at 275-77; Tr. 2, at 317; Tr. 21, at 3890).

iv. Capital Expenditure Adjustment

The Company contends that it has provided sufficient evidence to demonstrate (1) the age of its infrastructure and the need for a substantial replacement, and (2) its need to invest at

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[51] The Company notes that there is no evidence describing how the operating costs included in the proposed inflation adjustment might decrease (Company Brief at 86, 89).

substantial and increasing levels in its distribution system infrastructure (Company Reply Brief at 16-17, 67, 85-86). The Company states that its proposed CapEx mechanism allows the Department to review the Company's capital spending on an annual basis, without the significant burden of a full rate case, and that no expenditures would be recovered from ratepayers without determination by the Department that they were prudently incurred and used and useful (Company Brief at 71).

The Company disputes the Attorney General's claim that it has exaggerated the condition of its infrastructure and need to replace assets, asserting that the Attorney General's witness conceded that reliance on a depreciation study as a basis for making capital replacement decisions is mistaken (id. at 86, citing Tr. 21, at 3830-3831). The Company asserts that the Attorney General's attempt to compare National Grid's capital spending to that of other utilities provides no meaningful guidance because it is without context regarding the particular characteristics of the various service territories and any other factors (Company Brief at 86-87, citing Exh. AG-64, at 11-13). According to the Company, the Attorney General's argument that increased capital spending in recent years has improved service quality serves to demonstrate the importance and benefits of increasing the current level of investment (Company Brief at 86, citing Exh. AG-64, at 10-11, 13-14).[52]

The Company asserts that its experts and employees have developed a prudent approach, based on experience, to maintaining and investing in the distribution system which

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[52] The Company notes that the Attorney General's argument presented in D.P.U. 07-30, the Company's merger case, directly supports the Company's position (Company Brief at 86).

leads the Company to conclude that substantially increased capital spending will be necessary in the next few years (Company Brief at 74, 87, citing Tr. 21, at 3874-3878). The Company asserts that, while the Attorney General disputes the level of capital expenditures that is required, there is no disagreement that spending should increase substantially beyond historic levels in the next five years (Company Brief at 74). The Company contends that disputes about the exact level of funding overlook the fact that the current level of capital spending (approximately $160 million in 2008) already exceeds the level of depreciation that is included in rates (approximately $96 million) (id. at 88, citing Exhs. NG-HSG-RR-2 (Rev.) at 2; AG-64, at 13; AG 7-3). Thus, the Company concludes that even if it maintained the current level of spending without any increase in revenue, it would be unable to earn its allowed return (Company Brief at 88).

The Company claims that without its proposed adjustment mechanisms for capital expenditures and net inflation, it would be denied the opportunity to earn its authorized return (id. at 67, 75, citing Exh. NGMDL-R at 4-6, 16; Tr. 1, at 94-95; Tr. 13, at 2196, 2204, 2209, 2196, 2212, 2228-29). The Company argues that, if the Department agrees that significant levels of capital investment are needed in its service territory, it must not structure the ratemaking such that the Company is unable to earn its authorized return (Company Brief at 67-68, 92). The Company argues that if it is unable to earn its authorized return, investors will seek other opportunities and customers will suffer due to an increased cost of capital, which would be contrary to the public interest (id. at 92, citing Exh. NG-TBK at 21-23; Tr. 1, at 27-28; Tr. 14, at 2439-41; Tr. 16, at 2728). The Company avers that approving its revenue

decoupling proposal and adjustment mechanisms will send an appropriate message to the investment community and help the Company obtain capital at a reasonable cost, which will ensure that it is motivated to invest aggressively in efforts to improve the safety and reliability of service and fully implement energy and environmental goals (Company Brief at 78-79). Without its proposed rate adjustment mechanisms, the Company claims that potential investors are likely to perceive an increase in risk associated with investing in the Company, which would ultimately result in an increased cost of capital (id. at 78). The Company states that the implementation of a ratemaking mechanism that allows it to deliver stable revenue with the potential to achieve allowed earnings for investors is not an outcome to be avoided but should be a central goal of the Department's regulatory process (id.).

The Company argues that because revenue decoupling returns all revenue from growth in sales to customers, it eliminates one of two ways that the Company would typically earn its allowed ROE (id. at 75, citing Exh. NG-MDL at 5-6; Tr. 21, at 3946). The Company asserts that it is important for it to earn a reasonable return because investors are attracted to electric utility stocks based on their historic stability of earnings (Company Brief at 77, citing Exh. NG-JMC-Rebuttal at 8). The Company addresses DOER's point that the loss of sales growth projected to result from decoupling is equally a result of recent electricity consumption trends, rather than implementation of revenue decoupling, stating that whether revenue decoupling followed or preceded any reduction in consumption is irrelevant for the purpose of determining whether an adjustment mechanism is needed (Company Brief at 91). The Company states that the loss of revenue growth to cover the cost of capital additions and

inflationary increases in operating expenses has the same impact on earnings, whether it preceded decoupling or resulted from it (id. at 91-92).

The Company disputes the contention of the Attorney General's witness that, instead of the proposed adjustment mechanisms, the Company could simply finance capital additions with short-term debt (Company Reply Brief at 15). The Company asserts that such a strategy would be inappropriate and would put itself, shareholders, and customers at significant financial risk even if it could be achieved in the current difficult financing climate (id. at 15-16, citing NG-MDL-Rebuttal at 18).

The Company also refutes the Attorney General's argument that the Company's proposal will it make it less efficient because it would be more motivated to make capital investments, which increase its overall earnings, instead of increasing O&M spending (Company Reply Brief at 10). The Company states that this is incorrect, because the Company must wait until the following year to recover for actual capital expenses, whereas reductions in expenses immediately increase earnings (id. at 10-11). The Company notes that it proposed a productivity offset to ensure that benefits flow to customers and to incent the Company to achieve cost savings by keeping expense increases below the level of inflation (id. at 11).

Additionally, the Company claims it would also bear the risk of a finding of imprudence by the Department with regard to its capital investments (id. at 16, citing Exh. NG-MDL-Rebuttal at 18). The Company asserts that, contrary to the assertion of the Attorney General and others, its proposal will improve the ability of the Department to review capital expenditures compared to its current process, which involve the prudence review of

hundreds of millions of dollars worth of projects that occurred over many years, projects for which the individuals most knowledgeable may no longer be available (Company Brief at 84-85, citing Tr. 13, at 2218-2219).[53] The Company also disputes the Attorney General's claim that its proposal to recover project capital expenditures through its CapEx mechanism violates Department precedent regarding using a future test year because the mechanism relies on historic cost data as the basis for recovery of projected costs (Company Reply Brief at 7).

Finally, the Company states that there is merit to the suggestion put forth by intervenors regarding ongoing Department oversight of capital additions, stating that it is prepared to work collaboratively with appropriate stakeholders to review capital spending for the upcoming year, including identification of specific projects involved, the purposes and needs of the projects, and appropriate metrics to determine whether the proposed projects achieve their purpose (Company Brief at 90; Company Reply Brief at 14).[54] The Company notes that ongoing projects could be reviewed annually to determine whether modifications should be made, stating that this would provide an important framework in which to review the prudence of each year's capital spending (Company Brief at 90). The Company states that such a process could be implemented as part of a compliance phase of this proceeding or in a

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[53] The Company notes that TEN recognized the salutary effects of more frequent Department review of capital expenditures (Company Brief at 84, citing Tr. 18, at 3316-3317, 3376-3377).

[54] The Company states that the detailed list of capital investment review criteria put forth by CLF has merit, and should be considered and refined (Company Reply Brief at 14, citing CLF Brief at 16-17).

separate docket opened to implement the Company's revenue decoupling adjustment mechanism for the first year after new rates are in effect (id. at 91).

d. Other Issues

i. Evaluation/Termination of Decoupling Plan

The Company recognizes that modifications to its decoupling plan may be required upon a Department review and supports a process for review, as suggested by CLF, ENE, and DOER (Company Reply Brief at 17). The Company states, however, that such a review should occur no earlier than 2013 when decoupling has been in place for three years (id. at 17-18). The Company also opposes the Attorney General's recommendation of a presumption of termination of the Company's decoupling plan, stating that it is contrary to the Department's adoption of revenue decoupling in D.P.U. 07-50-A (id. at 17).

ii. Earnings Sharing Mechanism

The Company notes that it submitted an earnings sharing proposal that is intended to provide an additional benefit to customers in the event that the Company earns more than its allowed return (Company Brief at 93; citing Exh. NG-MDL-Rebuttal at 20). Under this proposal, the Company would calculate its actual annual earnings and, to the extent that this exceeded the allowed ROE, it would flow one-half of the excess earnings back to customers (Company Brief at 93, citing Exh. NG-MDL-Rebuttal at 20). The Company notes that it is confident that its revenue decoupling proposal will not cause it to overearn and, therefore, it sees no need to implement such a mechanism (Company Brief at 93, citing Exh. NG-MDL-Rebuttal at 20). However, the Company notes that it could support such a

proposal if it provided assurance to customers and the Department that its revenue decoupling proposal would not result in a windfall for the Company (Company Brief at 93, citing Exh. NG-MDL-Rebuttal at 20).

D. Analysis and Findings

1. Introduction

As described above, National Grid proposes a decoupling plan that includes (1) a full decoupling approach (i.e., no adjustment to billed revenue), and (2) annual adjustments to its target revenue level to account for inflation and the Company's capital expenditures.

In reviewing the various components of National Grid's proposed revenue decoupling plan, the Department must evaluate whether the resulting rates are just and reasonable, and consistent with the policy framework established in D.P.U. 07-50-A and D.P.U. 07-50-B. The Department has affirmed its authority to adopt decoupled rates as the model for all future ratemaking proceedings, citing to our delegated authority under G.L. c. 164, § 94 to prescribe the rates and prices that utilities may charge. D.P.U. 07-50-B at 26-27, citing Boston Edison Co. v. City of Boston, 390 Mass. 772, 779 (1984). In determining the propriety of such rates, prices and charges, the Massachusetts Supreme Judicial Court has affirmed that the Department must find that they are just and reasonable. See Attorney General v. Department of Telecommunications and Energy, 438 Mass. 256, 264 n.13 (2002); Attorney General v. Department of Public Utilities, 392 Mass. 262, 265 (1984).

In D.P.U. 07-50-A, the Department stated that promoting the implementation of all cost-effective demand resources is a top priority. The Department stressed that, in order to

realize the full potential of demand resources, it is essential to leverage the distribution companies' relationships with customers as well as with any other entities that will be engaged in the development and deployment of such demand resources. D.P.U. 07-50-A at 24-25. In considering the various ratemaking alternatives that would promote the implementation of all cost-effective demand resources, the Department concluded that a full decoupling mechanism best meets the objectives of: (1) aligning the financial interests of the companies with policy objectives regarding the efficient deployment of demand resources; and (2) ensuring that the companies are not harmed by decreases in sales associated with any increased use of demand resources. Id. at 31-32. The Department noted that the conclusions reached in D.P.U. 07-50-A represented a general statement of policy about the manner of revenue recovery. We further stated that issues such as the equity and appropriateness of specific cost-allocations and revenue recovery will be investigated and addressed based on the evidentiary record in the adjudication of a distribution company's individual proposal to decouple rates. D.P.U. 07-50-B at 31.

2. Adjustments to Actual Billed Revenue

a. Introduction

When developing our policy on how best to deploy demand resources in the future provision of gas and electric distribution service, the Department considered multiple ratemaking models, including partial decoupling and full decoupling. D.P.U. 07-50-A at 30-32. A partial decoupling approach excludes from the decoupling mechanism those changes in consumption that are unrelated to the deployment of demand resources (e.g., the

effects of weather and the economy).[55] Id. at 30. A full decoupling mechanism includes all changes in consumption, regardless of the underlying cause. Id. at 31. In principle, both decoupling approaches would remove the financial disincentives that distribution companies currently face regarding the deployment of demand resources because, under both approaches, companies' revenue would be decoupled from reductions in consumption that result from demand resources. Id. at 30. However, the Department concluded that the administrative burden, complexity, and potential for manipulation and error inherent in a partial decoupling approach outweigh its advantages relative to full decoupling. Id. at 30-31. As such, the Department concluded that a full decoupling mechanism best meets our objectives of: (1) aligning the financial interests of the companies with policy objectives regarding the efficient deployment of demand resources; and (2) ensuring that the companies are not harmed by decreases in sales associated with any increased use of demand resources. Id. at 32.

Here, the Company proposed a full decoupling mechanism, wherein actual billed revenue would be reconciled with the annual target revenue, with no adjustments to actual billed revenue. The Attorney General proposes two adjustments to actual billed revenue: (1) one to normalize for weather; and (2) one to establish a percentage band based on historic

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[55] To implement such an approach, the Department has stated that it is necessary to: (1) identify those factors unrelated to demand resources that may cause changes in consumption patterns (e.g., weather, economic conditions, and the price of electricity and natural gas); (2) determine the level of change in consumption that results from each identified factor; and (3) normalize actual consumption to account for these factors. D.P.U. 07-50-A at 30.

usage per customer within which the Company would not reconcile billed revenue to target revenue.

b. Effect of Weather on Actual Billed Revenue

The Attorney General proposes to exclude the effects of weather from actual billed revenue because it would avoid significant revenue decoupling adjustments based on unusual weather (Exh. AG-62, at 31).[56] To support her recommendation, she describes three sets of weather revenue stabilization proposals that have been previously rejected by the Department (Attorney General Brief at 31-32, citing D.T.E. 03-40; D.P.U. 92-210; D.P.U. 92-111).

The Company, CLF, DOER, and ENE oppose the Attorney General's proposal to exclude weather from the calculation of National Grid's actual billed revenue, claiming that it would result in a mechanism that is inconsistent with the Department's earlier policy statement, which encouraged companies to propose fully decoupled rates (Company Brief at 80, CLF Brief at 11, DOER Brief at 5-6, ENE Brief at 9-10). Here, the Department must consider existing precedent on weather normalization to determine whether the Attorney General's proposal to weather normalize National Grid's actual billed revenue for the purpose of revenue decoupling would result in just and reasonable rates.

The Department's ratemaking precedent has addressed the effect of weather on gas distribution company rates, primarily by determining the appropriate rates and charges based

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[56] For example, in the case of National Grid's customers, a summer that is colder than usual would result in customers having to make up revenue shortfalls based on low sales, and a summer that is unusually warm would result in customers receiving refunds of revenue due to high sales.

on weather-adjusted test year costs, revenue, and billing determinants. See, e.g., New England Gas Company, D.P.U. 08-35, at 50-53 (2009); D.T.E. 05-27, at 51-54; D.T.E. 03-40, at 22-23; Boston Gas Company, D.P.U. 88-67 (Phase I) at 72-75 (1989); The Berkshire Gas Company, D.P.U. 1490, at 24 (1983). For example, in determining the appropriate revenue requirement in a base rate proceeding, the Department requires gas distribution companies to adjust their test year sales volume, and transportation throughput and associated revenue to levels that would have occurred under normal weather conditions. D.P.U. 1490, at 24.[57] After new rates and charges have been approved, further weather-related adjustments are made to rates and charges in a gas distribution company's next base rate case or PBR compliance filing. However, electric distribution companies have not previously normalized rates and charges for weather.

In D.P.U. 92-111, Bay State Gas Company ("Bay State") proposed a weather stabilization adjustment to mitigate earnings fluctuations caused by abnormal weather. D.P.U. 92-111, at 18-33.[58] In rejecting the proposal, the Department found that the implementation of the weather stabilization adjustment would result in a less risk for Bay State and any such reduction in risk of equity investments should be shared commensurately with

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[57] To define normal weather, the Department generally accepts the use of a 20-year average of effective degree days. See D.T.E. 03-40, at 409; D.P.U. 92-210, at 194; D.P.U. 88-67, at 67.

[58] The weather stabilization adjustment included peak and off-peak deferral accounts, with carrying charges, that would record the net base distribution revenue adjustments due to rate year deviations from normal weather during the peak and off-peak seasons, thus recovering from customers or refunding to customers any difference. D.P.U. 92-111, at 23.

ratepayers through a reduction in Bay State's ROE. Id. at 60-61. In D.P.U. 92-210, The Berkshire Gas Company ("Berkshire") proposed a weather stabilization adjustment that included base and supplemental weather stabilization adjustments. D.P.U. 92-210, at 157-172.[59] As proposed, the weather-related adjustment would occur only if the actual monthly degree days fall outside of a plus or minus three percent bandwidth on monthly normal degree days. Id. at 163-164. In rejecting Berkshire's weather stabilization adjustment proposal, the Department reaffirmed its finding in D.P.U. 92-111 that any reduction in risk of equity investments should be shared commensurately with ratepayers through a reduction in the ROE. D.P.U. 92-210, at 199. In D.T.E. 03-40, Boston Gas Company ("Boston Gas") proposed a weather stabilization clause to minimize fluctuations in customer bills due to weather variability. D.T.E. 03-40, at 407.[60] In rejecting the proposed weather stabilization clause, the Department noted that the proposal would remove between 62 percent and 84 percent of the volatility of Boston Gas's total revenue. Id. at 423. Thus, the Department found that the proposed weather stabilization clause would result in more stable revenue for Boston Gas and reduce its risk and again reaffirmed its findings from D.P.U. 92-111 and

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[59] Berkshire's proposed weather stabilization adjustment took into account the monthly weather-related revenue adjustments for the months of May through October, but excluded the month of July, and provided for a supplemental weather stabilization adjustment that took into account the monthly weather-related revenue adjustments, including interest, for the months of November through April. D.P.U. 92-210, at 159.

[60] Boston Gas's proposal adjusted customer bills in each billing cycle during the peak period (November through April) to account for any variation in weather that deviated from normal weather by more than two percent, using a formula that included a degree day factor and a base load factor applicable for each rate class. D.T.E. 03-40, at 407.

D.P.U. 92-210 that any weather stabilization adjustment proposal must provide a commensurate adjustment to ROE. D.T.E. 03-40, at 423.[61]

In D.P.U. 09-30, the Department's first order on a decoupling proposal, we rejected a similar proposal by the Attorney General to weather normalize Bay State's actual billed revenue. Bay State Gas Company, D.P.U. 09-30, at 110-111 (October 30, 2009). The Department stated that in order to exclude the effects of weather from the Company's revenue decoupling proposal, the Company would have to weather-normalize its billing determinants and revenue in each of its future revenue decoupling adjustment filings. Id. The Department found such an approach to be unduly burdensome and would require the establishment of a verifiable procedure for regular review of actual weather data in every filing to ensure that a company's weather normalization process is accurate. See Id. at 110, D.T.E. 03-40, at 418, 425; D.P.U. 92-210, at 197; D.P.U. 92-111, at 59. The Department was not convinced that excluding the impact of weather in decoupling adjustments is in the best interests of ratepayers. D.P.U. 09-30, at 111.

The Department concludes that the same rationale applies to this case and we will not require the Company to implement partial decoupling by excluding the effects of weather from its actual billed revenue calculations. As the effects of weather are accounted for in the Company's full decoupling proposal, the Department will consider the impact of this shift in

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[61] In each case, the Department noted that adopting such proposals would require the establishment of a verifiable procedure for regular review of actual weather data between test year rate proceedings. D.T.E. 03-40, at 418, 425; D.P.U. 92-210, at 197; D.P.U. 92-111, at 59.

risk on the Company's ROE, as discussed in a later section of this Order. See D.T.E. 03-40, at 418, 425; D.P.U. 92-210, at 197; D.P.U. 92-111, at 59.

c. Annual Deadband on Actual Billed Revenue

The Attorney General recommends that the Department establish an annual 0.4 percent deadband on the Company's actual billed revenue because the annual average change in the Company's weather normalized sales per customer is a decrease of 0.4 percent over five years (Exhs. AG-62, at 41-42 & Sch. DED-5).[62] Thus, the Attorney General claims that an annual deadband in actual billed revenue of 0.4 percent is appropriate because it corresponds to the recent trend of reduced average consumption (Attorney General Brief at 41-43). The Attorney General also recommends that the deadband be cumulative, increasing by 0.4 percent each year (Exhs. AG-62, at 41-42 & Sch. DED-8). Thus, by the fifth year, the deadband would be 2.0 percent (id., Sch. DED-8; Tr. 16, at 2848-2858). The Attorney General argues that the deadband on actual billed revenue is a form of consumer protection because it mitigates risks to ratepayers (Attorney General Brief at 36). The Attorney General presented a similar

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[62] While National Grid's sales per customer decreased in some years and increased in others, the weather normalized average over five years was a 0.4 percent decline (Exh. AG-62, Sch. DED-5). Annual percentage changes in consumption from 2004 through 2008 showed: (1) an increase of 0.5 percent from 2004 to 2005; (2) a decrease of 1.8 percent from 2005 to 2006; (3) an increase of 0.4 percent from 2006 to 2007; and (4) a decrease of 0.7 percent from 2007 to 2008 (id., Sch. DED-5). Without weather normalization basis, National Grid's sales per customer decreased an average 0.8 percent over five years.

proposal in D.P.U. 09-30, excluding a portion of revenue each year from actual billed revenue. D.P.U. 09-30, at 111-114.[63]

The Company, CLF, DOER, and ENE oppose the Attorney General's proposal to establish an annual 0.4 percent deadband on actual billed revenue. They each claim that such a deadband would be inconsistent with the Department's earlier policy statement encouraging gas and electric distribution companies to implement full revenue decoupling (Company Brief at 69-70, 80-81; CLF Brief at 11-12; DOER Brief at 4-5; ENE Brief at 12-13).

In addressing the reasons for encouraging revenue decoupling, the Department stated that we expect electric and gas industries to be subject to increasingly stringent regulations that limit greenhouse gas emissions, which will create commensurate pressure on prices. D.P.U. 07-50-A at 24. The Department also stated that energy efficiency and other demand resources likely offer the lowest-cost option for meeting greenhouse gas emission limits. Id. Because the Attorney General's deadband would increase by 0.4 percent each year, a significant and increasing amount of revenue loss associated with cumulative reductions in electricity consumption could be excluded from the determination of actual billed revenue. If this were to occur, the deadband would effectuate partial decoupling, which would prevent the Company from collecting a portion of its reduced sales and would at least partially preserve the Company's financial disincentive to fully pursue the deployment of demand resources. Similarly, if the proposed deadband is adopted, the Company will retain an incentive to

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[63] In D.P.U. 09-30, the Attorney General proposed that the Department establish an annual 1.6 percent deadband. D.P.U. 09-30, at 111-114.

maximize its sales up to the upper limit of the deadband because it would not be obligated to refund the additional revenue to customers. Finally, because the proposed annual deadband adjustments are cumulative, the magnitude of these contradictory signals would increase over time.

The Department has previously stated that full decoupling is likely to result in less administrative burden than partial decoupling, as well as rates that are more transparent and easily understood. Id. at 31. Establishing a deadband on actual billed revenue would create additional complexity in calculating the revenue decoupling adjustments, and will not advance one of the Department's ratemaking goals of simplicity in rates. D.P.U. 09-30, at 113; D.P.U. 08-35, at 221; D.T.E. 03-40, at 365; The Berkshire Gas Company, D.T.E. 01-56, at 134 (2002); see also D.P.U. 07-50-A at 30-31. As we stated in D.P.U. 09-30, adding an annual deadband to the Company's actual billed revenue would require a continuing review and evaluation of whether the percentage thresholds are accurate, relevant, and appropriate for the relevant year. D.P.U. 09-30, at 113. The same concerns are applicable here. The Department is not persuaded that it is appropriate to establish a 0.4 percent annual deadband for the Company's actual billed revenue to represent reductions in average consumption for the rate year or as a trend that can be expected for the future. Similarly, the uncertainty about trends or assumptions involved in setting a deadband casts doubt on whether the resulting rates and charges would be just and reasonable. Based on these considerations, and consistent with our finding in D.P.U. 09-30, we decline to establish a 0.4 percent deadband on National Grid's actual billed revenue.

3. Adjustments to Annual Target Revenue

a. Introduction

Under existing ratemaking policy, distribution companies experience sales growth from increases in both the number of customers they serve and use per customer. See D.P.U. 07-50-A at 48. Between rate cases, distribution companies have the opportunity to use the increase in revenue from sales growth to pay for, among other things, increasing O&M costs, and system reliability and capital expansion projects. See Id. Revenue decoupling mechanisms sever the link between revenue and sales by periodically reconciling the revenue a company collects from its ratepayers with a specified target revenue level. See Id. at 30-31.

The evidence in this proceeding indicates that, in recent years, the Company's growth in sales was not large, with an average annual growth rate of 0.11 percent during the years 2003 through 2008 (see Exh. NG-DPU 4-8, Att.).[64] Viewed in isolation, this short-term trend in the Company's sales growth does not support the need to adjust the Company's annual target revenue. However, the Department recognizes two important considerations. Short-term trends, when viewed out of context, can reflect inaccurate or misleading conclusions. For example, sales information for 2001 through 2005 shows that the Company experienced an average annual growth in sales of 1.63 percent (see id., Att.).[65] While in recent years the

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[64] The Department notes that, over this same period, the Company's rates increased as a result of a rate settlement approved in D.T.E. 99-47, resulting in an average annual revenue increase of 2.28 percent from 2003-2008 (see Exh. NG-DPU 4-8, Att.).

[65] The following additional kWh retail sales data for 2001 and 2002 were provided by the Company in D.P.U. 07-50, as Exh. DPU 1-1, Att. 1:

economic downturn has affected sales negatively, over time such trends are typically offset by periods of higher-than-average growth due to, for example, periods of strong economic growth, the increased penetration of electric consumer products, and the emergence of new electricity-intensive technologies (e.g., plasma televisions and potentially plug-in electric vehicles). Thus, the Department notes that it is not reasonable to conclude based on recent trends in sales that electric companies will experience lower overall growth in sales on a going-forward basis.

Promoting the efficient and expeditious deployment of demand resources, as mandated and encouraged by the Green Communities Act, requires the full participation of distribution companies. See D.P.U. 07-50-A at 24-25. The Department seeks to provide, through revenue decoupling mechanisms, the regulatory certainty to companies that is necessary to achieve such a deployment. See D.P.U. 07-50-B at 29. As such, decoupling is a vital component of the Commonwealth's overall policy framework aimed at maximizing the deployment of demand resources, and must be viewed in the context of Commonwealth's long term objectives.

As described above, the Company proposes to adjust its annual target revenue level using: (1) a net inflation mechanism; and (2) a net capital expenditure mechanism. The Attorney General recommends that the Department reject the Company's proposed adjustment

National Grid Retail Sales (kWh), 2001-2005

Year	2001	2002	2003	2004	2005	2001-2005
kWh sales	21,083,751,485	21,399,890,335	21,815,718,826	21,905,879,764	22,488,935,426	Average:
Annual percent change		1.50%	1.94%	0.41%	2.66%	1.63%

mechanisms, and puts forth an altenative proposal (Attorney General Brief at 27). Each proposal is discussed below.

b. Revenue Per Customer

The Attorney General argues that the Department should reject the Company's proposed adjustment mechanisms and, instead, adopt her proposed revenue per customer approach (id.). The Attorney General identifies two benefits of such an approach: (1) it would encourage the Company to add efficient, new customers to its electric distribution system, to the benefit of existing customers; and (2) it will shift the risk that the number of customers will decrease from customers to shareholders (id. at 21).

In D.P.U. 07-50-A, the Department endorsed a revenue per customer approach, identifying number of customers served by companies as a primary driver of costs. See D.P.U. 07-50-A at 48-49, 85. The Department recognized, however, that, in addition to changes in the number of customers, changes in distribution–related costs could arise from: (1) inflationary pressures on the prices of goods and services used by distribution companies; and (2) the need for companies to invest in their infrastructure. Id. at 49-50. The Department stated that we would consider company-specific proposals that adjust their target revenue to account for these factors. Id. at 50. The Department stated that circumstances and proposals would vary and, as always, that the company would have the burden of proof to demonstrate the reasonableness of its proposal. Id.

The Department approved the use of a revenue per customer approach to revenue decoupling for Bay State in D.P.U. 09-30. There are important differences, however, between

National Grid and Bay State. For example, the opportunity for increased sales through the addition of new customers is not comparable in the gas and electric industries (Tr. 13, at 2342-43; Tr. 17, at 3173). Also, as discussed above, National Grid claims that the addition of new customers is not a key cost driver for its electric distribution system and the provision of electric service, and that the need to upgrade and replace its capital infrastructure is a far more significant driver of its costs than the addition of new customers, a possibility that the Department has previously acknowledged. See D.P.U. 07-50-A at 48-49. Therefore, the Department concludes that adjustments to the target revenue level for number of customers (i.e., a revenue per customer approach) would not adequately address the Company's need for additional revenue in order to support its distribution system and provide quality electric service to customers. As such, we decline to impose a revenue per customer approach here.

c. National Grid Proposal

i. Net Inflation Adjustment

In D.P.U. 07-50-A at 49-50, the Department recognized that changes in a distribution company's costs could arise from inflationary pressures on the prices of the goods and services it uses. The Department stated that we would consider company-specific proposals that adjust their target revenue to account for inflation and that a company would bear the burden to demonstrate the reasonableness of its proposal. Id. at 50.

National Grid's proposed net inflation adjustment mechanism allows the Company to adjust its annual target revenue level to account for the impact of inflation (as measured by the gross domestic product price index), minus a productivity offset equal to 0.5 percent

(Exh. NG-SFT at 55, 58).[66] The Company argues that the net inflation adjustment is necessary to address the various inflationary pressures that the Company faces. Revenue decoupling eliminates the Company's potential to collect additional revenue resulting from growth in sales, which will impede the Company's ability to cope with increases in its O&M expenses.

Consistent with our findings in D.P.U. 07-50-A at 50, the Department finds that it may be appropriate to include a net inflation adjustment mechanism in a revenue decoupling plan, in order to make up for the loss of revenues traditionally collected as a result of increased sales between rate cases. The Department now must evaluate whether the proposed net inflation adjustment mechanism should be included, based on the Company's specific circumstances. In particular, the Department will examine the Company's proposed productivity offset.

The Company calculated its proposed offset based on utility productivity studies submitted in various regulatory proceedings since 2003 (Exh. NG-SFT at 58-59). The Company states that this offset includes an implicit consumer dividend (id. at 59). The Attorney General and DOER identify flaws in the manner in which the Company determined its proposed productivity offset. The Attorney General states that if the Department approves a net inflation adjustment mechanism, it should reject the Company's proposed productivity offset and replace it with an offset equal to 1.14 percent (Attorney General Reply Brief

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[66] The Company proposes to apply the net inflation adjustment only to that portion of its operating expenses that is subject to inflationary pressures and not subject to recovery through a separate cost tracker mechanism (Exh. NG-SFT at 55-56).

at 12).[67] Alternatively, DOER states that the Department should require the Company to conduct its own productivity study because otherwise, intervenors are unable to assess whether 0.5 percent adequately takes into account the productivity gains the Company should realize through its recently-adopted inspection and maintenance activities (DOER Brief at 13-15).

There are several deficiencies in the manner in which the Company identified its proposed productivity offset. First, the Company did not conduct its own study but instead chose an average productivity offset based on a number of recent regional studies. The purpose of a net inflation adjustment mechanism, as discussed above, is to provide revenue that this Company would need in order to cope with inflationary increases in its O&M expenses. In order to ensure that it does not recover more revenue through the net inflation adjustment mechanism than is required to compensate it for inflationary pressures on its O&M costs, the Company's proposed productivity offset should have factored in its specific circumstances. Second, the Company's proposed productivity offset is biased downward because: (1) one of the four studies on which the Company based its proposed productivity offset looked at the productivity of natural gas utilities, and the Company has provided no evidence that natural gas studies are transferable to electric distribution companies (Exhs. NG-SFT-2, NG-SFT-3; AG-62, at 53);[68] and (2) three of the four studies used to calculate the offset were conducted on

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[67] As explained below, the Attorney General recommends an overall productivity offset of 1.14 percent, which includes a productivity factor of 0.84 percent and a consumer dividend of 0.3 percent (Exh. AG-62, at 52, 61)

[68] Also, as explained above, the study prepared by Boston Gas Company identified a productivity factor equal to negative 0.37 percent, which is far lower than the other studies (Exh. NG-SFT-2).

behalf of distribution companies, whereas only one study was conducted by a public utility commission (Exh. AG-62, at 51-53). Because the Company failed to conduct its own study, and the studies it used do not establish a representative proxy for the Company, the Department concludes that the Company has failed to demonstrate the reasonableness of its proposed productivity offset and, as such, we reject it.

The Attorney General calculated an alternative productivity offset by modifying the Company's calculations to, among other things, eliminate the results of the gas distribution company study, and include the individual results of each of the four sensitivity analyses performed by the Maine Public Utilities Commission staff (id., at 51-52). Based on these modifications, the Attorney General calculated a productivity factor of 0.84 percent (id., at 52, 61). Arguing in favor of including a consumer dividend, the Attorney General recommends that the Department include a consumer dividend of 0.3 percent, thereby bringing the Company's overall productivity offset to 1.14 percent (id.). While the Attorney General's alternative calculations may remove some of the bias in the Company's proposed productivity offset, we find that it does not remedy all of the deficiencies that we described above.

In addition, the proposed productivity offsets put forth by both the Attorney General and the Company fail to account for the improved productivity that the Company projects to achieve through its merger with KeySpan Corporation and its EDO Transformation initiative. Under existing ratemaking, a company that undertakes initiatives that result in productivity improvements retains the benefits (e.g., cost savings) until its next rate case. In considering the inclusion of a net inflation adjustment mechanism under a revenue decoupling plan, the

Department seeks to maintain a company's incentive to undertake such initiatives, while protecting customers from any over-recoveries of O&M costs. While the productivity improvements from each of these initiatives are discussed further in later sections of this Order, we provide brief examples of the savings here. The record states that, as a result of its merger with KeySpan, the Company projects that it will achieve approximately $150 million in net savings between 2007 and 2017 (Exh. AG 15-8, Att. 4, at 14).[69] Also, the Company projects that the benefits of its EDO Transformation initiative will far exceed its costs (Exh. NG-DOER 1-20(b)).[70] The Department concludes that the productivity improvements and associated cost savings resulting from the merger and other initiatives are likely to far exceed the effect of inflation on the Company's O&M costs, and therefore, no net inflation adjustment mechanism is needed here. As such, the Department rejects the Company's proposal for a net inflation adjustment mechanism.

ii. CapEx Proposal

In D.P.U. 07-50-A, the Department recognized that changes in a company's costs could arise from the need to invest in its distribution system infrastructure. D.P.U. 07-50-A at 49-50. The Department stated that we would consider company-specific proposals that

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69 For example, between 2007 and 2017, the Company projects gross savings of approximately $205 million and costs of approximately $55 million (Exh. AG-NG 15-8, Att. 4, at 14).

70 For example, between fiscal years 2009 and 2013, for all of National Grid USA's operating units, the Company projects approximate O&M savings of $155 million, as compared to costs of $85 million (Exh. NG-DOER 1-20(b)).

adjust their target revenue to account for these factors and that a company would bear the burden to demonstrate the reasonableness of its proposal. Id. at 50.

The Company's proposed CapEx adjustment mechanism allows the Company to adjust its annual target revenue to recover costs associated with its capital expenditures, net of the amount recovered through depreciation expense in base rates set in this proceeding. The Company states that, because decoupling eliminates its ability to increase revenue through increased sales, the proposed mechanism is necessary to provide it with sufficient revenues to perform upgrades on its distribution system (Company Brief at 67).

Beginning January 1, 2010, the Company will recover approximately $96 million annually through its depreciation expense in base rates, as compared to its 2008 capital expenditures of approximately $166 million (Exh. NG-HSG-RR-8 (Rev.) at 3).[71] The Company projects that it will increase its capital expenditures from approximately $197 million in 2009, to approximately $293 million in 2013 (id.; Exhs. NG-AG 1-18, NG-AG 7-3, Att.).[72] Accordingly, the Company would be unable to fully fund its 2008 level of capital expenditures, much less fully fund its projected increases in capital expenditures, through its base rate depreciation expense. Additionally, revenue decoupling eliminates the Company's potential to collect additional revenue resulting from growth in sales, which will impede the Company's

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[71] This level of depreciation expense assumes that the Department approves the Company's filing without change. The number will change based on the Department's findings in this proceeding.

[72] The approximate yearly capital expenditure projections are $197 million in 2009, $236 million in 2010, $252 million in 2011, $275 million in 2012, and $293 million in 2013 (Exhs. NG-HSG-RR-8 (Rev.) at 3; NG-AG 1-18, NG-AG 7-3, Att.).

ability to fund capital investments in its distribution system that are intended to ensure safe and reliable service. The evidence demonstrates that the need for these investments is unrelated to growth in the number of customers that the Company serves and is related to the need to upgrade existing infrastructure (Tr. 13, at 2341-2343; Tr. 17, at 3173-3175). Accordingly, the Department finds that it may be appropriate to include a CapEx-type adjustment mechanism in the Company's revenue decoupling plan. The Department now must evaluate whether the proposed CapEx adjustment mechanism should be included, based on the Company's specific circumstances.

Under traditional ratemaking mechanisms, a distribution company recovers neither a return of (through depreciation expenses) nor return on (through return on equity ("ROE")) the capital expenditures it has made since the test year used in its most recent base rate proceeding. A company is allowed to include those capital expenditures in its rate base during its subsequent base rate proceeding, and it begins to recover a return of and on its recent expenditures when the base rates approved by the Department in that proceeding take effect. The delay in recovery between when a company incurs capital expenditures and when it recovers a return of and on such expenditures in its base rates is referred to as regulatory lag. In satisfying their obligation to provide safe and reliable service to their ratepayers, companies have the incentive to invest in capital improvements rather than O&M expenses, even if a capital improvement represents a sub-optimal solution as compared to non-capital production factors. Unlike O&M expenses, capital expenditures provide a return to their shareholders when ultimately included in rate base (as stated above, this bias toward capital investment is

known as the Averch Johnson effect). The existence of regulatory lag provides an important counterbalance to the Averch Johnson effect because companies will not earn a return on their investments until their next rate case proceeding. As such, regulatory lag provides the incentive for companies to pursue a more balanced strategy between capital expenditures and O&M expenses in their provision of safe and reliable service to their ratepayers.[73]

As discussed above, the Company projects to significantly increase its capital expenditures during the next several years. Under its proposed CapEx mechanism, the Company would recover a return on (and of) all of its future capital expenditures in the year that the Company incurs the expenditures. As such, the proposed mechanism significantly reduces and potentially eliminates the important incentive that regulatory lag provides to companies to maintain an appropriate balance between investing in capital improvements and incurring O&M expenses.

The Department concludes that, as proposed, the Company's CapEx mechanism does not strike an appropriate balance between: (1) providing the Company with sufficient funds to invest to ensure the safety and reliability of the electric service it provides to its ratepayers; and (2) protecting its ratepayers against the incentive the Company has to overinvest in capital infrastructure in order provide earnings to its shareholders. To reach a balance between these opposing incentives, the Department finds it appropriate to include a CapEx mechanism in the

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[73] This incentive applies most acutely to the period of time between a company's rate case proceedings.

Company's revenue decoupling plan, but to limit the level of annual capital expenditures that is recoverable through the mechanism.

The record shows that after steadily increasing its levels of capital investment from $83 million in 2000 to approximately $170 million in 2006, the Company spent relatively consistent amounts on capital investment in 2006 through 2008.[74] The Attorney General argues that the Company increased its level of capital spending sufficiently in recent years to address prior underinvestment (Attorney General Brief at 72). We conclude that using this three-year average of capital spending as the limit on CapEx cost recovery is appropriate because it is representative of the Company's current capital investment needs, and as such, it strikes the appropriate balance between: (1) providing the Company with sufficient funds to ensure safe and reliable electric service; and (2) protecting ratepayers from overinvestment in capital infrastructure. For all of these reasons, we find that it is appropriate to set the limit at $170 million, which is the approximate three-year average of past capital expenditures (Exh. NG-AG 7-3, Att.).

The Department makes no determination regarding the optimal level of investment the Company should make in its distribution infrastructure in order to provide safe and reliable electric service to its ratepayers. The Company's recently adopted strategy on inspection and maintenance activities may lead the Company to identify capital investments that exceed the level of the three-year average. To the extent that the Company's capital expenditures exceed

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[74] The Company spent approximately $170 million in 2006, $174 million in 2007, and $166 million in 2008 (Exh. NG-AG 7-3, Att.).

the amount it can recover through its CapEx mechanism, the Company can seek to include such investment in rate base in its next base rate proceeding.

In addition to setting the level of the CapEx mechanism investment at the level of the three-year average, the Department will make two further revisions to the Company's proposed CapEx mechanism. First, the proposed CapEx mechanism calls for the Company to adjust each year's target revenue to include the capital expenditures approved by the Department in the current year's decoupling filing, as well as capital expenditures approved in previous years' filings (Exhs. NG-SFT at 48-50; NG-HSG-RR-8 (Rev.) at 1). For example, in the calculation of the target revenue for 2010, the Company would include approved capital expenditures for 2009 and 2010; similarly, the 2011 target revenue would include such expenditures for 2009 through the end of 2011 (Exhs. NG-SFT at 48-50; NG-HSG-RR-8 (Rev.) at 1). The Company would reconcile its actual billed revenue each year to the target revenue, and collect (or credit) the reconciliation amount in rates during the following year. The Department finds that the Company's proposed approach is inconsistent with the Department's precedent regarding the recovery of capital expenditures in base rates. In base rate proceedings, capital expenditures incurred after the end of the test year are not included in rate base, and thus are not recoverable in the base rates established by the proceeding.[75] Western Massachusetts Electric Company, D.P.U. 85-270, at 141 n.21 (1986); Massachusetts-American Water Company, D.P.U. 1700, at 5-6 (1984). The Department finds it appropriate to apply this precedent to the

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[75] For example, the base rates approved by the Department in the instant proceeding will take effect on January 1, 2010, and will recover capital expenditures that the Company incurred through the end of 2008, its test year.

recovery of capital expenditures in the CapEx mechanism. Therefore, the Department directs the Company to revise its CapEx mechanism so that the CapEx investments included in the current year's target revenue are limited to expenditures incurred before the end of the previous year.[76]

Second, the Department rejects the Company's projected component of the CapEx mechanism because to allow for the recovery in rates of capital projects that have not yet been reviewed and deemed prudent and used and useful by the Department would be akin to institution of a future test year, an idea rejected by the Department in its Decoupling Order, and inconsistent with long-standing Department precedent. D.P.U. 07-50-A at 51-53.

Finally, numerous intervenors proposed, and the Company endorsed, a process that calls for the Company to work with stakeholders to establish a capital plan, including goals and metrics by which to measure and quantify the success of the proposed plan. The Department directs the Company to work with stakeholders for the development and review of such a plan.

iii. Schedule of Filings and Rate Adjustments

The Company proposes to present two annual filings: (1) one by July 1st, providing initial information regarding capital expenditures from the prior year and thus far in the current year; and (2) one by November 1st, which would include information in support of the revenue decoupling adjustment factors (including updated information on capital expenditures) that

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[76] Thus, the Company is directed to include in its 2010 target revenue level only Department-approved capital costs from 2009. Similarly, only Department-approved capital costs from 2009-2010 will be included in the Company's 2011 target revenue level.

would take effect on January 1st of the following year. The Department finds that two modifications to this schedule are necessary to provide sufficient time for the Department and interested persons to review the capital expenditures for which the Company seeks recovery through its CapEx adjustment mechanism, and to minimize the number of times the Company's ratepayers see changes in their rates.

As discussed above, the inclusion of a one-year lag in the CapEx mechanism limits the Company's cost recovery in each year to capital expenditures incurred through the end of the previous year. As such, the Company will be able to file final information and figures on the expenditures for which it seeks cost recovery through the CapEx mechanism on July 1st. Therefore, the Department directs the Company to submit its complete CapEx filing no later than July 1st of each year. On November 1st of each year, the Company will submit all other information in support of its proposed revenue decoupling adjustment factors. These factors will take effect on March 1st of each year, along with all other changes rates as a result of its other reconciling mechanisms.

4. Reconciliation of Revenue and Other Issues

a. Two Percent Cap

The Attorney General proposes a cap on revenue decoupling reconciliation amounts in order to protect customers from the effects of large changes in electricity consumption and resulting rate changes (Attorney General Brief at 42).[77] Her proposed cap is equal to

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[77] The Attorney General states that her proposed cap on revenue decoupling reconciliation amounts can stand alone or be paired with other consumer protection mechanisms (Attorney General Brief at 36).

two percent of the Company's base revenue (i.e., $12.6 million) (id.). She claims that without a cap to moderate the risks to customers that are inherent with revenue decoupling, the reconciliation of billed revenue to target revenue could result in large revenue decoupling adjustments every year (id. at 43-45).

In D.P.U. 07-50-A, the Department emphasized the need to protect consumers from large changes in rates and we established a ten percent threshold for interim rate adjustments. D.P.U. 07-50-A at 63. The Department stated that companies would be required to seek an interim rate adjustment in advance of their annual filing if it becomes apparent that an annual decoupling adjustment will exceed this ten percent threshold. Id. While this ten percent threshold helps to immediately address large revenue decoupling adjustments, it will not protect customers in the event that large revenue decoupling adjustments occur several years in a row, or in amounts that could be judged onerous or in violation of the Department's policy of rate continuity. Such considerations would necessitate a deferral of the costs for recovery in later years. See e.g., D.P.U. 08-35, at 221; Massachusetts Electric Company, D.P.U. 92-78, at 116 (1992); D.P.U. 88-67 (Phase I) at 201. Under such circumstances, we find that a percentage cap on revenue decoupling adjustments is an appropriate means to protect ratepayers. Once an appropriate percentage cap is identified, a maximum revenue decoupling adjustment can be determined in a manner that is straightforward and consistent with the Department's goal of simplicity in rates. See D.P.U. 09-30, at 116; D.P.U. 08-35, at 221; D.P.U. 92-78, at 116; D.P.U. 88-67 (Phase I) at 201.

The Attorney General's proposed two percent cap would restrict the Company's recovery of a revenue decoupling adjustment to an amount equal to no more than two percent of total revenue (Attorney General Brief at 42). As proposed, any amount exceeding that cap would be absorbed by the Company and its shareholders (id.). To the extent that revenue decoupling adjustments exceed the two percent cap, an absolute cap would preserve the Company's current disincentive to deploy demand resources, which will not advance the Department's goal of promoting the deployment of demand resources. See D.P.U. 07-50-A at 24. Accordingly, we decline to adopt the Attorney General's proposal to cap the Company's revenue decoupling adjustments to an amount equal to two percent of base revenue.

To determine the appropriate cap, the Department must balance its goal of promoting the deployment of demand resources with the goal of rate continuity. See Id.; D.T.E. 05-27, at 305; Fitchburg Gas and Electric Light Company, D.T.E. 02-24/25, at 252 (2002); D.P.U. 88-67, at 201. Revenue decoupling adjustments should be large enough to avoid intergenerational inequity and unfairness in rates but small enough to preserve continuity in rates. In D.P.U. 09-30, we considered the same issue and balanced the same concerns and, ultimately, the Department imposed a three percent cap on annual revenue decoupling adjustments. D.P.U. 09-30, at 116. We determine that the same rationale applies here and we find that a cap on annual revenue decoupling adjustments equal to three percent of total revenue strikes an appropriate balance between deploying demand resources and rate continuity. Consistent with our findings in D.P.U. 09-30, at 116, the portion of the adjustment that exceeds the three percent cap will be deferred for recovery until the next year with

carrying charges. In this case, for carrying charges, National Grid is directed to use the customer deposit rate.

Additionally, as we stated in D.P.U. 09-30, at 117, the Department finds that it is appropriate to continually evaluate and monitor changes in the market that could violate our existing ratemaking goals and render this cap inappropriate. Accordingly, the Department may review and modify such a cap, as necessary, over the course of the Company's revenue decoupling adjustment filings. In its compliance filing to this Order, the Department directs the Company to revise its proposed decoupling tariff accordingly.

b. Use of Forecasted Sales Information

The Company has proposed a number of tariffs, including revenue decoupling, that require the use of a sales forecast to set rates. The Attorney General claims that this is inappropriate because it is akin to the use of a future test year, which violates Department precedent (Attorney General Brief at 5, 10-12, 226-227, citing D.P.U. 07-50-A). The Attorney General further states that if the Department decides to use forecasted sales information, the information should be reviewed for appropriateness in a separate proceeding (Attorney General Brief at 226-227). The Company claims that it proposes to use historical cost data and not forecasted sales as the basis for recovery (Company Reply Brief at 7). The Company states that, while forecasted sales are used to establish the rate at which those costs are recovered, the costs themselves are based on historical and not forecasted information (id.).

Under the Company's proposed revenue decoupling mechanism, an estimated amount for the revenue decoupling adjustment would be determined then subsequently reconciled and

recovered from (or credited to) customers, with the appropriate carrying charges. As proposed, forecasted sales volume will be used to determine the applicable unit charge for this interim estimate, but it will eventually be reconciled.

The Department's current practice with respect to recovery of certain adjustments for electric and gas distribution companies permits the use of forecasted sales. For example, forecasted sales are used to calculate National Grid's energy efficiency reconciling factor (see M.D.T.E. No. 1133, at 1-2). Also, forecasted sales are used by other electric distribution companies to determine charges for pension and payment of benefits other than pensions ("PBOP"). The Department's determinations of whether companies should use actual sales volumes or forecasted sales volumes looks at which estimated unit charge is likely to prove to be more accurate, such that after it is reconciled, the final reconciliation amount should be only marginally different from the interim adjustment.

Here, we find that National Grid's use of forecasted sales is likely to more precisely recover the projected amount of revenue, subject to future reconciliation. The use of forecasted sales here is only for the purpose of recovery and reconciliation of previously determined base revenue based on historical test year data. It does not constitute the use of a forecasted test year in the context of a general rate case. Therefore, we find that the Company's proposal is consistent with existing Department practice and we, therefore, accept the Company's proposal to use forecasted sales data in calculating the revenue decoupling adjustment. This finding, however, does not preclude any party from examining the

Company's sales forecast method in future reconciliation proceedings. This question was also addressed in D.P.U. 09-30, at 91-93, and our findings here are consistent with that Order.

c. Three-Year Review Process

The Attorney General recommends that the Department conduct a review of the Company's revenue decoupling mechanism at the end of three years (Attorney General Brief at 46). The Attorney General argues that this review should include a regulatory presumption that revenue decoupling will sunset in three years unless the Company can demonstrate that it has met the Department's objectives for the adoption of energy efficiency (id.). The Company, the Attorney General, CLF, ENE, and TEN agree that there is value associated with a review of the Company's decoupling mechanism after three years because it would coincide with the conclusion of Company's three-year energy efficiency plan (Company Reply Brief at 17-18; Attorney General Brief at 46; CLF Brief at 14; ENE Brief at 14-15; TEN Brief at 26). The Company, CLF, and ENE, however, oppose the Attorney General's recommendation to impose a presumption that revenue decoupling will sunset after three years (Company Reply Brief at 17-18; CLF Brief at 14; CLF Reply Brief at 3-4; ENE Brief at 14-15).

In D.P.U. 07-50-A at 24, 31-34, the Department stated that promoting the implementation of all cost-effective demand resources is a top priority and, in order to realize full potential, the new ratemaking paradigm embodied in full revenue decoupling would best meet the Department's policy objectives. Because sustained efforts are needed to realize the shift to revenue decoupling and the full potential of demand resources, we find that introducing

a regulatory presumption to sunset the Company's revenue decoupling mechanism after three years is not appropriate. Including a sunset provision will create regulatory uncertainty and send the wrong signals to the market, which will negatively affect the implementation of energy efficiency and demand-side management programs. Therefore, we decline to adopt the Attorney General's recommendation that National Grid's revenue decoupling plan be presumed to sunset after three years.

Additionally, while the Department seeks to closely monitor the implementation of National Grid's revenue decoupling mechanism, we find that there is no need to establish a formal three-year review process. As the Commonwealth's ratepayer advocate, the Attorney General is authorized to issue information requests to the Company regarding any matter related to its rates, charges, tariffs, books, or service quality. G.L. c. 12, § 11E(c). If the implementation of revenue decoupling appears to be resulting in undesirable or unintended consequences as well as unjust and unreasonable rates and charges, there are numerous means of relief available. For example, the Attorney General may file a motion or the Department may initiate an investigation into the propriety of existing rates and charges. G.L. c. 164, § 93. Also, the Department has general supervision over all electric and gas distribution companies. G.L. c. 164, § 76.

d. Earnings Sharing Mechanism

The Attorney General claims that the Company will earn more than its allowed return through its revenue decoupling proposal. In response, the Company proposes an earnings sharing mechanism, which it contends is intended to provide additional benefits to customers

(Company Brief at 93, citing Exh. NG-MDL-Rebuttal at 20). The Company proposes to calculate its actual annual earnings and, to the extent that its earnings exceed its allowed ROE, it will flow half of any excess earnings back to customers (Company Brief at 93, citing Exh. NG-MDL-Rebuttal at 20). The Company did not propose a symmetrical earnings sharing mechanism (e.g., where the Company could recover half of any under earnings from customers) nor did it propose a deadband. The Company states that it is highly confident that its revenue decoupling proposal will not result in overearnings but it presents this proposal to the Department as a measure of confidence that overearnings will not occur (Company Brief at 93, citing Exh. NG-MDL-Rebuttal at 20). An earnings sharing mechanism would provide customers with a partial refund in the event of excessive earnings by the Company. The Department finds that such mechanism, as proposed by the Company, is appropriate here. Accordingly, the Company is directed to calculate its actual annual earnings and, to the extent that its earnings exceed allowed ROE, to flow half of any excess earnings back to customers.

III. RATE BASE

A. Plant Additions

1. Introduction

Between January 1, 1999, and December 31, 2008, National Grid placed into service $1,316,327,975 in new plant, and retired $18,338,599 in plant, resulting in a net increase of $1,132,989,376 (Exh. AG 1-17, Atts. 1A-1T, 2, 3A, 3B).[78] In its initial filing, the Company identified all capital projects completed between January 1, 2004, and December 31, 2008,

[78] These plant additions do not include the approximately $252.8 million in plant acquired in 2000 from the former Eastern Edison Company (Exhs. AG 1-17; AG 18-14).

with a cost greater than $250,000 and provided a brief description by project number, the completed cost, the approved cost estimate, and the variance from the authorized level (Exh. NG-JP-2, at 1-28). The Company also provided a list of capital projects greater than $250,000 undertaken through blanket authorizations between April 2004 and March 2009 (id. at 29-39).[79] During the proceedings, the Company expanded its presentation of capital projects to include those completed between January 1, 2000, and December 31, 2008, that were greater than $100,000, and provided the associated work orders and closing reports (Exhs. AG 1-19, Atts. 1, 2; AG 1-19 (Supps. A through M)).[80]

The Company lists 573 capital projects initiated between January 2000 and April 2004, as well as 691 capital projects completed between May 2004 and December 2008, that were greater than $100,000 (Exhs. AG 1-19, Att. 1; AG 1-19 (Supp. A)). In May 2004, the Company converted from the Walker PCM plant accounting system to the PowerPlant plant accounting system (Exhs. NG-KAK-1, at 9; AG 1-19; AG 1-19 (Supp.)). Those projects that had been initiated prior to May 2004, but not completed by that time, were converted to the PowerPlant system (see Exhs. AG 1-19, Att. 1; AG 1-19 (Supp. A)). Consequently, some of

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79 Blanket authorizations are used for aggregating high-volume and low-cost work within a category for a Company division; the approved amount is reset each year under the same project number (Exh. NG-JP-2, at 29).

80 Construction projects of less than $100,000 are undertaken through a blanket project authorization process that is reviewed and approved by local functional management (Exh. AG 1-19). Larger projects require individual authorizations at progressively higher corporate levels depending upon the cost of the particular project (Exhs. NG-JP-2, at 31-34; DPU-NG 3-23; AG 1-19).

the 1,260 projects cited above are reported under both the Walker PCM and PowerPlant systems.

2. Positions of the Parties

a. Attorney General

The Attorney General examined National Grid's capital projects with a completed cost greater than $250,000, and concluded that each of those projects should be included in rate base because they appeared to result in improvements to the Company's system (Exh. AG-64, at 15). Although the Attorney General contests several elements of the Company's proposed rate base as described below, she does not explicitly challenge on brief the Company's plant investment balances.

b. Company

National Grid defends all of its plant additions as prudent (Company Brief at 48). The Company maintains that its project completion reports are extensive and demonstrate the prudence of its capital projects implemented during between 2000 and 2008 (id. at 48-49, citing Exhs. AG 1-19; AG 1-19 (Supp.)). The Company also points to its capital investment processes that are used to manage both the cost of capital expenditures and their allocation among National Grid's operations (Company Brief at 48, citing Exhs. NG-JP at 30-37; DPU-NG 3-22; DPU-NG 3-23; Tr. 1, at 184; Tr. 2, at 339-348). The Company notes that not a single witness testified against the Company's capital investments, and that one of the Attorney General's witnesses specifically supported the inclusion of this plant in rate base (Company Brief at 48-49, citing Exhs. AG-64, at 15; NG-AG 1-180).

3. Analysis and Findings

a. Standard of Review

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

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

(1996); D.P.U. 93-60, at 35; Fitchburg Gas and Electric Light Company, D.P.U. 84-145-A at 26 (1985), citing Boston Gas Company, D.P.U. 555-C at 16 (1983).

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

The Department considers plant to be "used and useful" if the plant is in service and provides benefits to customers. Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 9 (1998); Boston Gas Company, D.P.U. 96-50 (Phase I) at 15 (1996). In the absence of extraordinary circumstances, the Department normally does not allow the relitigation of the used or usefulness of plant once it has been included in rate base. D.P.U. 93-60, at 43; D.P.U. 92-210-B at 14.

b. January 2000 Through April 2004 Additions

As noted above, 569 projects with a cost greater than $100,000 were initiated between January 2000 and April 2004 under the Walker PCM system, with some of these projects also recorded under the PowerPlant system. Because of this overlap and the differences in documentation between the two systems, the Department will first examine those plant additions initiated prior to May 2004.

Of the 569 projects initiated between January 2000 and April 2004, approximately 35 percent experienced cost overruns, of which more than half experienced cost overruns exceeding 20 percent (Exh. AG-1-19 (Supps. A through M)). Cost overruns may be incurred on a project for a wide range of reasons, some of which may be outside of a company's control, and the existence of such overruns in and of themselves does not necessarily demonstrate imprudence on a company's part in the planning or construction of the project. D.T.E. 05-27, at 80-82.

For those projects with cost overruns of less than 20 percent, the Department has reviewed the supporting documentation, including the capital authorizations, work order ledgers, and closing reports (Exh. AG 1-19 (Supps. A through M)). The Department finds that the Company has provided sufficient and reviewable evidence to demonstrate that it has controlled costs and that the project expenditures were prudent. The Department's review of the supporting documentation also leads us to conclude that National Grid acted prudently in estimating the costs associated with these projects, and that the reasons for cost overruns include factors that could not have been reasonably anticipated during the preparation of the construction estimates. Accordingly, we will allow the cost of these projects to be included in rate base.

As noted above, approximately 20 percent of the 569 projects experienced cost overruns exceeding 20 percent. Because of the magnitude of the variances associated with those projects, the Department has applied a greater level of scrutiny to the individual projects. The Department has reviewed the supporting documentation, including the capital

authorizations, work order ledgers, and closing reports (id. (Supps. A through M)). Based on our review of this data and our familiarity with electric distribution systems, the Department finds that the Company has provided sufficient and reviewable evidence to demonstrate that it has controlled costs and that the project expenditures were prudent. The Department's review of the supporting documentation also leads us to conclude that National Grid acted prudently in estimating the costs associated with these projects. The reasons for cost overruns include factors that could not have been reasonably anticipated during the preparation of the construction estimates including site conditions and storm repairs (see, e.g., id. (Supps. D at 182-185, G at 196-217). Accordingly, we will allow the cost of these projects, to the extent that the associated projects were completed by April 2004, to be included in rate base. We now turn to those projects that were completed between May 2004 and December 2008, including those that were initially recorded under the Walker PCM system and later migrated to the PowerPlant system.

c. May 2004 Through December 2008 Additions

Of the 691 projects greater than $100,000 completed between May 2004 and December 2008, 125 projects experienced cost overruns exceeding 20 percent (id., Att. 1).[81] The remaining 566 projects had cost overruns or underruns ranging from minus 97.9 percent

[81] The Company explains that by January 2008, National Grid USA had been sufficiently concerned about the effect of project backlogs and associated cost overruns on the Company's internal audit functions and its compliance with the requirements of Sarbanes-Oxley to have reauthorized approximately 220 projects located in Massachusetts, New York, New Hampshire, and Rhode Island with an increase of 30 percent over their then-current forecasts (Exh. AG 1-19, Att. 2, at 1445-1449).

to 10,890,382 percent (id., Att. 1).[82] For those 566 projects with cost overruns of less than 20 percent, the Department has reviewed the supporting documentation, including the project authorizations and reauthorizations, closing reports, and cost overrun analyses prepared by National Grid (id. (Supps. A through M)).

The closing reports provided in Exhibit AG 1-19 include cost overrun analyses prepared by the Company for approximately twelve of the 566 projects.[83] While cost overruns were attributed to a number of factors, difficulties with project management were also identified in those analyses as contributing factors (id., Att. 2, passim). Although the project management issues identified in these reports raise concerns about the adequacy of the Company's cost-control measures, each of these projects was completed at a lower cost than the total authorized levels (id., Att. 2, passim). The Department is persuaded that the project management issues in this proceeding do not rise to the level of imprudence on the part of National Grid.

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82 This high range is associated with a real estate purchase; $1,000 had been initially authorized solely for project recording purposes (Exh. AG 1-19, Att. 2, at 5298).

83 These PowerPoint presentations include analyses of: (1) Project No. C01351, East Tewksbury #59; (2) Project No. C013076, Chandler Street Substation; (3) Project No. C01381, Florence Junction System Improvements; (4) Project No. C01386, South Wrentham #3422; (5) Project No. 01387, Western Feeder Load Reduction; (6) Project No. C01390, Beverly #12; (7) Project No. 01402, Chartley Pond; (8) Project No. C01412, South Wrentham; (9) Project No. 01420, Wellington; (10) Project No. C01449, Ipswich; (11) Project No. C01461 (Five Corners); and (12) Project No. C03128, Mid-Weymouth Substation Expansion (Exh. AG-1-19, Att. 2 passim).

The Department finds that the Company has provided sufficient and reviewable evidence for these 566 projects to demonstrate that it has controlled costs and that the project expenditures were prudent. The Department's review of the supporting documentation also leads us to conclude that National Grid acted prudently in estimating the costs associated with these projects, and that the reasons for cost overruns include factors that could not have been reasonably anticipated during the preparation of the construction estimates. Accordingly, the Department will allow the inclusion of all of the costs associated with these 566 projects in the Company's rate base.

For each of the 125 projects that experienced cost overruns greater than 20 percent, the Company explained that the cost overruns were attributed to a range of conditions. These causes include, for example: (1) changes in the required scope of work (id., Att. 2, at 581, 1400); (2) the need for more extensive equipment replacement than originally anticipated (id., Att. 2, at 74); (3) increased labor costs (id., Att. 2, at 582); (4) additional work required by a municipality (id., Att. 2, at 84, 1248); (5) site and soil conditions (id., Att. 2, at 460, 1700); (6) delays in obtaining local approvals (id., Att. 2, at 460); (7) improved construction estimating techniques (id., Att. 2, at 1188); and (8) difficulties in obtaining site access (e.g., parked cars blocking manholes) (id., Att. 2, at 4870). This list is not intended to be inclusive of all the factors affecting National Grid's capital projects, but rather serve to illustrate the scope of challenges that utilities may face in their construction programs.

Project Number C01369, the East Methuen No. 74 project ("East Methuen"), experienced a cost overrun greater than 20 percent (id., Att. 1). East Methuen was initially

authorized in November 2002 for $900,000, with a scheduled completion date in the summer of 2004 (id., Att. 2, at 265). The project was completed in May 2005 at a final cost of $1,864,110 (id., Att. 1, at 1, Att. 2, at 265). According to the Company's cost overrun analysis performed in January 2007, most of the cost overruns were associated with labor, overhead, and materials (id., Att. 2, at 266). The cause of the cost overruns was attributed to a combination of factors, including design changes, changes in project priorities, and project management (id., Att. 2, at 268-272). Although the project management issues identified on the East Methuen project raise concerns about the adequacy of the Company's cost-control measures, the Department recognizes that the cost overruns had many interrelated reasons, some of which were beyond the control of the Company (id., Att. 2, at 265-274). The Department is persuaded here that project management issues identified with this project do not rise to the level of imprudence on the part of National Grid. Accordingly, the Department will allow the inclusion of the costs associated with East Methuen project in the Company's rate base.

The Department finds that the Company has provided sufficient and reviewable evidence to demonstrate that it has controlled costs and that the project expenditures were prudent. The Department's review of the supporting documentation also leads us to conclude that National Grid acted prudently in estimating the costs associated with these 125 projects, and that the reasons for cost overruns include factors that could not have been reasonably anticipated during the preparation of the construction estimates. Accordingly, we will allow the cost of these 125 projects to be included in rate base.

B. Asset Retirement Obligations

1. Introduction

As part of its plant in service, the Company has included $269,623 in asset retirement obligations ("ARO"), consisting of $61,000 in ARO associated with distribution plant and $208,623 in ARO associated with general plant (Exhs. NG-HSG-RR-2 (Rev.) at 22, 26; DPU-NG 1-7).[84] According to National Grid, an ARO represents estimated costs of future retirements that are not otherwise provided for in the net salvage factor used to derive the Company's depreciation accrual rates (Exh. DPU-NG 1-7; Tr. 5, at 1050-1051). In support of its proposal, the Company states that Financial Accounting Standards Board Statement 143 ("FAS 143") requires reporting companies to record a liability on their books for estimated future costs associated with asset retirements along with an offsetting asset, with amortization over the period through the expected retirement date of the underlying asset (Exh. DPU-NG 1-7; Tr. 5, at 1046-1048). Consequently, the Company considers the ARO to represent a cost associated with the underlying assets, thus warranting inclusion in rate base (Exh. NG-DPU 1-7). No party commented on brief about the Company's AROs.

2. Analysis and Findings

The Uniform System of Accounts for Electric Companies ("USOA-Electric Companies"), codified as 220 C.M.R. § 51.00 et seq., specifies that AROs associated with distribution plant are to be booked to Account 374, while AROs associated with general plant are to be booked to Account 399 (18 C.F.R. Pt. 101, Balance Sheet Chart of Accounts,

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[84] The Company states that the accumulated depreciation associated with the ARO as of the end of the test year was a negative $4,037 (Exh. NG-HSG-RR-2 (Rev.) at 22).

Electric Plant Instructions, Sec. 10(B)(2)).[85] Accounting requirements, however, do not necessarily dictate ratemaking treatment. Boston Edison Company, D.P.U./D.T.E. 97-95, at 77 (2001); D.P.U. 92-78, at 79-80; Cape Cod Gas Company, D.P.U. 20103, at 18-19 (1979). The accounting systems prescribed by the Department, including the USOA-Electric Companies, represent systems whereby costs are categorized to provide the Department with information on utility operations and aid in the review of utility costs; they do not establish either the reasonableness per se of the reported costs or the ratemaking treatment to be accorded such costs. See, e.g., D.T.E. 03-40, at 103, 208; D.P.U./D.T.E 97-95, at 77. The Department's ratemaking process takes into consideration many factors other than account balances. Therefore, the booking of a particular expense in accordance with the USOA-Electric Companies implies no judgment as to the reasonableness of that cost in a given instance, nor does it establish the reasonableness per se of that cost for ratemaking purposes. D.P.U./D.T.E 97-95, at 77; see also Boston Gas Company v. City of Newton, 425 Mass. 697, 706 (1997).

The Department is unpersuaded that AROs warrant inclusion in rate base. While these removal costs are a component of the net salvage factors used in the Company's depreciation analysis (Tr. 8, at 1453), the fact remains that the Company's AROs represent balance sheet entries that do not represent plant in service. See Western Massachusetts Electric Company, D.T.E. 05-9, at 13 (2005). National Grid's proposal, in effect, seeks not only recognition of

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[85] The Department has adopted the USOA-Electric Companies prescribed by the Federal Energy Regulatory Commission, with several modifications. 220 C.M.R. § 51.01(1).

its future retirement costs, but also recovery of carrying charges on those future costs. AROs represent estimated future removal costs (Tr. 5, at 1050-1051). Regardless of the requirements of FAS 143 for financial reporting purposes, there is no basis to provide any regulated utility with a return on costs that have not yet been incurred. National Grid's justification for rate base treatment of its AROs appears to be more driven by accounting standards than ratemaking conventions (Exh. DPU-NG 1-7; Tr. 5, at 1051-1053). The Department is unpersuaded that the net salvage factors used in the Company's depreciation study are insufficient to recognize the cost of retiring the underlying assets.

Based on the foregoing analysis, the Department finds that the Company has failed to justify the inclusion of ARO in rate base. Accordingly, the Department will also reduce National Grid's proposed rate base by $269,623. Because the Company has proposed a negative accumulated depreciation reserve of $4,037 associated with its AROs, our decision here requires a corresponding increase of $4,037 to the Company's depreciation reserve. The effect of this adjustment on the Company's depreciation expense is described in Section V.C., below of this Order.

C. Retirement Work in Progress

1. Introduction

National Grid has included in its rate base $17,602,377 associated with retirement work in progress ("RWIP") (Exh. NG-HSG-RR-2 (Rev.) at 26). According to the Company, RWIP are similar to AROs, except that RWIP represents costs that have already been incurred to date for asset retirements, and are charged against the associated assets prior to retirment (Tr. 5,

at 1050-1051; Tr. 7, at 1341-1344). National Grid reasons that these costs must be considered as part of the Company's ongoing efforts to manage both its balance sheets and its assets (Tr. 5, at 1052; Tr. 7, at 1347). In support of this contention, the Company relies on FAS 143, which requires reporting companies to record a liability on their books for estimated future costs associated with asset retirements (Exh. DPU-NG 1-7).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that the Company's proposal to include RWIP in rate base is inconsistent with long-standing Department precedent that only used and useful plant may be included in rate base (Attorney General Reply Brief at 30-31). The Attorney General argues that because the retirements associated with RWIP have neither been completed nor booked, the $17,602,377 in RWIP must be removed from National Grid's proposed rate base (id., citing D.P.U. 92-78, at 5; D.P.U. 92-111, at 64; Oxford Water Company, D.P.U. 1219, at 4 (1983); D.P.U. 906, at 208.

b. Company

National Grid defends its inclusion of RWIP in rate base as consistent with well-established Department precedent because the cost of removing retired plant is recoverable through rates (Company Reply Brief at 51-52, citing Aquarion Water Company of Massachusetts, D.P.U. 08-27, at 111 n.63 (March 31, 2009); Boston Edison Company, D.P.U. 85-266-A/271-A at 118 (1986)). The Company maintains that while CWIP is not recoverable, RWIP is associated with plant already in service (Company Reply Brief at 51-52).

The Company claims that if it were to wait until the associated asset was retired before collecting the cost of retiring the asset, there would be no regulatory mechanism available to do so because the asset would no longer be used and useful (Company Reply Brief at 52).

3. Analysis and Findings

The Department has long recognized that costs associated with retiring an asset are recoverable through rates. D.P.U. 08-27, at 111 n.63; D.P.U. 85-266-A/271-A at 118). Nonetheless, National Grid's reliance on these cases to support its proposed treatment of RWIP is misplaced. While the cost of retiring an asset is recoverable through rates, the Department's decisions in those cases make it clear that recovery of these costs is achieved through the net salvage factor used to derive depreciation accrual rates. D.P.U. 08-27, at 111 n.63; D.P.U. 85-266-A/271-A at 118. See also Commonwealth Gas Company, D.P.U. 87-122, at 73 (1987); Boston Edison Company, D.P.U. 1350, at 107 (1983).

This method of recovery is borne out by the USOA-Electric Companies, which prescribes the treatment of retirement costs for regulatory accounting purposes. Pursuant to the USOA-Electric Companies, at the time of the retirement of depreciable electric utility plant, the account shall be charged with both the book cost of the property being retired and the cost of removal, with any salvage value or other amounts received being booked as a credit (18 C.F.R. Pt. 101, Balance Sheet Chart of Accounts). National Grid's proposal, in effect, seeks not only recognition of its retirement costs, but also recovery of carrying charges on those costs through inclusion in rate base. Consistent with our denial of the Company's

request to include AROs in rate base, the Department finds that there is no basis to provide any regulated utility with an additional return component on its retirement costs.

Based on the foregoing analysis, the Department finds that the Company has failed to demonstrate why a departure from long-standing regulatory practice is warranted or justified. Accordingly, the Department will reduce National Grid's proposed rate base by $17,602,377.

D. Cash Working Capital

1. Introduction

In their day-to-day operations, utilities require funds to pay for expenses incurred in the course of business, including O&M expenses. These funds are either generated internally by a company or through short-term borrowing. Department policy permits a company to be reimbursed for costs associated with the use of its funds for the interest expense incurred on borrowing. D.P.U. 96-50 (Phase 1) at 26, citing Western Massachusetts Electric Company, D.P.U. 87-260, at 22-23 (1988). This reimbursement is accomplished by adding a working capital component to the rate base computation.

Cash working capital needs have been determined through either the use of a lead-lag study or a 45-day O&M expense allowance. D.T.E. 03-40, at 92. In the absence of a lead-lag study, the Department has generally relied on the 45-day convention as reasonably representative of O&M working capital requirements. D.T.E. 05-27, at 98; D.P.U. 88-67 (Phase I) at 35. The Department, however, has expressed concern that the 45-day convention first developed in the early part of the 20th century no longer provides a reliable measure of a utility's working capital requirements. D.T.E. 03-40, at 92; D.T.E. 98-51, at 15. Therefore,

the Department requires each gas and electric distribution company to either (1) conduct a lead-lag study where cost-effective, or (2) propose a reasonable alternative to a lead-lag study to develop a different interval. D.T.E. 03-40, at 92; D.T.E. 02-24/25, at 57.

National Grid conducted a lead-lag study to determine the net lag days associated with purchased power and other operating expenses (Exh. NG-HSG-RR-3 (Rev.)). The cash working capital associated with purchased power expense will be recovered through the Company's basic service cost adjustment provision, and the cash working capital associated with other operating expenses will be recovered through inclusion in the Company's rate base (Exh. NG-HSG-RR-2 (Rev.) at 26, 30).

To determine its proposed cash working capital allowance, the Company first identified the following expense categories: (1) purchased power expense; (2) O&M expense; (3) transmission expense; (4) federal income taxes; (5) state income taxes; (6) municipal taxes; (7) sales and use tax; (8) federal unemployment taxes; (9) state unemployment taxes; (10) FICA expense (both weekly and monthly); (11) FICA and federal withholding (weekly and monthly); (12) state income tax withholding (weekly and monthly); and (13) incentive thrift (weekly and monthly) (Exh. NG-HSG-RR-3 (Rev.) at 2). The Company then determined a dollar-weighted period of time between the end date for the receipt of service from supplier and the payment date, producing expense lags ranging between a negative 23.83 days for

municipal property taxes to a positive 27.23 days for federal unemployment taxes (Exh. NG-HSG-RR-3 (Rev.) at 2).[86]

Next, the Company developed a "customer payment lag," representing the time delay between the mailing of customers' bills and the receipt of the billed revenues from customers (Exh. NG-HSG-RR-3 (Rev.) at 3). The customer payment lag was obtained by first averaging the twelve-month balances of accounts receivable and then dividing the result by the average monthly electric revenues, producing a collection lag component of 35.07 days (Exh. NG-HSG-RR-3 (Rev.) at 3). National Grid then added a billing lag of 1.45 days, representing the average lag from the date a meter is read to the date the bill is sent to the customer (Exh. NG-HSG-RR-3 (Rev.) at 3). The sum of the collection lag and service lag is 36.52 days, which represents 9.98 percent of the days in a year and thus produces an annual customer payment lag factor of 9.98 percent (Exh. NG-HSG-RR-3 (Rev.) at 3).

The Company then subtracted the revenue lags from the expense lag, producing cash working capital factors for each expense category ranging from a negative 17.25 percent for federal unemployment taxes to 16.49 percent for municipal taxes (Exh. NG-HSG-RR-3 (Rev.) at 2). As part of this analysis, National Grid computed a separate cash working capital factor associated with a contract termination charge ("CTC") of 3.56 percent (Exh. NG-HSG-RR-2 (Rev) at 30).[87] These cash working capital factors were then multiplied

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[86] The Company determined that the expense lag associated with purchased power was 26.56 days (Exh. NG-HSG-RR-3 (Rev.) at 5).

[87] The CTC resulted from a FERC-approved wholesale settlement that restructured the wholesale contractual relationship between New England Power Company ("NEP") and

by the pro forma expense associated with these expense categories, producing a total cash working capital allowance associated with operating expenses other than purchased power of $44,540,304 (Exh. NG-HSG-RR-2 (Rev) at 26, 30).

To determine the cash working capital associated with purchased power, the Company multiplied the test year purchased power expense by the 2.72 percent cash working capital factor associated with purchased power expense, producing a cash working capital allowance of $38,850,577 (Exh. NG-HSG-RR-2 (Rev.) at 30). The $38,850,577 amount, multiplied by the Company's proposed pre-tax weighted cost of capital of $12.97 percent, represents the revenue requirement associated with purchased power cash working capital (Exh. NG-HSG-RR-2 (Rev.) at 30).

2. Positions of the Parties

a. Attorney General

The Attorney General proposes three adjustments to National Grid's cash working capital allowance. First, the Attorney General contends that Department precedent only includes the net lag associated with O&M expenses, and not other expenses such as income taxes (Attorney General Brief at 97-98, citing D.P.U. 08-35, at 31-32, 33; Attorney General Reply Brief at 31-32; Attorney General Supplemental Reply Brief at 11-12). The Attorney General contends that removing the net lag associated with income taxes and taxes other than

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MECo in the context of the restructuring the electric utility industry in Massachusetts. NEP terminated its all-requirements contractual agreement with MECo in exchange for the payment of CTC by MECo. New England Power Company, FERC Docket Nos. ER97-678-000 (1997) and ER98-6-000 (1998); New England Power Company, D.T.E. 97-94, at 11 (1998).

income taxes will reduce the Company's cash working capital allowance by $7,603,000 (Attorney General Brief at 98).

The Attorney General also opposes any cash working capital allowance for transmission-related expenses. She argues that because the revenue requirement being established in this case is intended to cover the cost of providing distribution service, transmission costs are not properly included in the distribution-related revenue requirement (Attorney General Brief at 98). The Attorney General argues that the Company has failed to substantiate its theory that transmission expense-related cash working capital in distribution rates represent a timing difference between the Company's payment for transmission service and its billing of retail customers for that service (Attorney General Reply Brief at 32; Attorney General Supplemental Reply Brief at 12).

The Attorney General acknowledges that the Company's transmission rates do not provide for a cash working capital allowance for transmission-related O&M expenses (Attorney General Brief at 98). Nevertheless, the Attorney General maintains that, to the extent that the cash working capital effect of transmission-related O&M expenses is recoverable from ratepayers, those costs should be recovered through transmission rates (Attorney General Brief at 98-99; Attorney General Reply Brief at 33).[88] The Attorney General contends that, while she has never objected to the recovery of legitimate transmission-related costs through transmission rates, the Department should reject the

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[88] The Attorney General points out that this same issue applies to the Company's handling of bad debt related to transmission service (Attorney General Brief at 99, citing Exh. NG-HSG-Rebuttal at 19).

Company's alternative request offered in rebuttal testimony that the Department find that transmission-related cash working capital allowances are recoverable through retail transmission rates (Attorney General Brief at 99, citing Exh. NG-HSG-Rebuttal at 20; Attorney General Supplemental Reply Brief at 12). She maintains that such a finding would be beyond the scope of this proceeding, which is limited to the determination of rates for distribution service (Attorney General Brief at 99).

Finally, the Attorney General opposes any cash working capital allowance for CTC. She argues that under the settlements reached in New England Power Company, FERC Docket Nos. ER97-678-000 (1997) and ER98-6-000 (1998), the Company recovers CTC through separate fully-reconciling rate mechanisms (Attorney General Brief at 100). The Attorney General points out that, to the extent CTC is under- or over-recovered in any given year, a return is calculated on the under- or over-recovery and included in the reconciliation (Attorney General Brief at 100). The Attorney General contends that the Company is now seeking to circumvent the intent of those settlements, despite National Grid's failure to even establish that such a lag exists or that it has not been compensated for such a lag in the FERC-approved settlements (Attorney General Brief at 100; Attorney General Reply Brief at 33). Therefore, the Attorney General urges the Department to disallow any cash working capital allowance for CTC (Attorney General Brief at 100-101; Attorney General Reply Brief at 33).

b. Company

National Grid contends that only limited issues were raised during the proceedings with respect to its cash working capital allowance (Company Brief at 49). The Company states that

while it accepts the Attorney General's proposed adjustment for income taxes, the Attorney General inappropriately seeks to exclude cash working capital associated with other taxes[89] (Company Brief at 49-50, citing Exh. NG-HSG-Rebuttal at 20-21). The Company maintains that the Attorney General's reliance on D.P.U. 08-35 is not dispositive, because in that proceeding, New England Gas Company merely acquiesced to the Attorney General's proposal (Company Reply Brief at 41).

Turning to the Attorney General's proposed adjustments related to CTC and transmission expense, the Company argues that her proposals indicate a misunderstanding of these particular elements of cash working capital (Company Brief at 50). The Company maintains that the CTC and transmission-related expenses that are included in cash working capital result from the timing difference between when the Company pays for these charges and when it bills its own customers for reimbursement of these costs as pass-through items (Company Brief at 50; Company Reply Brief at 42). National Grid maintains that these expenses are appropriately part of the working capital needed to provide distribution service, and are thus recoverable through distribution rates instead of through FERC-jurisdictional rates (Company Brief at 50; Company Reply Brief at 42). The Company argues that the Attorney General's proposal to recover all transmission-related expenses through a separate transmission

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[89] National Grid agreed to eliminate the effects on cash working capital associated with income taxes, and provided a revised cash working capital calculation in its updated revenue requirement schedules (Exhs. NG-HSG-Rebuttal at 20; NG-HSG-RR-2 (Rev.) at 30).

rate would be a complex undertaking warranting a separate proceeding (Company Supplemental Brief at 9).[90]

3. Analysis and Findings

In the present case, National Grid conducted a lead-lag study that has produced lower results than the Department's 45-day convention (Exh. NG-HSG-RR-3 (Rev)). The weighted average lag produced by this study is 21.87 days, represented by a purchased power lag of 26.652 days and a composite other expense lag of 13.01 days (see Exh. NG-HSG-RR-2 (Rev.) at 26, 30). The Department finds that the Company's decision to perform a lead-lag study was a cost-effective means to determine its working capital needs.

The Department's standard on cash working capital is intended to allow a utility to recover legitimate working capital expense outlays that must be made while waiting for collection of revenues. Under the 45-day convention, the cash working capital factor is only applied to O&M expense, because it is presumed that the 45-day convention implicitly takes other operating expenses into account. D.P.U. 93-60, at 47-50; Haverhill Gas Company, D.P.U. 19660, at 3 (1979). Consequently, the Department has declined to make any additions or offsets to the O&M expense when applying the 45-day convention. Boston Gas Company, D.P.U. 1100, at 16-19 (1982).

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[90] In the alternative, the Company states that if the Department determines that these costs should be excluded from the distribution revenue requirement, then it requests that the Department make an explicit finding that these costs should be recovered through the Company's transmission service cost adjustment provision (Exh. NG-HSG-Rebuttal at 20).

In contrast, if the cash working capital requirements are determined through a lead-lag study, all cash items are included in the lead-lag study. See Cambridge Electric Light Company, D.P.U. 92-250, at 15 (1993); Western Massachusetts Electric Company, D.P.U. 88-250, at 18-20 (1989). Noncash items, such as depreciation expense, deferred income taxes, amortizations, investment tax credits, and gains/losses on the sale of utility property, are not normally included in the lead-lag study. D.P.U. 88-250, at 18-20. The Company's payroll and property taxes indisputably represent cash outlays. Therefore, the Department declines to accept the Attorney General's proposed elimination of taxes other than income taxes from the cash working capital computation.

The cash working capital at issue here involves the lag that occurs between the time of the Company's transactions with ISO-NE and the receipt of payment from customers (Exh. AG 9-1; Tr. 7, at 1247-1248).[91] Inclusion of these costs in the Company's cash working capital allowance is necessary to ensure that the Company is appropriately compensated for the costs it incurs in providing service to its customers (Exh. AG 3-2). Therefore, the Department declines to reduce the Company's cash working capital allowance for transmission-related expenses.

We now turn to the issue of National Grid's inclusion of CTC in its cash working capital allowance. To the extent that there may be any cash working capital allowance in the FERC-approved CTC charges, that cash working capital would be associated with the

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[91] The Company's transmission service rate includes a cash working capital allowance based on a one-eighths convention, a variation of the 45-day convention (Exh. AG 20-1, Att. 6, at 4).

transaction between NEP and the Company, and intended to compensate NEP for any payments lags from National Grid. In contrast, the payment lags at issue here are those incurred by the Company, and cover the period between National Grid's payment of a CTC and the reimbursement of those expenses from its own customers. Inclusion of these costs in the Company's cash working capital allowance is necessary to ensure that the Company is appropriately compensated for the costs it incurs in providing service to its customers. Therefore, the Department declines to reduce the Company's cash working capital allowance for CTC expenses.

Application of the Company's lead-lag factors to the level of O&M expense authorized by this Order produces a cash working capital allowance of $42,407,278. The derivation of this cash working capital allowance is provided in Schedule 6 of this Order.

E. Deferred Income Taxes

1. Introduction

As of the end of the test year, National Grid had on its books a total accumulated deferred federal and state income tax balance of $329,350,835 (Exh. NG-HSG-RR-2 (Rev.) at 26). The Company proposes to offset its rate base only by the accumulated deferred income taxes associated with depreciation-related book-tax temporary differences (Exh. DPU-NG 1-8). To derive its proposed deferred income tax balance, the Company first added to its test-year-end deferred income tax balance $21,891,207 in deferred federal and state income taxes associated with Financial Accounting Standards Board Statement 109 ("FAS 109"), thus resulting in a total deferred tax balance of $351,242,042 (Exh. NG-HSG-RR-2 (Rev.) at 26).

Next, the Company subtracted from this balance $50,206,696 in deferred income taxes associated with contributions in aid of construction ("CIAC"), producing a deferred tax balance of $301,035,346 (Exhs. NG-HSG-RR at 35; NG-HSG-RR-2 (Rev.) at 26).[92] Finally, the Company made a second reduction of $2,494,269 representing the deferred income taxes associated with Nantucket Electric's two underwater cables to the mainland (Exhs. NG-HSG-RR at 35; NG-HSG-RR-2 (Rev.) at 26, WP NG-HSG-RR-19 at 1-2). This adjustment produced a proposed deferred income tax balance of $298,541,077 (Exh. NG-HSG-RR-2 (Rev.) at 26). None of the parties commented on brief on this issue.

2. Analysis and Findings

Deferred income taxes arise because of differences between the tax and book treatment of certain transactions, including the use of accelerated depreciation and the treatment of certain operating expenses for income tax purposes. Fitchburg Gas and Electric Light Company, D.T.E. 99-118, at 33 (2001); Essex County Gas Company, D.P.U. 87-59, at 27 (1987). Because deferred income taxes represent a cost-free source of funds to the utility, they are typically treated as an offset to rate base. D.P.U. 87-59, at 29; AT&T Communications of New England, D.P.U. 85-137, at 31 (1985); D.P.U. 1350, at 42-43. The Department, however, also has a general policy of matching recovery of tax benefits and losses to the recovery of the underlying expense with which the tax effects are associated. Commonwealth

[92] According to the Company, deferred income taxes associated with CIACs represent deferred tax assets because they are taxable when received, but do not reduce depreciation expense until the associated asset is placed into service and begins to accumulate depreciation (Exh. NG-HSG-RR at 34-35).

Electric Company, D.P.U. 89-114/90-331/91-80 (Phase I) at 29 (1991); D.P.U. 89-194/195, at 66.

In this proceeding, the Company added back to its year-end accumulated deferred income tax balance $21,891,207 in deferred income taxes associated with FAS 109 (Exhs. NG-HSG-RR at 35; NG-HSG-RR-2 (Rev.) at 26, WP NG-HSG-RR-19 at 1-2). The Company explained that because its FAS 109-related deferred taxes carried a negative balance, it was necessary to add them back to rate base to eliminate the effects of FAS 109 on its deferred income tax balance (Exh. DPU-NG 1-8). Had the Company not made such an adjustment, its deferred income tax balance would have been significantly understated, and ratepayers would have been deprived of the benefits associated with deferred income taxes. The Department finds that the Company has appropriately accounted for its deferred income taxes associated with FAS 109. Therefore, we accept the Company's proposed adjustment to rate base for FAS 109-related deferred income taxes.

The Company also excluded from its year-end accumulated deferred income tax balance $50,206,696 in deferred income taxes associated with CIAC (Exhs. NG-HSG-RR at 35; NG-HSG-RR-2 (Rev.) at 26, WP NG-HSG-RR-19, at 1-2). In support of its proposed adjustment, the Company relies on the treatment accorded to CIAC-related deferred income taxes in Fitchburg Gas and Electric Light Company, D.P.U. 07-71 (2008). In that proceeding, however, deferred income taxes associated with CIACs represented a negative balance (Exh. DPU-2; Tr. 7, at 1337-1339). Thus, failure to adjust the company's CIAC balance in that instance would have deprived ratepayers of the benefits associated with deferred income

taxes. In this case, National Grid's deferred income taxes associated with CIACs carry a positive balance (Exh. NG-HSG-RR-2 (Rev.) at 27). Consequently, an adjustment to deferred income taxes would serve to prevent customers from receiving the full benefit of these deferred income taxes. Therefore, the Department denies the Company's proposed adjustment. Accordingly, the Department will increase the Company's deferred income tax reserve by $50,206,696, which results in a corresponding reduction to rate base.

Finally, the Company excluded from its year-end accumulated deferred income tax balance $2,494,269 in deferred income taxes associated with the Nantucket Electric underwater cable projects (Exhs. NG-HSG-RR at 35; NG-HSG-RR-2 (Rev.) at 26, WP NG-HSG-RR-19 at 1-2). Because the revenue requirement associated with these cable projects, including deferred income taxes, is recovered through a cable surcharge applicable to customers of Nantucket Electric, the associated deferred income taxes are appropriately assigned to the cable surcharge. D.P.U. 95-67, at 17-20. See also D.P.U. 07-71, at 56; D.T.E. 02-24/25, at 62. Therefore, the Department finds that National Grid has appropriately adjusted its test year balance of accumulated deferred income taxes associated with the Nantucket Electric underwater cable project. Accordingly, we will allow the Company's proposed adjustment to deferred income taxes associated with the Nantucket Electric underwater cable projects.

IV. REVENUES

A. Pole Attachments

1. Introduction

The Company proposes to include $3,259,023 in test year revenues for pole attachments (Exh. NG-HSG-RR, WP NG-HSG-RR-26, at 1). National Grid rents space on its distribution poles to third parties, e.g., for use in running wires or hanging cell tower transmitters (Tr. 12, at 2040). National Grid receives rental income related to these pole attachments on an annual basis pursuant to a formula established by the Federal Communications Commission (RR-AG-37).[93]

2. Positions of the Parties

The Attorney General argues that the Company should increase its test-year revenues to recognize the test-year-end number of pole attachments (Attorney General Brief at 101). According to the Attorney General, multiplying the test-year-end number of pole attachments by the corresponding pole attachment rates results in test-year-end pole attachment revenue of $4,081,290 (Attorney General Brief at 101-102). Consequently, the Attorney General asserts that test year pole attachment revenues should be increased by $1,062,853, which is the difference between the $3,018,437 reported by the Company in Exhibit AG 1-33, Att. 1, and

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[93] Rates for each pole varies depending on whether the pole is solely- or jointly-owned (Exh. AG 36-40).

the $4,081,290 calculated by the Attorney General (Attorney General Brief at 102).[94] No other party addressed test year pole attachment revenues.

3. Analysis and Findings

The Department has reviewed the Attorney General's proposed adjustment to the test year pole attachment revenues. We find that it is appropriate to include the test-year-end number of pole attachments in order to calculate the test year pole attachment revenues to be included in the Company's overall revenues. D.P.U. 95-40, at 79; D.P.U. 85-266-A/85-271-A at 117; Boston Edison Company, D.P.U. 1720, at 85 (1984). The dollar adjustment proposed by the Attorney General, however, is incorrect. The actual pole attachment revenues for 2008, as reported by the Company, are $3,259,023 (Exh. NG-HSG-RR, WP NG-HSG-RR-26, at 1). Subtracting this value from the test-year-end pole attachment revenues based on test-year-end number of pole attachments of $4,081,290 results in an increase to test year pole attachment revenues of $822,267 (RR-AG-37). Therefore, the Department will increase the Company's test year revenues by $822,267 to properly account for pole attachment revenues.

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[94] The Attorney General recommended an adjustment of $1,062,853 based on the 2008 pole attachment revenues of $3,018,437 that the Company provided in Exhibit AG 1-33, Attachment 1. The Company clarified during the proceeding, however, that the year headings in Exhibit AG 1-33 had been inadvertently switched so that the numbers labeled "2007" were, in fact, for 2008 (Exh. AG 36-38; Tr. 12, at 2039-2040).

B. Load Response Credits

1. Introduction

The load response program is sponsored by the Independent System Operator-New England ("ISO-NE"). Participating customers agree to interrupt their load and abide by the rules established by ISO-NE for load curtailment. Customers receive an annual credit from the ISO-NE as compensation for participating in the program (Exh. NG-HSG-Rebuttal at 15). The Company is the conduit for the credits provided for the customers and retains a portion of the credit to offset costs associated with administering the program (Exh. NG-HSG-Rebuttal at 15).

Initially, the Company did not propose a credit to test year revenues to reflect load response credits retained by the Company. In response to concerns raised by the Attorney General, the Company ultimately proposed to credit test year revenues by $829,000 to reflect load response credits retained by the Company in 2009 applicable to expenses incurred in 2008 (Exh. NG-HSG-Rebuttal at 15; Company Brief at 28).[95]

2. Position of the Parties

a. Attorney General

The Attorney General argues that the Company should be required to credit $800,000 to test year revenues for the load response credit retained by the Company in 2009 applicable

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[95] After the record closed in this proceeding, National Grid stated that it determined that the actual amount of the load response credit for 2008 expenses was $829,000 rather than $800,000 as noted on Exhibit AG 3-7, Att. (see Company Brief at 28; see also Exh. AG-60, at 17). The Company will stipulate to this amount (Company Brief at 28 n.10).

to expenses incurred in 2008 (Attorney General Brief at 102, citing Exh. AG 3-27). The Attorney General argues that the Company's alternate proposal made in rebuttal testimony to credit $306,250 to test year revenues is inappropriate because it is based on the load response credit the Company expects to retain in 2010 applicable to expenses incurred in 2009 and, therefore, would result in a mismatch between costs incurred in 2008 and a credit for costs incurred in 2010 (Attorney General Brief at 102-103).

b. Company

As part of its rebuttal testimony, the Company proposed to credit $306,250 to test year revenues based on the load response credit National Grid expects to retain in 2010 applicable to expenses incurred in 2009 (Exh. NG-HSG-Rebuttal at 15-16). On brief, the Company acknowledged that it should be required to credit to test year revenues the amount of the load response credit retained by the Company in 2009 applicable to expenses incurred in 2008 (Company Brief at 28). The Company has stipulated that this amount is $829,000 (Company Brief at 28 n.10).

3. Analysis and Findings

The Department finds that it is appropriate to credit test year revenues to reflect load response credits retained by the Company in 2009 applicable to expenses incurred in 2008. The Company has stipulated that the 2009 retained load response credit associated with the test year is $829,000. Accordingly, the Company's revenue requirement shall be reduced by $829,000.

V. OPERATING AND MAINTENANCE EXPENSES

A. Employee Compensation and Benefits

1. Introduction

When determining the reasonableness of a company's compensation expense, the Department reviews the company's overall employee compensation expense to ensure that its employee compensation decisions result in a minimization of unit-labor costs. D.P.U. 96-50 (Phase I) at 47; D.P.U. 92-250, at 55. This approach recognizes that the different components of compensation (e.g., wages and benefits) are to some extent substitutes for each other and that different combinations of these components may be used to attract and retain employees. D.P.U. 92-250, at 55. In addition, the Department requires companies to demonstrate that their total unit-labor cost is minimized in a manner supported by their overall business strategies. D.P.U. 92-250, at 55. The individual components of a company's employment compensation package, however, will be appropriately left to the discretion of a company's management. D.P.U. 92-250, at 55-56.

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

National Grid USA calls its employee compensation program a "Total Rewards Program" and states that it encompasses base pay, variable pay, medical and dental insurances, life and long-term disability insurances, vacation and holiday time, a pension plan,[96] a 401(k) plan, and an employee stock purchase plan (Exh. NG-WFD at 3, 15-16).

2. Non-Union Wage Increases

a. Introduction

During the test year, the Company booked $56,563,121 in payroll expense for non-union personnel, including base wages, variable pay, and overtime (Exhs. NG-HSG-RR-2 (Rev.) at 6-8). Of that amount, $12,825,352 was directly incurred by MECo and Nantucket Electric, $41,638,626 was allocated from NG Service, and $2,099,143 was allocated from KS Service (Exhs. NG-HSG-RR-2 (Rev.) at 6-8). The Company has adjusted its non-union payroll expense by $16,233 including decreases for its local non-union employees of $40,505 and the allocation from NG Service of $2,919 and an increase of $59,657 for the allocation from KS Service employees (Exhs. NG-HSG-RR-2 (Rev.) at 6-8). The proposed adjustments are attributable to (1) increased staffing levels, (2) wage and salary increases that have been implemented since the test year, and (3) anticipated wage and salary increases (Exhs. NG-HSG-RR-2 (Rev.) at 6-8).

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[96] The pension and post-retirement benefits other than pension are addressed in Section V.G., below.

b. Positions of the Parties

i. Attorney General

The Attorney General claims that the Company's pro forma adjustments for anticipated non-union wage increases are unsupported by record evidence, unreasonable, and unwarranted in the current economic climate (Attorney General Reply Brief at 39). She asserts that the Company has made no express commitment concerning either the 2009 or 2010 non-union pay increases (Attorney General Brief at 108-109). In addition, the Attorney General argues that, beyond demonstrating that recent non-union pay increases have been greater than those for union employees, the Company has failed to show a correlation between the two pay groups (Attorney General Brief at 109). She further contends that the salary survey relied upon by the Company to demonstrate the reasonableness of non-union wages is based on market data from April 2008 and, therefore, does not reflect current economic conditions (Attorney General Brief at 110).

With respect to the proposed 2010 increase, the Attorney General maintains that the Company recognized that under Department precedent, non-union wage increases occurring during the rate year must become effective within six months of the Department's Order in the respective rate case in order to be included in rates (Attorney General Brief at 112, citing Exh. NG-WFD at 12). The Attorney General argues that, in this case, a July 1 effective date is well beyond the statutory deadline for issuance of the Order (i.e., November 30, 2009) and, as such, recognition of the July 2010 increase is inconsistent with Department precedent

(Attorney General Brief at 112, citing Western Massachusetts Electric Company, D.P.U. 86-280-A at 74 (1987)).

The Attorney General also criticizes the Company for invoking the current economic conditions when it is useful to National Grid and ignoring it in situations where it is detrimental to National Grid, such as the case of non-union wage increases (Attorney General Brief at 110-111, citing Exh. NG-CF at 3-4). The Attorney General points out that the Company has ratepayers in some of the areas hardest hit by the economic downturn and this should be considered in evaluating the reasonableness of non-union wage increases (Attorney General Brief at 111).

ii. Company

The Company states that non-union employee wage levels are close to the median level of comparable companies (Company Brief at 9, citing Exh. NG-WFD at 10-11). First, the Company disagrees with the Attorney General's contention that a contractual commitment is required for non-union wage increases to be recoverable (Company Reply Brief at 24). The Company asserts that the Department will find a wage increase to be a known and measurable expense if a utility's management makes an express commitment to grant the increase (Company Reply Brief at 24-25, citing D.P.U. 08-35, at 84; D.T.E. 02-24/25, at 92; D.P.U. 95-40, at 21). National Grid asserts that the Attorney General's argument that there must be a contractual commitment is not consistent with this standard and, therefore, should be rejected (Company Reply Brief at 25).

Second, the Company asserts that the Attorney General's argument that the competitive market study is not sufficiently current is ill-conceived (Company Reply Brief at 25). National Grid argues that the comparative survey is necessarily based on historical information and asserts that the Department has noted that the lack of information about future events is unavoidable and inherent in salary surveys (Company Reply Brief at 25-26, citing D.P.U. 08-35, at 85). The Company contends that the Attorney General continues to press an argument (i.e., that salary surveys should be based on more recent data) that has been rejected by the Department in other proceedings (Company Reply Brief at 25, citing D.P.U. 07-71, at 75; D.T.E. 02-24/25, at 92-94). Finally, the Company asserts that the union and non-union compensation groups are sufficiently correlated to support full recovery of the non-union wage increases (Company Reply Brief at 26).

The Company maintains that its compensation program for non-union wages, including base pay, variable pay, and benefits, has been designed to be competitive while it has taken measures to control costs (Company Brief at 13-14). National Grid states that it regularly participates in industry roundtables and incorporates the findings in its own practices (Company Brief at 14, citing Exh. NG-WFD at 17-22). National Grid asserts that no party to the proceeding presented evidence that its benefit program was unreasonable (Company Brief at 14).

c. Analysis and Findings

To recognize an adjustment for an increase in non-union wages that takes place prior to the issuance of an Order, the Company must demonstrate that such increases are known and

measurable and also reasonable. See D.P.U. 08-35, at 81-82, 87; D.P.U. 92-250, at 35; Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 14 (1983). To recognize an adjustment for an increase in non-union wages that may occur post-Order, a company must demonstrate that: (1) there is an express commitment by management to grant the increase; (2) there is an historical correlation between union and non-union raises; and (3) the non-union increase is reasonable. D.P.U. 96-50 (Phase I) at 42; D.P.U. 95-40, at 21; D.P.U. 1270/1414, at 14. In addition, only non-union salary increases that are scheduled to become effective no later than six months after the date of the Order may be included in rates. D.P.U. 85-266-A/271-A at 107.

National Grid argues that the Department should disregard the Attorney General's assertions that both the 2009 and 2010 non-union pay increases should be dismissed because of a lack of contractual obligation (Company Reply Brief at 25). While a contract is not required for a post-Order non-union wage increase to be recoverable, a company must provide evidence of an express commitment to non-union employees to grant a payroll increase. D.P.U. 08-35, at 81; D.P.U. 96-50 (Phase 1) at 42; D.P.U. 95-40, at 21). While the Company has not provided any documentation of a payroll increase of 30 percent on July 1, 2010, the Company contends that based upon the historical relationship between union and non-union wages, and on the fact that it has not in the past twenty years adopted a zero or very small budget recommendation two years in a row, it fully expects the non-union wage increase to be in line with the contractual union wage increase in 2010 (Exh. NG-WFD at 12-13; Tr. 6, at 1108-1109).

The record indicates that the Company's management has historically granted non-union increases on an annual basis and that an historical correlation has existed between granting of union and non-union payroll increases (Exh. NG-WFD-7). We accept, in this instance, the Company's assertion that it intends to grant an increase. Nonetheless, going forward, the Department expects companies seeking to adjust for a post-Order non-union wage increase to provide evidence that it has expressly committed to granting such increase. At a minimum, this evidence must be in the form of a written document that affirms the company's intent to grant a post-Order non-union wage increase, signed by a company representative with appropriate authority.

In support of the historical correlation between union and non-union wage increases, the Company provided a comparative analysis of union and non-union wage increases between 1999 and 2009 (Exh. NG-WFD-7). This analysis demonstrates that, between 1999 and 2009 the compounded wage increase for non-union members is 46 percent while for union members it is 48 percent (Exh. NG-WFD-7).[97] Therefore, the Department finds that a sufficient correlation exists between union and non-union wage increases. D.P.U. 09-30, at 189; D.P.U. 07-71, at 76; D.P.U. 87-59-A at 18.

To comply with the Departments standard of reasonableness, the Company demonstrated that it participates in an annual survey conducted by Towers Perrin and seeks to set pay at approximately the median level for comparable companies in the northeast United

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[97] The average annual wage increase for non-union employees during this period was 3.48 percent and for union employees 3.64 percent.

States (Exhs. NG-WFD at 10-11; NG-WFD-6). The Attorney General challenges the reliance on the 2008 Towers Perrin Assessment because it was conducted using market expectations from early 2008, prior to the effects of the current economic conditions (Attorney General Brief at 110). The lack of knowledge of future events is unavoidable and inherent in salary surveys of any type. D.P.U. 09-30, at 189-190. Rather, the purpose of salary surveys is to assist subscribers in both assessing their current compensation structures and making informed decisions about future compensation based on conditions that are known or can be reasonably anticipated at the time the survey is conducted. D.P.U. 09-30, at 190. In this case, the Department has given appropriate weight to the salary survey in determining the reasonableness of the Company's non-union payroll increase. See D.P.U. 08-35, at 85; D.T.E. 02-24/25, at 94. The Department has considered the economic conditions in the Company's service territory and concludes that while these conditions may be temporary, base rates are typically more durable. Consequently, we are obligated to consider what reasonable compensation rates may be on a going-forward basis, despite current economic conditions. See D.P.U. 08-35, at 85-86.

The Company has demonstrated that, including the increase for 2009, its non-union compensation levels are within the average compensation ranges of comparable positions in the northeast industrial sector (Exhs. NG-WFD-6; NG-WFD at 11). The Department finds that the Company's review of industry compensation data is sufficient to confirm the reasonableness of the Company's non-union wage increases. See D.P.U. 05-27, at 109;

D.T.E. 02-24/25, at 94. Accordingly, the Department will increase the Company's test year cost of service by $1,709,620 for its non-union wage increases.

3. Union Wage Increases

a. Introduction

During the test year, National Grid booked $57,295,599 in payroll expense for union personnel, including base wages, variable pay and overtime (Exh. NG-HSG-RR-2 (Rev.) at 6-8). Of that amount $46,737,044 was directly incurred by MECo and Nantucket Electric, $10,294,249 was allocated from NG Service, and $264,306 from KS Service (Exh. NG-HSG-RR-2 (Rev.) at 6-8). The Company has made adjustments increasing its union payroll expense by 13 percent, or $7,513,087, attributable as follows: (1) $7,057,400 to local union employees; (2) $415,167 allocated from NG Service; and (3) $40,520 allocated from KS Service (Exh. NG-HSG-RR-2 (Rev.) at 6-8). The proposed adjustments are attributable to (1) increased staffing levels, (2) wage and salary increases that have been implemented since the test year, and (3) anticipated wage and salary increases (Exh. NG-HSG-RR-2 (Rev.) at 6-8).

b. Positions of the Parties

The Company asserts that it has ensured its union wages are appropriate (Company Brief at 10). Specifically, National Grid asserts that it has conducted a process to ensure that its union wages are competitive with those of other utilities in the region (Company Brief at 10, citing Exhs. NG-WFD at 8, 15; NG-WFD-8). The Company further maintains that it has demonstrated that union and non-union wage increases are historically correlated as

required by the Department (Company Brief at 10, citing Exh. NG-WFD-7). No other party addressed this issue.

c. Analysis and Findings

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

The union payroll rates will all be in effect prior to the midpoint of the first twelve months after the rate increase (Exhs. NG-WFD at 14; AG-1-42, Att. 24, at 54-67, Att. 25, at 44-46). Further, as the rate increases are based on signed contracts, the Department finds that they are known and measurable (Exh. AG 1-42).

The Company submitted a survey of union compensation of comparable companies (Exh. NG-WFD-8). The Company claims that the results of the survey demonstrate that the union payroll increases are reasonable (Company Brief at 10, citing Exh. NG-WFD-8). The Department determines that the Company appropriately provided a salary survey that demonstrates the reasonableness of its union pay increases. Further, the Company negotiated and agreed upon the union contracts dictating the union pay increases well in advance of the current economic climate (Exh. AG 1-42, Att. 24, at 54-67, Att. 25, at 44-46). Thus, the Department finds that the union wage increase adjustment, in addition to the meeting the

standards of taking place prior to six months from the date of order, and being known and measurable, meets the standard of reasonableness. Therefore, the Department finds that the adjustment made to union wages for the May 2010 increase is allowed. Accordingly the Company's proposed cost of service will be increased by $2,855,747.

4. Employee Staffing Levels

a. Introduction

The Company has made adjustments for changes in staffing levels during the course of the test year, calculating the wage expense based on the employee compliment as of January 1, 2009 (Exh. NG-HSG-RR-2 (Rev.) at 6-8). The result is from an increase in union payroll expense of 4.68 percent, or $2,681,492, and a decrease in non-union payroll expense of 4.36 percent, or $2,468,218, for a net increase of 0.2 percent, or $213,274. Changes related to MECo staffing levels are an increase of 6.5 percent, or $3,026,598, for union payroll and a decrease of 6.01 percent, or $771,168, for non-union payroll for a net increase of 3.8 percent, or $2,255,430 (Exh. NG-HSG-RR-2 (Rev.) at 6). Changes related to allocated NG Service staffing levels are a decrease of 3.6 percent, or $367,459, for union employees and a decrease of 3.7 percent, or $1,535,323, for non-union employees resulting in a total decrease of 3.7 percent, or $1,902,782 (Exh. NG-HSG-RR-2 (R) at 7). Changes related to KS Service staffing levels are an increase of 8.5 percent, or $22,353, in union wages and a decrease of 7.7 percent, or $161,727, in non-union wages for a net decrease of 5.9 percent, or $139,374 (Exh. NG-HSG-RR-2 (R) at 8).

b. Positions of the Parties

i. Attorney General

The Attorney General contests National Grid's pro forma adjustment for staffing levels pursuant to union contracts (Attorney General Brief at 106). She argues that the Company has failed to identify any new tasks that will be performed by the new hires, and she contends that the new union hires will actually be displacing outside contractors (Attorney General Brief at 106, citing Exh. AG-60, at 6). Therefore, the Attorney General argues that the costs of increased staffing levels will be more than offset by a decrease in outside contractor expense (Attorney General Brief at 107). The Attorney General dismisses the Company's claim that there will be additional work associated with asset replacement and reliability initiatives by observing that these costs are capitalized and, therefore, would not affect the level of expense during the expected effective period of the new rates (Attorney General Reply Brief at 36 n.15). She further contends that the evidence contradicts the Company's argument that a reduction in the use of outside contractors is speculative (Attorney General Reply Brief at 36-37, citing Exh. AG 9-16; Tr. 6, at 1126-1127; see also Tr. 19, at 3532).

ii. Company

National Grid defends the pro forma adjustment to the test year compensation expense for the increased employment levels committed to under union contracts (Company Brief at 17). The Company claims that reductions in the use of outside contractors, which the Attorney General argues will offset the increased staffing numbers, will not be realized for the foreseeable future (Company Brief at 17). According to the Company, the new hires will

require training and integration that will delay any diminished dependence on contractors (Company Brief at 17). The Company argues that while the increase in staffing levels is known and measurable, the reduction in outside contractor expense is speculative (Company Brief at 18).

c. Analysis and Findings

Employee 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. The Berkshire Gas Company, D.P.U. 90-121, at 80-81 (1990); D.P.U. 88-172, at 12.

National Grid has entered into contracts with employee unions requiring an increase in staffing levels that is expected to be complete by April 1, 2010 (Exh. NG-HSG-RR at 18). The Company has made proposed adjustments to the revenue requirements to account for the additional staff (Exh. NG-HSG-RR-2 at 6).

The number of employees will increase post-test year under the terms of the union contracts. Nonetheless, the evidence demonstrates that the additional workers will displace outside contractors, and, therefore, there will be an offset cost savings not accounted for by

National Grid (Exh. AG 36-47; Tr. 6, at 1085-1088, 1126-1127).[98] Further, as noted by the Attorney General, the work associated with asset replacement and reliability issues cited by the Company as tasks for these additional workers is capitalized and, therefore, not included in O&M expenses (see Attorney General Reply Brief at 36 n.15). The Department is not persuaded by the Company's claim that the new employees will require training before the contractors can be replaced and, therefore, any cost savings are speculative. National Grid fails to detail such training and cannot specify how long the training will take beyond an extended time frame (Tr. 19, at 3531-3532). The Department finds that the Company is not incurring any new expenses but instead is shifting them from one area of cost to another area of cost. Therefore, because the Company has failed to demonstrate that it has experienced a significant post-test year change in the number of employees that falls outside of the normal ebb and flow of its workforce, the Department disallows the wage adjustments for staffing level increases. Accordingly, the Company's proposed cost of service will be reduced by $2,271,322.

5. Variable Compensation

a. Introduction

In connection with the acquisition of KeySpan in 2007, National Grid USA commissioned a market analysis of its wages and benefits to align the compensation structure of the two systems (Exh. NG-WFD at 4). As a result of the study, National Grid USA

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[98] The Company stated that for the 2007-2011 period, it would return to using relatively more employees and fewer contractors (Tr. 6, at 1085-1088, 1126-1127).

adopted KeySpan's compensation approach, which was to shift some of the overall compensation from base pay to a variable pay component (Exh. NG-WFD at 4). The Company's variable compensation component has two objectives: (1) a financial objective that relates to earnings per share, net operating profit, and cash flow; and (2) an individual objective that relates to safety, reliability, and customer satisfaction targets that are aligned to the Company's service quality standards and vary depending on the part of the business in which the employee works (Exh. NG-WFD at 7). Approximately 40 percent to 50 percent of variable pay is based on individual goals related to meeting established service quality measures such as safety, reliability, and customer satisfaction (Exh. NG-WFD at 9). The Company excluded variable pay associated with National Grid USA's most senior executives from its revenue requirement calculations (Exh. NG-WFD at 7).[99] During the test year, the Company booked $6,624,697 in variable pay including $1,969,814 incurred directly, $4,490,718 allocated from NG Service, and $164,165 allocated from KS Service (Exh. NG-HSG-RR-2 (Rev.) at 6, 7, 8). The pro forma adjustment of $224,075 is calculated by increasing the test year amounts by the increases in base wage rates (id).

b. Positions of the Parties

i. Attorney General

The Attorney General asserts that the Department should disallow recovery of the portion of variable pay that is tied to financial goals of the Company (Attorney General Brief

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[99] Salary Band A positions, generally senior vice-presidents and above, are excluded from revenue requirement calculations (Exhs. NG-WFD at 7; AG 34-3).

at 103-104, citing Exh. AG-60, at 4-5). She contends that the inclusion of variable pay tied to corporate performance rewards employees for getting higher rates approved and, therefore, is substantively no different from saying "that the higher its rates, the better off its customers are" (Attorney General Reply Brief at 35). The Attorney General acknowledges that the Department allows recovery of variable payments if company financial performance is used as a threshold determinant (Attorney General Reply Brief at 34, citing D.P.U. 08-35, at 97-98). The Attorney General asserts, however, that National Grid instead uses the Company's financial performance to determine the level of benefit and, thus, variable pay should be disallowed (Attorney General Reply Brief at 34-35). Therefore, the Attorney General asserts the Department should deny the $3,424,000 of variable compensation that is tied to the attainment of corporate financial goals (Attorney General Brief at 105-106).

ii. Company

National Grid contends that, contrary to the Attorney General's assertions, its variable compensation adheres to Department standards in that it provides benefits to ratepayers and is not based solely on financial performance (Company Brief at 11, citing D.P.U. 07-71, at 83). The Company contends that it designed reasonable compensation packages based on the aggregate of base pay and variable compensation (Company Brief at 10, citing Exh. NG-WFD at 6). The Company asserts that variable pay has a significant component that is determined by achievement of individual goals (Company Brief at 11). Furthermore, National Grid argues that achievement of financial goals does not solely benefit shareholders (Company Brief at 13). Rather, the Company asserts that achievement of financial goals benefits ratepayers as well

because it improves National Grid's access to capital, which is critical to providing safe and reliable service (Company Brief at 11). In addition, the Company argues it is not appropriate to have a compensation plan that pays bonuses without considering the profitability of the business (Company Brief at 13, citing Exh. NG-WFD at 6-7).

c. Analysis and Findings

The Department has traditionally allowed incentive compensation expenses (i.e., bonuses) to be included in utilities' cost of service so long as they are (1) reasonable in amount, and (2) reasonably designed to encourage good employee performance. D.P.U. 89-194/195, at 34; D.P.U. 07-71, at 82-83. 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. As a rule, if a company's employee-performance standards are based at least in part on job performance of the individual employee, rather than based solely on the company's financial performance, the incentive plan is deemed to reasonably encourage good employee performance. D.P.U. 08-35, at 97; D.T.E. 02-24/25, at 101-102. The Department has stated that if incentive compensation is tied only to financial performance, the benefit to ratepayers is unclear. D.P.U. 89-194/195, at 34.

The Company offers an incentive (i.e., variable) compensation plan that is based in part on the achievement of personal goals and in part on the success of the Company in achieving financial goals (Exh. NG-WFD at 6). The Department notes that National Grid has not sought the recovery of variable pay for its most senior level (Band A) executives (Exh. NG-WFD at 7). The Department finds that the aggregate amount of the variable pay is reasonable.

With respect to the design of variable pay, the Department finds that it is reasonably designed to encourage good employee performance. The variable pay as designed provides incentive for good employee performance in two ways: (1) by achieving his or her personal goals, the employee is directly rewarded; and (2) by contributing to the success of the Company, the employee is indirectly rewarded. Personal performance objectives are tied to safety, reliability and customer satisfaction and are, therefore, directly aligned with the interests of ratepayers. Financial objectives are tied to the revenues and costs of the Company. As the productivity of an employee has a direct impact on operating costs and an indirect impact on financial performance, employees are motivated to higher productivity by a reward linked with the Company's financial performance. The benefit to ratepayers from the variable component tied to Company performance is not as clearly defined but it is manifested in lower operating and capital costs. In addition, the design of the variable compensation plan allows the Company to forego partial payment under conditions of poor financial performance, which adds to National Grid's long-term financial stability and lower O&M costs.

The Attorney General correctly notes that financial performance has been a threshold determinant in incentive compensation plans approved by the Department. See D.P.U. 08-35, at 97-98; D.P.U. 02-24/25, at 101; D.P.U. 89-194/195, at 34. In these cases, once the financial performance threshold was met, job performance standards designed to encourage good employee performance were the basis for determining individual incentive compensation. D.P.U. 08-35, at 97-98; D.P.U. 02-24/25, at 101; D.P.U. 89-194/195, at 34. Financial performance is not a threshold determinant in National Grid's incentive compensation plan but

rather is a component of the formula used to determine individual incentive compensation. We find that such treatment is reasonable here because (1) the Company does not seek recovery of incentive compensation for its most senior executives, and (2) employee performance is adequately tied to meeting safety, reliability, and customer satisfaction goals (Exh. NG-WFD at 9).

The Department finds that the Company has adequately demonstrated that its variable plan encourages good employee performance and results in benefits to ratepayers. Therefore, the Department will include the entire variable compensation of $6,848,771 in the Company's cost of service.

6. Medical, Dental, and Thrift Plan Expenses

a. Introduction

The Company's health and welfare plans are self insured by National Grid USA (Exh. NG-WFD at 17). The Company booked $11,595,289 in medical and dental costs during the test year and proposed a $1,775,153 pro forma increase to incorporate expected increases in medical costs of eight percent and dental costs of three percent (Exhs. NG-HSG-RR-1, at 15, 16; NG-HSG-RR-2, at 9). The Company also proposed a pro forma increase of $127,285 to the $1,591,751 group life insurance expense booked during the test year (Exhs. NG-HSG-RR-1, at 16; NG-HSG-RR-2, at 10).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Company's pro forma adjustments for medical and dental expenses and its thrift plan expense are not known and measurable and, therefore,

should be excluded from the cost of service (Attorney General Brief at 115-116). The Attorney General further asserts that National Grid has failed to provide evidence to support the estimates on which the adjustments are based (Attorney General Brief at 115-116; Attorney General Reply Brief at 40). With respect to medical and dental expenses, the Attorney General asserts that while National Grid proposes to make a pro forma adjustment for increased costs in 2010, the Company failed to provide any bills for 2010 that represent the latest amounts that the Company would expect to pay during the rate year in this case (Attorney General Brief at 116). She also argues that estimates of medical and dental bills are insufficient as these costs may increase, decrease, or stay the same (Attorney General Brief at 116). In addition, she asserts that employee contributions to the thrift plan are voluntary and subject to change on a weekly basis (Attorney General Brief at 115, citing Tr. 9, at 1803-1804). The Attorney General reasons that because there is no formula or written requirement to determine the employee contributions that the Company must match, National Grid's proposed adjustments to the test year level are not known (Attorney General Brief at 115).

ii. Company

National Grid asserts that its pro forma adjustments to the revenue requirement for medical and dental expenses and the employee thrift plan are known and measurable (Company Brief at 15). The Company argues that the level of exactitude regarding the Department's known and measurable standard that the Attorney General demands is unreasonable (Company Reply Brief at 27). The Company argues that the employee thrift program is a derivative of the number of employees, the compensation of those employees, and their participation in the

plan and, though not perfectly known, can be determined with reasonable certainty (Company Reply Brief at 26-27).

National Grid asserts that the costs associated with its medical and dental benefits are reasonable (Company Brief at 26). The Company states that it conducted a comparative survey to evaluate the cost of these benefits with other utilities and demonstrated that the Company's costs are in line with the industry (Company Brief at 26, citing Exh. NG-WFD at 16). The Company also asserts that it realizes cost savings from being self-insured, which allows National Grid to (1) avoid margin and risk charges typically paid to an insurance company, and (2) design its plans to limit expense (Company Brief at 26). The Company challenges the Attorney General's claim that the amount sought for recovery is not known and measurable, stating that the budget is known (Company Brief at 25). Specifically, National Grid asserts that the Towers Perrin estimate will be used to derive the charges to employees who choose to use the benefit (Company Brief at 25, citing RR-DPU-33). The Company states that the proposed adjustment submitted in its initial filing, while referred to as an "inflation adjustment" during the hearings, was an initial estimate by Towers Perrin and that during the proceeding, Towers Perrin provided final estimates that are higher than National Grid's proposed adjustment (Company Brief at 25-26, citing RR-DPU-33).

c. Analysis and Findings

The Company has included pro forma adjustments for the medical and dental expenses of eight percent and three percent, respectively (Exh. NG-HSG-RR-2 (Rev.) at 9). The adjustments are based on estimates of increases to medical and dental expenses budgeted for in

2010, based upon forecasts provided by Tower Perrin (Exh. NG-HSG-RR-2 (Rev.) at 9; Tr. 5, at 1021). For pro forma adjustments to O&M expenses to be included, they must be known and measurable. The Company provided no evidence that the increases are known and measurable. Instead, National Grid reviewed historical costs and consulted with outside experts to derive what it determined was an accurate estimate (Tr. 5, at 1021-1022). Providing estimates of future increases in the cost of medical and dental expenses, absent firm evidence, is not sufficient to demonstrate that such increases are either a known or a measurable expense. National Grid's attempt to predicts cost for the rate year constitutes the use of a future test year, which is not part of ratemaking treatment in the Commonwealth. See Eastern Edison Company, D.P.U. 1580, at 13-17, 19 (1984); Massachusetts Electric Company, D.P.U. 136, at 3 (1980); Chatham Water Company, D.P.U. 19992, at 2 (1980); Massachusetts Electric Company, D.P.U. 18204, at 4 (1975); New England Telephone & Telegraph Company, D.P.U. 18210, at 2-3 (1975); Boston Gas Company, D.P.U. 18264, at 2-4 (1975). Therefore, the pro forma adjustments are disallowed. Accordingly, the Department will reduce the Company's proposed cost of service by $1,750,131.

With respect to the expense for matching contributions to the employee thrift plan, the Company did not provide sufficient evidence that the proposed pro forma adjustment made to reflect increased costs is known and measurable. Specifically, National Grid proposed an adjustment based on a corresponding increase in rate year base salaries and wages (Exh. NG-HSG-RR at 17). The Company, however, stated that employees were not required to participate in the employee thrift plan and any matching contributions made by participating

employees could vary on a weekly or monthly basis (Tr. 11, at 1803-1805). Although the Department recognizes that staffing and compensation levels are important determinants of the level of employee contributions, the average marginal propensity to save cannot be known and is likely to be volatile in times of economic uncertainty. Therefore, because the Company has failed to demonstrate that the proposed increases to expenses related to the employee thrift plan are known and measurable, the pro forma adjustment for the employee thrift plan is disallowed. Accordingly, the Department will reduce the Company's proposed cost of service by $288,574.

7. Relocation and House Buyout Programs

a. Introduction

National Grid has an employee relocation policy that the Company states enables its relocating employees to be settled and productive within the shortest period of time in the most cost-effective manner for both the Company and the employee (Exh. AG 25-1, Att. at 1). The employee relocation policy includes: (1) a house buyout program that enables the Company to offer to purchase the home of a qualified relocated employee; and (2) an employee relocation program that reimburses a qualified employee for moving-related expenses (Exh. AG 25-1, Att. at 2-3; AG 39-16). The Company included in its revenue requirement $184,000 in expense associated with its house buyout program and $365,000 in expense associated with its employee relocation program (Exhs. AG 25-3, Atts. 1 through 6; AG 25-3 (Supp.), Atts. 1 through 6; AG 25-4, Atts. 1-2; AG 39-4, Atts. 1 through 8; Tr. 12, at 1992, 1997).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Department should disallow inclusion of expenses from National Grid's relocation and housing buyout programs (Attorney General Brief at 113, 114). She claims that these costs were grossly inflated during the test year and, thus, are not representative of a typical year's costs (Attorney General Reply Brief at 38). Additionally, the Attorney General states that, as a general principle, because these costs are designed to attract and retain senior executives, they should be borne by shareholders instead of ratepayers (Attorney General Brief at 113, 114). For the same reason, she argues that all "non-monetary" expenses for its expatriates allocated from National Grid plc[100] should not be considered just and reasonable for Massachusetts ratepayers to bear, and that the Company has not made a showing that the inclusion of such costs is appropriate (Attorney General Reply Brief at 39). Finally, the Attorney General claims that the Company's "generous" offer to pick up the costs of selling out-of-state property in New York and California is also designed to attract and retain senior executives and that shareholders should, therefore, be responsible for the expense (Attorney General Brief at 114; Attorney General Reply Brief at 38, citing Exh. AG 39-15).

ii. Company

The Company contends that the Attorney General's primary objection to the inclusion of such expenses is that because there is a benefit to shareholders, they should shoulder the full

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[100] The Attorney General's brief was inconsistent in referencing National Grid plc, referring to it in this section as "National Grid."

cost (Company Brief at 47, citing Attorney General Brief at 113-114). National Grid asserts that the qualified employees have significant responsibilities, the first and foremost being the provision of safe and reliable electric service to its customers and, thus, there are substantial benefits to customers in attracting and retaining highly-qualified employees (Company Brief at 47). The Company asserts that because there are benefits to both customers and shareholders and the expenses associated with its house buyout and employee relocation programs are substantiated by invoices, it is appropriate to include them in National Grid's revenue requirement (Company Brief at 46).

c. Analysis and Findings

National Grid has included recovery of expenses incurred for its relocation and home buyout programs (Exhs. AG 25-3, Atts. 1 through 6); AG 39-15). The Department disagrees with the Attorney General's contention that these costs are benefits to high level executives and are, therefore, the responsibility of the shareholder. The relocation and home buyout programs are costs of doing business similar to compensation and business travel expenditures. For the same reasons, the Department also disagrees that the non-monetary expenses associated with its "expatriates" do not benefit ratepayers. The Company incurs such costs as part of the cost of doing business and the costs are allocated accordingly.

Nonetheless, we find that the test year level of expenses is not representative based on a comparison of prior years (Exhs. AG 25-3-1 through AG 25-3-6; AG 39-15). The nature of relocation and home buyout programs is analogous to liability insurance expenses for self insurers, in that the level of expense from year to year is volatile and test year levels are not

necessarily representative of historical expense levels. We have previously determined that the use of a five-year average of payments is more appropriate to determine the level of liability insurance expense payments for ratemaking purposes. D.P.U. 89-194/195, at 73-75. Consistent with this treatment of self-insurance expense, the Department will normalize the Company's relocation expenses and use a five-year average from 2004 to 2008 to calculate the costs (Exhs. AG 25-3-2; AG 39-15). This calculation produces a relocation expense of $165,804 and a home buyout expense of $49,221. Accordingly, the Department will reduce the Company's proposed cost of service by $325,592.

B. Facilities Consolidation and Lease Expense

1. Introduction

As part of National Grid USA's acquisition of KeySpan, the companies consolidated facilities and operations in order to achieve operating efficiencies in their overlapping service territories and to centralize employees who are performing related functions (Exh. NG-JP at 52). NG Service conducted an analysis of National Grid USA's facilities and identified particular facilities that could be consolidated with other existing operations (Exhs. NG-JP at 53; NG-JP-4). The analysis considered costs and savings that resulted from identifying new locations, renovating existing facilities where required, constructing facilities, disposing of properties that were no longer needed, and transferring business functions (Exhs. NG-JP at 54; NG-JP-4; AG-13-46).

As a result of this analysis, NG Service determined that it would be economically beneficial to consolidate its main offices from facilities located in Waltham, Westborough, and

Northborough, as well as offices in Lincoln and Providence, Rhode Island, to a new central location (Exh. NG-JP at 57). After evaluating a number of options, including renovating an existing facility, purchase of a facility, or leasing of a facility, the Company ultimately elected to lease a 312,000-square foot facility at a new location in Waltham ("Reservoir Woods") (Exhs. NG-JP at 57-60). The Company's affiliate, NG Service, leases Reservoir Woods from DMP RWE II, LLC ("DMP") and allocates a portion of the total expense to the Company (Exh. AG-3-17, Atts. 2, 6). The Company began occupying Reservoir Woods in May 2009. While approximately 1,430 employees are presently located at Reservoir Woods, the Company expects to ultimately house approximately 1,830 employees at the location (Exh. NG-JP at 60; Tr. 10, at 1655). National Grid proposes to include $2,956,578 in its cost of service for Reservoir Woods, representing the Company's allocated portion of the rent and operating expenses related to this facility (Exhs. NG-HSG-RR-2 (Rev.) at 14; AG-3-17, Att. 6).

NG Service also determined that it would be economically beneficial to consolidate National Grid USA's special purpose facilities in New England, which house control and dispatch centers for its electric and gas distribution businesses, along with its electric transmission business, into its existing facility at 55 Bearfoot Road in Northborough ("Bearfoot Road") (Exhs. NG-JP at 53-54, 56; NG-JP-2; NG-JP-3).[101] Bearfoot Road is currently undergoing renovations to accommodate the increased operations (Exhs. NG-JP at 57; AG 39-25). National Grid proposes to include in cost of service $2,127,236 in rent expense

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[101] This consolidation at Bearfoot Road would affect employees presently located at Waltham and Westborough, as well as those in Lincoln and Providence, Rhode Island (Exh. NG-JP at 57).

for Bearfoot Road, representing the Company's allocated portion of the cost related to this facility (Exh. NG-HSG-RR-2 (Rev.) at 14).

In support of its facilities consolidations, the Company prepared a cost-benefit analysis (Exhs. NG-JP-4; AG-13-46). Taking into account one-time capital costs and sales proceeds, as well as the anticipated annual savings, the Company determined that there would be a combined economic benefit of $10 million over the next ten years associated with Reservoir Woods and the consolidations at Bearfoot Road (Exhs. NG-JP-4; AG-13-46). These savings include those anticipated from the expected sale of the Company's present offices in Westborough and three others in Rhode Island; however, the timing of these property disposals are dependent upon economic conditions (Exh. NG-JP at 58).

In addition to Reservoir Woods and Bearfoot Road, NG Service also concluded that it would be economically beneficial to combine the existing gas and electric operations facilities in Beverly in a new central location and to centralize the gas and electric operations facilities in Malden, either at one of the existing locations or at a new facility (Exhs. NG-JP at 56-57; NG-JP-4; AG-13-46; AG-24-32). Using the same cost-benefit analysis technique that was used to evaluate the Reservoir Woods and Bearfoot Road transactions, the Company determined that there would be an economic benefit of $5 million associated with the consolidations of the Malden and Beverly gas and electric operations centers (Exhs. NG-JP-4; AG-13-46). While National Grid proposes to incorporate cost savings associated with the Malden and Beverly

consolidations, the Company has not made a final decision on how the Malden and Beverly operations will be consolidated (Exhs. NG-JP at 57; NG-JP-3, at 1; AG-24-32).[102]

During the test year, the Company booked $8,191,678 in lease expense associated with various facilities as well as information technology ("IT") systems (Exhs. NG-HSG-RR-2 (Rev.) at 14; NG-JP-5; AG 1-64 (Supp.)). The Company proposes a decrease of $95,117, representing the net effect of the following adjustments: (1) a net increase of $1,141,745 in lease expense resulting from facilities consolidation that will take place through December of 2010; and (2) a decrease of $1,236,862 related to the termination and additions of various IT leases (Exhs. NG-HSG-RR at 19, NG-HSG-RR-2 (Rev.) at 5, 14).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that the Company has inappropriately sought to include in its proposed lease expense $1,863,207 in costs associated with post-test year capital expenditures made at Reservoir Woods and Bearfoot Road (Attorney General Brief at 122, citing Exh. NG-HSG-RR-2 (Rev.) at 14). The Attorney General maintains that the Department's long-standing precedent has been to exclude post-test year plant additions from rate base unless those additions are very large in proportion to existing plant in service (Attorney General Brief at 122-123, citing Blackstone Gas Company, D.T.E. 01-50, at 3-4 (2001); Assabet Water Company, D.P.U. 95-92, at 6-7 (1996); D.P.U. 85-270, at 41 n. 21;

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[102] While the Company's cost-benefit analysis has taken into account anticipated savings resulting from the closure of other leased facilities, these closures are not expected to occur until sometime after July 1, 2010 (Exh. NG-JP at 58, 64).

Boston Edison Company, D.P.U. 18200, at 16 (1975). The Attorney General argues that because the $1.8 million is de minimis compared to the Company's total net plant of $1,735,115,719, the post-test year additions should be removed from the Company's proposed cost of service (Attorney General Brief at 123, citing Exh. NG-HSG-RR-2 (Rev.) at 26)).

b. Company

The Company argues that the Attorney General's interpretation of lease expense reflects an apparent misunderstanding of the expense at issue (Company Reply Brief at 40). The Company contends that lease expense constitutes operating expense, which, as with other operating expenses, is subject to adjustment for known and measurable changes (Company Reply Brief at 40, citing Exhs. NG-JP at 91; NG-HSG-RR at 19-20). According to the Company, whether a landlord incurs additional operating costs, capital costs, or seeks to keep pace with prevailing market conditions, the resulting increase in rent increase constitutes an increase in operating expense (Company Reply Brief at 40). The Company maintains that capital expenses referred to by the Attorney General are not additions to rate base but merely represent factors relied upon by DMP in the computation of lease expense (Company Reply Brief at 40, citing Exh. NG-HSG-RR-2, at 14).

The Company maintains that the proposed increase in the facilities consolidation component of the rent and lease expense takes into account both increased costs and savings achieved by the consolidation (Company Brief at 39, citing Exh. NG-HSG-R at 22). National Grid contends that it engaged in a thorough analytical process prior to deciding to consolidate its space and that its decision to consolidate was based not only on the cost savings that would

benefit customers over the long run, but was also based on an effort to ensure that the design of its new main office facility was consistent with the Company's corporate objectives and the Commonwealth's stated policy goals to promote energy efficiency and environmental standards (Company Brief at 40).[103] The Company also maintains that by bringing together employees from multiple facilities into one location, it expects to achieve efficiencies in the day-to-day provision of services to customers (Company Brief at 40). The Company maintains that in light of the cumulative savings demonstrated by its cost-benefit analysis, the facilities consolidation component of the expense adjustment is reasonable and consistent with the Company's obligation to act prudently when incurring costs necessary to provide service to customers (Company Brief at 39-40, citing D.P.U. 85-270, at 10).

3. Analysis and Findings

a. Introduction

A company's lease expense represents an allowable cost qualified for inclusion in its overall cost of service. D.T.E. 03-40, at 171; D.P.U. 88-161/168, at 123-125. Increases in rental expense based on executed lease agreements with unaffiliated landlords are recognized in cost of service, as are operating costs (e.g., maintenance, property taxes) that the lessee agrees to cover as part of the agreement. D.P.U. 95-118, at 42 n.24; D.P.U. 88-67 (Phase I)

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[103] By way of example, the Company notes that Reservoir Woods is expected to qualify for LEED gold certified status, based on its environmental-friendly design that produced less construction waste sent to landfills, as well as greater water and energy conservation, and a reduction in greenhouse gas emissions (Company Brief at 40, citing Exhs. NG-JP at 61-62; AG-39-21; AG-39-22; AG-39-23; AG-39-28; AG-39-29; RR-AG-33).

at 95-97. The standard for inclusion of lease expense is one of reasonableness. D.P.U. 89-114/90-331/91-80 (Phase One) at 96.

b. Facilities Consolidation

The Attorney General opposes the inclusion of $1,863,207 in rent expense associated with Reservoir Woods and Bearfoot Road on the basis that these expenses represent post-test year capital improvements made at these facilities. A portion of the lease expense for Reservoir Woods recognizes depreciation expense and carrying charges associated with construction of this facility (Exhs. AG 3-17, Atts. 4, 5; AG 4-35, Att. 2). Similarly, a portion of the lease expense for Bearfoot Road recognizes depreciation expense and carrying charges associated with this facility (Exh. AG 4-35, Att. 2). The lease arrangements entitle National Grid to the use of Reservoir Woods and Bearfoot Road but they do not give the Company an ownership interest in these facilities or permit the Company to include the associated capital expenditures in rate base. Therefore, the Department finds that because the lease expenses do not represent a capital improvement to the Company, such expenses would not constitute a rate base item. D.P.U. 85-270, at 186; Colonial Gas Company, D.P.U. 84-94, at 18 (1984). Accordingly, the Department declines to accept the Attorney General's proposed adjustment.

The Company is presently occupying space at Reservoir Woods pursuant to the terms of a lease agreement (Exh. AG-3-17, Atts. 1-5). The Department finds that the Reservoir Woods lease represents a known and measurable change to test year cost of service. D.P.U. 95-118, at 42 n.24; 89-114/90-331/91-80 Phase One at 153. Therefore, we accept the Company's proposed adjustment for Reservoir Woods. Consistent with this treatment, the

Department finds it appropriate to recognize that various company offices, including those in Waltham and Westborough, are affected by the overall relocation to Reservoir Woods. The transition to Reservoir Woods began in May 2009, and National Grid's transfer of operations to Reservoir Woods will obviate the need to maintain separate administrative offices in Waltham, Westborough, and Northborough, as well as in Lincoln and Providence, Rhode Island (Exh. NG-JP at 60). Therefore, the Department will exclude from cost of service the costs related to the Company's offices in Waltham and Westborough. D.P.U. 89-114/90-331/91-80 Phase One at 153). Accordingly, the Department will reduce the Company's proposed cost of service by $24,208 for the Waltham office and by $479,064 for the Westborough office.

Turning to the Company's proposed adjustment related to Bearfoot Road, renovations at these facilities are presently underway (Exh. AG 39-25). While the Company has provided lease expense data, the renovations are not expected to go into service until April 2010 (Exhs. NG-HSG-RR-2 (Rev.) at 14; NG-G 4-35, Att. 2). The Department finds that the proposed facilities reconfigurations at Bearfoot Road are not sufficiently known and measurable to warrant a change to test year cost of service. See D.P.U. 95-118, at 130-131; D.P.U. 90-121, at 119. Therefore, the Department declines to adopt the Company's proposed adjustments. We will determine the Company's lease expense using the test year expense associated with Bearfoot Road. Accordingly, we will increase the Company's proposed cost of service by $301,219.

Turning to National Grid's gas and electric operations centers in Beverly and Malden, the Company has elected to make operational changes at these locations, which may include a combination of centralizing functions at existing locations or relocating to new facilities (Exhs. NG-JP at 56-57; AG 24-32). The Company has stated that it has not made a final determination as to the configuration of its operation centers in these communities, however, and the Company has further stated that any changes are not likely to occur before September 2010 (Exhs. NG-HSG-RR-2 (Rev.) at 14; AG 24-32; AG 4-35, Att. 3). The Department finds that the Company's proposed adjustments for these facilities are speculative and thus fail to constitute a known and measurable change to test year cost of service. D.P.U. 95-118, at 130-131; D.P.U. 90-121, at 119; D.P.U. 84-25, at 146-148. Therefore, the Department declines to adopt the Company's proposed adjustments. We will determine the Company's lease expense using the test year expense associated with the Beverly and Malden facilities. Accordingly, we will increase the Company's proposed cost of service by $24,726 for the Beverly facilities and by $56,919 for the Malden facilities (Exh. NG-HSG-RR-2 (Rev.) at 14).

In addition to its proposed adjustments for Reservoir Woods, Bearfoot Road, Malden, and Beverly, National Grid has proposed a decrease of $244,391 associated with renovations at its operations center in Southbridge (Exhs. NG-HSG-RR-2 (Rev.) at 14; AG-4-35, Att. 1). The anticipated in-service date of this project is December 2010 (Exh. NG-HSG-RR-2 (Rev.) at 1, 14; AG 4-35, Att. 2. The Department finds that this date is remote and based on projections. Thus, the associated costs are not sufficiently known and measurable to warrant a

change to test year cost of service. See D.P.U. 95-118, at 130-131; Milford Water Company, D.P.U. 92-101, at 25-26 (19920; D.P.U. 84-25, at 146-148. Accordingly, the Department declines to accept the Company's proposal to reduce its test year cost of service by $244,391 for the Southbridge facility. We will determine the Company's lease expense using the test year expense associated with Southbridge. Accordingly, we will increase the Company's proposed cost of service by $244,391 (Exh. NG-HSG-RR-2 (Rev.) at 14).

c. IT Lease Expense

In addition to its proposed facility consolidations, National Grid has proposed to reduce its cost of service by $1,997,899 for IT leases that will expire on or shortly after the date of this Order (Exh. NG-HSG-NG at 20; NG-HSG-RR-2 (Rev.) at 14). The proposed IT lease adjustments consist of: (1) a decrease of $1,236,862 for various leases that will expire on or shortly after the issuance of this Order; (2) the inclusion of $804,420 in IT in-service projects, and (3) a decrease of $43,383 to remove a patent litigation amortization that will expire on December 31, 2009 (Exhs. NG-HSG-RR at 20, WP NG-HSG-RR-11, at 1-2; NG-HSG-RR-2 (Rev.) at 5, 14; AG-3-28, Att. 1).

The Company has proposed to retain in cost of service $71,806 in lease expense associated with its geographic information system, representing two months of expense, on the grounds that this lease will not expire until two months after the proposed date of the rate increase in this proceeding (Exhs. NG-HSG-RR-2 (Rev.) at 14; AG-3-28, Att. 1). Because this lease is expiring shortly after the rates authorized herein go into effect, these expenses are not representative of the level of expenses to be incurred by the Company in the future, and,

therefore, we do not accept the Company's proposal to retain two months of lease expense in its cost of service. D.P.U. 87-260, at 75; D.P.U. 89-114/90-331/91-80 Phase One at 153. The Department accepts the proposed in-service project leases, as well as the termination of the patent litigation amortization, as known and measurable changes to test year cost of service. D.P.U. 87-260, at 75. Therefore, the Department will reduce the Company's proposed cost of service by $71,806.

d. Conclusion

The Department has recalculated the Company's facilities consolidation and IT lease expenses provided in Exhibit NG-HSG-RR-2 (Rev.) at 14. The Department has derived a total pro forma facilities consolidation expense of $7,254,930, which represents an increase to test year cost of service of $123,983 to the Company's proposed increase of $1,141,745. We have also derived a total pro forma IT lease expense of $761,037, which represents a decrease to test year cost of service of $204,575 as opposed to the Company's proposed decrease of $95,117. Accordingly, the Department will reduce the Company's proposed cost of service by an additional $80,592.

C. Bad Debt

1. Introduction

The Company proposes to recover delivery-related bad debt through base rates and move recovery of commodity-related bad debt to basic service rates (Exh. NG-RLW at 9). During the test year, National Grid booked $11,215,191 to delivery-related bad debt (Exh. NG-RLW-1, at 1). The Company determined the level of bad debt expense to be

recovered through base rates by dividing its total net delivery-related write-offs for 2006 through 2008 of $33,813,152 by its total billed revenues for that same period of $2,911,630,535 resulting in a bad debt ratio of 1.16 percent (Exh. NG-RLW-1, at 1). The Company multiplied the bad debt ratio of 1.16 percent by normalized test year delivery-related revenues of $1,018,139,198 to arrive at its proposed bad debt for delivery service of $11,823,786 (Exh. NG-HSG-RR-2 (Rev.) at 21). The Company then added $33,634,879 for pension revenues and $30,144,843 for storm deficiency revenues and multiplied the total of $63,779,722 by the bad debt ratio of 1.16 percent resulting in an additional $740,682 of bad debt for delivery service (Exh. NG-HSG-RR-2 (Rev.) at 21). Additionally the Company included $213,376 for bad debt to allow for the base rate increase in revenues being proposed in this case (Exh. NG-HSG-RR-2 (Rev.) at 21). This results in a total proposed bad debt of $12,777,844 (Exh. NG-HSG-RR-2 (Rev.) at 21).

The Company also proposes that the Department authorize it to seek an adjustment to distribution rates that would recover its actual level of delivery-related bad debt in any year that the Company experiences a substantial increase in delivery-related net write-offs (Exh. NG-RLW at 17). To be eligible for such recovery, National Grid proposes that it be required to show: (1) the Company has experienced one or more events beyond its control that have an impact on the level of net write-offs; [104] and (2) the Company has not diminished its

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[104] To demonstrate that there was an event beyond the Company's control, one of following must have occurred: (1) accounting changes affecting the level of write-offs; (2) regulatory, judicial, or legislative changes affecting the Company's collections; (3) market forces beyond the Company's control including a significant increase in or sustained levels of basic service rates, increased unemployment or sustained high levels

collection processes and activities (Exh. NG-RLW at 17). The Company contends that any year it experiences $860,000 or more in excess of the amount of bad debt included in base distribution rates should be considered a substantial increase in delivery-related net write-offs (Exh. NG-RLW at 17).

2. Position of the Parties

a. Attorney General

The Attorney General claims that reconciling mechanisms are appropriate only for expenses that are large, volatile, and beyond the utility company's control (Attorney General Brief at 95). The Attorney General argues that the Company has not provided any measurement of its potential financial impairment from increases in bad debt (Attorney General Brief at 94). Further, the Attorney General states that the Company has not compared the magnitude or volatility of bad debt relative to other costs for which there is no reconciliation mechanism (Attorney General Brief at 94). In addition, the Attorney General asserts there are specific problems with the proposed mechanism because it does not distinguish between increased write-offs as a result of increased sales and increased write-offs that take place as a result of higher percentage of billed revenues being uncollected (Attorney General Brief at 94). The Attorney General also asserts that the proposal is one-sided as it would permit the Company to recover increases in bad debt but provides no symmetrical credit if the write-offs

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of unemployment in National Grid's services area when compared to historical levels, or other economic circumstances affecting collections and not within the Company's control; or (4) a change in public policy directives affecting collection practices (Exh. NG-RLW at 19).

turn out to be less than the bad debt included in the delivery service revenue requirement (Attorney General Brief at 94-95). For these reasons, the Attorney General asserts that the proposal to reconcile delivery service bad debts should be rejected (Attorney General Brief at 95).

The Attorney General further asserts that the Company inappropriately included bad debt associated with transmission service in its distribution service revenue requirement (Attorney General Brief at 130-131). The Attorney General argues that the Company's method of calculating pro forma bad debt must be modified by eliminating transmission revenues from the calculation of distribution service bad debt (Attorney General Brief at 131). The Attorney General contends that the elimination of transmission revenues from the base on which bad debt is calculated reduces pro forma bad debt by $3,579,000 (Attorney General Brief at 131). The Attorney General maintains that ratepayers do not use transmission services and distribution services in the same proportion; hence, recovery of transmission-related expenses including bad debt should be through the Company's tariffs associated with transmission service (Attorney General Brief at 132).

Finally, the Attorney General disputes National Grid's assertion that if the transmission-related bad debt is excluded from the distribution revenue requirement, the Department should find that such costs are recoverable through retail transmission rates (Attorney General Brief at 132). The Attorney General argues that any such finding is beyond the scope of this proceeding, which is limited to the determination of rates for distribution service (Attorney General Brief at 132).

b. Company

National Grid asserts that, consistent with Department precedent, it determined the level of deliver- related bad debt by averaging the ratio of delivery-related net write-offs to delivery revenues over a three-year period consisting of the test year and the two preceding years and then multiplied that average by the sum of the test year level of delivery revenues and the revenue adjustments proposed in this case (Company Brief at 106, citing D.P.U. 08-35, at 107). The Company argues that due to substantial increases in bad debt experienced in recent years and the potential for the current significant economic difficulties to place renewed upward pressure on this expense beyond the Company's reasonable control, a creative approach is needed to allow rates to be adjusted without a full rate case if extraordinary circumstances arise (Company Brief at 108). The Company proposes that whenever the bad debt increases by $860,000 more than the amount of bad debt to be recovered by base rates, then National Grid would have the opportunity to seek an adjustment in base rates to recover the excess amount over the level of bad debt included in base rates (Company Brief at 106).

As to the Attorney General's assertion that transmission-related bad debt should be removed from the distribution revenue requirement, National Grid argues that the transmission expense incurred by the Company is necessary to provide distribution service to its customers and these costs are included in all customers' distribution bills (Company Brief at 27). National Grid further argues that removing transmission-related bad debt would be complex

and there would be no tangible benefit to customers from segregating this cost from the rest of the Company's distribution rates (Company Brief at 27).

3. Analysis and Findings

The Department permits companies to include for ratemaking purposes a representative level of bad debt revenues as an expense in cost of service. D.P.U. 96-50 (Phase I) at 70-71; D.P.U. 89-114/90-331/91-80 (Phase One) at 137-140. The Department has found that the use of the most recent three years of data available is appropriate in the calculation of bad debt. D.P.U. 96-50 (Phase I) at 71. As discussed in Section V.P., below, Basic Service Adjustment Provision, the Department approves the Company's proposal to remove basic service-related bad debt from base rates and instead recover it dollar-for-dollar through basic service rates. When a company is allowed dollar-for-dollar recovery of bad debt expense associated with supply, the appropriate method to calculate bad debt pertaining to distribution is to remove all revenues relating to supply from the company's bad debt calculation. See D.P.U. 07-71, at 106-109. The calculation of a company's bad debt ratio factor is derived by dividing the three-year distribution-related average net write-offs by the distribution-related billed average revenues over the same period. This bad debt ratio is then multiplied by test year distribution-related retail billed revenues, adjusted for any distribution revenue increase or decrease that was approved for recovery in the current rate case. See D.P.U. 07-71, at 106-109.

The method used by National Grid to calculate its bad debt revenue adjustment is consistent with Department precedent. See D.P.U. 07-71, at 106-109: D.P.U. 96-50 (Phase I)

at 70-71; D.P.U. 89-114/90-331/91-80 (Phase One) at 137-140. Therefore, the Department approves the application of a bad debt ratio of 1.16 percent applied to test year distribution revenue, pension and PBOP revenue and storm revenue (Exh. NG-HSG-RR-2 (Rev.) at 21). Accordingly, the Company shall adjust its proposed level of bad debt for delivery service of $12,752,274 by $478,056 to account for bad debt on the distribution revenue decrease allowed in this case. Regarding the storm expense, the Company proposed to collect revenues of $30,144,843 and included in its bad debt for delivery service an additional $350,076 associated with this level of revenue (Exh. NG-HSG-RR-2 (Rev.) at 21). The actual amount of revenue allowed in the instant case for storm expense is $6,028,969 and when the 1.16 percent bad debt ratio is applied, the bad debt that results is $70,015. The Department directs the Company to adjust its bad debt downward by $280,061 to allow for the decrease in storm revenue. Therefore, the Company's bad debt allowed in base rates will be the sum of ($12,752,274 - $478,256 - $280,061) or $11,993,957.

The Attorney General asserts that transmission-related bad debt should be removed from the distribution revenue requirement (Attorney General Brief at 130-131). The Company must provide transmission service in order for it to provide distribution service to its customers and, as such, it is appropriate to allow a representative level of transmission-related bad debt in distribution rates. As the Company states, currently the transmission service cost adjustment provision ("TSCAP") is the vehicle used to recover transmission expenses, and this TSCAP is a reconciling mechanism (Exh. NG-HSG-Rebuttal at 19). To allow recovery of transmission-related bad debt through TSCAP would in essence be allowing dollar-for-dollar

recovery of bad debt associated with transmission revenue. This practice would create a disincentive for companies to control bad debt. As the same ratepayers that receive transmission service from the Company also receive distribution service, the Department is not persuaded that there is any benefit to ratepayers associated with the removal of transmission-related bad debt from distribution rates. Therefore, the Department will allow National Grid's calculation of bad debt as proposed in this case.

Finally, the Company has proposed to establish a reconciling mechanism for delivery service-related bad debt that would be triggered whenever the bad debt increases by $860,000 or more than the expense to be recovered in base rates. The Company argues that there has been a substantial increase in bad debt in recent years and currently there is a potential for upward pressure on the bad debt account due to difficult economic conditions (Company Brief at 108).

The Department's treatment of bad debt for commodity costs allows for dollar-for-dollar recovery for the commodity costs. D.T.E. 05-27, at 189. The Department's ratemaking policy of allocating a fixed amount of the total allowable bad debt for recovery through base distribution rates, however, does not guarantee that the Company will recover that amount dollar-for-dollar. D.T.E. 05-27, at 184. Therefore, for the fixed amount of total bad debt allocated to the base distribution rates, the Company has the incentive to minimize bad debt expense; that incentive also has a likely effect on managing commodity cost collection as well. D.T.E. 05-27, at 185. Allowing the Company to establish a reconciling mechanism for delivery service-related bad debt could create a disincentive for the Company to control its

bad debt. Should distribution-related bad debt increase to a significant level, the Company has the discretion to file a rate case seeking an adjustment in rates. Further, the Company's calculation of bad debt in this case made use of the three most current years of bad debt and, therefore, takes into account any increase in bad debt associated with recent years. We determine that the Company has not sufficiently demonstrated that a reconciling mechanism for distribution-related bad debt is justified. Accordingly, the Company's proposal is denied.

D. Depreciation Expense

1. Introduction

During the test year, National Grid booked $114,974,858 in depreciation expense (Exhs. NG-HSG at 24; NG-HSG-RR-2 (Rev.) at 3). National Grid proposed to decrease its test year depreciation expense by $18,576,128 to recognize the application of new accrual rates to its pro forma plant in service (Exhs. NG-HSG at 24; NG-HSG-RR-2 (Rev.) at 22). The proposed accrual rates are based on a 2009 depreciation study that recommended an overall accrual rate of 3.27 percent, representing a decrease from the Company's current overall accrual rate of 3.88 percent (Exh. NG-KAK-1, at 8).

The Company's 2009 depreciation study was based on plant data for the year ending December 31, 2008, and relies on the parameters estimated in a depreciation study that was performed for MECo in 1996 (Exh. NG-KAK at 2).[105] The data used to conduct the 2009 depreciation study included: (1) data used to conduct the 1996 study; (2) 1996 through 2008

[105] The depreciation rates adopted for MECo as a result of the 1996 study were subsequently applied to Nantucket (Exh. NG-KAK at 2 n.1).

plant and reserve activity for MECo; and (3) 2005 through 2008 plant and reserve activity for Nantucket Electric (Exh. NG-KAK at 6). As a check on the accuracy of the data, the Company compared it to the additions, retirements, transfers, adjustments and ending balances to the regulated investments reported by MECo and Nantucket Electric in their FERC Form 1 reports (Exh. NG-KAK at 8).

The 2009 depreciation study makes use of the remaining life method, which has long been accepted by the Department, as well as straight-line depreciation method and vintage group procedure (Exh. NG-KAK-1 at 7). The remaining life of assets was calculated by using observed retirement ratios that were then fitted by a weighted least-squares procedure to the Iowa-Curve[106] family to develop a mathematical description of the dispersion characteristics of the data, thus resulting in an average service life ("ASL") for each account (Exh. NG-KAK at 8).

Prior to 1993, MECo estimated the aging of distribution mass plant accounts (Accounts 364 through 373) using estimated projection lives and curves (Exh. NG-KAK-1, at 11). In 1993, MECo adopted the use of first-in, first-out ("FIFO") accounting for plant booked to Accounts 364 through 373 (Exh. NG-KAK-1, at 11). Because of the relative cost of tracing the assets associated with mass plant accounts by vintage year, the Company classified

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[106] Iowa curves are frequency distribution curves initially developed at the Iowa State College Engineering Experiment Station during the 1920s and 1930s; 18 curve types were initially published in 1935, and four additional survivor cures were identified in 1957. D.T.E. 06-40, at 67 n.44. These curves are widely accepted in determining average life frequencies for utility plant.

mass plant installed prior to 1964 as having been installed in 1964 (Exh. NG-KAK-1, at 11; Tr. 8, at 1434, 1438-1440; 1565-1568).

To determine the net salvage values, the Company analyzed the gross salvage and removal costs of retirements for the period 2004 through 2008 (Exh. NG-KAK at 9; Tr. 8, at 1455). According to the Company, MECo's depreciation accrual rates did not include a net salvage component until the implementation of the results of the 1996 study (Exh. NG-KAK-1, at 15).[107] Upon the implementation of the accrual rates developed in the 1996 study, MECo combined the net salvage factors by function, versus plant accounts (Exh. NG-KAK-1, at 15; Tr. 8, at 1448-1449). As a result, salvage factors were only available at a functional, versus account, level (Exh. NG-KAK-1, at 15, Tr. 8, at 1448-1449). In 2004, MECo migrated to a new plant accounting system and the depreciation reserves were disaggregated by plant account (Exh. NG-KAK-1, at 15). Consequently, the earliest year for which salvage data are identifiable by account is 2004, which necessitated an examination of how net salvage was charged to work orders and back-casting current practices to prior years (Exh. NG-KAK-1, at 15). The Company has proposed to use a composite net salvage factor of negative 35 percent for all of its distribution accounts, pending the availability of future retirement data from which account-specific salvage factors may be derived (Exh. NG-KAK-1, at 16).

As part of the 2009 depreciation study, National Grid examined the depreciation reserves associated with each of its plant accounts (Exh. NG-KAK-1, at 17). While

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[107] While MECo did file a net salvage study as part of its rate filing in D.P.U. 91-52, its request to commence accruing net salvage pending the results of a full depreciation study was withdrawn as part of a settlement in that case (Exh. NG-KAK at 15 n.3).

differences between the theoretical depreciation reserve and the recorded reserve will arise in the normal course of adjusting depreciation accrual rates, the Company considers it appropriate to periodically redistribute the recorded reserves among the primary accounts in order to correct over-or under-accruals for these accounts (Exh. NG-KAK-1, at 17). The Company analyzed the recorded depreciation reserves against the redistributed reserves as of December 31, 2008, and determined that while the recorded reserve was $1,248,046,543, the computed reserve was $1,112,072,193, thus creating an imbalance of $135,974,350 (Exh. NG-KAK-1, at 17). Based on the results of the 2009 depreciation study, the Company proposed to redistribute its recorded reserves among its various plant accounts so that the redistributed depreciation reserve is more indicative of the depreciation reserve associated with the plant account (Exh. NG-KAK-1, at 16-17, 24).[108]

National Grid proposes to maintain a 15-year amortization period for plant items booked to Accounts 391 through 398, with the exception of Account 397.1 (Communications Equipment – Site Specific) in lieu of separate plant accrual rates (Exh. NG-KAK-1, at 29; Tr. 8, at 1514). The Company contends that the administrative effort associated with maintaining separate plant and retirement records for this type of equipment is burdensome (Tr. 8, at 1516-1517, 1545-1548). The Company considers amortization accounting to be more appropriate for general plant categories in which the unit cost of plant items is small in

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[108] This reallocation has no effect on the Company's total recorded depreciation reserve (Exh. NG-KAK-1, at 24).

relation to the number of units classified in an account (Exh. NG-KAK-1 at 7; Tr. 8, at 1545-1548).

2. Position of the Parties

a. Attorney General

As an initial matter, the Attorney General asserts that the Company provided only a summary of the results of its 2009 depreciation study as part of its initial filing (Attorney General Brief at 147). The Attorney General contends that this lack of information placed the Department and the parties at a significant disadvantage, especially given the constrained statutory timeframe of base rate proceedings (Attorney General Brief at 147).[109]

Turning to the merits of the actual depreciation study, the Attorney General contends that the Company's failure to explain how it interpreted the statistical analyses developed in the 2009 depreciation study to derive its proposed average service lives renders the Company's analysis as insufficient to meet its burden of proof (Attorney General Supplemental Reply Brief at 22, citing D.T.E. 01-56-A at 16). The Attorney General contends that it unreasonable to require the Department to "walk through the workpapers searching for substantial evidence to support a decision in the Company's favor," and that a negative inference can be fairly drawn from the Company's failure to justify a departure from its statistical analyses (Attorney

[109] The Attorney General recommends that the Department require that all future filings that seek changes in depreciation accrual rates should include, as part of the original filing, the full and complete depreciation study with all workpapers, curve fits, curve analyses, and net salvage analyses (Attorney General Brief at 147-148).

General Supplemental Reply Brief at 22-23, citing Liacos, Handbook of Massachusetts Evidence, 7th Edition at 245-246).

The Attorney General further contends that the Company's depreciation study is biased towards higher accrual rates as a result of its truncation of service lives to vintage year 1963 (Attorney General Brief at 148). According to the Attorney General, this truncation of data necessarily biases downward the average service lives of the plant in the Company's study, resulting in an overstatement of both accrual rates and depreciation expense (Attorney General Brief at 148). The Attorney General maintains that the Company's claims that FIFO accounting compensates for this bias is unsubstantiated (Attorney General Brief at 148 n.39, citing Tr. 8, at 1572).

In addition, the Attorney General argues that the Company fails to consider in its depreciation accrual rate analysis any consequences that could result from the energy efficiency programs required by the Green Communities Act (Attorney General Brief at 149). The Attorney General contends that pursuant to the Green Communities Act, the Company is required to increase its level of spending on energy efficiency, which will lead to lower or negative load growth (Attorney General Brief at 149; Attorney General Supplemental Reply Brief at 23-24). The Attorney General argues that it is unreasonable to assume that such lower or negative load growth will not affect the average service lives of the Company's plant or the retirement of distribution assets going forward (Attorney General Brief at 149; Attorney General Supplemental Reply Brief at 23-24).

The Attorney General asserts that the Company has understated the ASLs of a number of plant accounts (Attorney General Brief at 149-150). Turning to the Company's proposed depreciation expense related to transmission plant, the Attorney General notes that the Federal Energy Regulatory Commission ("FERC") has jurisdiction over transmission rates, including the calculation of depreciation expense and accrual rates (Attorney General Brief at 151 n.41). The Attorney General questions whether the Department has jurisdiction to set the Company's transmission-related depreciation rates and contends that if the Department does not possess such jurisdiction, National Grid should be required to notify all parties in this proceeding of any filing the Company may make with FERC regarding any proposed changes in transmission-related depreciation accrual rates (Attorney General Brief at 151 n.41). [110]

Turning to the Company's proposed distribution- and general plant-related depreciation accrual rates, the Attorney General challenges the Company's proposed ASLs for several accounts (Attorney General Brief at 149-160). According to the Attorney General, the Company's proposed ASLs are not based on record evidence but merely on the discarding of results that it did not like (Attorney General Supplemental Reply Brief at 23). The Attorney General argues that while a conservative approach to changes in depreciation rates is based on

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[110] The Attorney General proposes that, if the Department does determine it has jurisdiction to set depreciation accrual rates for transmission-related plant, the following ASLs should be adopted: Account 355 (45 years); Account 356 (70 years); and Account 359 (zero years); (Attorney General Brief at 150-152). The Attorney General contends that because Department precedent does not permit the depreciation of land, roads, or trails in the cost of service, no depreciation expense is warranted for Account 359 (Attorney General Brief at 152, citing Bay State Gas Company, D.P.U. 92-111, at 122-123 (1992); Boston Gas Company, D.P.U. 93-60, at 188 (1993)).

incremental movement to the results of statistical life analyses, some significant movement towards higher average service lives is warranted here (Attorney General Supplemental Reply Brief at 23). Based on her evaluation of the life analyses used by National Grid, the Attorney General proposes a number of changes to the proposed ASLs for distribution plant (Attorney General Brief at 150-160). [111]

b. Company

The Company asserts that its 2009 depreciation study is consistent with Department precedent, which allows a company to recover its capital investments in a timely and equitable fashion over the service lives of the investments (Company Brief at 41, citing D.P.U. 08-27, at 110). National Grid maintains that, contrary to the Attorney General's assertion, it provided the full depreciation study as an attachment to the prefiled testimony of its depreciation witness and it provided the supporting workpapers in a timely manner during discovery (Company Reply Brief at 43 n.43).

National Grid argues that its 2009 depreciation study is based on a thorough statistical analysis combined with informed judgment (Company Brief at 42; Company Reply Brief at 46-47). The Company contends that its depreciation witness possesses extensive knowledge and experience in the field and the condition of the Company's system (Company Reply Brief

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[111] The Attorney General proposes the use of the following ASLs by plant account: Account 355 (45 years); Account 356 (70 years) Account 361 (75 years); Account 364 (45 years); Account 365 (45 years); Account 366 (65 years); Account 367.10 (50 years); Account 368.10 (40 years); Account 368.20 (40 years); Account 368.30 (37 years); Account 369.10 (45 years); Account 369.22 (55 years); Account 370 (25 years); (Attorney General Brief at 150-160).

at 46). By way of example, the Company cites to the witness' extensive use of photography to assist him in understanding the nature of the assets he saw on his two-day site visit, which included both representative electric distribution assets and assets unique to the Company (Company Reply Brief at 46, citing Exh. DPU-NG 5-17, Atts. 1-160; Tr. 8, at 1538-1540).

National Grid contrasts the analysis of its depreciation witness with what it considers to be a "simplistic" analysis by the Attorney General (Company Reply Brief at 47). The Company maintains that the Attorney General is seeking to substitute her judgment for that of the Company's expert witness, despite what it contends are flaws in her recommendations and lack of understanding of both relevant statistical techniques and National Grid's system (Company Reply Brief at 47; Company Supplemental Reply Brief at 10-11). The Company argues that the Attorney General has failed to adequately explain how she used statistical techniques to develop her proposed accrual rates, including her failure to take into account the interrelation between rolling bands, shrinking bands, and progressing bands (Company Reply Brief at 47-48).

National Grid contends that the Attorney General's criticism of the Company's treatment of pre-1964 plant vintaging is without merit (Company Reply Brief at 49). According to National Grid, its witness testified at length on this topic and explained that while the Company had maintained vintage data, the failures of that system prompted the adoption of a FIFO accounting method for its continuing property records (Company Reply Brief at 49, citing Tr. 8, at 1436, 1439). The Company argues that the cost of continuing to identify pre-1964 vintage plant records outweighed the benefits and only a very small percentage of

plant was affected by the decision to group pre-1964 plant vintages (Company Reply Brief at 50, citing Exh. AG 18-9). Furthermore, the Company claims that its FIFO approach results in the oldest vintage always being selected when an asset is retired, which affects the amount to be removed from the depreciation reserve (Company Reply Brief at 50, citing Tr. 8, at 1567-1568).

National Grid contends that the Attorney General's argument regarding the potential impact of increased energy efficiency spending on future asset retirements is speculative (Company Reply Brief at 50). According to the Company, its depreciation witness appropriately gave no weight to future energy efficiency programs because the magnitude of their impact would be speculative (Company Reply Brief at 51).

Turning to the issue of specific depreciation accrual accounts, the Company disputes the Attorney General's proposal to apply a zero percent depreciation rate to Account 359, Roads and Trails (Company Reply Brief at 49). National Grid contends that the Attorney General's reliance on D.P.U. 92-111 to support a zero percent rate is not dispositive of this issue, because that proceeding involved easements and rights of way (Company Reply Brief at 49). The Company instead maintains that its easements and rights of way are booked to Account 350, which is not included in its depreciable study (Company Reply Brief at 49).

The Company argues that no other party in this proceeding offered testimony on the Company's 2009 depreciation study, and therefore that there is no evidence to support depreciation accrual rates other than what has been proposed by the Company (Company Brief at 43). The Company concludes that the Department should adopt National Grid's proposed

depreciation accrual rates because (1) they were developed in accordance with a method long recognized as appropriate by the Department, and (2) the basis for determining those rates was appropriately supported (Company Brief at 42; Company Reply Brief at 49).

3. Standard of Review

Depreciation expense allows a company to recover its capital investments in a timely and equitable fashion over the service lives of the investments. D.T.E. 98-51, at 75; D.P.U. 96-50 (Phase I) at 104; Milford Water Company, D.P.U. 84-135, at 23 (1985); D.P.U. 1350, at 97. Depreciation studies rely not only on statistical analysis but also on the judgment and expertise of the preparer. The Department has held that when a witness reaches a conclusion about a depreciation study that is at variance with that witness'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; D.P.U. 89-114/90-331/91-80 (Phase One) at 54-55; Commonwealth Electric Company, D.P.U. 88-135/151, at 37 (1989). It is also necessary to go beyond the numbers presented in a depreciation study and consider the underlying physical assets. 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. Because depreciation studies rely by their nature on examining

historic performance to assess future events, a degree of subjectivity is inevitable.[112] Nevertheless, the product of a depreciation study consists of specific accrual rates to be applied to specific accounts balances associated with depreciable property. A mere assertion that judgment and experience warrant a particular conclusion does not constitute evidence. See Eastern Edison Company, D.P.U. 243, at 17 (1980); D.P.U. 200, at 20-21; D.P.U. 19037/19037-A at 23.

While National Grid emphasizes that it was the only party to provide a depreciation study in this proceeding, a company seeking a change in its depreciation rates has the burden of proof to demonstrate that its proposed depreciation rates are appropriate. D.P.U. 243, at 17; D.P.U. 200, at 20-21 (1980; D.P.U. 19037, at 23 (1977). It thus follows that the reviewer of a depreciation study must be able to determine through the direct filing 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 its statistical analyses but will consider expert testimony and evidence to the contrary and expect sufficient justification on the record for any variances resulting from the engineering and statistical analyses. D.P.U. 89-114/90-331/91-80 (Phase One) at 54-55. To the extent a depreciation study provides a clear and comprehensive explanation of the factors that went into

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[112] This 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; Boston Edison Company, D.P.U. 1720, at 44 (1984); D.P.U. 1350, at 109-110.

the selection of accrual rates, such an approach will facilitate Department and intervenor review.

4. Analysis and Finding

a. Adequacy of Depreciation Study

The Attorney General notes that the Company did not provide a complete copy of its depreciation study as part of its direct filing (Attorney General Brief at 147). While a complete version of the 2009 depreciation study was provided as part of the Company's direct case, the study included only the supporting workpapers for Account 365 – Overhead Conductors and Devices (Exh. NG-KAK-1, at 30-47). A complete set of supporting workpapers was only provided through discovery (Exh. AG 18-9). Depreciation studies rely on descriptive statistics to analyze history and inferential statistics.[113] Thus, it is incumbent upon a company seeking a change in its depreciation accrual rates to provide a comprehensive explanation of its request so that the Department and intervenors are able to understand the nature of the proposed changes.

In order to facilitate review of future depreciation studies, the Department directs all companies seeking changes in their depreciation accrual rates to include in the initial filing the full and complete depreciation study with all workpapers, including those for life analyses, curve fits, and net salvage analyses. In addition, all companies seeking changes in their depreciation accrual rates must provide a narrative explanation through direct testimony of how

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[113] Inferential statistics are developed by combining descriptive statistics with informed judgment and expectations about the future to obtain appropriate projection parameters (Exh. NG-KAK-l, at 12).

the witness applied the results of both statistical analyses and engineering judgment to derive the proposed accrual rates. See Boston Edison Company/Cambridge Electric Light Company/Commonwealth Electric Company/Canal Electric Company, D.T.E. 06-40, at 74 n.47 (2006).

b. Pre-1964 Plant Vintages

While National Grid is able to identify the amount of plant that was installed each year by account, the Company's continuing property records systems only maintain survivor data back to 1964 (Tr. 8, at 1438-1439). Consequently, when the Company adopted a FIFO aging process in 1993, the earliest year for which retirement data was available was 1964 (Tr. 8, at 1433). National Grid classified its mass plant accounts so that plant installed prior to 1964 was treated as having been installed in 1964 (Exh. NG-KAK-1, at 11). The Attorney General's asserts that the Company's truncation of service lives to 1963 has biased the average service lives downward (Attorney General Brief at 148).

While the Company claims that the use of FIFO accounting will serve to offset the shorter ASLs resulting from truncation, it is not intuitive as to how the retirement of pre-1964 plant will provide this offset (Tr. 8, at 1567, 1572). Nevertheless, although bundling all pre-1964 plant into a 1964 vintage would result in a shorter ASL for some assets, the Department is satisfied that the cost and effort that would be necessary to develop retirement data by year for mass plant accounts would outweigh whatever benefits may be produced through more refined ASLs for the affected accounts. Finally, the total surviving plant associated with pre-1964 vintages that is booked to Accounts 364 through 373 is approximately

$146 million (Exh. AG 18-9). This amount represents approximately six percent of the Company's approximately $2.4 billion in total plant booked to these respective accounts, and represents approximately 4.9 percent of the Company's approximately $2.97 billion in total depreciable plant in service (Exhs. AG 18-9; NG-HSG-RR-2 (Rev.) at 22). Given the relatively small amount of total plant affected by truncation, the Department is not persuaded that National Grid's practice with regard to pre-1964 plant recording causes any significant biases in the Company's depreciation study. Accordingly, the Department will not adjust the results of the Company's depreciation study for pre-1964 vintaging.

c. Efficiencies Associated with Green Communities Act

The Attorney General argues that increased involvement in energy efficiency required by the Green Communities Act will reduce the extent of future distribution plant retirements and thus increase distribution plant ASLs (Attorney General Brief at 149). While development of energy efficiency programs will likely have an effect on distribution plant ASLs, the relationship between energy conservation and plant lives is not sufficiently established in this record to draw any conclusions about the ASLs proposed by the Company. Accordingly, the Department declines to make any adjustment to the Company's proposed ASLs related to increased investments in energy efficiency. In all future cases, the Department directs all gas and electric companies to consider the increase in energy efficiency mandated by the Green Communities Act in the selection of ASLs used in their depreciation studies.

d. Salvage Factors

In contrast to the selection of ASLs and dispersion curves, the selection of salvage values is more subjective. This is because salvage values are intended to recognize some future cost that cannot be quantified until the actual retirement occurs. D.P.U. 08-27, at 112; D.P.U. 92-250, at 66. Whenever there are insufficient data regarding salvage values, it is necessary to exercise reasoned judgment in the determination of salvage values. D.P.U. 08-27, at 112; D.P.U. 92-250, at 66.

Until 1996, MECo assumed a net salvage component factor of zero percent in its depreciation accrual rates (Exh. NG-KAK-1, at 15). After the implementation of the results of its 1996 depreciation study, salvage data were maintained only by functional account (i.e., transmission, distribution, and general plant) until 2004, when the implementation of a new asset management system allowed it to collect salvage data on a plant account basis (Exh. NG-KAK-1, at 15). Because there are insufficient data to develop salvage factors for individual plant accounts, the Company determined it would be appropriate to apply a composite net salvage factor of negative ten percent for transmission plant and negative 35 percent for its distribution accounts, pending the availability of future retirement data (Exh. NG-KAK-1, at 16). While the Company's proposed composite salvage factors are high for certain plant accounts, the overall results are generally consistent with salvage factors that have been approved by the Department for other electric distribution companies. See D.T.E. 02-24/25, at 138-146. We will evaluate the merits of the proposed salvage factors in the account-by-account analysis below.

e. Account-by-Account Analysis

i. Account 355 – Transmission Poles and Fixtures

The current accrual rate for this account is 1.99 percent (Exh. NG-KAK-1, at 20). The Company proposes to retain the existing 40-year S-2.0 curve and apply a net salvage factor of negative ten percent, resulting in a remaining life of 31.35 years and an accrual rate of 3.04 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes increasing the ASL to at least 45 years, in recognition of the rolling band, shrinking band, and progressive band life analyses for the most current ten-year period which indicate ASLs of 50 to 60 years for this account (Attorney General Brief at 150).

The statistical analyses for this account indicate that the 40-year S-2.0 curve remains a relatively good fit (Exh. AG-18-9, Att. at 38; Tr. 8, at 1466). While the Attorney General's proposed ASL is based on her review of the rolling band, shrinking bands, and progressing bands, she has not taken into consideration the other elements of statistical review, such as polynomials, conformance indices, and hazard rates. In contrast, the Company has considered all of this data in arriving at its proposed ASL (Exh. AG-18-9, Att. at 26-40).

With respect to the Company's proposed salvage factor, the Company's recent salvage history indicates a significant negative net salvage factor for transmission plant, which the Company considers to be unrealistic (Exhs. AG-18-9; Att. at 39-40; AG-18-12). The Company considered a salvage factor of negative ten percent to be more representative of its actual experience associated with transmission plant (Tr. 8, at 1450-1451).

The Department finds that the Company has properly interpreted the data and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 355.

ii. Account 356 – Transmission Overhead Conductors and Devices

The current accrual rate for this account is 1.82 percent (Exh. NG-KAK-1, at 20). The Company proposes to increase the ASL from 45 to 50 years, retain the existing S-1.5 curve and apply a net salvage factor of negative ten percent, resulting in a remaining life of 37.1 years and an accrual rate of 2.49 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 70 years, in recognition of the rolling band, shrinking band, and progressive band life analyses for the most current ten-year period which indicate ASLs approaching 100 years (Attorney General Brief at 151).

The statistical analyses for this account indicate a limited retirement history, with fewer retirements occurring in recent years (Exh. AG-18-9, Att. at 46-47; Tr. 8, at 1467-1468). This lack of retirement activity serves to lengthen the ASL, with indications in recent years that the ASL for this account ranges from 150 to 170 years (Exh. AG-18-9, Att. at 49; Tr. 8, at 1468). We are persuaded by the Company's engineering judgment and expertise that this type of plant is not expected to have the 100- to 150-year ASL suggested by some of the statistical analyses (Tr. 8, at 1467-1470). Therefore, the Department finds that the Company has properly interpreted the results of its statistical analysis in its selection of a 50-year S-1.5 curve.

With respect to the Company's proposed salvage factor, retirement activity for this account is limited, with almost no retirements in recent years (Exh. AG-18-9, Att. at 43-45). The Company considered a salvage factor of negative ten percent to be more representative of its actual experience associated with transmission plant (Tr. 8, at 1450-1451).

The Department finds that the Company has properly interpreted the data and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 356.

iii. Account 359 –Roads and Trails

The current accrual rate for this account is 1.48 percent (Exh. NG-KAK-1, at 20). The Company proposes to retain the existing 60-year S-6 curve and apply a net salvage factor of negative ten percent, resulting in a remaining life of 19.27 years and an accrual rate of 0.27 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General argues that Department precedent does not permit the depreciation of land, roads, or trails in the cost of service, and, therefore, recommends a zero percent accrual rate for this account (Attorney General Brief at 152).

The USOA-Electric Companies provides that Account 359 shall include the cost of roads, trails and bridges used primarily as transmission facilities (18 C.F.R. Pt. 101, Balance Sheet Chart of Accounts). While the underlying land would not be subject to depreciation, the improvements placed upon that land, such as road paving and bridges, constitute depreciable property and, therefore, warrant the application of depreciation accrual rates. In contrast, the Department's decision in D.P.U. 92-111 pertained to depreciation expense being taken on

easements. D.P.U. 92-111, at 122-123. The Department finds that the Company has properly interpreted the results of its statistical analysis in its selection of a 60-year S-6 curve.

There has been no retirement activity for this account (Exh. AG-18-9, Att. at 72-75). The Company considered a salvage factor of negative ten percent to be more representative of its actual experience associated with transmission plant (Tr. 8, at 1450-1451).

The Department finds that the Company has properly interpreted the results of the data and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 359.

iv. Account 361 – Structures and Improvements

The current accrual rate for this account is 2.83 percent (Exh. NG-KAK-1, at 20). The Company proposes to retain the existing 50-year R-0.5 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 36.57 years and an accrual rate of 2.44 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 75 years, in recognition of the rolling band, shrinking band, and progressive band life analyses for the most current ten-year period which indicate ASLs approaching 100 years for this account (Exh. AG-18-9, at 76-89).

The statistical analyses indicate a declining level of retirement activity in this account, with a flattening of the curve somewhere around 50 years, which would presuppose an infinite life for this account (Exh. AG-18-9, Att. at 87, 89; Tr. 8, at 1474-1475). The Company's selection of a 50 R-0.5 curve acknowledges that fewer retirements are occurring in this account and recognizes that the statistical data indicates a longer ASL for assets in this account

(Tr. 8, at 1473-76). While the Attorney General's proposed ASL is based on her review of the rolling band, shrinking bands, and progressing bands, she has not taken into consideration the other elements of statistical review, such as polynomials, conformance indices, and hazard rates. In contrast, the Company has considered all of this data in arriving at its proposed ASL (Exh. AG-18-9, Att. at 76-91). The Company's recent net salvage history indicates significant negative net salvage factors for this account (Exh. AG-18-9, Att. at 90-91).

The Department finds that the Company has properly interpreted the results of the data and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 361.

v. Account 364 – Distribution Poles, Towers, and Fixtures

The current accrual rate for this account is 4.06 percent (Exh. NG-KAK-1, at 20). The Company proposes to replace the existing 33-year R4 curve with a 40-year S2 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 26.87 years and an accrual rate of 3.41 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 45 years, in recognition of the rolling band, shrinking band, and progressive band life analyses over the most current ten years, which indicate ASLs approaching 50 to 60 years (Attorney General Brief at 153).

While the statistical analyses indicate a longer ASL for this account, it is necessary to consider all data associated with a depreciation study, including rolling, shrinking, and progressing bands as well as hazard functions, censoring and conformance indices (Tr. 8, at 1446-48). While the Attorney General's proposed ASL is based on her review of the

rolling band, shrinking bands, and progressing bands, she has not taken into consideration the other elements of statistical review, such as polynomials, conformance indices, and hazard rates. In contrast, the Company has considered all of this data in arriving at its proposed ASL (Exh. AG-18-9, Att. at 108-121). We are persuaded by the Company's engineering judgment and expertise that this type of plant is not expected to have the 100- to 150-year ASL suggested by some of the statistical analyses (Tr. 8, at 1467-1470). The Department finds that the Company has properly interpreted the results of its statistical analysis in its selection of a 40-year S-2.0 curve. The Company's recent net salvage history indicates significant negative net salvage factors for this account (Exh. AG-18-9, Att. at 120-121).

The Department finds that the Company has properly interpreted the data and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 364.

vi. Account 365 – Distribution Overhead Conductors and Devices

The current accrual rate for this account is 3.90 percent (Exh. NG-KAK-1, at 20). The Company proposes to replace the existing 35-year R4 curve with a 40-year L1 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 29.58 years and an accrual rate of 3.19 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 45 years in recognition of the rolling band, shrinking band, and progressive band life analysis over the most current ten years, which indicate ASLs ranging from 39 to over 100 years (Attorney General Brief at 154).

As noted above, while the statistical analyses indicate a longer ASL for this account, it is necessary to consider all of the data associated with a depreciation study. While the Attorney General's proposed ASL is based on her review of the rolling band, shrinking bands, and progressing bands, she has not taken into consideration the other elements of statistical review, such as polynomials, conformance indices, and hazard rates. In contrast, the Company has considered all of this data in concluding that the 40-year L1 curve tracks the retirement forces operating on this account more reliably than the current 25-year R4 curve (Tr. 8, at 1486-87). The Company's recent net salvage history indicates negative net salvage factors for this account (Exh. AG-18-9, Att. at 134).

The Department finds that the Company has properly interpreted the results of its statistical analyses and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 365.

vii. Account 366 – Distribution Underground Conduit

The current accrual rate for this account is 2.91 percent (Exh. NG-KAK-1, at 20). The Company proposes to retain the existing 50-year S4.0 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 33.78 years and an accrual rate of 2.56 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 65 years, in recognition of the rolling band, shrinking band, and progressive band life analyses for the most current ten-year period which indicate ASLs ranging from 79 to over 100 years for this account (Attorney General Brief at 155). While the Attorney General's proposed ASL is based on her review of the rolling band, shrinking bands, and progressing bands, she has not

taken into consideration the other elements of statistical review, such as polynomials, conformance indices, and hazard rates. In contrast, the Company has considered all of this data in arriving at its proposed ASL (Exh. AG-18-9, Att. at 135-148). Accordingly, we accept the Company's proposal to retain the 50-year S-4.0 curve for this account (Exh. NG-KAK-1, at 28).

There are limited retirements in this account (Exh AG-18-9, Att. at 137-140). This lack of retirement data provides no support in changing the ASL of this account (Tr. 8, at 1495). Moreover, the life of underground conduit tends to be driven by the contents of the conduit, as opposed to the conduit itself (Tr. 8, at 1496). The Company's recent net salvage history indicates significant negative net salvage factors for this account (Exh. AG-18-9, Att. at 147-148).

The Department finds that the Company has properly interpreted the results of its statistical analyses and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 366.

viii. Account 367.10 – Distribution Underground Conductors and Devices

The current accrual rate for this account is 3.11 percent (Exh. NG-KAK-1, at 20). The Company proposes to replace the existing 45-year S-1.0 curve with a 40-year S-0.5 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 35.04 years and an accrual rate of 2.90 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 45 years in recognition of the rolling band, shrinking band, and

progressive band life analyses over the most current ten years, which indicate ASLs ranging from 45 to over 50 years (Attorney General Brief at 155-156).

The statistical analyses for this account indicate a preponderance of service lives ranging from the high 30 year to the low 40 years, and exhibit good conformance indices (Exh. AG 18-9, Att. at 155-156; Tr. 8, at 1497-99). While the Attorney General's proposed ASL is based on her review of the rolling band, shrinking bands, and progressing bands, she has not taken into consideration the other elements of statistical review, such as polynomials, conformance indices, and hazard rates. In contrast, the Company has considered all of this data in arriving at its proposed ASL (Exh. AG 18-9, Att. at 149-159). On the basis of this information, the Department finds that a small shift from an S-1.0 curve to S-0.5 curve was justified (Tr. 8, at 1498). The Company's recent net salvage history indicates negative net salvage factors for this account (Exh. AG-18-9, Att. at 160-161).

The Department finds that the Company has properly interpreted the data and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 367.1.

ix. Account 368.10 – Distribution Line Transformer Stations

The current accrual rate for this account is 4.45 percent (Exh. NG-KAK-1, at 20). The Company proposes to replace the existing 30-year R3 curve with a 32-year S1.5 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 17.25 years and an accrual rate of 3.19 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 40 years in recognition of the rolling band, shrinking band, and

progressive band life analyses over the most current ten years, which indicate ASLs ranging from 39 to over 100 years (Attorney General Brief at 154).

The Company disaggregated its Account 368 into three subaccounts; while the subaccounts did not show enough variation to require different service lives and projection lives, the best statistical fit for Account 368 was a 32 year S-1.5 curve (Exh. NG-KAK-1, at 28; Tr. 8, at 1499-1500). While the Attorney General's proposed ASL is based on her review of the rolling band, shrinking bands, and progressing bands, she has not taken into consideration the other elements of statistical review, such as polynomials, conformance indices, and hazard rates. In contrast, the Company has considered all of this data in arriving at its proposed ASL (Exh. AG-18-9, Att. at 162-173). The Department finds that the Company has properly interpreted the results of its statistical analyses in its selection of a 32-year S-1.5 curve. The Company's recent net salvage history for Account 368 indicates negative net salvage factors (Exh. AG-18-9, Att. at 174-175).

The Department finds that the Company has properly interpreted the results of its statistical analyses and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 368.1.

x. Account 368.20 – Distribution Line Transformers – Bare Cost

The current accrual rate for this account is 4.45 percent (Exh. NG-KAK-1, at 20). The Company proposes to replace the existing 30-year R3 curve with a 32-year S1.5 curve, and apply a net salvage factor of negative 35 percent to this account, resulting in a remaining life

of 19.67 years and an accrual rate of 3.77 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 40 years in recognition of the rolling band, shrinking band, and progressive band life analyses over the most current ten years, which indicate ASLs ranging from 40 to over 50 years (Attorney General Brief at 157).

As noted above, the best statistical fit for Account 368 was found to be a 32 year S-1.5 curve (Exhs. NG-KAK-1, at 28; AG-18-9, Att. at 176-187; Tr. 8, at 1499-1500). The Department finds that the Company has properly interpreted the results of its statistical analyses in its selection of a 32-year S-1.5 curve. The Company's recent net salvage history for Account 368 indicates negative net salvage factors (Exh. AG-18-9, Att. at 174-175).

The Department finds that the Company has properly interpreted the results of its statistical analyses and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 368.2.

xi. Account 368.30 - Distribution Line Transformers – Installation Cost

The current accrual rate for this account is 4.45 percent (Exh. NG-KAK-1, at 20). The Company proposes to replace the existing 30-year R3 curve with a 32-year S1.5 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 20.92 years and an accrual rate of 3.87 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 37 years in recognition of the rolling band, shrinking band, and progressive band life analyses over the most current ten years, which indicate ASLs ranging from 37 to over 50 years (Attorney General Brief at 158).

As noted above, the best statistical fit for Account 368 was found to be a 32 year S-1.5 curve (Exhs. NG-KAK-1, at 28; AG-18-9, att. at 189-200; Tr. 8, at 1499-1500). The Department finds that the Company has properly interpreted the results of its statistical analyses in its selection of a 32-year S-1.5 curve. The Company's recent net salvage history for Account 368 indicates negative net salvage factors (Exh. AG-18-9, Att. at 174-175).

The Department finds that the Company has properly interpreted the results of its statistical analyses and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 368.3.

xii. Account 369.10 – Distribution Overhead Services

The current accrual rate for this account is 3.96 percent (Exh. NG-KAK-1, at 20). The Company proposes to replace the existing 35-year S4 curve with a 45-year S2 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 29.49 years and an accrual rate of 3.53 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General supports the use of an ASL of at least 45 year in recognition of the statistical data that indicate increasing ASLs ranging from 45 to over 75 years for this account (Attorney General Brief at 159).

While the statistical analyses indicate a longer ASL for this account, it is necessary to consider all data associated with a depreciation study. We find that the Company has demonstrated that a 45-year S2 curve tracks the effects of retirements better than the current 35-year S4 projection curve (Exh. AG-18-9, at 209-222; Tr. 8, at 1500-1502). The

Company's recent net salvage history for Account 369 indicates significant negative net salvage factors (Exh. AG-18-9, Att. at 221-222).

The Department finds that the Company has properly interpreted the results of its statistical analyses and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 369.1.

xiii. Account 369.22 – Distribution Underground Services

The current accrual rate for this account is 3.96 percent (Exh. NG-KAK-1, at 20). The Company proposes to replace the existing 35-year S4 curve with a 45-year S2 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life of 29.49 years and an accrual rate of 2.93 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General proposes an ASL of at least 55 years in recognition of the rolling band, shrinking band, and progressive band life analyses over the most current ten years, which indicate ASLs ranging from 55 to over 80 years for this account (Attorney General Brief at 159-160).

As noted above, while the statistical analyses indicate a longer ASL for this account, it is necessary to consider all data associated with a depreciation study. We find that the Company has demonstrated that the statistical analyses indicate that the best statistical fit for this account was a 45 year S-2.0 curve (Exh. NG-KAK-1, at 28). The Department finds that the Company has properly interpreted the results of its statistical analyses in its selection of a 45-year S-2.0 curve. The Company's recent net salvage history for Account 369 indicates significant negative net salvage factors (Exh. AG-18-9, Att. at 221-222).

The Department finds that the Company has properly interpreted the results of its statistical analyses and exercised reasoned judgment in its selection of the proposed ASL and salvage factor. Therefore, the Department accepts the proposed accrual rate for Account 369.22.

xiv. Account 370

The current accrual rate for this account is 4.42 percent (Exh. NG-KAK-1, at 20). The Company proposes to assign its meters to four subaccounts: (1) Meters Bare Cost–Domestic; (2) Meters Install Cost–Domestic; (3) Large Meters Bare Cost–Domestic; and (4) Large Meters Install Cost-Domestic (Exh. AG-18-9, at 293-295; Tr. 8, at 1507). The Company proposes to replace the existing 30-year R-2.0 curve with a 25-year R-2.0 curve and apply a net salvage factor of negative 35 percent, resulting in a remaining life ranging from 25.48 to 27.48 years and accrual rates ranging from 4.09 to 4.96 percent (Exh. NG-KAK-1, at 20, 28). The Attorney General states that while there are limited historic data associated with the meter subaccounts, reducing the ASL to 25 years appears to be consistent with the results of the Company's depreciation study (Attorney General Brief at 160).

Because insufficient information was available by subaccount, the Company regrouped its four meter accounts for evaluation purposes (Tr. 8, at 1508). The statistical analyses indicated ASLs ranging from 22 to 25 years based on long observation bands, and somewhat larger results using shorter observation bands (Exh. AG-18-9, at 297-299; Tr. 8, at 1508-1509). The Department finds that the Company has properly interpreted the results of

its statistical analyses and exercised reasoned judgment in its selection of the proposed ASLs (Exh. AG-18-9, Att. at 235-302).

The Department has found that a salvage factor of zero percent was appropriate for Account 370.[114] D.T.E. 02-24/25, at 146. Accordingly, we find that National Grid's proposed salvage factor of negative 35 percent overstates the required accrual rate. As the Company has experienced negative salvage factors for these accounts (Exh. AG-18-9, at 225), we direct the Company to maintain the existing salvage factor of negative 20 percent for Accounts 370.1 through 370.4.

The use of the Company's proposed ASLs and a negative 20 percent salvage factor produces accrual rates as follows: (1) 4.23 percent for Accounts 370.1 and 370.15; (2) 4.49 percent for Account 370.2, (3) 4.10 percent for Account 370.3; and (4) 3.65 percent for Account 370.4. Therefore, the Department directs the Company to apply these depreciation accrual rates to these respective accounts.

f. Conclusion

In order to calculate the annual depreciation expense based on the revised accrual rates that the Department has determined for Accounts 370.1 through 370.4, the Department has applied the accrual rates approved by this Order to the Company's depreciable plant balances included in rate base. Specifically, the depreciable plant balances exclude $269,623 in asset retirement costs, as discussed in Section III.B., above. Based on this analysis, the Department

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[114] In recent depreciation studies performed for utilities in other jurisdictions, the Company's witness has also proposed salvage factors of zero percent for this type of plant (Exh. AG-NG 18-1, Att. 6, at 26, Att. 11, at 72).

finds that the Company's annual depreciation expense is $95,873,131, rather than the $96,398,730 proposed by the Company. Accordingly, the Department will reduce the Company's proposed depreciation expense by $525,599.

E. Storm Expense

1. Introduction

Pursuant to a rate plan settlement in New England Electric System, D.T.E. 99-47 (1999) ("D.T.E. 99-47 Settlement"), the Department approved recovery of $4.3 million annually in base rates for attribution to a storm fund.[115] During the test year, National Grid experienced approximately $62.8 million in costs related to an ice storm that occurred on December 12, 2008 (Exh. NG-JP at 44, 45). Prior to the December 12, 2008, storm event, the Company had accumulated a positive balance of approximately $28.8 million in its storm fund (Exh. NG-JP at 46, 48). Thus, the storm resulted in a deficit balance of $34 million in the storm fund as of December 31, 2008 (Exh. NG-JP at 46, 48).

The Company proposes that the Department permit it to continue to employ a storm fund by maintaining an annual amount of $4.3 million in base rates (Exh. NG-JP at 49). Under its proposal the Company would be allowed to access the fund when the costs of

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[115] During the term of the rate plan, the Company was permitted to access the storm fund when the costs of responding to an individual storm exceeded $1.25 million (D.T.E. 99-47 Settlement Att. 5). The storm fund had a cap of $20 million dollars adjusted for inflation (D.T.E. 99-47 Settlement at 15). In the event the cap was exceeded, either positive or negative, the excess or deficiency was to be recovered or refunded over a five-year period (D.T.E. 99-47 Settlement at 15). The storm fund balance (or deficit) carried an interest charge or credit at the customer deposit rate (D.T.E. 99-47 Settlement Att. 5).

responding to an individual storm event exceed $1.25 million, in which event the entire cost of the storm would be eligible for reimbursement from the fund (Exh. NG-HSG-RR, at 28-29; Company Brief at 94). To the extent the storm fund is in a surplus or deficit position, the Company proposes that interest would accrue or be charged at the customer deposit rate (Exh. NG-HSG-RR at 29; Company Brief at 94). The proposed storm fund would have a cap of $8.6 million on the negative balance and no cap would be in place for positive balances in the storm fund (Exh. NG-HSG-P-12, at M.D.P.U. No. 1163). If at any time, the balance in the storm fund is in a deficit position that exceeds twice the annual allowance (i.e., $8.6 million), the Company proposes to include on an annual basis the amount in excess of $8.6 million as a distribution adjustment with carrying costs at the weighted cost of capital (Exh. NG-HSG-P-12, at M.D.P.U. No. 1163). The Company also proposes to recover $30.1 million through a one-year adjustment to rates, beginning January 1, 2010, to eliminate the current storm fund deficit balance that will exist as of December 31, 2009 (Exh. NG-JP at 49).[116]

2. Positions of the Parties

a. Attorney General

With respect to the Company's proposed storm fund, the Attorney General takes issue with National Grid's request to include as a distribution adjustment any deficit in the storm

[116] The 30.1 million consists of the $34 million deficit balance as of December 31, 2008, less $4.3 million to be recovered by the storm fund mechanism in 2009, plus interest that will accrue on the deficit balance during 2009 (Exh. NG-JP at 46-49; NG-HSG-RR-6).

fund in excess of $8.6 million (Attorney General Brief at 95, citing Exh. NG-HSG-P-13). The Attorney General argues that the Company's proposal is one-sided as it does not also require National Grid to credit customers when the storm fund surplus is over $8.6 million (Attorney General Brief at 95). The Attorney General reasons that, under the current storm fund, the Company has had access to funds well in excess of $8.6 million for many years at the customer deposit interest rate and that a temporary deficit in the storm fund going forward should not require an immediate ratepayer assessment. Therefore, she argues that the component of the distribution adjustment provision permitting recovery of any deficit in excess of $8.6 million should be rejected (Attorney General Brief at 95).

The Attorney General also objects to the Company's proposal to recover the current storm fund deficit balance by means of a one-year "storm fund adjustment" via a surcharge to customers (Attorney General Brief at 125). The Attorney General argues that the Company's proposal is inconsistent with terms of the D.T.E. 99-47 Settlement, which requires that any deficiency in the storm fund over $20 million be recovered over five years as an exogenous cost, through a fully-reconciling surcharge (Attorney General Brief at 125, citing D.T.E. 99-47 Settlement at §I(C)1(f)). The Attorney General contends that the Company was required to file for exogenous factor recovery of storms by January 31st for events in the previous calendar year and, therefore, the deadline for requesting an exogenous factor adjustment has passed (Attorney General Brief at 125, 129, citing D.T.E. 99-47 Settlement at §I(C)3). Accordingly, the Attorney General recommends that the Department deny the Company recovery of the storm fund deficit in order to "encourage compliance with the unequivocal obligations of

regulatory agreements" (Attorney General Brief at 129). Alternatively, the Attorney General recommends that the Department disallow the revenue the Company would have collected as of the date of the Order in this case had it complied with the D.T.E. 99-47 Settlement (i.e., $5.2 million) and direct the Company to seek recovery of the remainder of the storm fund deficit through a fully reconciling rate mechanism as required by the D.T.E. 99-47 Settlement (Attorney General Brief at 129; Exh. AG-64, at 17).[117] The Attorney General argues that there is nothing in the D.T.E. 99-47 Settlement that expressly prohibits recovery of an already approved storm fund surcharge beyond the end of the rate plan (Attorney General Brief at 125-126).

If the Department does not approve recovery of the current storm fund deficit balance pursuant to the terms of the D.T.E. 99-47 Settlement as discussed above, the Attorney General proposes that the portion of the storm fund deficit that exceeded the storm fund cap ($5.2 million) should be recovered in rates by increasing the annual accrual of the Company's proposed storm fund from $4.3 million to $6.0 million (Exhs. AG-64, at 17; AG-60, at 15). The Attorney General argues that this approach is consistent with Department precedent concerning the recovery of extraordinary storm expense (Attorney General Brief at 123 citing D.P.U. 85-266-A/271-A at 98).

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[117] Specifically, the Attorney General proposes that the portion of the storm fund deficit that exceeded the storm fund cap ($5.2 million) be recovered in rates by way of a surcharge of approximately $1.26 million annually (Exh. AG-64, at 17). This surcharge would include interest at the customer deposit rate and result in an annual charge of $0.000057 per kWh (id.). This proposed charge would be adjusted based on actual sales to achieve the desired deficit elimination and would end after five years (id.).

The Attorney General further argues that the Company's proposed storm fund adjustment is not consistent with the purpose of the storm fund (Attorney General Brief at 124-125). Specifically, the Attorney General argues that the Company's proposal to recover the current storm fund balance over one year is contrary to the storm fund's underlying purpose of stabilizing rates because, under the Company's proposal, rates paid by customers for storm damage costs would be $4.3 million in 2009, $34.4 million in 2010, and then revert back to $4.3 million in 2011 (Attorney General Brief at 127). The Attorney General also asserts National Grid's proposal would put the entire burden of cost recovery for a storm that occurred in 2008 on 2010 ratepayers (Attorney General Brief at 127).

The Attorney General contends that the Company's stated reasons for a one-year storm fund adjustment are without merit (Attorney General Brief at 126). The Attorney General disputes the Company's contentions that a recovery period longer than one year would require the Company to "carry an asset of over $30 million at a carrying charge well below its cost of capital" (Attorney General Brief at 127, citing Exh. NG-HSG, at 29). The Attorney General asserts that going back to at least 2002 through the end of 2008, there was a substantial credit balance in the storm fund, accruing interest at the customer deposit rate (Attorney General Brief at 127-128, citing Exh. AG-60, at 15). Through all that time, the Attorney General argues that the Company was provided ratepayer supplied funds at a carrying charge well below its cost of capital, which substantially benefitted the Company (Attorney General Brief at 127-128, citing Exh. AG-60, at 15). Further, the Attorney General disputes the Company's argument that a credit balance should accrue interest indefinitely at the customer deposit rate

while a deficit should be recovered immediately or else accrue interest at the weighted average cost of capital. The Attorney General argues that if the customer deposit rate is fair for a credit balance in the storm fund, it should also be applied to a deficit balance (Attorney General Brief at 128-129)

b. The Energy Network

TEN argues that the Company has not provided adequate reasons why its storm costs should not continue to be collected as they were prior to the establishment of a storm fund through a rate settlement (i.e., allow recovery over a period of three to five years) (TEN Brief at 8-9, 15, citing Exh. TEN-1, at 8). TEN recommends that the Department amortize extraordinary storm expenses over a five-year period, which TEN argues is more closely aligned with past treatment of such costs and continues to recognize a sharing of risk between ratepayers and shareholders (TEN Brief at 15, citing Tr. 12, at 1968).

c. Company

The Company asserts that the storm fund benefits customers in terms of rate continuity and stability while reducing the need to create individual deferral mechanisms for each major storm (Company Brief at 95). The Company contends that the storm fund mechanism has proven to be an effective means of normalizing the costs of major storms for both customers and the Company (Company Brief at 94). Further, National Grid asserts the Attorney General supports continuation of the storm fund in its current form, differing only on the method for addressing the deficit balance (Company Brief at 95, citing Exhs. AG-64, at 15; AG-60, at 15).

With respect to the storm fund's current deficit balance, the Company asserts that the Attorney General's proposals would require between 17 and 25 years to recover the entire deficit (Company Brief at 97, citing Tr. 15, at 2583-84; Tr. 18, at 3507-3508). National Grid states that if storm activity were worse than normal, it is unclear whether the Company would ever recover the cost of the December ice storm under the Attorney General's proposal (Company Brief at 97, citing Tr. 12, at 1962-1963). The Company asserts that were the Department to adopt a mechanism that required the Company to wait a period of years to recover the full costs of the December ice storm, the Department should also allow the Company to recover the unamortized balance at the Company's overall cost of capital, rather than at the customer deposit rate (Company Brief at 98).

Finally, National Grid asserts that the Attorney General's proposal that the storm costs should be amortized on a five-year basis is based on the incorrect assumption that the storm fund deficit is required to be amortized pursuant to the terms of the D.T.E. 99-47 Settlement even though it contains no language indicating that the storm fund mechanism would continue beyond the term of the agreement (Company Brief at 98). The Company argues that the provisions of the D.T.E. 99-47 Settlement enabling National Grid to adjust distribution rates for exogenous costs such as extraordinary storm costs expires December 31, 2009. The Company asserts, therefore, there is no basis to suggest that after December 31, 2009, it would be limited to the exogenous event provisions of the D.T.E. 99-47 Settlement as a mechanism to recover costs of the December 2008 ice storm (Company Brief at 99).

3. Analysis and Findings

a. Storm Fund

When a storm has occurred during the test year, a company may have to spend considerable funds to restore service. Under traditional Department ratemaking practice, if the test year level of storm-related expense is not extraordinary in relation to the company's distribution revenues, the cost of service would include the full amount of the expense. Western Massachusetts Electric Company, D.P.U. 558, at 26-27 (1981); Boston Edison Company, D.P.U. 19991, at 28 (1979).[118] Alternately, if the test-year expense is extraordinary in relation to the company, the Department will permit the expense to be amortized over a three to five year period. DPU 85-266-A/85-271/A at 130; Boston Edison Company, D.P.U. 19300, at 36 (1979); DPU 1720. The Department has stated that our intent here is not to shift the risk of unanticipated expenses such as extraordinary storm costs solely to ratepayers. Rather, the ROE is designed, in part, to recognize these business risks. D.P.U. 1720, at 88-89.

Through rate settlements, the Department has adopted storm funds for various electric distribution companies. Western Massachusetts Electric Company, D.P.U. 06-55, at 7-8 (2006); Boston Edison Company/Cambridge Electric Light Company/Commonwealth Electric Company/NSTAR Gas Company, D.T.E. 05-85, at 7-8 (2005). As noted above, the Company currently has a storm fund that was approved as part of the D.T.E. 99-47 Settlement. The

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[118] National Grid's test-year cost of service includes a certain amount of weather-related expense. Because of the way these costs are booked, however, the Company is unable to identify these costs separately.

Company proposes to continue its storm fund, with certain changes. While the Attorney General does not object to the overall concept of a storm fund for the Company, she takes issue with certain aspects of the Company's proposed design. Even outside of the parameters of a rate settlement, we find that where a storm fund is properly designed, it has the potential to benefit both the Company and its customers by levelizing the effect of major storms on distribution rates. Accordingly, we will permit the Company to operate a storm fund. We discuss the appropriate design and mechanics of the Company's storm fund going forward below.

In approving a storm fund, the Department must consider the appropriate: (1) amount the Company may collect through base rates each year to fund the storm contingency account; (2) threshold cost level an individual storm must reach in order for the Company to access the fund; (3) interest rate at which the balance in the fund will accrue interest; (4) maximum positive and negative balances allowed in the fund; (5) treatment of storm costs that exceed the amount in the fund; and (6) filing requirements to recover storm costs from the fund. Each of these items is addressed below.

Currently, National Grid collects an annual amount of $4.3 million in base rates for its storm fund. The Company is also permitted to recover costs associated with an individual storm when such costs exceed a $1.25 million threshold. The Company proposes to continue collecting these amounts. Under National Grid's proposal, if an individual storm causes the Company to incur costs below the $1.25 million threshold, it would not be allowed to access the storm fund for reimbursement of any of the associated costs; if a storm causes the

Company to incur costs that exceed the $1.25 million threshold, it could access the storm fund for reimbursement of all of the costs. For the reasons discussed below, the Department does not accept this proposal. Instead, for any storm in which the Company incurs costs above the $1.25 million threshold, we will permit the Company to access the storm fund for reimbursement of only that portion of the costs that exceed a $1.25 million threshold amount.[119] The Department finds it appropriate to limit recovery through the storm fund in this way because: (1) it will better ensure that sufficient storm funds are available to the Company in the event of a major storm, benefitting both the Company and its customers by levelizing the effect of such storms on distribution rates; and (2) it will remove any incentive the Company may have to incur costs exceeding the established threshold for an individual storm in order to recover all of its costs for said storm.

The Department finds that the annual collection of $4.3 million in base rates with a $1.25 million threshold, with the revision discussed above, provides an appropriate balance between allowing the Company to recover the incremental costs of major storms and building a sufficient reserve in the fund to levelize and reduce the rate impact and financial burden on the Company of extraordinary storms.

With respect to the rate at which the balance in the fund will accrue interest, we do not accept the Company's position that it is appropriate to carry a credit balance in the storm fund at the customer deposit rate and a deficit balance at the weighted average cost of capital.

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[119] For example, if the Company's costs for a storm total $2 million, the Company would be allowed recovery of $750,000 through the storm fund and no more.

Instead, the Department finds that it is appropriate for the fund balance (whether credit or deficit) to accrue interest at the Company's weighted average cost of capital determined in this proceeding, because the storm fund acts similar to cash working capital, customer deposits, and customer contributions in that the use or collection of ratepayer funds accrue interest at the Company's weighted average cost of capital (Exh. NG-HSG-RR-2 (Rev.) at 26; Tr. 7, at 1350).

In a departure from its current storm fund, National Grid proposes that there be no cap on the credit side but that any time the balance of the storm fund is in a deficit that exceeds $8.6 million, the Company would be allowed to include on an annual basis the amount in excess of $8.6 million as a distribution adjustment with carrying costs at the Company's weighted average cost of capital. The Attorney General objects to both proposals as inequitable to ratepayers.

To limit the balance in the fund that may be used to recover incremental costs from extraordinary storms and to prevent the fund from having a deficit balance that is excessive, the Department finds that it is appropriate for the storm fund to have a symmetrical cap (positive and negative) of $20 million dollars. In the event the cap is exceeded (positive), then the amount over the cap collected from ratepayers in that year shall be returned in the following year. Consistent with our treatment of pension cost, and 220 C.M.R. § 6.08(2), the amount to be reconciled shall be returned through a kWh delivery surcharge with carrying costs on their reconciliation of forecast to actual recovery at the prime rate. NSTAR Pension, D.T.E. 03-47-A at 46 (2003). In the event the cap is exceeded as a result of a deficiency, the

Company would have the option to propose to the Department an alternative method for recovery of incremental costs that exceed the cap.

Finally, in order to recover any costs from the storm fund, the Company must first obtain approval from the Department. In its filing, the Company must demonstrate that the costs it seeks to recover from the fund are storm related, incremental to the Company, exceed the $1.25 million threshold, and were prudently incurred. The storm fund is not intended to reimburse National Grid for incremental capital costs. In addition, to provide the Department a better understanding of the magnitude of storms costs the Company incurs, National Grid is directed to submit as part of its reconciliation filing a report that outlines the total number and costs of all storms that occurred in the past year.

b. Storm Fund Deficit

The Company proposes to recover the $30.1 million existing storm fund deficit balance that will exist as of December 31, 2009 over a one-year period by adjusting distribution rates by approximately $0.00137 per kWh beginning in January 2010 (Exhs. NG-HSG-RR-6, at 1; NG-JP at 49).[120] The Attorney General objects to the Company's proposal as inconsistent with the terms of the D.T.E. 99-47 settlement as well as inconsistent with the purpose of storm fund to levelize the effect of large storms on distribution rates.

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[120] The Company is not seeking approval of the ultimate costs to be included in the distribution adjustment through this proposal because the costs are not fully known at this time. Once National Grid determines the ultimate costs, it intends to submit a final storm report to the Department so that the costs may be reviewed (Tr. 7 at 1383-1384, Tr. 12, at 1953-1955).

At the time of the 2008 storm which was the cause of the existing storm fund balance deficit, the Company was subject to the terms of the D.T.E. 99-47 Rate Settlement. Per the settlement, the Company is allowed to collect a storm fund surcharge of $4.3 million annually. If the balance of the fund exceeds positive or negative $20 million adjusted for inflation from the effective date of the rate plan, the Company is also allowed to recover the exogenous amount outside that threshold over five years through a fully reconciling surcharge. D.T.E. 99-47 Settlement at Volume 1, at 15. In Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 08-74, at 5-6, the Department rejected National Grid's proposal to accelerate ratepayer contributions to its storm fund by approximately $17 million for the one-year period beginning on March 1, 2009, finding that this proposal would significantly alter how the Company recovers storm expense and that the Company had not sufficiently demonstrated that it was in the public interest to depart from the D.T.E. 99-47 Settlement. The Department stated that National Grid may address how its incremental storm expenses are recovered in its next rate case. Id.

The D.T.E. 99-47 Settlement expires on December 31, 2009. Although the Department may be guided by the treatment of storm costs outlined in the settlement, there is no presumption that the mechanism should dictate how storm costs are recovered after the agreement expires, especially if the Department determines that alternate treatment is in the public interest. See Massachusetts American Water Company, D.P.U. 95-118, at 139 (1996).

The December 2008 ice storm was of extraordinary magnitude. The storm caused severe damage to the Company's infrastructure and resulted in incremental restoration costs of

$62.8 million (Exh. NG-JP at 46). Despite the storm's severity, the Company showed excellent preparedness. It brought in restoration contractor crews from across the United States and Canada, and overall its response was quick and effective.

Consequently, we find that the Company should have an opportunity to fully recover the appropriate remaining balance associated with the 2008 storm. Nonetheless, we find that it is not in the public interest to permit the remaining balance of the 2008 storm to be collected over just one year, as such treatment would not be consistent with the purpose of a storm fund to levelize the effect of major storms on distribution rates.[121] Instead, in the instant case, we find that it is in the public interest to permit the Company to recover the remaining balance of costs related to the 2008 winter storm through a separate surcharge to base rates, with carrying charges at the Company's weighted average cost of capital, over a five year period. Such treatment is consistent with long-standing Department precedent, which allows for storm-related deficits to be collected over a three- to five-year period. Boston Edison Company, D.P.U. 19991, at 28 (1979). Also, we find carrying costs at the Company's weighted average cost of capital are appropriate because the remaining incremental costs associated with the 2008 winter storm shall be recovered outside of base rates through a fully reconciling surcharge.

As noted above, the Department typically permits extraordinary storm expense to be amortized in rates over a three- to five-year period. We find, however, that a surcharge to

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[121] Pursuant to the Company's proposal, rates paid by customers for storm damage costs would be $4.3 million in 2009, $34.4 million in 2010, and then $4.3 million again in 2011 (Exhs. NG-HSG-RR-2, at 25; NG-HSG-RR at 29-30).

rates is appropriate here because, as discussed below, the Company has not yet presented the final costs to the Department for review. Further, the Department finds that a five-year recovery period, rather than three or four years, is appropriate to levelize the financial burden on the Company's ratepayers.

The Company has not yet submitted a final account of the total 2008 storm costs, though it expects to file a finalized report with the Department sometime after the close of the record in this case (Tr. 12, at 1953-1955). As part of this filing, the Company will be prepared to demonstrate that all storm-related costs that it seeks to recover are reasonable and have been prudently incurred. The remaining balance of 2008 winter storm costs is a significant expense on the Company's books and the Department is conscious of the Company's obligation to provide prompt repair of service after storms, as well as the value of knowing that prudently-incurred costs can be recovered through rates. In this case, we have addressed the mechanism whereby such costs will be recovered. We cannot, however, approve recovery of any costs until the Company demonstrates costs are reasonable and prudently incurred.

During the proceeding, the Company was questioned about whether any portion of the costs related to winter storm 2008 should be recovered from Verizon New England Inc. ("Verizon") pursuant to the joint pole agreement in place between the two companies (Tr. 10, at 1765-1773; RR-AG-38).[122] As part of the Department's investigation of the Company's

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[122] Among other things, the joint pole agreement provides that Verizon and the Company will share in the cost of storm restoration work on a 50/50 basis:

final accounting of its 2008 storm costs, the Company will be required to demonstrate that it is not seeking to recover costs from its ratepayers that, instead, should be paid by Verizon.

F. Distribution Adjustment Provision

1. Introduction

The Company proposed a new distribution adjustment provision ("DAP") tariff (Exhs. NG-HSG-P at 41; NG-HSG-P-12, Proposed M.D.P.U. No. 1163). This proposed tariff would allow National Grid to recover or refund increases or decreases in the Company's costs, avoided costs, revenues, or revenue requirement related to the following: (1) legislative, regulatory or tax and accounting changes; (2) increases in delivery-related bad debt in excess of an established threshold of $14 million; (3) reclassification of costs resulting from the reassignment of costs and/or revenues now allocated to the generation (i.e., stranded costs), transmission or distribution functions to or away from the distribution function by the Department, FERC, the New England Power Pool, ISO-NE, or any other official agency

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> Heavy storm work such as hurricanes, wet snow, tornadoes, and ice storms will be handled immediately without prior review. Agreement should be reached by the field representatives of the two companies as soon as practicable, after each major storm, to determine which lines and to what extend each party will participate, not withstanding any participation by another party. The parties agree to 50/50 basis for heavy storm work. The parties agree to reciprocal acceptance to each other's tree contractors for heavy storms. Trimming resulting from routine individual storms should be performed jointly at the same division of costs as maintenance trimming. Removal weakened or topped trees and large limbs which threaten both parties plant should be removed on a 50/50 basis, subject to field review wherever possible.

(AG-24-20-3, at 21).

having authority over such matters; and (4) a deficit balance in the storm fund that exceeds $8.6 million (Exhs. NG-HSG-P at 41; NG-HSG-P-12, Proposed M.D.P.U. No. 1163).

2. Positions of the Parties

The Attorney General recommends that the Department reject the Company's proposed DAP tariff (Attorney General Brief at 93). The Attorney General takes issue with the aspect of the proposed DAP tariff that refers to legislative, regulatory, tax and accounting changes, stating that the language is based on a 2000 settlement for Narragansett Electric Company in Rhode Island that established a five-year rate freeze (Attorney General Brief at 93). The Attorney General asserts that this language was designed to protect the utility from significant accounting or legal changes during a rate freeze (Attorney General Brief at 93). The Attorney General states that because the Company will not be under a rate freeze, this tariff provision is not necessary and, therefore, should be rejected (Attorney General Brief at 93).

Finally, the Attorney General takes issue with the specific language of the proposed DAP tariff, such as the absence of any cost thresholds for the provisions that refer to legislative, regulatory, tax and accounting and reclassification of assets (Attorney General Brief at 218-221, 223-224). Consequently, the Attorney General recommends that the Department reject the proposed DAP tariff in its entirety (Attorney General Brief at 93). The Company did not provide argument on brief to support its proposal, and no other party commented on this matter.[123]

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[123] National Grid and other intervenors addressed the aspects of the tariff that deal with delivery-related bad debt and the storm fund deficit in Sections V.C. and V.E., above.

3. Analysis and Findings

National Grid's proposed DAP tariff addressed a number of contingencies that could occur after the rate case is complete. The excess delivery-related bad debt and a deficit to the storm fund provisions of the proposed tariffs are discussed in Sections V.C. and V.E., above. With regard to the tax and accounting changes or reclassification of assets that are referenced in the remainder of the DAP tariff, the Department views these potential changes as part of the "ebb and flow" of ratemaking. While it is true that changes in tax laws, accounting regulations, or asset reclassification may occur once this rate case proceeding is complete, they are no different than the myriad other unknowns that a company must deal with once rates are set. Thus, the Department sees no need to establish a specific reconciling mechanism for these contingencies. Such a mechanism is unnecessary and would only serve to protect the Company from contingencies that are addressed by all utilities as a normal part of operating in a regulated industry. Further, the proposed tariff is analogous to exogenous cost provisions in PBR plans or rate settlements that are designed to protect a company and its ratepayers from extraordinary events during a period when the company cannot file a rate case. D.T.E. 05-27, at 395; D.T.E. 03-40, at 488-492; D.T.E. 01-56, at 25. In this case, National Grid may file a rate case should such changes occur that cause costs to rise. Therefore, the Department rejects the proposed DAP tariff M.D.P.U. No. 1163.

G. Pension and Post-Retirement Benefits Other than Pension

1. Introduction

During the test-year the Company booked a pension expense of $2,928,580 and a PBOP expense of $18,295,500 totaling $21,224,080 (Exh. NG-HSG-RR-2 (Rev.) at 3, 19 and 20). The Company proposed adjustments to these categories of expenses -- increasing pension expense by $7,415,371 and decreasing PBOP expense by $1,021,059, for a net adjustment of 6,394,312 (Exh. NG-HSG-RR-2 (Rev.) at 19, 20). In addition, the Company proposed to remove the pension and PBOP expense from rate base and collect the expenses through a fully reconciling mechanism (Exh. NG-HSG-RR at 23; NG-HSG-4). The proposal submitted by the Company includes a base year level expense of $33,634,880, which is comprised of $10,343,952 in pension expense, $17,274,441 in PBOP expense, and $6,016,487 in carrying charges (Exhs. NG-HSG-RR at 23, 30-31; NG-HSG-RR-4 (Rev.)). The carrying charges are calculated on the average net prepaid pension asset and deferred PBOP liability, net of deferred taxes at the Company's pre-tax weighted average cost of capital (Exh. NG-HSG-RR at 30-31). The Company does not currently collect a carrying charge on pension and PBOP assets (see Exh. NG-HSG-RR at 10, 23, 30-31, 41, 42). The proposed pension and PBOP adjustment mechanism would be reset before the beginning of each calendar year to collect the base year amount plus one third of the cumulative over/under collection balance from prior periods and the carrying charge or credit on its average net prepaid pension asset and deferred PBOP liability, net of deferred taxes (Exh. NG-HSG-RR at 39-40).

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that the Department should deny the Company's proposed cost adjustment clauses such as its pension and PBOP mechanism (Attorney General Brief at 4, 67). The Attorney General argues that because costs associated with reconciliation mechanisms will be ultimately recovered directly from customers on a dollar-for-dollar basis, management has little incentive to minimize those costs, which will result in higher customer rates (Attorney General Brief at 67, citing Exh. AG-59 at 5-6). The Attorney General also asserts that cost reconciliations inappropriately shift risk from the utility shareholders to customers (Attorney General Brief at 70-71). The Attorney General contends that reconciling tariffs are appropriately used to recover costs: (1) that are objectively ascertainable; (2) over which a company has very little control; and (3) that may materially affect a company's operations (Attorney General Brief at 71, citing 368 Mass. at 601-608; Exh. AG-61, at 36). The Attorney General argues where the Company has failed to demonstrate that a proposed reconciliation mechanism complies with this standard, it should be rejected (Attorney General Brief at 71).

The Attorney General also argues that the Company has failed to meet its burden of proof for the pro forma adjustment it proposes to test year pension and PBOP expenses (Attorney General Brief at 117). She notes that the Company failed to supply the actuarial study it used as the basis for its proposed adjustments and did not present testimony or

otherwise explain its proposed adjustments to booked pension and PBOP costs (Attorney General Brief at 117).

Finally, the Attorney General asserts that should the Department accept a pension and PBOP mechanism, the mechanism as proposed by the Company is flawed. Specifically, she asserts that the Company's proposed formula provides for certain prepaid costs, but does not provide for an unfunded accrued cost (Attorney General Brief at 225). In addition, the Attorney General asserts that the prepaid costs refer only to pensions and not to PBOPs (Attorney General Brief at 225). The Attorney General also maintains that the Company fails to make any allocation or assignment to the transmission and pole attachment businesses (Attorney General Brief at 225-226). The Attorney General also contends that the Company fails to differentiate between amounts that are assigned to other affiliated and non-regulated businesses and those amounts that should be capitalized (Attorney General Brief at 225). The Attorney General further argues that National Grid does not clarify whether the term "year" is calendar year or fiscal year (Attorney General Brief at 226). Finally, the Attorney General asserts that the Company should use the term PBOP consistently throughout the tariff to refer to the post-retirement benefits other than pensions (Attorney General Brief at 226).

b. The Energy Network

The Energy Network ("TEN") argues that the proposed pension and PBOP adjustment mechanism should be denied because the market and regulatory conditions that existed and supported previous Department approval of such mechanisms no longer exist (TEN Brief at 8). In addition, TEN argues that the Company has a substantial degree of control over its pension

costs in that it defines the benefit, establishes the eligibility criteria and, thereby, the size of the employee base for funding, and chooses the investments for the fund (TEN Brief at 8). Barring Department rejection of the mechanism, TEN argues that the Department should reject the Company's proposed allocation of costs and, instead, costs should be applied in the same manner as in the cost of service so as not to shift costs to the C&I class (TEN Brief at 9).

c. Company

The Company states that its proposal to implement a pension and PBOP reconciling mechanism is consistent with Department precedent as well as the pension and PBOP adjustment mechanisms previously approved by the Department (Company Brief at 99-103, citing D.T.E. 05-27, at 119-125; D.T.E. 03-40, at 306-314; D.T.E. 03-47-A at 36-40). The Company argues that the pension and PBOP expense has been and is expected to remain significant and volatile (Company Brief at 103, citing Exh. DPU-NG 1-4). In addition, the Company states that the major factors that determine the level of pension an PBOP expense are beyond the Company's control (Company Brief at 99, 102). The Company argues that, without a pension and PBOP adjustment mechanism, it will be unable to recover pension expenses over what is included in revenue requirement and, therefore, it will be prone to large shifts in earnings that harm ratepayers as well as shareholders (Company Brief at 103).

3. Analysis and Findings

Presently the Company recovers its pension and PBOP expenses through base rates. It now seeks the approval of a fully reconciling adjustment mechanism functioning outside of base rates (Exhs. NG-HSG-RR at 38; NG-HSG-RR-4).

As noted by the Attorney General, rate reconciling tariffs are used to recover costs that are: (1) objectively ascertainable; (2) over which the company has very little control; and (3) may materially affect a company's operations. 368 Mass. at 601-608. The Department has approved pension and PBOP adjustment mechanisms similar to that proposed by the Company. See D.T.E. 05-27, at 124; Fitchburg Gas and Electric Light Company, D.T.E. 04-48, at 21; D.T.E. 03-40, at 309; D.T.E. 03-47-A at 28. In evaluating the merits of collecting pension and PBOP expenses through a reconciling mechanism, the Department has specifically considered: (1) the magnitude and volatility of the pension and PBOP costs; (2) the role of accounting requirements; and (3) the effectiveness of the reconciling mechanism in avoiding the negative effects of the pension and PBOP volatility. D.T.E. 05-27, at 123; D.T.E. 04-48 at 19; D.T.E. 03-40, at 309.[124]

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[124] In D.P.U. 07-50-A, the Department put distribution companies on notice that they would be required to demonstrate that the continued use of reconciling mechanisms is warranted. We specifically stated:

> Regarding the continuation of fully reconciling cost recovery mechanisms after decoupling, the Department notes that at the time these mechanisms were approved, we found that the costs to be recovered were volatile and fairly large in magnitude, were neutral to fluctuations in sales volumes, and were beyond the control of the companies. See NSTAR Electric & Gas Company, D.T.E. 03-47-A, at 25-28, 36-37 (2003); Bay State Gas Company, D.T.E. 05-27, at 183-186 (2005). As circumstances change, the Department will consider which, if any, of these currently reconciled costs should continue to be fully reconciled via a separate mechanism or recovered instead via base rates. Such consideration will take place on a case-by-case basis, in which each distribution company must demonstrate that continued recovery in a separate mechanism is warranted.

Contrary to the Company's claims, a review of pension and PBOP expense demonstrates that there has been little volatility in recent years (Exh. AG 1-49, Att. at 2; Tr. 7, at 1328-1329). In addition, the Company's own actuaries project relatively stable pension and PBOP expenses through 2013 (Exhs. NG-HSG-RR-5 (Rev.); Exh. AG 1-49, Att. at 2). Nevertheless, for the reasons discussed below, the Department finds that it is appropriate for National Grid to collect its pension and PBOP expenses through a reconciling mechanism.

The Department notes that the Company must adhere to Financial Accounting Standards Board ("FASB") rules, Internal Revenue Service ("IRS") requirements, and the Employee Retirement Insurance Security Act ("ERISA") law which are not always fully compatible. D.T.E. 03-47-A at 4-5. As a result there exists the risk of a significant and negative financial impact to the Company. Under Statement of Financial Accounting Standard No. 87 ("SFAS 87") regulated companies are required to compare the actuarial present value of the total cost of pension benefits[125] with the fair market value of the assets of the plan. If the present value of pension and PBOP liabilities exceeds the fair market value of the assets set aside to meet them, the company must book an Additional Minimum Liability ("AML") consisting of the amount of the unfunded amount in the pension plan and the write-down of any prepayments into the pension plan. D.T.E. 03-47-A at 19. In Boston Edison

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D.P.U. 07-50-A at 50.

[125] The actuarial present value of the total cost of pension benefits is referred to as the accumulated benefit obligation.

Company/Cambridge Electric Light Company/Commonwealth Electric Company/NSTAR Gas Company, D.T.E. 02-78, Letter Order at 1 (2002), the Department made an accounting ruling allowing companies to record two assets on their books: (1) an amount equal to the underfunding in a company's pension plan; and (2) a deferral, on an ongoing basis, for the difference between the amount of pension and PBOP expense recorded under the accounting rules and the amount collected in base rates. Statement of Financial Accounting Standard No. 71 ("SFAS 71"), however, requires that a regulator provide reasonable assurance of the existence of an asset, including probability of recovery within a reasonable, finite period (SFAS 71, ¶9). Absent the probability and timing specificity of recovery SFAS 71, ¶9(a) requires a write down of the AML.

A fully reconciling mechanism guarantees recovery of the pension and PBOP deferral within three to five years satisfies the requirements of SFAS 71, ¶9(a) and dispels the risk that a mismatch between a company's pension and PBOP assets and liabilities will cause serious financial disruption. In prior rate cases, the write down of equity was substantial and imminent and, although the Company is not immediately facing the potential of a significant write-off against shareholder equity, the potential exists for this situation to occur in the future. D.T.E. 05-27, at 121; D.T.E. 04-48, at 17; NSTAR Companies, D.T.E. 03-47-A at 25-27 (2003); D.T.E. 03-40, at 308-314. A pension and PBOP adjustment mechanism keeps a pension plan on a sound footing every year and, thereby, promotes workforce stability and, with that, sound customer service. D.T.E. 05-27, at 123; D.T.E. 03-47-A at 27-28.

In addition, although the Company does possess some amount of control over the cost of the pensions and PBOPs, the Company does not have control over interest rates and returns of the broad market which have significant impact upon the Company's funding requirements (Company Brief at 101, citing Exh. AG 35-2; Tr. 11, at 1872-1873).

We find that given the unique attributes of pension and PBOP costs (i.e., unique accounting requirements along with the potential for significant volatility and lack of Company control), a reconciling mechanism outside of base rates is an appropriate method for the recovery of this specific category of cost. Accordingly, the Company's proposed pension and PBOP reconciliation tariff is approved.[126]

The Company proposes to make pro forma adjustments to the test year pension and PBOP expenses in the amount of $7,415,371 and negative $1,021,059 respectively (Exh. NG-HSG-RR-2 (Rev.) at 19, 20). The Attorney General has challenged these adjustments charging that the Company has failed to provide the actuarial reports upon which the adjustments are based and did not present a witness that was able to explain the adjustments (Attorney General Brief at 117). While the Company was unable to explain the accounting treatment of prepaid pension costs during cross examination, we nevertheless find that the Company treated these costs appropriately (Tr. 7, at 1222-1228). The Company contracted an

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[126] We find here that, because of their unique attributes, treatment of pension and PBOP expenses through a reconciling mechanism is appropriate. Nonetheless, we note that, for other expenses where a distribution company proposes either (1) a new reconciling mechanism, or (2) the continued use of a reconciling mechanism, it is required to demonstrate that recovery in a separate mechanism is warranted (e.g., the costs are volatile and fairly large in magnitude, are neutral to fluctuations in sales volumes, and are beyond the control of the company). D.P.U. 07-50-A at 50.

outside actuarial firm to determine the expenses required to be recorded for pension (under SFAS 87) and PBOP (under SFAS 106) (Exh. DPU-NG 1-6). The 2010 pension and PBOP expenses as determined by the actuary are $10,343,952 and $17,274,441 respectively (Exh. NG-HSG-RR-5 (Rev.)). The mechanism proposed by the Company is fully reconciling, and, therefore, should the assumptions upon which the estimates are based prove incorrect, any deviation from those amounts will be adjusted for in subsequent filings. Accordingly, the Department accepts the Company's pro forma adjustments to the test year pension and PBOP expenses.

With regard to the Attorney General's argument that the Company should be required to make an allocation or assignment to its transmission and pole attachment businesses, the record in this proceeding is insufficient to determine the level of pension and PBOP expenses associated with transmission expense. The Department also is not convinced at this time that the cost and administrative burden to remove these costs through a separate proceeding is in the best interest of ratepayers. Moreover, because the Company collects revenues through pole attachment fees, the Department finds it unnecessary to make specific allocations of plant and other expenditures to pole attachments. Therefore, in this proceeding, the Department will not make an adjustment to the Company's pension and PBOP for transmission or pole attachment related pension and PBOP expenses. National Grid is directed, however, to identify all transmission costs requested to be recovered through base rates in its direct filing as part of its next base rate proceeding.

The Attorney General has challenged the tariff submitted by the Company identifying what she believes to be flaws: (1) the formula lacks a provision for unfunded accrued cost in the average pre-paid amount ("APPA"); (2) the APPA refers to the pension cost only and not the PBOP; (3) lack of an allocation or assignment to transmission and pole attachment business; (4) it is not specified if the expense excludes the costs assigned to other affiliated and other non-regulated business or those amounts to be capitalized; (5) a failure to properly identify the term "year" as either a calendar year or a fiscal year; and (6) that the term PBOP should be used exclusively and consistently in the tariff (Attorney General Brief at 224-226). The Department finds that the unfunded accrued cost will be captured through the Company's prepayments to the pension and PBOP in future periods, as required to satisfy SFAS 87 and SFAS 106. The Department disagrees with the Attorney General that the APPA refers only to pensions but directs the Company to resubmit the tariff explicitly stating that the APPA covers pre-paid amounts for both pension and PBOP. In similar regard, the revised tariff should also specifically state that only uncapitalized pension and PBOP expense related to the distribution operation and maintenance shall be included. The tariff should also explicitly state that the term year refers to the Company's fiscal year. Finally, in order to minimize customer confusion, the Department finds that it is appropriate to institute a standard nomenclature for all pension adjustment mechanism tariffs. See Massachusetts Electric Company, D.P.U. 85-146, at 106-107 (1986); D.P.U. 84-145-A at 133-134. As such, what the Company refers to as "other post retirement benefits" or "OPEB," should instead be referred to as "post-retirement benefits other than pension" or "PBOP." The Department directs National

Grid to incorporate such language into the revised pension adjustment mechanism tariff to be submitted to the Department for review as part of the Company's compliance filing to this Order.

H. Collections Expense

1. Introduction

The Company proposed to increase its test year cost of service by $1,793,545 to adjust for costs related to increased collection efforts as well as seasonal employees (RR-DPU-15, at 2; see also Exh. NG-RLW at 23). The proposed adjustment consists of an increase of $819,941 related to the hiring of seasonal employees and an increase of $974,126 related to credit and collections contractor expense (Exhs. NG-HSG-RR-2 (Rev.) at 5, 13).[127]

National Grid states because it has experienced a substantial increase in write-offs, in mid-2008, the Company implemented an enhanced collections program to address and mitigate the rising level of uncollectible accounts (Exhs. NG-RLW at 7, 23-24; AG-4-31; Tr. 2, at 425). Through this program, the Company expects to mitigate its bad debt write-offs through

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[127] The Company originally sought a test year adjustment of $1,829,941, comprised of (1) $1,010,000 for collections contractor expense based on an estimate, and (2) $819,941 for seasonal employees based on test year costs and proposed increases in 2009 and 2010 (Exhs. NG-HSG at 18; NG-HSG-RR-2, at 5, 13; NG-HSG-RR-10, at 2; Tr. 7, at 1171-1172). The Company then revised the adjustment to $1,794,067, comprised of (1) $974,126 for collections contractor expense based on actual costs from January 2009 to March 2009, and (2) $819,941 for seasonal employees (Exhs. NG-RLW at 23-24; NG-RLW-7; NG-HSG-RR-2 (Rev.) at 5, 13; NG-HSG-RR-10 (Rev.) at 2; AG-3-16; AG-4-32). When the Company submitted its final proposed Schedules on November 4, 2009, its total proposed adjustment was $1,793,545; the Company did not provide a breakdown between collections contractor expenses and seasonal employees and gave no explanation of the $522 reduction in its request (RR-DPU-15 (Supp.) at 2).

additional collections efforts, earlier service terminations for non-paying customers, and more stringent review of customers seeking service connections to reduce fraudulent identification (Exhs. NG-RLW at 7; AG-4-31; Tr. 2, at 422).

National Grid states that it manages its overall collection process by carefully assessing delinquent customers individually in order to identify the appropriate, cost-effective collection measures to take for each account (Exh. NG-RLW at 7-9; Tr. 2, at 423). The Company relies on third-party contractors for much of its outbound collection call efforts (Exhs. AG 30-1; AG 30-2, Att. Supp.; AG-30-10-1; AG-30-10-2). In addition, the Company hires seasonal employees to perform collection-related activities or to fill in for regular employees who have been re-assigned to fulfill the task (Exhs. AG-4-29; AG-4-30).[128]

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company's requested test year adjustment should be denied because any additional expenses beyond the test year will be offset by a reduction in bad debt write-offs (Attorney General Brief at 132-133, citing Exh. AG-60, at 7; Attorney General Reply Brief at 47). As such, the Attorney General contends that the Company should be willing to incur the incremental expense of increased collection efforts only to the extent

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[128] National Grid states that it has an agreement with local unions to offer any current meter reader the opportunity to be upgraded to a collector for the season, which results in additional pay to the union employee (Exh. AG-4-30). If the current meter reader takes the seasonal collection job, the seasonal employee is hired to fill the open meter reader position; if the current meter reader does not choose the upgrade, the seasonal employee is hired as a collections employee (id.).

that such efforts can reasonably be expected to reduce the write-offs of accounts receivable (Attorney General Brief at 132-133, citing Exh. AG-60, at 7; Attorney General Reply Brief at 47).

The Attorney General asserts that National Grid agreed that its collection efforts should generate corresponding offsets in reduced bad debt expenses but the Company, nonetheless, asserted that customers, rather than shareholders, will get the benefit of any reduction to bad debt (Attorney General Brief at 133, citing Exh. NG-HSG-Rebuttal at 10; Attorney General Reply Brief at 47). Instead, the Attorney General argues that the collection of bad debt through a reconciling mechanism as proposed by the Company in this proceeding is beneficial to shareholders, rather than ratepayers, because such mechanisms reduce the risk that bad debt recovery will be below test year levels (Attorney General Brief at 133-134).[129]

b. Company

The Company asserts that the Department should not recognize any offset to the incremental costs of the Company's collection efforts (Company Brief at 32-33). National Grid concedes that, conceptually, its enhanced collections activities will pay for themselves (Company Brief at 32, citing Exh. AG-4-31; see also NG-HSG-Rebuttal at 10; Tr. 19, at 3587-3589). Nonetheless, the Company argues that the Attorney General's position is based on the presumption that the enhanced collections program will result in an absolute reduction in the level of bad debt write-offs relative to the test year level (Company Brief at 32). The

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[129] The Attorney General does not address the proposed seasonal employee adjustment and appears to accept such adjustment in proposing her revised revenue requirement (Attorney General Reply Brief at Sch. 2).

Company contends that such an assumption is speculative and unsupported by any evidence (Company Brief at 32). The Company contends that, because a three-year average of net write-offs is used to determine the level of uncollectible account expense for ratemaking purposes, if a reduction in write-offs were experienced as a result of enhanced collections efforts, it would be inappropriate to incorporate the reduction on a dollar-for-dollar basis equal to the incremental collection costs incurred by the Company (Company Brief at 32).

National Grid asserts that its intention in implementing an enhanced collection program is to avoid further increases in write-offs in light of the recession and rising unemployment (Company Brief at 31-32, citing Tr. 2, at 426). National Grid states that approximately two-thirds of bad debts write-offs arise from commodity-related revenues (Exh. NG-HSG-Rebuttal at 10). The Company explains that, under its proposal, commodity-related bad debt write-offs would be fully reconcilable so the benefit of avoided increases in commodity-related bad debt will go to basic service customers (Exh. NG-HSG-Rebuttal at 10-11).

3. Analysis and Findings

The Department's long-standing precedent allows only known and measurable changes to test-year expenses to be included in a company's cost of service. Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 61-62 (1998) citing Dedham Water Company, D.P.U. 84-32, at 17 (1984).[130] Further, the Department permits a company to reflect expenses

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[130] A "known" change means that the adjustment must have actually taken place, or that the change will occur based on the record evidence, while a "measurable" change means that the amount of the required adjustment must be quantifiable on the record

in its cost of service if a company can demonstrate that the expense is either annually or periodically recurring or, if non-recurring, is extraordinary in nature. D.P.U. 89-114/90-331/91-80 Phase One at 152; D.P.U. 88-250, at 65-67; D.P.U. 1270/1414, at 33.

The enhanced collections program was instituted in April 2008 and, thus, represents a known and measurable change in test year costs (see Exh. AG 4-31; Tr. 2, at 425). With respect to the seasonal employees, given the Company's method of classifying seasonal employees, we conclude that the seasonal employees are used to fill in for regular meter readers who are re-assigned from time to time to perform enhanced collection activities (Exhs. WP NG-HSG-RR-10; AG 4-30). The Department also finds that the seasonal employees are classified outside the Company's regular payroll system and, thus, do not fall within the normal ebb and flow of employee head counts. See e.g., D.P.U. 88-172, at 11-12; Nantucket Electric Company, D.P.U. 88-161/168, at 66-67 (1989). As such, the Company has demonstrated a known change to test year expense. Further, for 2009, the Company proposes to pay the seasonal employees the average union seasonal salary for the test year, adjusted upward by three percent to reflect a union wage increase (Exh. NG-HSG-RR-2 (Rev.) at 13). For the rate year, the Company proposes an additional three percent union wage increase above the test year salary (id.). As set forth in Section V.A.3., above, the

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evidence. Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 62 (1998). Proposed adjustments based on projections or estimates are not allowed. Id. citing The Berkshire Gas Company, D.P.U. 92-210, at 83 (1993); Dedham Water Company, D.P.U. 849, at 32-34 (1982).

Department has approved the Company's proposed union wage increase, and, consistent with that decision above, we find that the costs associated with the seasonal employees are also measurable.

With respect to the contractors, the incremental costs related to such expenses are known and measurable as supported by the record (Exhs. NG-HSG-RR-2 (Rev.) at 5, 13; NG-HSG-RR-10 (Rev.) at 2; NG-RLW-7; AG 30-2, Att. Supp.; RR-AG-7). Further, the Company currently has contracts with nine different collection agencies to perform future collection services (Exh. AG-30-2 Att. at 2). The contracts expire either at the end of the rate year (December 31, 2010) or the end of the following year (December 31, 2011) (Exh. AG 30-2 Att. at 2). Given the nature and terms of these contracts, and the annual recurrence of bad debt, the Department finds that the Company will continue to incur bad debt mitigation costs on an annual basis.

The Attorney General urges the Department to reject the proposed adjustment because these incremental costs will be offset by a reduction in bad debt write-offs (Attorney General Brief at 132-133, citing Exh. AG-60, at 7; Attorney General Reply Brief at 47). National Grid, on the other hand, contends such an overall reduction in bad debt write-offs is speculative and, in any event, seeks to avoid further increases in write-offs in light of the economic recession and rising unemployment (Company Brief at 32, citing Tr. 2, at 426). The Department recognizes that the Company's enhanced collection activities may not initially result in an absolute reduction in the current level of bad debt write-offs, particularly in light of current economic conditions in Massachusetts. The Company's ability, however, to maintain

bad debt write-offs at present levels still benefits ratepayers. To the extent that the Company's collections efforts prevent the increase in bad debt write-offs, the amount of bad debt expense to be collected from ratepayers likewise will not increase. As a result, the Department finds that the incremental costs associated with the Company's enhanced collection efforts are reasonable and beneficial to ratepayers.

For all of the foregoing reasons, the Department accepts the Company's proposed cost of service adjustment related to contractor collections expenses and seasonal employees in the amount of $1,793,545. Accordingly, the Company's test year cost of service shall be increased by $1,793,545.

I. Gain on Sale of Property

1. Introduction

Between 2001 and 2007, National Grid sold 19 pieces of property for which there were gains (Exh. AG 1-20, Atts. 1, 2). In its initial filing, the Company did not make any adjustment to its cost of service for these gains. The Company subsequently proposed an increase to test year revenues of $370,440 to credit customers for these gains (Exh. NG-HSG-Rebuttal at 16-17).[131] The Company proposed a five-year amortization period for each non-depreciable property sold, with the amortization period beginning on the sale date of each property (Exh. NG-HSG-Rebuttal at 16-17).

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[131] The Company's revised revenue requirement schedules do not incorporate this adjustment (Exh. NG-HSG-RR-2 (Rev.); RR-DPU-15, Att.).

2. Positions of the Parties

a. Attorney General

The Attorney General contends that, pursuant to Department precedent, gains on the sale of property, after any transaction costs, are to be returned in their entirety to customers over a reasonable number of years (Attorney General Brief at 145; Attorney General Reply Brief at 49, citing Massachusetts-American Water Company, D.P.U. 95-118, at 142-143 (1996); Commonwealth Electric Company, D.P.U. 88-135/151, at 91 (1989)); D.P.U. 1100, at 62-65).

The Attorney General asserts that the Company, through rebuttal testimony, proposes a novel approach to return the gains on sales of property in a manner that would allow shareholders to retain those gains and, thus, is contrary to Department precedent (Attorney General Reply Brief at 49, citing Exh. NG-HSG-Rebuttal at 16-17). Specifically, the Attorney General contends that the Company proposes to amortize the gains on each property sale beginning from the date of the sale rather than the date of the Department's Order in this proceeding (Attorney General Reply Brief at 49, citing Exh. NG-HSG-Rebuttal, at 16-17). The Attorney General reasons that shareholders earn their return on these properties through the return on rate base that the Company charges customers through its base rates (Attorney General Reply Brief at 49, citing Massachusetts-American Water Company, D.P.U. 95-118, at 142-143 (1996); Commonwealth Electric Company, D.P.U. 88-135/151, at 91 (1989)); D.P.U. 1100, at 62-65). Therefore, the Attorney General asserts that amortizing the gains on each property sale from the date of sale allows the Company to retain

the gains on the sale of property and would allow it to charge the capital costs twice (Attorney General Reply Brief at 50). The Attorney General further argues that the Company's proposal will encourage companies to hold sale dates until after base rate cases have closed, thereby allowing shareholders to retain most, if not all, of the gains associated with these sales (Attorney General Reply Brief at 50, citing Tr. 19, at 3580).[132] Thus, the Attorney General argues that the Department should reject the Company's proposal and order the return of all of the gains on property sales that have occurred since the Company's last rate case (Attorney General Brief at 145-146; citing Exh. AG 1-20).

Based on the Attorney General's calculation of a total gain of $9,513,471 for the period 2000 through 2008, and her proposed amortization period of five years, she concludes that the Company's proposed cost of service should be reduced by $1,902,694 (Attorney General Brief at 145-146).

b. Company

The Company acknowledges that any gain associated with a sale of non-depreciable real property, even if prior to the test year, must be returned to ratepayers in its entirety (Company Brief at 28, citing D.P.U. 08-35, at 138; Bay State Gas Company, D.T.E. 05-27, at 146 (2005); Commonwealth Electric Company, D.P.U. 88-135/88-151, at 92 (1989). The

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[132] The Attorney General argues that under National Grid's proposed approach, shareholders would retain 100 percent of the $3.75 million gain associated with the Company's single largest property transaction, the sale of the Nantucket Fairgrounds Road property, because it was sold in September 2004, which is more than five years prior to the Department's Order in this proceeding (Attorney General Reply Brief at 49, citing Exh. NG-HSG-Rebuttal at 16-17; Tr. 19, at 3580).

Company argues, however, that the Department has not made a general finding regarding the appropriate length of time over which to amortize the gains on the sale of property (Company Brief at 28, citing Barnstable Water Company, D.P.U. 93-223-B at 14 n.8 (1994)).

While the Company accepts that a five-year amortization period is reasonable, National Grid maintains that the Attorney General's calculation of the amortization period is incorrect (Company Brief at 29).[133] Specifically, the Company asserts that the Attorney General merely selected all sales that occurred during the five-year period between 2004 to 2008, divided the sum by five, and then reduced the revenue requirement by the resulting amount (Company Brief at 29, citing Exhs. AG-60, at 23; NG-HSG-Rebuttal at 16). The Company argues that such a calculation has the effect of holding all of the sale proceeds in suspension and then assuming that amortization will only begin in the rate year (Company Brief at 29).

National Grid contends that the gain on sale of property should be amortized commencing in the year after the sale of each property, not beginning with the first year in which the Company's new rates are set (Company Brief at 29, citing Exh. NG-HSG-Rebuttal at 16-17). The Company asserts that its approach, where each sale is amortized separately, is more equitable because the properties were not included in rate base for the purpose of determining the Company's revenue requirement upon purchase (Company Brief at 29-30). Rather, the Company maintains that these property purchases were included in rates only after

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[133] The Company also asserts that under the Attorney General's proposal, such gains would essentially be normalized (Company Brief at 29, citing Exh. AG-60, at 23).

the first base rate case after each property's acquisition date (Company Brief at 29-30, citing Exh. NG-HSG-Rebuttal at 16-17).

3. Analysis and Findings

The Department's long-standing policy with respect to gains on the sale of utility property is to require the return to ratepayers of the entire gain associated with the sale if those assets were recorded above-the-line and supported by ratepayers. Boston Gas Company, D.P.U. 96-50 (Phase I) at 111 (1996); Barnstable Water Company, D.P.U. 93-223-B at 12-13 (1994); Commonwealth Electric Company, D.P.U. 88-135/151, at 92 (1989). Therefore, if such property is sold by the utility, it is necessary to include an adjustment that recognizes the appreciation on assets that ratepayers have supported in rates through a return of and on the investment. Commonwealth Electric Company, D.P.U. 88-135/151, at 91-92 (1989).

The Company states that the gain on its non-depreciable property is $6,227,745 (Exh. NG-HSG-Rebuttal at 17). The Department determines, however, that the Company made two errors in its calculation. First, the Company did not consistently calculate the gain by subtracting the book cost from the sales cost (Exh. NG-HSG-Rebuttal at 17). For some properties, National Grid calculated the gain by subtracting the book value from the purchase price; for other properties, the Company lists a smaller gain with no accompanying explanation (Exh. NG-AG 1-20, Atts. 1, 2). The Company bears the burden to demonstrate that is has appropriately recorded its gains and has failed to do so.[134]

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[134] The impact of this calculation error is $51,044 (Exh. NG-AG 1-20, Atts. 1, 2).

Second, National Grid excluded from its calculation of total gain on all of the properties that were sold more than five years prior to the end of the test year (Exh. NG-HSG-Rebuttal at 17). The Company's reasoning is that any property sold earlier than five years previous has in effect already been passed back to customers. We disagree. The Company's proposal to begin the amortization of properties on the date of their sale ensures that at least some, if not all, of the gain associated with individual transactions will inure to shareholders, which is contrary to Department policy. See D.P.U. 96-50 (Phase I) at 111; D.P.U. 93-223-B at 12-13; D.P.U. 88-135/151, at 91-92. The Company's argument that its proposed treatment ensures symmetry with the lag between the in-service date of a property acquisition and its inclusion in rates is unpersuasive; the same argument can be made for any plant addition between rate cases. Just as the Department does not distinguish between pre-test year and test year plant additions, it is not appropriate to distinguish gains on the sale of property by the date such plant was incorporated into rates. Therefore, the Department will include in the gain all of the property transactions between 2001 and 2008. See D.P.U. 96-50 (Phase I) at 111; D.P.U. 93-223-B at 11-14; D.P.U. 88-135/151, at 90-94 (1989).

Based on the foregoing analysis, the Department has recalculated the total gain associated with these transactions. We find that the total gain on the sale of land was $6,892,165 (Exh. NG-AG 1-20, Atts. 1, 2). Accordingly, the Department will determine the required reduction to cost of service using this total gain.

With respect to the appropriate amortization period, both National Grid and the Attorney General consider an amortization period of five years to be reasonable in this case.

As noted by the Company, that Department has not made a general finding regarding the appropriate length of time over which to amortize gains on the sale of property. D.P.U. 93-223-B at 14 n.8. The appropriate amortization period is based on various factors such as the amount under consideration, the value to ratepayers based on alternative amortization periods, and the effect of the amortization on a company's finances and income. See, e.g., D.P.U. 08-35, at 139-140 (six-year amortization applied); D.P.U. 93-223-B at 14 (15-year amortization applied); D.P.U. 85-266-A/271-A at 33-34 (three-year amortization applied). Based on these considerations, we determine that a five-year amortization period is appropriate. Applying an amortization period of five years to the $6,892,165 gain on the sale of the properties since the last rate case proceeding produces an annual amortization of $1,378,433. Accordingly, the Company's proposed cost of service will be reduced by $1,378,433.

J. Property Taxes

1. Introduction

During the test year, the Company booked $26,162,751 in real estate and personal property taxes ("property taxes") associated with utility property (Exh. NG-HSG-RR-2 (Rev.) at 23). The Company has proposed an increase of $7,030,162 to property tax expense to represent its tax obligation for the year ending December 31, 2010 (Exhs. NG-HSG-RR at 26; NG-HSG-RR-2 (Rev.) at 23).

To determine this adjustment, the Company first identified the taxing municipality, assessed value, and tax rate for each jurisdiction in which MECo and Nantucket Electric owe

real estate and personal property tax (Exhs. NG-HSG-RR at 26; NG-HSG-RR-2 (Rev.) at 23; WP NG-HSG-RR-18). Based on the current assessed values and tax rates, the Company derived a property tax expense for MECo of $31,323,473 and a property tax expense for Nantucket Electric of $385,870, based on a fiscal year ending June 30, 2009 (Exh. NG-HSG-RR-2 (Rev.) at 23).

To convert these fiscal year expenses into calendar year expenses, the Company first multiplied MECo's fiscal year property tax expense by 4.63 percent and Nantucket Electric's property tax expense by a negative 1.21 percent, representing the respective property tax increases experienced by both companies between 2009 and 2010, producing a revised property tax expense of $32,573,540 for MECo and a revised property tax expense of $381,191 for Nantucket Electric (Exh. NG-HSG-RR-2 (Rev.) at 23). Next, the Company increased MECo's revised property tax expense by one-half of the 1.96 percent average annual increase in property taxes experienced by MECo for the three years ending June 30, 2009, or 0.98 percent, and increased Nantucket Electric's revised property tax expense by one-half of the 14.16 percent average annual increase in property taxes experienced by Nantucket Electric for the three years ending June 30, 2009, or 7.08 percent (Exhs. NG-HSG-RR at 26; NG-HSG-RR-2 (Rev.) at 23). This adjustment produced a 2010 property tax expense of $33,094,076 for MECo and a 2010 property tax expense of $408,184 for Nantucket Electric (Exh. NG-HSG-RR-2 (Rev.) at 23).

Because a portion of MECo's property taxes are associated with non-utility property, the Company reduced MECo's property tax expense by 0.92 percent to eliminate property

taxes applicable to non-utility property, which produced a pro forma property tax expense of $32,788,045 (Exh. NG-HSG-RR-2 (Rev.) at 23). MECo's pro forma property tax expense of $32,788,045, plus Nantucket Electric's pro forma property taxes as determined above of $408,184, produced a total pro forma property tax for National Grid of $33,196,260, an increase of $7,033,448 to test year property taxes charged to utility operations (Exhs. NG-HSG-RR at 26; NG-HSG-RR-2 (Rev.) at 23). Because National Grid charges an affiliated company a portion of taxes related to that affiliate's use of Company facilities, the Company further reduced its proposed property tax expense by $3,316 to recognize the portion of the proposed increase that would be allocated to the affiliate (Exhs. NG-HSG-RR at 27; NG-HSG-RR-2 (Rev.) at 23). This adjustment resulted in a proposed increase in municipal tax expense of $7,033,478 (Exh. NG-HSG-RR-2 (Rev) at 23). National Grid attributes the magnitude of its property tax expense to its under-accrual of tax expense through November 2008 because of recent large increases in property taxes (Exh. NG-HSG-RR at 27).

During the test year, the Company received $20,251 in property tax abatements, all of which were attributable to MECo (Exh. AG 1-85). Of this amount, $3,587 was in the form of a credit to MECo's fourth quarter property tax billings (Exh. AG 1-85). In most cases, the abatements were in the form of credits on a subsequent period's billing and were not recorded as journal entries; if the taxing authority provided an abatement in the form of a check, the amount was credited to MECo's or Nantucket Electric's respective municipal tax accrual account (Exh. AG 1-85).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that National Grid's adjustment for property taxes is not known and measurable and must be rejected by the Department (Attorney General Brief at 161). According to the Attorney General, the Company proposes to adjust its test year level of property taxes based on its own forecasts of increases in property tax bills through the rate year in this case (Attorney General Brief at 161, citing Exh. NG-HSG-RR-2 (Rev.) at 23). The Attorney General claims that the Company derived the forecasted tax bills from a four-year history of increases in taxes that yields a 27 percent increase, or $7,030,162, to the Company's test year level of property taxes (Attorney General Brief at 161, citing Exh. NG-HSG-RR-2 (Rev.) at 23, lines 28-35). According to the Attorney General, the Department's general policy is to base property taxes on the most recent property tax bills a utility receives from the communities in which it has property (Attorney General Reply Brief at 51, citing D.P.U. 08-35, at 150; D.P.U. 96-50 (Phase I) at 109; D.P.U. 84-94, at 19). The Attorney General asserts that, in this instance, the Company's most recent update does not contain either tax bills or a breakdown by town (Attorney General Reply Brief at 51, citing Exh. AG 17-8 (Supp.)).

The Attorney General states that the Department has long held that adjustments to test-year operations and maintenance expenses must be known and measurable to be included in the pro forma cost of service used to set distribution service base rates (Attorney General Brief at 161, citing Dedham Water Company, D.P.U. 84-32, at 17 (1984)). The Attorney

General claims that the Company has not provided any evidence that should cause the Department to change its well established precedent (Attorney General Brief at 161).

The Attorney General maintains that, pursuant to Department precedent, the pro forma level of property taxes that should be included in the revenue requirement should be based on a utility's latest available property tax bills (Attorney General Brief at 161, citing D.P.U. 08-35, at 150-151; Boston Gas Company, D.P.U. 96-50 (Phase I) at 109 (1996); Colonial Gas Company, D.P.U. 84-94, at 19 (1984)). The Attorney General argues that to the extent that the Company provides new bills from the municipalities, then its cost of service should be adjusted accordingly (Attorney General Brief at 161).

In addition to what she considers the speculative nature of the Company's adjustment, the Attorney General claims that some of National Grid's property is located in municipalities where the Company owns both distribution and transmission plant (Attorney General Brief at 161). According to the Attorney General, the Company has not demonstrated that it has adequately assigned property taxes to (1) the transmission business, (2) pole attachments, (3) plant held for future use, and (4) non-utility property (Attorney General Reply Brief at 51). The Attorney General argues that, absent this evidence, the Department must deny the Company's proposal to increase its revenue requirement for property taxes (Attorney General Reply Brief at 51, citing Dedham Water Company, D.P.U. 84-32, at 17 (1984)).

The Attorney General states that, to the extent that National Grid seeks any increase in rates for new property tax bills, the Department should direct the Company to make adjustments for its other businesses (e.g., transmission, pole attachments, and non-regulated

businesses) (Attorney General Brief at 161-162). As part of this proposal, the Attorney General requests that the Company be required to produce the workpapers and calculations of the allocation of the property tax expense to the transmission and other businesses (Attorney General Brief at 162).

b. Company

National Grid maintains that its proposed property tax expense is based on the most recent personal and real estate tax rates for the municipalities where the Company owes property taxes, applied to the respective net book value of property in each municipality as of December 31, 2008 (Company Brief at 46, citing Exhs. NG-HSG-RR at 26-27; NG-HSG-RR-2 at 23). The Company states that it has appropriately adjusted this data to represent a calendar year, as well as removed property taxes associated with non-utility operations (Company Brief at 46). National Grid asserts that its adjustment represents the prudently-incurred cost of property taxes expected during 2010 (Company Brief at 46).

The Company asserts that if the Department determines that property taxes should be adjusted based only on the most recent bills actually issued by the municipalities where the Company owns property, the adjustment to the test year expense would be $6,881,000 rather than $7,030,000 as proposed in the Company's filing (Company Reply Brief at 27-28, citing Exh. AG. 17-8 (Supp)). As such, National Grid claims that the difference between its approach and the Attorney General's approach is only $149,000 (Company Reply Brief at 28).

3. Analysis and Findings

The Department's general policy is to base property taxes on the most recent property tax bills a utility receives from communities in which it has property. D.P.U. 08-35, at 150; D.P.U. 96-50 (Phase I) at 109; D.P.U. 84-94, at 19. Property tax abatements received during the test year are treated on a cash basis to reduce property tax expense, but post-test year abatements are not recognized in cost of service unless they are so extraordinary in amount that their exclusion results in an unrepresentative level of property tax expense in cost of service. D.P.U. 88-67 (Phase I) at 166; D.P.U. 1720, at 80.

The Company proposes to base its municipal tax expense on current tax assessments and tax rates, increased by generalized projections of future increases anticipated to occur through 2010. The Department has rejected the use of projected data to determine a company's municipal tax expenses. D.P.U. 08-35, at 150; D.P.U. 95-50 (Phase 1) at 109-110. We find no reason to depart from our precedent here. Therefore, we decline to adopt the Company's proposed property tax calculation.

Based on the four most recent quarters of municipal tax billings received by the Company, the annualized municipal tax expense for MECo was $33,305,242, and the annualized municipal tax expense for Nantucket Electric was $436,861 (Exh. AG 17-8 (Supp. 1) at 1-2). This total expense for the combined companies is $33,742,103, of which $303,000 was associated with non-utility property, and $339,000 was reimbursed by a Company affiliate (Exh. AG 17-8 (Supp. 1) at 1-2). The Department is satisfied that National Grid has properly accounted for non-utility operations in the calculation of its municipal tax

expense. Additionally, the Department is satisfied that the Company has treated its tax abatements in a manner consistent with Department ratemaking treatment (Exh. AG 1-85).

With regard to property taxes associated with transmission plant, the record in this proceeding is insufficient to determine the level of property taxes associated with transmission expense. The Department also is not convinced at this time that the cost and administrative burden to remove these costs through a separate proceeding is in the best interest of ratepayers. Therefore, in this proceeding, the Department will not make an adjustment to the Company's municipal tax expense for transmission-related municipal taxes. National Grid is directed, however, to identify all transmission costs requested to be recovered through base rates in its direct filing as part of its next base rate proceeding.

Based on the foregoing analysis, the Department finds the appropriate level of municipal tax expense for ratemaking purposes is $33,340,103, representing an increase of $6,937,372 to test year cost of service. Accordingly, the Company's proposed cost of service will be decreased by $92,790.

K. Service Company Allocations

1. Introduction

The Company received a broad range of services from its affiliated services companies (collectively, "Service Companies"),[135] including legal, accounting, regulatory, human

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[135] The following service companies are affiliates of the Company: (1) NG Service; (2) KS Service; (3) National Grid Engineering and Survey, Inc (formerly KeySpan Engineering and Survey, Inc.); and (4) National Grid Corporate Services, LLC (Exh. AG 1-26).

resource, and engineering services during the test year (Exh. NG-WFD-Rebuttal at 3). National Grid proposes to include in its cost of service $31,665,364 in payments made to the Service Companies (Exh. AG 1-27, Att.at 68). The costs of the services are charged to the Company based on a combination of direct charges and allocation formulas set forth in affiliate service agreements (Exhs. NG-WFD-Rebuttal at 3; AG 1-56 (Supp.)). These services fall under the Department's affiliate transaction regulations codified at 220 C.M.R § 12.04(3).

National Grid's test year charges from the Service Companies include costs associated with the Company's share of expense related to the geographic information system ("GIS"), which are booked to Account 583, Overhead Line Expense (Exhs. NG-JG-Rebuttal at 2; AG 3-27, Att.). The GIS system is a database used to capture, store, analyze, and manage spatial data that are linked to a specific geographic location (Exh. NG-JP-Rebuttal at 2). The Company indicated it uses the GIS as a critical operating tool in its design system, asset register, and transformer load management system (Exh. NG-JP-Rebuttal at 2). In addition, the Company uses the GIS as an asset query and reporting tool to enable the Company to track and develop appropriate strategies for its infrastructure assets in order to maintain safe and reliable service (Exh. NG-JP-Rebuttal at 2).

The Company's test year charges from the Service Companies also include the Company's share of National Grid USA's electric distribution organization transformation program ("EDO Transformation Program"), which is booked to Account 588, Miscellaneous Expenses (Exhs. NG-JP-Rebuttal at 9; AG 3-27, Att.). The EDO Transformation Program is designed to reduce the Company's electric distribution operations costs over the long-term by

achieving greater efficiencies in all aspects of the Company's electric distribution operations, including work management, design, construction, asset management, network operation, and customer management (Exh. NG-TK at 9). The Company stated that the purpose of the EDO Transformation Program is to improve the reliability of service to customers, achieve a greater level of operational efficiency in order to contain rising O&M and capital costs, protect the safety of employees and the general public, safeguard the environment, and create a more satisfactory overall customer experience (Exh. NG-JP-Rebuttal at 9). National Grid stated it has undertaken the following initiatives in furtherance of the EDO Transformation Program's goals: (1) initiated a single point of customer contact to provide greater customer satisfaction and more efficient service; (2) enhanced work coordination to maximize crew efficiencies; (3) centralized support activities to provide efficient and consistently reliable service to both employees and outside vendors; (4) implemented standardized operating practices to enhance its emergency response capabilities; and (5) created an "asset management center of excellence" in Waltham (Exh. NG-JP-Rebuttal at 9-10).[136]

2. Positions of the Parties

a. Attorney General

According to the Attorney General, the Company's test year cost of service includes substantial expenses that have been charged to it by its affiliates, primarily NG Service (Attorney General Brief at 190-191). Specifically, the Attorney General claims that affiliate

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[136] The Company's use of the term "asset management center of excellence" is intended to refer to its new offices at Reservoir Woods.

costs constitute 48 percent of the Company's 2008 O&M expenses (Attorney General Brief at 191, citing Exh. AG-61, at 3). The Attorney General claims that National Grid's arrangements with its Service Companies violate the pricing provision of the Department's affiliate transaction regulations, which require that affiliate services be priced at no more than market value (Attorney General Brief at 190, citing 220 C.M.R. § 12.04(3)). Accordingly, the Attorney General argues that affiliate costs that are excessive must be removed from the Company's revenue requirement (Attorney General Brief at 190, citing G.L. c. 164, § 94(B) (discussing power to adjust "excessive" affiliate charges)).

The Attorney General argues that the Company has the burden of proof to demonstrate that it has complied with the Department's affiliate transaction regulations with respect to all of the Service Companies' charges and affirmatively show that "the price charged to the Distribution Company is no greater than the market value of the asset or service provided" (Attorney General Supplemental Reply Brief at 20, citing 220 C.M.R. § 12.03(4); Exh. AG-61, at 5). Despite this burden of proof, the Attorney General argues that the Company has not market tested these services in New York, New England, or elsewhere by issuing RFPs to determine if the services could be acquired at less cost from another source (Attorney General Supplemental Reply Brief at 20, citing 220 C.M.R. § 12.03(4); Exhs. AG-61 at 5; AG 29-10).

The Attorney General disputes National Grid's claim that the Service Companies provide economies of scale and that the Company does not, therefore, need to conduct market tests to establish the reasonableness of the Service Companies' charges (Attorney General Brief at 191, citing Exh. AG 6-6 (Oversight Question No. 9)). The Attorney General states that the

Company's decision not to issue RFPs for affiliate services is based on an unsubstantiated assumption that the costs from third parties for a myriad of services would be higher than those charged by affiliated companies (Attorney General Brief at 191, citing Exh. AG 6-6 (Oversight Question No. 9)).

Moreover, the Attorney General alleges that the Company's assumption that third party service costs would be higher than affiliate charges runs contrary to the purpose of affiliate regulation, which is directed at curbing abuses of monopoly power (Attorney General Brief at 191, citing G.L. c. 164, § 76A). The Attorney General argues that because affiliate costs account for nearly half of the Company's 2008 O&M expenses, the Company's mere assertion that the Service Companies provide economies of scale is insufficient to support the reasonableness of charges from the Service Companies (Attorney General Brief at 191). The Attorney General argues that the Department's affiliate transaction rules cease to be effective if there are presumptions that (1) affiliates provide the "best deal" to the Company, and (2) customers do not run the risk of being exposed to excessive charges from the close corporate relationship between National Grid and its Service Companies (Attorney General Brief at 191).

The Attorney General dismisses the Company's analysis supporting the charges from the Service Companies as inadequate. She contends that, although the Company compares its salary levels to those of other Northeast energy companies, the Service Companies' costs may be higher than market prices for the same services for the following reasons: (1) the Service Companies are located in a higher labor cost area; (2) competitive suppliers would sometimes

accept a lower profit margin than the Service Companies build into their costs; (3) the allocation of costs to the Company raised its share of charges from the Service Companies to a higher level than if National Grid had contracted directly for the services; (4) the Service Companies were not the most efficient providers; and (5) the Service Companies' facilities were located in a higher-priced real estate area (Attorney General Brief at 191-192, citing Exh. AG-61, at 5).

Furthermore, the Attorney General contends that she has demonstrated that (1) the results of the Service Companies' allocations do not result in reasonable charges, and (2) the costs incurred are not recurring (Attorney General Brief at 192, citing Tr. 15, at 2623-2624). To support her conclusion, the Attorney General analyzed the cost increases experienced by a group of 14 comparable utilities over a 15-year period from 1994 to 2008 (Exh. AG-61, at 6-10).[137] According to the Attorney General, her analysis showed that (1) the Company's expenses increased by much more than the comparable utilities, (2) the Company's expenses (after costs to achieve the merger are removed) show high increases relative to the comparable utilities from 2007 to 2008, particularly with regard to O&M costs associated with wires, (3) the sum of expenses associated with wires, represented by costs booked to Accounts 580 through 598, increased by 15 percent for the Company, but only by three percent for the average of the sample utilities, and (4) most of the excessive cost increases seem to have been driven by charges from the Service Companies (Attorney General Brief at 192-193, citing

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[137] The Attorney General represents that the companies in her comparison group are roughly similar to the Company and, as with National Grid, have unbundled rates (Attorney General Brief at 192, citing Exh. AG-61, at 6-7).

Exh. AG-61, at 5). Moreover, the Attorney General notes that all of the Company's GIS costs were attributable to the Service Companies, as were most of the EDO Transformation Program costs (Attorney General Brief at 193, citing Exh. AG-61, at 14-15).

As a remedy for what the Attorney General considers to be excessive charges from the Service Companies, she recommends two adjustments. First, the Attorney General requests that the Department reduce the Company's test year Account 583 expense of $12,868,968 by $3.8 million (Attorney General Brief at 193; AG 3-27, Att.). In support of her proposal, she claims that the one-year increase of 48 percent for Account 583 is excessive when compared to a two percent increase in the same account for comparable utilities and was about 50 percent higher than the Company had spent in this account in any year from 1997 to 2007 (Attorney General Brief at 193, citing Exhs. AG 3-27, Att; AG-61, at 13-14, Chart 1). According to the Attorney General, most of the 2008 increase in Account 583 is attributable to the GIS program. The Attorney General contends that the evidence does not demonstrate that this expense, or even this program, will be recurring in the rate year (Attorney General Brief at 193, citing Exh. AG 24-9). Accordingly, the Attorney General proposes that the Department should limit the increase in Account 583 to five percent above those costs incurred the Company in 2007, producing a disallowance of $3.8 million (Attorney General Brief at 193, citing Exh. AG-61, at 14).

Second, the Attorney General requests that the Department reduce the Company's test year Account 588 expense of $33,191,228 by $1.6 million (Attorney General Brief at 194; AG 3-27, Att.). According to the Attorney General, Account 588 showed a large increase of

approximately $7 million between 2007 and the test year, which the Company did not justify (Attorney General Brief at 194, citing Exh. AG-61, at 14). The Attorney General claims that this increase was attributable to the EDO Transformation Program (Attorney General Brief at 194, citing Exhs. AG 3-27, Att.; DOER 1-20(b)). The Attorney General argues that the Company did not perform any cost-benefit analysis to justify this program and to demonstrate that the program is least cost (Attorney General Brief at 194, citing Exh. AG-61, at 15). The Attorney General argues that, although National Grid plans to continue spending on the EDO Transformation Program, the expected benefits in O&M in 2010 and beyond, are greater than the expected spending on the program (Attorney General Brief at 194, citing RR-AG-56). The Attorney General maintains that although the net impact of the program on the Company's costs should actually be negative, the Company has not proposed to include any costs savings in rates (Attorney General Brief at 94). The Attorney General contends that if these costs are allowed, the Company will collect costs from its customers that will more than offset savings during the period the proposed rates will be in effect (Attorney General Brief at 194). Therefore, the Attorney General asserts that the Department should limit the increase in Account 588 to 20 percent above those incurred by the Company in 2007, producing a disallowance of $1.6 million (Attorney General Brief at 194, citing Exh. AG-61, at 15).

In conclusion, the Attorney General maintains that National Grid's failure to prove that any of the charges from the Service Companies lawfully qualify for recovery under the affiliate transaction regulations justifies exclusion of these charges. She has also questioned the Company's expenses on other grounds as discussed above (Attorney General Supplemental

Reply Brief at 21). She concludes that while the Department would be justified in disallowing all of the Service Companies' allocations outright for the Company's failure to comply with 220 C.M.R. § 12.04(3), her proposed adjustments to several accounts is a conservative and reasonable alternative remedy that should be adopted (Attorney General Supplemental Reply Brief at 21).

b. Company

According to the Company, the services received from the Service Companies are necessary to its ability to deliver electric distribution service to its customers and, as a result, directly benefits customers (Exh. NG-WFD-Rebuttal at 3). National Grid states that the costs of the services are charged to the Company based on allocation formulas set forth in affiliate agreements that provide for (1) direct charges to the Company where the services are solely provided for its benefit, and (2) otherwise allocated based on contractual formulas (Company Brief at 19, citing Exhs. AG 1-26; NG-HSG-Rebuttal at 6-7; Tr. 5, at 927-931; Tr. 12, at 1917-1918). The Company claims that the formulas used by the affiliates to allocate costs to the Company and others are cost-effective because they spread common costs across multiple companies, thereby making it more economical for the Company to obtain services that are necessary to its operation (Company Brief at 19, citing Exh. NG-WFD-Rebuttal at 4). Further, the Company maintains that the allocation formulas are non-discriminatory because they allocate costs to the Company based on an equitable method among the entities, using factors that are relevant to the type of cost being allocated (Company Brief at 19, citing Exh. AG 1-26).

National Grid asserts that the vast majority of the costs from the Service Companies are labor costs, which the Company has demonstrated are competitive and reasonable (Company Brief at 19, citing Exh. NG-WFD-Rebuttal at 4). According to the Company, the comparisons it made to establish the competitiveness of its labor costs (both union and non-union) use publicly available data sources as well as proprietary benchmarking data from human resource consultants (Company Brief at 19-20, citing AG-37-4; Tr. 6, at 1097-1104; Company Brief at 20, citing Exhs. AG 37-6; AG 37-7; AG 37-8; AG 37-9; AG 37-19; AG 37-21; AG 37-29; AG 37-31). National Grid contends that these analyses considered the value of salary and variable pay as well as the value of non-wage benefits (Company Brief at 20, citing Exhs. AG 37-6; AG 37-7; AG 37-8; AG 37-9; AG 37-18; AG 37-19; AG 37-21; AG 37-28; AG 37-29; AG 37-31). Further, the Company maintains that because its union labor costs are the result of negotiations, they represent an excellent test of market value (Company Brief at 20, citing Tr 5, at 924).

National Grid asserts that it provided a more comprehensive analysis of the costs of its peer companies than the analysis undertaken by the Attorney General and that the Company measured those costs against the costs incurred by the Company (Company Brief at 20, citing Exh. NG-HSG-Rebuttal, at 5). Furthermore, the Company states its analysis demonstrates that the overall level of affiliate costs incurred by the Company on a per-customer basis was slightly lower than the peer group average in 2008 (Company Brief at 20, citing Exh. NG-HSG-Rebuttal, at 5).

According to the Company, the Attorney General failed to fully adjust the data in her comparison group to take into account expenditures by the peer companies, tending to skew her results towards a conclusion that National Grid's costs are excessive (Company Brief at 20).[138] Similarly, the Company argues that the Attorney General failed to take into account the divestiture of generation by peer group members (Company Brief at 21, citing Tr. 15, at 2646-2651). Therefore, the Company asserts the Department should give the Attorney General's analysis and related claims no weight and should, instead, find that the Company has met its burden of proof that the services provided by its affiliates are at both a competitive and a reasonable price (Company Brief at 21). Regarding the Attorney General's request that the Department disallow approximately $3.8 million in expense booked to Account 583 related to the Company's GIS, the Company argues that the evidence presented by the Attorney General on the subject is not based on credible sources (Company Brief at 21, citing Exh. AG-61 at 3; Tr. 15, at 2641). National Grid further argues that, aside from the Attorney General's lack of credible evidence on the subject, the Department should reject the Attorney General's request because it is premised on incorrect assumptions and faulty reasoning (Company Brief at 21).

According to the Company, it incurred these expenses to update the Company's GIS data for its overhead facilities, including transferring data from paper records into a functional, electronic system (Company Brief at 21, citing Exh. NG-JP-Rebuttal at 194-201; Tr. 21,

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[138] For example, according to the Company, the Attorney General did not take into account voluntary early retirement expense for Jersey Central Power & Light ($47 million), Pennsylvania Electric Company ($45 million), and Metropolitan Edison ($35 million) (Company Brief at 20-21, citing Tr. 15, at 2646-2651).

at 934-935; Exh. AG 3-27). National Grid explained that it is necessary to have accurate data in a GIS because the system is used extensively by Company personnel to operate the electric distribution system and restore service to customers in a timely manner when outages occur (Company Brief at 21, citing Exh. NG-JP-Rebuttal at 3; Tr. 22, at 3935). Thus, the Company argues that the GIS is critical to the Company's ability to maintain the safety and reliability of its distribution system (Company Brief at 21-22, citing Exh. NG-JP-Rebuttal at 3-4). National Grid states that while the test year expense was associated with the update of particular data used in the GIS, this expense is recurring because the Company is currently undertaking a similar effort to update the GIS data on its underground system (Company Brief at 22, citing Exh. NG-JP-Rebuttal at 8). The Company further contends that the GIS is least cost, contrary to the Attorney General's claims, because the Company engaged in a rigorous procurement process under which it selected a vendor for implementing the project after considering and ranking responses to an RFP and then actively engaged in the management of project costs once the vendor's work was underway (Company Brief at 22, citing Exh. NG-JP-Rebuttal at 6; Tr. 21, at 3936-3939; RR DPU-51). Therefore, the Company urges the Department to reject the Attorney General's requested disallowance of GIS costs (Company Brief at 22).

Regarding the Attorney General's request that the Department disallow approximately $1,600,000 of expense booked to Account 588 in the test year associated with its EDO Transformation Program, the Company argues that the Attorney General's recommended

disallowance is based on a flawed comparison of costs incurred by other utilities in that same account (Company Brief at 22, citing Exh. AG-61 at 15).

In contrast, the Company maintains that it has provided adequate evidence regarding the significant value that the EDO Transformation Program provides to customers, particularly with regard to the delivery of more efficient and reliable service (Company Brief at 22). The Company outlined the efforts included in this initiative which include: (1) creation of a single point of customer contact; (2) enhanced work coordination; (3) centralization of support activities; (4) development of standard operating practices; and (5) creation of an asset management center (Company Brief at 23, citing Exhs. NG-JP-Rebuttal at 10; AG 9-3). National Grid contests the Attorney General's claim that the EDO Transformation Program cost was not contained by stating that the Company (1) incurred the costs after it engaged in a competitive bid process, consistent with its internal procurement guidelines, and (2) then actively managed costs through strong project management skills and a steering committee (Company Brief at 23-24, citing Exh. NG-JP-Rebuttal at 10-11). National Grid claims that it has provided unrefuted evidence that there will be savings in its O&M expense as a result of the expenditures in Account 588 for its EDO Transformation Program (Company Reply Brief at 31). The Company states that the Attorney General overlooked evidence that projects the benefits of the EDO Transformation Program through fiscal year 2012/2013, including savings of $1.5 million for fiscal year 2008/2009, and $22 million in savings for fiscal year 2009/2010 (Company Reply Brief at 32, citing Exh. DOER 1-20(b)). The Company states that because the Attorney General presented no evidence to refute the Company's cost control efforts, her

claims should be given no weight, and the Department should reject her proposed disallowance to Account 588 (Company Brief at 24).

3. Standard of Review

The Department permits rate recovery of payments to affiliates where those payments are: (1) for activities that specifically benefit the regulated utility and that do not duplicate services already provided by the utility; (2) made at a competitive and reasonable price; and (3) allocated to the utility by a formula that is both cost effective in application and nondiscriminatory for those services specifically rendered to the utility by the affiliate and for general services that may be allocated by the affiliate to all operating affiliates. Massachusetts-American Water Company, D.P.U. 95-118 at 41 (1996), citing Milford Water Company, D.P.U. 92-101, at 42-46 (1992); D.P.U. 85-137, at 51-52. In addition, 220 C.M.R. § 12.04(3) provides the following:

> An [a]ffiliated [c]ompany may sell, lease, or otherwise transfer an asset to a [d]istribution [c]ompany, and may also provide services to a [d]istribution [c]ompany, provided that the price charged to the [d]istribution [c]ompany is no greater than the market value of the asset or service provided.

4. Analysis and Findings

As noted above, National Grid proposes to include in its cost of service $31,664,364 in payments made to the Service Companies (Exh. AG 1-27, Att.at 68). First, we will examine whether the Company's overall payments to the Service Companies meet the Department's standard for payments to affiliates, including the Department's regulations at

220 C.M.R. § 12.04(3). D.P.U. 95-118, at 41. Next, we will address the issues raised by the Attorney General concerning Account 583 and Account 588.[139]

Charges to the Company from the Service Companies are for such services as legal, accounting, regulatory, human resources, and engineering (Exh. NG-WFD-Rebuttal at 3). These are the types of services that the Company requires on a continuing basis and provide a benefit to the Company for the proper operation of its business and the delivery of electric service to its customers. The Company does not otherwise provide these services (id.). The evidence in this case demonstrates that the services provided by the Service Companies are not duplicative of services already provided by National Grid (Exhs. NG-WFD-Rebuttal at 3; AG 1-26, Atts. 2-5, 7, 8).

The Attorney General argues that the Department could disallow all expenses related to the Service Companies because the Company has failed to demonstrate, through the use of a competitive bidding process, that the charges to the Company from the Service Companies were made at a competitive and reasonable price. While the Company has the burden of proof on this issue, we do not find it necessary for a company to satisfy this standard by issuing an RFP. It is common for a public utility holding company structure to have centralized accounting, financial, and regulatory functions.[140] While an RFP may provide some insight into general market conditions, requiring a competitive bidding process for every function

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[139] Issues concerning these accounts are addressed in this section of the Order because the costs in those accounts primarily are charges from the Service Companies.

[140] This requirement may be particularly apt in the case of a holding company with multi-jurisdictional (and, in National Grid's case, multi-national) affiliates.

provided by a service company could lead to a patchwork of service providers operating in an uncoordinated manner, to the detriment of the operating company and ultimately to the detriment of customers. Moreover, because these types of services require a close familiarity with both the operating company and its holding company, it is unclear whether an RFP would result in the type of response that would achieve the objective to minimize costs.

As the Company has noted, the vast majority of the costs charged from the Service Companies are labor costs (Exh. NG-WFD-Rebuttal at 4). In this circumstance, the Company analyzed its compensation packages (union and non-union), including those of the Service Companies, to determine whether those labor costs are competitive with the market (Exhs. AG 37-4; AG 37-6; AG 37-18; AG 37-28). The Company also demonstrated that its total costs on a per-customer-basis are lower than the costs of the peer group analyzed by the Attorney General (Exh. NG-HSG-Rebuttal at 3-5).[141] Furthermore, the Company demonstrated that it incurred the expenses for its EDO Transformation Program after engaging in a competitive procurement process and that it managed the costs through a project management process (Exh. NG-JP-Rebuttal at 10-11). The Company identified the types of benefits that would be attributable to the program (Exhs. NG-JP-Rebuttal at 9-10; AG 9-3). In addition, the Company quantified savings attributable to the program for the entire program (through fiscal year 2012/2013) for all operating units, including MECo and Nantucket Electric. Accordingly, the Department finds that the Company has adequately demonstrated

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[141] The costs that the Company compared were for distribution O&M, customer accounting, and administrative and general (Exh. NG-HSG-Rebuttal at 4).

that the payments to the Service Companies, including those associated with the GIS and with the EDO Transformation Program, were made at a competitive and reasonable price.

As noted above, the services provided by the Service Companies are made pursuant to service agreements (Exh. AG 1-26). The Service Companies' costs are charged based on the method of allocation set forth in the service agreements (see, e.g., Exhs. AG 1-26, Att. 3, at 26-30; AG 1-26, Att. 7, at 6-13). The allocation percentages are calculated based on historical data and are updated annually (Exh. AG 1-26, Att. 3, at 27). The Department has reviewed the method of allocation for the Service Companies' charges, and we find that it is both cost-effective in application and nondiscriminatory. Accordingly, subject to our findings below, we will include the Company's expenses associated with the Service Companies charges in National Grid's cost of service.

The majority of costs charged to Account 583 pertain to efforts by the Company to update its GIS data for the Company's overhead facilities (Exh. NG-JP-Rebuttal at 1-8). The Department must determine whether the costs from Account 583 are recurring and whether the amount included in the test year cost of service is representative. D.P.U. 1270/1414, at 33. The Company procured the services to update its GIS data through an RFP process (Exh. NG-JP-Rebuttal at 6). The evidence demonstrates that the Company is currently undertaking a similar multi-year effort to update the GIS data on its underground system (Exh. NG-JP-Rebuttal at 8). Therefore, the Department finds that the Company's costs of updating its GIS data are recurring.

There were significant increases in charges to Account 583 during the test year in comparison to prior years' activity in this account that warrants an inquiry to determine whether the amount included in the test year cost of service for Account 583 is representative. As we have found above, National Grid's test year GIS costs are recurring because the Company is undertaking a similar effort to update its GIS data for underground facilities, which the Company represents is a multi-year task with significant costs (Exh. NG-JP-Rebuttal at 8). The evidence demonstrates that test year Account 583 expense is representative of the level of expense to be incurred by the Company in the period following the issuance of this Order (Exh. NG-JP-Rebuttal at 8).

Turning to Account 588 expenditures, the Department must determine whether the costs from this account are recurring and whether the amount included in the test year cost of service is representative. D.P.U. 1270/1414, at 33. The Company's EDO Transformation Program will be ongoing through fiscal year 2012/2013 (RR-AG-56). Therefore, the Department finds that the EDO Transformation Program costs are recurring. Because of the significant increases in charges to Account 588 during the test year associated with the EDO Transformation Program in relation to prior years' activity in Account 588, however, further inquiry into the Company's Account 588 expenses is warranted to determine whether the amount included in the test year cost of service for Account 588 is representative. As can be expected with any project of this type, the EDO Transformation Program required investments in personnel, processes, and technologies. The Company has completed the first phases of its EDO Transformation Program, consisting of: (1) Strategic Assessment, Design, and Implement

Phase I, which was concluded on November 9, 2007; (2) Transition Phase (Planning & Mobilization), which was concluded on January 31, 2008, and (3) Phase II (Design), which was concluded on May 30, 2008 (Exh. AG-9-3). The Company's Implementation Phase III commenced on June 2, 2008 (Exh. AG-9-3). The Company states that it will spend $8.45 million during its fiscal year 2010 and $7.5 million in its fiscal year 2011 on the EDO Transformation Program. (RR-AG-56). Accordingly, we find that the test year expense booked to Account 588 is representative of the level of expense to be incurred by the Company in the period following the issuance of this Order (RR-AG-56).

L. National Grid/KeySpan Merger Savings

1. Introduction

On April 6, 2007, the Attorney General requested that the Department open an oversight investigation into a proposed merger between National Grid USA and KeySpan whereby KeySpan became a wholly-owned subsidiary of National Grid USA ("National Grid/KeySpan merger").[142] The Department exercised its general authority under G.L. c. 164, §§ 76 and 76A to review the proposed merger with respect to its effect on jurisdictional companies and customers. National Grid/Keyspan Merger, D.P.U. 07-30, Vote and Order to Open Investigation, at 3-5 (May 21, 2007).

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[142] At that time, the Department did not have statutory authority under G.L. c. 164, § 96 ("Section 96") to review and approve mergers between holding companies. Section 96 was subsequently amended to provide the Department with jurisdiction to review and approve mergers between holding companies. Section 69, Green Communities Act.

The merger was completed on August 24, 2007 (Exh. AG 15-8). During the course of the proceedings in D.P.U. 07-30, National Grid USA and KeySpan provided a number of studies and analyses of the costs and benefits of the merger, including projections of expected synergy savings and costs to achieve those savings (Exh. AG 15-8, Atts. 1-4). The merging parties stated that synergies associated with the merger would be phased in over a period of approximately four years, with what they refer to as "steady state" savings being achieved approximately four years after the merger closed (Exh. AG-60, at 18). The Company estimates that its allocated share of overall merger-related savings incurred during the test year was $6,500,000, representing 9.56 percent of the total estimated system-wide merger-related savings incurred during that same period of $67,900,000 (Exh. AG 15-5, Att.).

During the test year, the Company booked $9,047,402 in costs to achieve merger-related savings, representing its allocated portion of system-wide merger-related costs (Exh. NG-HSG-RR-2 (Rev.) at 4). The Company excluded these expenses from its proposed cost of service (Exhs. NG-HSG-RR-2 (Rev.) at 4; AG 15-7). The Company did not make any further adjustments to its cost of service for the National Grid/KeySpan merger (Exh. AG 15-7).

2. Positions of the Parties

a. Attorney General

The Attorney General notes that National Grid's 2008 test year began less than one year after the National Grid/KeySpan merger was completed, at an early point in the ramp-up period of merger-related savings (Attorney General Brief at 118). As a result, the Attorney

General contends that the merger-related savings experienced during the test year are significantly less than the merger-related savings that will be experienced in the years after the Department's Order in this proceeding (Attorney General Brief at 118). Accordingly, the Attorney General argues that the Company should be required to recognize the increased merger-related savings that will be experienced in the rate year (Attorney General Brief at 120-121).

In support of her position, the Attorney General notes that the Company experienced merger-related savings of approximately $6.5 million in calendar year 2008 (Attorney General Brief at 118, citing Exh. AG 15-8). The Attorney General also states that the combined share of merger-related savings to be allocated to MECo and Nantucket Electric in year three after the merger is expected to be approximately $17.6 million, and rise to approximately $21.6 million in year four after the merger (Attorney General Brief at 118, citing Exh. AG 15-8, Att. 4, at 14).[143]

The Attorney General argues that the Company has provided no valid justification for failing to recognize the increased merger-related savings that will be experienced in the rate year (Attorney General Brief at 118-119). First, the Attorney General contends that exclusion of costs to achieve savings from the revenue requirement is not adequate justification for failing to recognize the increase in merger-related savings (Attorney General Brief at 119,

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[143] For purposes of her brief, the Attorney General refers to the twelve months ended August 2010, as "year three" and the twelve months ended August 2011, as "year four." Consequently, she concludes that the merger synergy savings expected during 2010 will be a combination of the year three and year four synergy savings (Attorney General Brief at 119).

citing Exh. AG-60, at 19-20). Based on the Attorney General's estimate of approximately $350 million per year in O&M expenses that would be subject to the decoupling mechanism's inflation allowance and her proposed productivity offset of 0.5 percent, she calculates the value of the savings offset to customers as approximately $1.75 million per year (Attorney General Brief at 119, citing Exhs. AG-60, at 19-20; NG-HSG-RR-8, at 2). The Attorney General maintains that this $1.75 million savings offset is far less than the incremental merger-related savings that the Company expects to achieve in 2010 and subsequent years (Attorney General Brief at 119, citing Exh. AG-60, at 19-20). Moreover, even despite the presence of this productivity offset, the Attorney General argues that the inflation allowance in the decoupling mechanism is expected to result in rate increases, which would not provide a benefit to customers (Attorney General Brief at 119, citing Exh. AG-60, at 19-20).

The Attorney General also dismisses the Company's argument that merger-related savings should not be considered in this proceeding because they are speculative (Attorney General Brief at 120-121). The Attorney General asserts that the Company has failed to identify any Department precedent supporting this claim (Attorney General Supplemental Reply Brief at 13-14). In contrast, the Attorney General notes that the Department has recently addressed how a company should recognize merger-related savings in rates (Attorney General Supplemental Reply Brief at 14, citing Bay State Gas Company/Unitil, D.P.U. 08-43-A at 44-45 (2008)).

The Attorney General maintains that the issue on this matter is whether merger-related savings related to the National Grid/KeySpan merger should be recognized at the 2008 test

year level or at the 2010 rate year level (Attorney General Brief at 121). According to the Attorney General, it would be internally inconsistent, unfair, and illogical to permit the Company to propose numerous expense adjustments in support of a rate year ending December 31, 2010, without recognizing merger-related savings at the 2010 rate year level (Attorney General Brief at 121). The Attorney General maintains that the Company's claims that rate year merger-related savings are uncertain is a complete reversal of the positions previously taken by the Company in D.P.U. 07-30, where the Company described the beneficial impact that the merger will have on customers in terms of savings (Attorney General Brief at 121, citing Exh. AG 15-8, Att. 1, at 7). The Attorney General argues that if merger-related savings are to have a beneficial impact on customers, customers must actually receive the benefits of those savings (Attorney General Brief at 121).

The Attorney General contends that the rate year synergy savings net of costs to achieve such savings is $15,275,000 (Attorney General Brief at 120, citing Exh. AG-60, Sch. DJE-2). The Attorney General derives this number by first determining that the estimated net merger-related savings to be achieved in year three following the merger are $17.6 million (Attorney General Brief at 119, citing Exh. AG-60, at 20-21; Attorney General Reply Brief, Sch. 2). Next, the Attorney General derives a normalized level of costs to achieve merger-related savings of $2,321,000 (Attorney General Brief at 120).[144] The difference

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[144] The Attorney General derived this expense by amortizing the difference between the total costs to achieve savings of $40,193,000 attributable to the Company, less the combined costs to achieve savings in year one and year two of $21,622,000, or $18,571,000, over the eight years remaining in the ten-year time horizon used by the

between the $17,596,000 in merger-related savings, less $2,321,000 in amortization of costs to achieve the savings, produces a pro forma net merger-related savings of $15,275,000 (Exh. AG-60, Sch. DJE-2). These net savings, less $6,500,000 in estimated test year merger-related savings, result in a proposed decrease to test year cost of service of $8,775,000 (Exh. AG-60, Sch. DJE-2). The Attorney General contends that her proposal is a conservative quantification of the merger-related savings because these savings will continue to ramp up through the end of 2010 and thereafter (Attorney General Brief at 119).

The Attorney General also argues that the Company is continuing to experience savings related to its earlier New England Electric System/Eastern Utilities Associates merger ("NEES/EUA merger") approved in Massachusetts Electric Company/Eastern Edison Company, D.T.E. 99-47 (2000) (Attorney General Reply Brief at 61). She argues that the terms of the settlement agreement approved by the Department in that proceeding ("D.T.E. 99-47 Settlement") support an adjustment for savings related to the NEES/EUA merger. The Attorney General maintains that the D.T.E. 99-47 Settlement provides for an "earned savings" period covering the years 2010 through 2020, during which the Company would recognize in its rates any gained efficiencies resulting from merger activities, to the extent such merger-related savings exceed merger related-costs (Attorney General Reply Brief at 61, citing Exh. AG 38-17).[145] According to the Attorney General, earned savings are to be

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Company's synergy savings analysis (Attorney General Brief at 120, citing Exh. AG-60, at 21, Sch. DJE-2).

[145] The earned savings language from the D.T.E. 99-47 Settlement takes effect on January 1, 2010, and is as follows:

calculated as "the difference between annual distribution revenue based on rates in effect March 1, 2009 and the Company's cost of providing service" (Attorney General Reply Brief at 61, citing Exh. AG 38-17). The Attorney General states that the Company confirmed that the calculation of the earned savings figure was "inherently represented" by its revenue deficiency as demonstrated in its cost of service study (Attorney General Reply Brief at 62, citing Exhs. NG-HSG-RR-2; AG 26-19(a)).

The Attorney General contends that the evidence demonstrates that the Company's normalized distribution revenue is less than the Company's proposed revenue requirement and, therefore, she concludes that there are no Earned Savings as defined under the D.T.E. 99-47 Settlement (Attorney General Brief at 227-228, citing Exh. AG 38-17).[146] Despite a lack of

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> [MECo] shall be authorized to include recovery of Earned Savings in its cost of service for setting distribution rates. Earned Savings shall be determined by first calculating the difference between [MECo's] distribution revenue based on rates authorized to be in effect after March 1, 2009, including adjustments for the Exogenous Factors, as set forth in Paragraphs C.1. and C.3. above, but excluding: [omitted]. The difference so calculated will then be reduced by the percentage of federal and state income taxes using the statutory income tax rates in effect at the time to determine the After Tax Difference. Earned Savings shall equal the lesser of (i) 100 percent of the After Tax Difference up to $43 million, plus 50 percent of the After Tax Difference in excess of $43 million, or (ii) $66 million. The annual level of Earned Savings so determined shall be grossed up for state and Federal income taxes using the statutory income tax rates in effect at the time and shall be included in [MECo's] cost of service for the remainder of the period ending 20 years after the Effective Date [i.e., the effective date of the merger of Eastern Utilities Associates with NEES].
>
> (Exh. AG-41, Att. 1 at 25-26.)

146 The Attorney General argues that because National Grid has not clearly demonstrated whether its cost of service shown at Exhibit NG-HSG-RR-2 represents the value of the negative Earned Savings or a lesser amount derived by applying the formula under § I (C) 6 of the D.T.E. 99-47 Settlement, the Department should direct the Company to

earned savings to date, the Attorney General argues that nothing in the formula described in the D.T.E. 99-47 Settlement would prevent a negative earned savings figure after 2009, thus warranting a reduction to the Company's cost of service (Attorney General Brief at 228; Attorney General Reply Brief at 62, citing D.T.E. 99-47 Settlement, §§ I (C) 4 to 6; Exh. AG-64, at 19-23).

The Attorney General dismisses National Grid's argument that the National Grid/KeySpan merger is governed by the terms of the D.T.E. 99-47 by virtue of its completion during the term of the D.T.E. 99-47 Settlement (Attorney General Brief at 120-121, 229). The Attorney General notes that the Company's witness acknowledged that the D.T.E. 99-47 Settlement addressed a different transaction wholly unrelated to the National Grid/KeySpan merger (Attorney General Brief at 121, citing Tr. 11, at 3948). Therefore, the Attorney General concludes that savings resulting from the National Grid/KeySpan merger may be included in the determination of the Company's rates as part of this proceeding, without regard to the earned savings provisions of the D.T.E. 99-47 Settlement (Attorney General Brief at 229).

b. Company

National Grid argues that it has already removed from its cost of service approximately $9 million in non-recurring costs that were incurred to achieve synergy savings associated with the 2007 KeySpan merger, in accordance with Department precedent (Company Brief at 15,

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submit the exact calculations as part of a compliance filing (Attorney General Reply Brief at 62).

citing Exhs. NG-HSG-RR-3 Rebuttal at 4; AG 15-7; Tr. 5, at 863-1058). Nevertheless, the Company maintains that the merger-related cost savings achieved through the end of the 2008 test year have been fully incorporated in the Company's revenue requirement (Company Brief at 16, citing Tr. 7, at 1253-1254; Tr. 19, at 3584-3585). In fact, National Grid maintains that customers have received tangible benefits from the merger because the Company has been able to avoid filing a base rate case for the past ten years (Company Supplemental Reply Brief at 3).

National Grid argues that the Attorney General attempts to create a new and unachievable standard of proof by claiming that the Company bears the burden of demonstrating that it made an adjustment to its cost of service to reflect the merger-related savings that have already been achieved (Company Reply Brief at 38).[147] The Company reasons that because savings are an absence of cost, there is no need for a further adjustment to the cost of service for merger-related savings, and it is impossible to prove that costs that were not incurred are not present in the cost of service (Company Reply Brief at 38-39, citing Tr. 21, at 3972-3973).

The Company argues that the Attorney General's proposed adjustments are inconsistent with Department precedent because they are not based on a known and measurable change (Company Brief at 16). According to the Company, if the Attorney General's position is adopted, it would require the Company to adjust its test year operating expense to incorporate forecast amounts (Company Brief at 16, citing Exh. NG-MDL-Rebuttal at 22; Company Reply

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[147] National Grid asserts that, contrary to the Attorney General's argument, there is no contradiction in the Company's testimony on this point (Company Reply Brief at 39 n.39).

Brief at 38). The Company also maintains that the Attorney General has failed to take into account the acquisition premium and transaction costs associated with the National Grid/Keyspan merger (Company Reply Brief at 38; Company Supplemental Reply Brief at 3). National Grid faults the Attorney General for her reliance on the Department's decision in D.P.U. 08-43-A, arguing that we only required Fitchburg Gas and Electric Light Company to include merger-related saves in its next base rate proceeding and did not address how projected savings would be treated (Company Supplemental Reply Brief at 3-4).

In addition, the Company contends that the Attorney General's proposal is contrary to the D.T.E. 99-47 Settlement, which included a specific mechanism for addressing merger savings for transactions occurring during the rate cap period and rate index period (together "Rate Plan Period") (Company Brief at 16).[148] According to National Grid, an "earned savings: calculation was provided to both prohibit the Company from recovering any acquisition premiums or other transaction costs from mergers occurring during the Rate Plan Period and address the treatment of savings arising from those mergers (Company Brief at 16, citing Exh. NG-MDL-Rebuttal at 22-24). The Company states that because the NationalGrid/KeySpan merger took place prior to January 1, 2010, the earned savings provisions of the D.T.E. 99-47 Settlement are applicable, and consequently the Attorney General's proposed ratemaking treatment of merger-related savings would be contrary to the

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[148] The rate cap period covered the period between the effective date of the Company's merger with Eastern Edison Company and February 28, 2005, while the rate index period covers the period between March 1, 2005, and December 31, 2009. D.T.E. 99-47, at 4.

terms of the D.T.E. 99-47 Settlement (Company Brief at 16-17, citing Tr. 21, at 3954; Tr. 21, at 3971-3972).

National Grid maintains that the Attorney General's alternative argument that "negative savings" could be imputed to National Grid's cost of service if the earned savings calculated under the D.T.E. 99-47 Settlement resulted in a negative number is wrong in multiple ways (Company Reply Brief at 39). First, the Company claims that under the D.T.E. 99-47 Settlement, there is no provision for a discrete reduction to the Company's cost of service for earned savings after conclusion of the Rate Plan Settlement (Company Reply Brief at 39, citing Exh. AG-41, at 25). Rather, the Company argues that the D.T.E. 99-47 Settlement provides that if there are earned savings, then MECo shall be authorized to include recovery of the earned savings in its cost of service (Company Reply Brief at 39, citing Exh. AG-41, at 25). National Grid argues that the plain language of the D.T.E. 99-47 Settlement makes it clear that earned savings were something that could be recovered by the Company if they existed, not an amount to be applied to reduce the Company's revenue requirement if they were negative (Company Reply Brief at 39). Moreover, the Company contends that reducing its cost of service for "negative" earned savings when the Company is earning less than its allowed return does not make sense and would be punitive (Company Reply Brief at 39).

The Company contends that it has borne 100 percent of the costs associated with not only the KeySpan merger, but also with the Niagara Mohawk Power Corporation transaction in 2002 and the NEES/EUA merger (Company Brief at 17, citing Exh. NG-MDL-Rebuttal at 24;

see also Exh. NG-MDL-Rebuttal at 2). The Company claims that because its customers have paid none of these costs and taken none of the risks of achieving synergy savings, there is no argument in equity or precedent that would entitle the Company's customers to any benefit from future savings that may or may not be achieved as a result of the merger (Company Brief at 17, citing Exh. NG-MDL-Rebuttal at 24). The Company contends that under these circumstances, it is entirely appropriate for shareholders to receive any savings generated by the merger until they are incorporated in the Company's cost of service, consistent with traditional ratemaking principles (Company Reply Brief at 38).

National Grid maintains that while the National Grid/KeySpan merger will generate savings that ultimately benefit customers, there is no requirement that the savings be subtracted from the Company's revenue requirements before they are actually achieved (Company Brief at 17, citing Exh. NG-MDL-Rebuttal at 17; Company Reply Brief at 38). The Company concludes that because the merger-related savings claimed by the Attorney General are not known and measurable, as well as contrary to the terms of the D.T.E. 99-47 Settlement, the Department should reject the Attorney General's proposal in its entirety (Company Brief at 17).

3. Analysis and Findings

National Grid maintains that the merger-related savings associated with the National Grid/KeySpan merger have been fully taken into account in determining the Company's revenue requirement and that no further adjustment is warranted. Conversely, the Attorney General argues that because savings from the merger continue to ramp-up in magnitude after

the test year, a post-test year measure of savings must instead be taken into consideration in determining the Company's cost of service. The Department has determined that companies achieving cost savings through mergers and other business combinations (e.g., acquisition by holding companies, etc.) are expected to incorporate those savings in their subsequent base rate proceedings. D.P.U. 08-43-A at 45. The Department has not, however, given further guidance on how such savings must be incorporated.

The Company and the Attorney General both rely on the D.T.E. 99-47 Settlement to support their arguments in this case, however, they differ in their interpretations of the settlement and how it applies in this proceeding. National Grid argues that the earned savings provision in the D.T.E. 99-47 Settlement governs the ratemaking treatment to be accorded to any savings that result from any merger that occurs prior to January 1, 2010, and, therefore, because the savings are not known and measurable, imputing them would be contrary to intent of the D.T.E. 99-47 Settlement. The Attorney General, on the other hand, maintains that the D.T.E. 99-47 Settlement only applied to the NEES/EUA merger and, therefore, has no effect on the treatment of savings from the National Grid/KeySpan merger. The Department is not persuaded that the earned savings provision was intended to apply to any mergers involving National Grid during the term of the D.T.E. 99-47 Settlement, such as the 2002 acquisition of Niagara Mohawk and the 2007 acquisition of KeySpan. Instead, it was intended to apply only to the matter at hand in that proceeding (i.e., the NEES/EUA merger). A settlement provision seeking to bind the Department's future review of inchoate business transactions and their effects on rates would be contrary to public policy.

The Company and the Attorney General also differ in the interpretation of the earned savings provision of the D.T.E. 99-47 Settlement. The Attorney General maintains that the earned savings provision encompasses the concept of "negative" earned savings whereby a reduction to cost of service is required where the cost to achieve the savings are greater than the savings. Alternately, the Company contends that the only reasonable interpretation of the D.T.E. 99-47 Settlement requires earned savings to be greater than zero (i.e., no reduction to cost of service is required where the cost to achieve savings exceeds the savings). The Department is unpersuaded by the Attorney General's argument that the D.T.E. 99-47 Settlement provides for "negative" earned savings. The Department has, for a number of years, articulated the policy that merger-related costs, such as acquisition premiums and transaction costs, may be recovered to the extent that there are savings resulting from the merger. D.P.U. 01-56, at 54-58; Boston Edison/Commonwealth Energy Merger, D.T.E. 99-19, at 11 (1999); D.P.U. 93-167-A at 18-19. If merger-related costs are greater than merger-related savings, then shareholders already bear that risk. See Eastern-Essex Acquisition, D.T.E. 98-27, at 68 (1998).[149]

During the test year, the Company estimated that its allocated portion of merger-related savings were $6,500,000 (Exhs. NG-HSG-RR-2 (Rev.) at 4; AG 15-5, Att.).[150] Also during

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[149] Moreover, acceptance of the Attorney General's position would convert the Department's standard of review for evaluating mergers and acquisitions from a "no net harm" standard to a "net benefits" test. NIPSCo/Bay State Acquisition, D.P.U. 98-31, at 9-10 (1998); D.T.E. 98-27, at 8.

[150] The Department notes that the Company's estimate of test year merger-related savings includes approximately $700,000 in gas distribution cost savings, based on a

the test year, National Grid incurred $9,047,402 in merger-related costs related to the National Grid/KeySpan merger (Exh. NG-HSG-RR-2 (Rev.) at 4). We note that the Company is not seeking to recover any of the $9,047,402 in merger-related costs booked during the test year (Exhs. NG-HSG-RR-2 (Rev.) at 4; AG 15-7).

Over the entire period from August 2007 through August 2017, the Company projects that its allocated share of merger-related savings ranges from $10.05 million to $25.10 million per year, for a total of $204.74 million (Exh. AG 15-8, Att. 4, at 14). The Company estimates that these savings will be partially offset by the Company's allocated share of merger-related costs during that same period of $20.69 million in the first year following the merger and, thereafter, declining to approximately $1.2 million per year in the final three years after the completion of the merger, for a total cost of $53.76 million (Exh. AG 15-8, Att. 4, at 14). The Attorney General does not contest these merger-related costs and savings estimates, however, she seeks an adjustment (i.e., a decrease) to cost of service to recognize the increase in merger related savings that the Company estimates will occur during 2010 (Exh. AG-60, at 20-21).

The Attorney General's proposed adjustment is based on the savings estimates prepared by the Company to support the National Grid/KeySpan merger (Exh. AG 15-8, Att. 2, at 12-20; Att. 4, at 14-17). Neither the Company nor the Attorney General dispute that

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9.56 percent allocation of approximately $7,200,000 in system-wide savings estimated to have been achieved by National Grid USA during the test year (Exh. AG-15-5, Att.). The attribution of gas distribution cost savings to an electric distribution company overstates the Company's estimate of merger-related savings.

additional savings will occur after the test year nor that these savings will ramp-up in magnitude through mid-year 2017. The Company's costs estimates only include system integration and transaction costs; they do not include recovery of any acquisition premium associated with the National Grid/KeySpan merger.[151] Therefore, the Department finds that it is appropriate under these circumstances to incorporate test year savings associated with the National Grid/KeySpan merger and not the higher savings estimate for 2010. Future ramped-up savings will be incorporated in the Company's subsequent rate case filings. D.P.U. 08-43-A at 45.

M. Rate Case Expense

1. Introduction

In its initial filing, National Grid estimated that it would incur $1,175,000 in rate case expense (Exhs. NG-HSG-RR at 21; NG-HSG-RR-2, at 17). Having submitted its final invoices on November 5, 2009, the Company now states that the total rate case expense it seeks to recover is $1,985,473 (Exh. DPU-NG 5-10 (Supp. 7), Att. 5-10.7, at 1).[152] The Company's proposed rate case expense includes preparation and expert services regarding: (1) the cost of capital analysis; (2) the depreciation study; (3) the decoupling proposal; (4) the marginal distribution cost study; (5) revenue requirement and rate design; as well as (6) legal

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151 Companies may seek recovery of acquisition premiums and transaction costs to the extent that there are savings resulting from a merger. The Berkshire Gas Company, D.P.U. 01-56, at 54-58 (2002); D.T.E. 99-19, at 11; D.P.U. 93-167-A at 18-19.

152 The $1,985,473 amount does not include the total costs incurred by the Company during the rate case proceeding because National Grid agreed to cap the amount of legal service fees that it would seek to recover (Exhs. AG 3-31, Att. 10, at 15; AG 3-32, Att. 5, at 76; DPU-NG 7-96, Att. DPU-NG 7-96(B) at 3).

services; and (7) miscellaneous expenses (see Exhs. AG 19-11, Att. 19-11.1; AG 19-11 (Supp.), Att. 19-11.2; AG 19-11 (Supp. 2), Att. 19-11.3; AG 19-11 (Supp. 3), Att. 19-11.4; DPU-NG 5-10 (Supp. 7), Att. 5-10.7).

National Grid issued requests for proposals ("RFPs") for consultants to provide the following services: (1) cost of capital and capital structure analysis; (2) depreciation study; (3) development of a revenue decoupling mechanism; (4) marginal distribution cost study; (5) rate case services (i.e., revenue requirement through rate design and tariffs); and (6) legal services (Exhs. AG 3-30; DPU-NG 7-95). The Company received responses as follows: (1) three responses to the cost of capital and capital structure analysis RFP; (2) one response to the depreciation study RFP; (3) three responses to the revenue decoupling mechanism RFP; (4) two responses to the marginal distribution cost study RFP; (5) two responses to the rate case services RFP; and (6) three responses to the RFP for legal services (Exhs. AG 3-31; AG 3-32).

National Grid proposes to normalize its rate case expense over a two-year period (Company Brief at 36).[153] Normalizing the Company's proposed rate case expense of $1,985,473 over two years produces a pro forma rate case expense of $992,737 (RR-DPU-15 (Supp.), at 2).[154]

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[153] National Grid excluded its current rate case filing and included non-rate case filings in its calculation of a proposed normalization period (Company Brief at 36).

[154] Initially, National Grid proposed to amortize its rate case expense (Exhs. NG-HSG-RR at 21; DPU-NG 5-3; see also Exh. DPU-NG 7-92). In its initial brief, the Company acknowledged that Department precedent requires companies to normalize, rather than amortize, rate case expense (Company Brief at 36, citing D.P.U. 08-27, at 75).

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that National Grid has not met its burden to justify full recovery of rate case expense for outside legal and revenue decoupling services as well as expenses attributed to certain sections of the Company's rebuttal testimony (Attorney General Brief at 134). Specifically, the Attorney General asserts that National Grid has consistently used in-house legal counsel for proceedings before the Department and the Company bears the burden to demonstrate that it was necessary to hire outside legal representatives for this case (Attorney General Brief at 137). In addition, the Attorney General argues that while the Company used a competitive process to obtain bids, National Grid's evaluation of those bids and its failure to employ cost controls resulted in actual expenses greatly exceeding the estimates used during the selection process (Attorney General Brief at 136). Specifically, the Attorney General asserts that legal service costs increased by approximately 45 percent from original estimates, while decoupling services increased by approximately 65 percent from the original bid estimates (Attorney General Supplemental Reply Brief at 15). The Attorney General maintains that such increases raise legitimate concerns about the construct, assumptions, and process by which bidders were selected as well as the controls put in place to control costs (Attorney General Supplemental Reply Brief at 15). As a result, the Attorney General argues that National Grid's process was not consistent with the structured competitive bidding process required by the Department (Attorney General Brief at 137-139, citing D.T.E. 03-40, at 153). Therefore, the Attorney General asserts that the costs for legal and

revenue decoupling services should be capped, with the legal services costs capped at the lowest price provided by any legal firm responding to the Company's RFP and revenue decoupling services costs capped at the original estimate of the winning bidder (Attorney General Brief at 137-139).

The Attorney General also contends that ratepayers should not be responsible for additional legal costs incurred due to the Company's own actions (Attorney General Brief at 138). That is, the Attorney General argues that additional costs were incurred due to the legal firm's inexperience with Department procedure and precedent and, thus, the amount for legal services should be further reduced to account for these additional costs (Attorney General Brief at 138).[155]

In addition, the Attorney General argues that the Department should disallow recovery of any rate case expenses attributed to what she contends is cumulative and unnecessary rebuttal testimony (Attorney General Brief at 139). The Attorney General notes that the Company introduced on rebuttal two back-up cost of capital and capital structure witnesses to support its original witness's rebuttal testimony (Attorney General Brief at 139-140). The Attorney General asserts that such rebuttal testimony was wasteful, inefficient, and unnecessary and, thus, the Department should reject all rate case expenses attributable to the late-added rebuttal witnesses (Attorney General Brief at 139-140). The Attorney General argues that if the Department does not reject the rate case expenses related to the late-added

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[155] The Attorney General did not propose a specific dollar amount that should be disallowed due to the legal firm's inexperience (see Attorney General Brief at 138, 140).

rebuttal witness, the Department should adjust the Company's ROE downward (Attorney General Brief at 140, citing D.P.U. 07-71, at 139-140).

The Attorney General asserts that the Company's argument that the calculation of time between cases for the purpose of establishing the normalization period should include non-rate cases should be rejected as it does not comport with Department precedent or "elementary logic" (Attorney General Reply Brief at 55, citing Company Brief at 37). The Attorney General, instead, asks that the Department direct the Company to normalize recovery of rate case expense over a six-year period, consistent with Department precedent (Attorney General Brief at 141, citing, e.g., D.T.E. 05-27, at 163 n.105; D.T.E. 02-24/25, at 191).

b. Company

National Grid asserts that its request to recover rate case expense is consistent with Department standards (Company Brief at 35). Specifically, the Company contends that it conducted an appropriate RFP process for each of the outside consultant services that are included in rate case expense consistent with Department precedent (Company Brief at 33-34). The Company also maintains that it provided invoices that demonstrate the amounts actually incurred (Company Brief at 35). The Company contends that, contrary to the Attorney General's assertions, National Grid did not have sufficient in-house legal staff to handle the workload requirements of a rate case (Company Reply Brief on Legal Services at 2-3). The Company asserts that maintaining sufficient internal legal staff on a standby basis for a rate case would be inefficient in the long run and would result in an increased cost of service

because there would be a permanent increase in staff (Company Reply Brief on Legal Services at 3-4, citing Tr. 7, at 1289).

The Company asserts that it conducted a rigorous competitive bidding process consistent with Department requirements and analyzed the bids using appropriate factors such as relevant experience, expertise, price, skill level, and familiarity with National Grid's business (Company Reply Brief at 33; Company Reply Brief on Legal Services at 5). The Company argues because this is a case of first impression both in terms of its decoupling proposal and the issues related to the Green Communities Act, there was an inherent difficulty in estimating the number of hours required for legal and decoupling services (Company Reply Brief at 32-33; Company Reply Brief on Legal Services at 6). National Grid contends that there is no basis for the Attorney General's proposal to limit its recovery of legal or decoupling services merely because actual costs exceeded estimates (Company Reply Brief on Legal Services at 5-6; Company Supplemental Reply Brief at 14).

The Company asserts that the Attorney General was provided invoices for all outside rate cases services and has not questioned a single time entry or claimed that any of the specific legal services were unnecessary (Company Brief at 33; Company Supplemental Reply Brief at 14). The Company also states that, consistent with the goal of reducing costs, National Grid imposed a cap on legal professional fees (Company Supplemental Reply Brief at 14, citing Exh. DPU-NG 7-96(B)).

The Company takes issue with the Attorney General's assertion that the chosen legal firm was inexperienced with Department procedures and precedent (Company Reply Brief on

Legal Services at 8). The Company argues that the chosen law firm has prior experience before the Department and is knowledgeable about Department procedures (Company Reply Brief on Legal Services at 8).[156] In addition, National Grid contends that no disallowance of legal expenses should be made for the law firm's correction of errors related to the renaming of electronic files or the retransmission of spreadsheets (Company Reply Brief on Legal Services at 8, citing Exh. DPU-NG 5-10). The Company asserts that the corrective filings were accomplished by administrative staff for which National Grid was not charged and the law firm further voluntarily reduced its total bill by $2,000 to address any Department concerns (Company Reply Brief on Legal Services at 8-9, citing Exh. DPU-NG 5-10 (Supp. 1)).

National Grid contends that, contrary to the Attorney General's assertions, there is no basis to conclude that certain rebuttal testimony was cumulative or unnecessary (Company Reply Brief at 35). The Company also takes issue with the Attorney General's request that the Department lower National Grid's ROE should the Department decide not to limit the allowable rate case expense for rebuttal witnesses (Company Reply Brief at 36). The Company asserts that the Attorney General's position is unsupported by law and such an action by the Department would be punitive (Company Reply Brief at 36-37).

The Company asserts that because MECo has not had a fully-litigated rate case for 14 years, there is an inadequate history of rate case filings to determine an appropriate

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[156] The Company notes that its Assistant General Counsel was also a counsel of record in the proceeding and, as an experienced practitioner before the Department, she supplemented the law firm's experience (Company Reply Brief on Legal Services at 8).

normalization period (Company Brief at 36). Thus, National Grid argues that it is appropriate to use the period of time between four rate case proceedings and two other proceedings[157] to calculate a normalization period of two years (Company Brief at 36-37). The Company contends that the Attorney General's proposed normalization period of six years is inconsistent with Department precedent and would not give the Company a reasonable opportunity to recover its rate case expenses (Company Brief at 37).[158]

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. 07-71, at 99; D.T.E. 05-27, at 157; D.T.E. 98-51, at 61-62.[159] Second, such expenses must be reasonable, appropriate, and prudently incurred. D.T.E. 05-27, at 160-161; D.T.E. 98-51, at 58; D.P.U. 95-118, at 115-119; Dedham Water Company, D.P.U. 84-32, at 14 (1984).

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157 In calculating its proposed normalization period, the Company included a settlement relating to electric industry restructuring (D.P.U. 96-25) and a merger between Eastern Edison Company and MECo (D.T.E. 99-47) (Company Brief at 36).

158 The Company did not cite to Department precedent to support its contention that the Attorney General's proposed normalization period is inconsistent with Department precedent.

159 While companies may seek recovery of rate case expense incurred on a fixed-fee basis for work performed after the close of the evidentiary record (e.g., for completion of necessary compliance filings), the reasonableness of the fixed fees must be supported by sufficient evidence. D.T.E. 02-24/25, at 196.

The overall level of rate case expense among utilities has been, and remains, a matter of concern for the Department. 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 where companies must seek to contain costs. D.P.U. 07-71, at 99; D.T.E. 03-40, at 147-148; D.T.E. 02-24/25, at 192; D.P.U. 96-50 (Phase I) at 79.[160] The Department has previously stated that that we will continue to scrutinize the overall level of rate case expense and may require shareholders to shoulder a portion of the expense. D.P.U. 08-35, at 135.

As an initial matter, the Attorney General asserts that the Company has consistently used in-house counsel for Department proceedings and should have done so in this case (Attorney General Brief at 137). National Grid counters that it has insufficient in-house staff and, thus, would be required to hire additional permanent staff, thereby increasing its cost of service (Company Reply Brief on Legal Services at 3-4, citing Tr. 7, at 1289). It is standard practice for gas and electric utilities appearing before the Department to hire outside law firms to handle legal services in rate case proceedings. See, e.g., D.P.U. 08-35, at 122; D.T.E. 07-71, at 95-96. This is especially the case where the utility is large and the legal issues are complex as in the current proceeding. Further, the Department does not want to encourage companies to increase permanent legal staffing levels where rate case proceedings are infrequent and the proceeding is for a limited duration (i.e., the statutory six-month period provided by G.L. c. 164, § 94). As such, we determine it was appropriate in this instance for

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[160] The Department has also found that rate case expenses will not be allowed in cost of service where such expenses are disproportionate to the relief being sought. See Barnstable Water Company, D.P.U. 93-223-B at 16 (1993).

National Grid to solicit outside counsel.[161] Below, we address competitive bidding, the appropriateness of various rate case expenses, and the appropriate normalization period.

b. Competitive Bidding

i. Introduction

The Department has consistently emphasized the importance of competitive bidding for outside services in a company's overall strategy to contain rate case expense. See, e.g., 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 company elects to secure outside services for rate case expense, it must engage in a competitive bidding process for these services. D.P.U. 07-71, at 99-100, 101; D.T.E. 03-40, at 153. If a company decides to forgo the competitive bidding process, the company must provide an adequate justification for its decision to do so. D.T.E. 01-56, at 76; D.T.E. 98-51, at 59-60; D.P.U. 96-50 (Phase I) at 79.

While the intervenors question the solicitation process undertaken for decoupling and legal services, they do not question the solicitation process for the remaining witnesses. The Department has reviewed the RFP processes for the uncontested witnesses, and we determine that National Grid appropriately conducted competitive bidding processes for such witnesses. The solicitation process for decoupling and legal services is discussed below.

ii. Decoupling Services

The Attorney General asserts that the Company failed to conduct an appropriate competitive bid process for its outside decoupling services based on its evaluation of the bids

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[161] The Department's analysis may change if the Company's frequency of rate case filings were to increase.

and failure to employ cost controls (Attorney General Brief at 136). The Company disagrees with the Attorney General's assertions and contends that there was an inherent difficulty in establishing cost estimates because of the issues of first impression in this case (Company Reply Brief at 32-33).

The Company received three bids related to its decoupling services (Exhs. AG 3-31; AG 3-32). The firm that National Grid selected was not the lowest bidder (Exhs. AG 3-31, Atts. 3, 4, 5; AG 3-32, Att. 1, at 3). The Company was concerned that the firm submitting the lowest bid did not fully understand the complexity of the case and, thus, underestimated the amount of work that would be required (Tr. 7, at 1293-1294; see Company Brief at 34-35). In addition, National Grid determined that the selected firm had recent, relevant substantive experience (Tr. 7, at 1293).

This proceeding involves the first request for revenue decoupling for a Massachusetts electric utility. As such, the Department recognizes that it may have been difficult for bidders and National Grid to determine the exact amount of work that would need to be undertaken.[162] We determine that the Company evaluated each proposal using the same criteria and ultimately selected decoupling consultants that it believed would provide the best and most cost-effective service (Exh. AG 3-32, Att. 1). Therefore, we find that National Grid engaged in an appropriate competitive bidding process for its outside services related to decoupling (see Exh. AG 3-32, Att. 1).

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[162] Each bid for decoupling services was substantially less than the actual costs incurred in this proceeding (see Exhs. AG 3-31, Atts. 3, 4, 5; AG 3-32, Att. 1, at 3).

iii. Legal Services

By any standard, a base rate case is an extraordinary proceeding requiring the resolution of a variety of complex, specialized issues. The inclusion of intricate ancillary issues – such as a proposed decoupling mechanism and numerous other reconciling mechanisms – serves to add additional layers of complexity to a base rate proceeding. In such cases, it benefits ratepayers, the petitioning utility, and the Department when the petitioner is represented by an experienced law firm that is familiar with the Department's ratemaking precedent and our unique procedural rules. Such qualities are particularly important to ensure the orderly conduct of discovery and evidentiary hearings.

The Attorney General asserts that National Grid failed to appropriately evaluate the proposed legal services budgets and thus did not engage in a structured, objective competitive bidding process (Attorney General Brief at 136-137). The Attorney General also maintains that the Company incurred additional legal costs because of the outside law firm's unfamiliarity with Department procedure; she argues that the ratepayers should not be required to pay for such costs (Attorney General Brief at 138). National Grid contends that it appropriately evaluated the bids and controlled costs (Company Reply Brief at 33; Company Reply Brief on Legal Services at 5). The Company also maintains that the selected law firm has prior experience with the Department and is knowledgeable about Department procedures and precedent (Company Reply Brief on Legal Services at 8).

Our review of the responses to the RFP as well as the Company's analysis of the responses indicates that the Company failed to appropriately review the bids in two separate

aspects. First, the bid analysis indicates that the Company did not consider the law firm's location and simply determined that all of the bidders would incur out-of-pocket expenses and that such expenses would be similar (Exh. DPU-NG 7-96(A) at 2). The law firm chosen by National Grid, however, is located outside of the Commonwealth while the other bidders are located in Boston (Exh. AG 3-32, Att. 5, at 8, 32, 56). Further, the chosen law firm indicated that it would charge for travel expenses, including hotel, mileage, parking, meals[163] (Exh. AG 3-32, Att. 5, at 59). Another bidder stated it did not anticipate incurring any travel charges, while the second bidder stated it would not charge for travel or courier service within the Company's Waltham office and the law firm's Boston office (Exh. AG 3-32, Att. 5, at 10, 25). Neither of the other two bidder firms mentioned seeking reimbursement for hotels or meals (Exh. AG 3-32, Att. 5, at 10, 26). A company may choose any law firm it desires to represent it, including one located outside the Commonwealth; it must, however, factor into its analysis any extra costs that will be incurred because of the location. National Grid did not do so in this case.

Second, the bid analysis indicates that National Grid, in choosing outside counsel, focused on the long working relationship it had with the law firm rather than the law firm's experience before the Department (Exh. DPU-NG 7-96, Atts. A, B). The Company's outside counsel has appeared before the Department in only one prior proceeding and, thus, the Company is unable to demonstrate that the counsel is familiar with the Department's unique

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[163] Because the outside counsel was staying in a hotel, all daily meals were billed to National Grid (see, e.g., Exh. DPU-NG 5-10.6, Att. at 41).

procedural rules (Exh. AG 19-10).[164] For example, in arguing that the outside counsel was well-versed in Department procedures, the Company asserted that the Department imposed supplemental requirements in this proceeding that (1) are not in the Department's regulations, and (2) placed an extra burden on its counsel (Company Reply Brief on Legal Services at 8 n.7). The fact that National Grid's outside counsel was unaware that the so-called "supplemental requirements," such as providing a weekly discovery log and organized electronic files, are standard administrative procedures in rate case proceedings demonstrates the outside counsel's lack of familiarity with Department proceedings.

Therefore, we determine that the Company did not appropriately evaluate the legal services bids and as a result did not employ a competitive bidding process for its legal services. Nonetheless, the Company capped the amount of legal services that it proposes to recover through rates and, contrary to the Attorney General's assertions, the cap was in the mid-point of the caps submitted by the other bidders (Exhs. AG 3-31, Att. 10; DPU-NG 7-96, Att. B).[165] In addition, the law firm voluntarily credited $2,000 in legal fees to mitigate administrative errors that occurred throughout the proceeding (Exh. DPU-NG 5-10 (Supp. 1)). The Company, however, proposes to remove the $2,000 from the overall bill, rather than from the capped amount being passed through to ratepayers (Exh. DPU-NG 5-10 (Supp. 1)). Because

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164 In the prior proceeding, the attorneys were admitted to appear before the Department pro hac vice. See Aquarion Water Company of Massachusetts, D.P.U. 08-27 (March 31, 2009). The attorneys were ultimately admitted to the Massachusetts Bar in November 2008 (Exh. AG 19-10).

165 Some of the legal services bids contained alternative scenarios under which each firm would charge the Company for legal service fees (see Exh. AG 3-31).

ratepayers should not be required to pay for any such errors that occurred, we determine that the $2,000 should be removed from the capped amount rather than from the total legal service fees.[166] The appropriateness of the invoices provided justifying the remaining legal-related expenses are discussed below.

Having determined that the Company did not appropriately factor the physical proximity of the outside firm to the Boston area into its analysis, we disallow all costs that were incurred due to such proximity.[167] Specifically, we disallow $7,102.26 related to travel, including hotels, meals, mileage, tolls, and parking. We also disallow $562.97 in telephone calls. Finally, we disallow a portion of the delivery costs of $20,105.18.[168] We acknowledge that the other bidders may have incurred delivery costs during the proceeding. Nonetheless, the delivery costs would have been considerably less for the other firms, which are located in

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166 Because National Grid agreed on a set amount of expenses related to legal services it would seek to pass through to ratepayers, shareholders are picking up a portion of the rate case expense, which is appropriate because the rate case ultimately benefits them.

167 The Company did not provide delineated invoices for any of the legal service fees. Instead, the costs are simply listed as a line item without accompanying detail. Thus, the Department could disallow all out-of-pocket expenses incurred by the law firm pursuant to our precedent. See, e.g., D.T.E. 98-51, at 59; D.P.U. 95-118, at 119. We note that this is another example of the law firm's unfamiliarity with Departmenst requirements, even though the outside counsel was specifically alerted to this requirement in the one prior proceeding in which they appeared before the Department. See D.P.U. 08-27, at 71-72 (Company failed to provide invoices for all of the outside services during the discovery period and was reminded of the Department's requirements in this area during the first day of evidentiary hearings).

168 The delivery costs do not include postage, since such costs may have been the same for any of the legal firms.

Boston. Thus, we disallow 50 percent of the delivery costs, or $10,052.59. The remaining out-of-pocket expenses are discussed in Section V.M.3.c., below.

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.T.E. 03-40, at 157; D.T.E. 02-24/25, at 193-194; D.T.E. 01-56, at 75; D.T.E. 98-51, at 61; D.P.U. 96-50 (Phase I) at 79. Further, we have stated that failure to provide this information could result in the Department's disallowance of all or a portion of rate case expense. D.T.E. 02-24/25, at 193; D.T.E. 96-50 (Phase I) at 79.

The Company has appropriately provided invoices delineating the $698,000 in legal service fees, and we determine that such fees are reasonable and appropriate and were prudently incurred. Thus, we will allow $698,000 in legal service fees. The remaining invoices submitted were properly itemized for allowable expenses, with a few exceptions discussed below.

The Department disallows $3,684 in miscellaneous expenses billed by Brown Rudnick. The invoices were provided following the close of the briefing period[169] and there is no information explaining why the Company engaged Brown Rudnick to provide such services.[170]

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[169] When invoices are provided following the briefing period, the Department and intervenors do not have an opportunity to question whether the charges are reasonable and prudently incurred.

[170] The first invoice states it is for services rendered through September 3, 2009, for meals, copies, secretary overtime, color copies, and document production (Exh. DPU-NG 5-10 (Supp. 7), Att. DPU-NG 5-10.7, at 50-51). The second invoice

As such, the Department is unable to determine whether the expenses are reasonable, appropriate, and prudently incurred. Therefore, recovery of these items as rate case expense cannot be allowed.

Finally, the Attorney General asserts that the testimony of certain rebuttal witnesses was unnecessary and redundant and, therefore, the related costs should be disallowed (Attorney General Brief at 139). The Company contends there is no basis for such a conclusion (Company Reply Brief at 35). A company submitting a rate case filing before the Department has the affirmative burden of proof on all issues relevant to its rate filing. D.P.U. 1535-A at 17. It is the company that initiates rate proceedings before the Department by filing for rate relief. The company has the burden of justifying adequately the specific amount of rate relief requested. As such, the company is permitted to put on its case in the manner it chooses. Further, the dynamics of a rate case may, at times, warrant the addition of new rebuttal witnesses. While it may be unusual for a company to add additional rebuttal witnesses at the last minute, such costs may be appropriately added to rate case expense where the costs are reasonable, appropriate, and prudently incurred. D.T.E. 05-27, at 160-161; D.T.E. 98-51, at 58.[171] In this case, one witness filled out the record on investor perceptions, while the other

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states it is for services rendered through October 14, 2009, for meals (Exh. DPU-NG 5-10 (Supp. 7), Att. DPU-NG 5-10.7, at 52-53).

[171] Companies are required to either engage in a competitive bidding process for any outside services they intend to recover as a part of rate case expense or provide adequate justification for a decision to forgo such process. D.T.E. 01-56, at 76; D.T.E. 98-51, at 59-60. In this case, the Company did not conduct a competitive bidding process for its rebuttal witnesses and did not provide any justification for its failure to do so. We recognize that unanticipated arguments and issues may arise in a

witness provided further information related to the Company's decoupling proposal as well as its proposed ROE (Exhs. NG-RBH-Rebuttal; NG-JMC-Rebuttal). Based on our review of the rebuttal testimony, we determine that it was neither unnecessary nor redundant.

One of the additional rebuttal witnesses provided an invoice for $693.11 for expenses incurred in July 2009 (Exh. DPU-NG 5-10 (Supp. 6), Att. DPU-NG 5-10.6, at 5). The witness stated, however, that the Company contacted her on August 16, 2009, and requested that she prepare rebuttal testimony (Tr. 20, at 3686). Further, the invoice states that it relates to a meeting with National Grid management and does not reference the on-going rate case proceeding ((Exh. DPU-NG 5-10 (Supp. 6), Att. DPU-NG 5-10.6, at 5). Because the expenses were incurred prior to the witness being asked to provide rebuttal testimony and we are unable to determine whether it is related to the rate case proceeding, we are disallowing $693.11. We determine that the remaining expenses related to the late-added rebuttal witnesses are reasonable, appropriate, and were prudently incurred.

d. Normalization of Rate Case Expenses

The proper method to calculate a rate case expense adjustment is to determine the rate case expense, normalize the expense over an appropriate period, and then compare it to the test year level to determine the adjustment. D.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

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rate case. We also note that this level of unpredictability, combined with the procedural deadlines in a rate case, may inhibit a company's ability to conduct a competitive bidding process. Nonetheless, we expect companies to comply with Department requirements and expect them, in future proceedings, to either engage in a competitive bidding process or provide adequate justification a failure to do so.

practice is to normalize rate case expenses so that a representative annual amount is included in the cost of service. 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 33-34. Normalization is not intended to ensure dollar-for-dollar recovery of a particular expense; rather, it is intended to include a representative annual level of rate case expense. D.T.E. 05-27, at 163; D.T.E. 03-40, at 163-164; D.T.E. 02-24/25, at 191; D.P.U. 96-50 (Phase I) at 77. The Department determines the appropriate period for recovery of rate case expense by taking the average of the intervals between the filing dates of a company's last four rate cases, including the present case, rounded to the nearest whole number. D.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 argues that because it has not had a fully-litigated rate case for 14 years, there is an inadequate recent history of rate filings to determine a normalization period (Company Brief at 36). Thus, National Grid asserts that the use of the average intervals between six prior proceedings, excluding the current rate case, provides a more appropriate normalization period (Company Brief at 36-37). While four of the proceedings were rate case filings, the remaining two proceedings are not associated with a general increase in rates pursuant to G.L. c. 164, § 94 (Company Brief at 37). In addition, contrary to Department precedent, the Company excluded the filing date of the current rate case from its calculation

(Company Brief at 36). Thus, we find that National Grid's proposed normalization period is arbitrary. We further find that the Company has not provided adequate justification to depart from our well-established precedent. Therefore, based on National Grid's history of electric rate filing cases, we find that a normalization period of six years[172] is reasonable and appropriate and that no deviation from our precedent is warranted.

4. Conclusion

National Grid has requested recovery of rate case expenses of $1,985,473. Based on the findings as outlined above, the Department concludes that the reasonable level of rate case expense is $1,965,062 and the correct level of normalized rate case expense is $327,510 (i.e., $1,965,062 divided by six years). This represents a decrease of the proposed test year cost of service of $20,411 (i.e., $1,985,473 minus $1,965,062). Because National Grid has proposed an amortized rate case expense of $992,737, the Company's proposed cost of service will be reduced by $665,227.

N. Attorney General Consultant Expenses Tariff

1. Introduction

The Attorney General may retain experts or other consultants to assist her in Department proceedings involving rates, charges, prices, and tariffs of an electric, gas, generator, or transmission company subject to the jurisdiction of the Department, with all

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[172] Including the present case (filed May 15, 2009), National Grid's most recent rate case proceedings are: (1) D.P.U. 95-40, filed March 15, 1995; (2) D.P.U. 92-78, filed March 15, 1992; and (3) D.P.U. 91-52, filed March 15, 1991 (Exhs. AG-4-39; DPU-NG 5-2). The differences between these cases (14.16 years plus 3.00 years plus 0.99 years), divided by three and rounded to the nearest whole number of years, results in a normalization period of six years (see Exh. DPU-NG 5-2).

reasonable and proper expenses to be borne by the affected company and be recoverable through the company's rates. G.L. c. 12, § 11E(b). In this case, the Department has authorized the Attorney General to expend up to $200,000 for outside experts and consultants. Massachusetts Electric Company/Nantucket Electric Company, D.P.U. 09-39, Order on Attorney General's Notice of Retention of Experts and Consultants at 5 (June 26, 2009). At the end of the briefing period, the fees related to the Attorney General's experts and consultants totalled $195,461 (Exh. NG-AG 3-9; see also Exhs. NG-AG 3-9 (Supp.), (Supp. 1), (Supp. 2), (Supp. 3), (Supp. 4)).

The Company has proposed to recover the costs associated with the Attorney General's consultants through a reconciling tariff (Exhs. NG-HSG-P at 41; NG-HSG-P-12, at 142; Tr. 7, at 1305). The proposed tariff provides for the recovery of the Attorney General's consultant costs through a uniform cents per kWh factor based on the estimated kWh deliveries to customers over a twelve-month period (Exh. NG-HSG-P-12, at 142). National Grid proposes to reconcile revenues billed though this factor with recoverable costs and, at the time that any negative or positive balance remains, will propose a means of recovering the undercollection or returning the overcollection to customers (Exh. NG-HSG-P-12, at 142).

2. Positions of the Parties

a. Attorney General

The Attorney General asserts that the Department should reject the Company's proposed reconciling mechanism and should, instead, treat such costs as rate case expense and, as such, normalize the costs over a six-year period (Attorney General Brief at 96). The

Attorney General contends that reconciling tariffs are appropriate to recover costs that are: (1) objectively ascertainable; (2) over which a company has very little control; and (3) that may materially affect a company's operations (Attorney General Reply Brief at 27-28, citing, 368 Mass. at 601-608 (1975)). The Attorney General argues that the fact that, in this instance, the costs are beyond the Company's control is insufficient justification to add an additional cost tracker because the other factors are not met (Attorney General Reply Brief at 27-28). The Attorney General contends that its consultant costs should be treated as Company-incurred costs (Attorney General Brief at 96).

The Attorney General argues that, contrary to the Company's assertions, the plain language of G.L. c. 12, § 11E(b), does not specify dollar-for-dollar recovery of Attorney General consultant costs (Attorney General Reply Brief at 29). Instead, the Attorney General contends that the statute requires the Department to treat the costs as a "proper business expense" (Attorney General Reply Brief at 29). The Attorney General maintains that the Department's precedent is to treat such costs as periodically recurring expenses and, as such, these consultant costs should be normalized so that the cost of service will include only a representative annual level (Attorney General Brief at 96-97, citing Nantucket Electric Company, D.P.U. 1530, at 31 (1983)). The Attorney General further asserts that should the costs become significant, the Department retains discretion to address the costs on a case-by-case basis (Attorney General Reply Brief at 28).

b. Company

National Grid maintains that a reconciling mechanism to recover consultant and expert costs incurred by the Attorney General is required by the plain language of G.L. c. 12, § 11E(b) (Company Brief at 110, 112). The Company asserts that its proposed reconciling tariff is the only reasonable option because customers would only pay for the actual costs incurred (Company Brief at 111-112). The Company further asserts that it has no control over the amounts incurred by the Attorney General and, thus, a reconciling mechanism is appropriate (Company Brief at 111-112).

The Company also contends that were the Department to adopt the Attorney General's proposal and put a portion of the costs into base rates, either customers would pay for costs not incurred or the Company would not recover the full amount of the incurred costs (Company Brief at 112). National Grid also asserts that under the Attorney General's proposal, customers would not be able to easily identify costs incurred (Company Brief at 113).

3. Analysis and Findings

Pursuant to G.L. c. 12, § 11E(b), the Attorney General may retain an expert or a consultant to assist in representing consumer interests in Department proceedings involving rates, charges, prices and tariffs of an electric company, gas company, or generator or transmission company subject to the jurisdiction of the Department. The Attorney General must, however, notify the Department as to the type of expert or consultant to be retained and the anticipated cost, and the Department must allow all full parties to a proceeding the opportunity to comment on such notice. G.L. c. 12, § 11E(b). Absent a showing that the

costs are unnecessary for the Attorney General to represent ratepayer interests in the proceeding or that such costs are not reasonable or proper, the Department must approve the use of an expert or consultant. G.L. c. 12, § 11E(b). The cost of retaining an expert or consultant cannot exceed $150,000 per proceeding, unless otherwise approved by the Department based upon exigent circumstances. G.L. c. 12, § 11E(b). All reasonable and proper expenses for such expert or consultant are to be borne by the affected company and are recoverable through the company's rates. G.L. c. 12, § 11E(b).

In this case, the Department has authorized the Attorney General to expend up to $200,000 for outside experts and consultants due to exigent circumstances (i.e., the rate case filing being a complex matter with numerous issues of first impression). Massachusetts Electric Company/Nantucket Electric Company, D.P.U. 09-39, Order on Attorney General's Notice of Retention of Experts and Consultants at 5 (2009). In authorizing such expenses, the Department did not address the merits of the Company's proposed recovery mechanism, stating that this issue would be addressed during the course of the instant rate proceeding. Massachusetts Electric Company/Nantucket Electric Company, D.P.U. 09-39, Order on Attorney General's Notice of Retention of Experts and Consultants at 5 (2009).

The Attorney General has incurred $195,461 in expenses related to her experts and consultants in this case (Exh. NG-AG 3-9; see also Exhs. NG-AG 3-9 (Supp.), (Supp. 1), (Supp. 2), (Supp. 3), (Supp. 4)). Pursuant to G.L. c. 12, § 11E(b), such costs are recoverable through rates. The Department, however, has broad discretion in selecting an appropriate rate recovery mechanism. See American Hoechest Corp. v. Department of Public Utilities,

379 Mass. 408, 413 (1980) (Department free to select or reject particular method of regulation as long as choice not confiscatory or otherwise illegal).

The Attorney General advocates that a normalized level of consultant costs be included in base rates. We find, however, that a reconciling mechanism in this instance will ensure that ratepayers pay only for such costs actually incurred. Further, the Department has previously approved a similar reconciling mechanism to recover costs related to the Attorney General's outside experts and consultants. D.P.U. 09-30, at 408.

The Company's proposed tariff provides that a determination of the mechanics of the reconciling mechanism will be decided at a later date. Under G.L. c. 164, § 94, a utility's proposed rates must be consistent with the public interest. One component of this standard, applicable to tariff construction, requires that a proposed tariff has sufficient detail to explain the basis for the rate to be charged for the offered service. D.P.U. 08-27, at 189; Boston Gas Company, D.P.U. 92-259, at 47-48 (1993); Dedham Water Company, D.P.U. 13271, at 10 (1961). The sufficiency of a tariff must be judged on its face, and testimony is insufficient to cure a defect or supply a missing essential term. D.P.U. 08-27, at 189-190; Boston Gas Company, D.P.U. 92-259, at 47-48 (1993); Dedham Water Company, D.P.U. 13271, at 10 (1961).

By reserving a determination on the mechanics of its proposed reconciling mechanism, the Department finds that National Grid's proposed tariff does not contain sufficient detail to ensure that customers are informed of the basis for the rates being charged. Thus, we direct the Company to employ the following reconciling mechanism. On or about January 15 of each

year, and for effect March 1, the Company shall submit a reconciling adjustment for the costs occurred in the prior calendar year. Further, the tariff shall be constructed so that all of the terms and calculations are clearly understood.

Finally, to the extent practicable, the Department finds it beneficial to institute a standard nomenclature for tariffs and rates. See Massachusetts Electric Company, D.P.U. 85-146, at 106 (1986); D.P.U. 84-145-A at 133-134. Therefore, consistent with the tariff language approved in D.P.U. 05-27, we find that the Attorney General consultant costs should be referred to as "Attorney General Consultant Expenses," or "AGCE." The Department directs the Company to incorporate such language into the revised tariff to be submitted to the Department for review as part of the Company's compliance filing to this Order.

O. Inspection and Maintenance Program

1. Introduction

National Grid is in the process of implementing a new inspection and maintenance ("I&M") program, which is designed to provide the Company with a comprehensive system-wide information on the condition of overhead and underground system components (Exh. NG-JP at 14). Although some of the program's costs are reflected in test-year employee levels, the Company is seeking to recover the incremental costs that it expects to incur as the program is fully implemented (Exhs. NG-JP at 28; NG-JP-1). First, the Company proposes to recover $1,830,748 associated with the anticipated incremental costs of implementing the inspection portion of its I&M program (Exhs. NG-JP at 28; NG-JP-1). The proposed costs are

incremental to the Company's test year costs of $1,436,727, as calculated using annualized salaries associated with year-end staffing levels (Exh. NG-JP-1; Tr. 2, at 295).[173] Second, the Company seeks approval of an annual rate adjustment mechanism through which it will collect and reconcile incremental costs of the I&M program (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1175).

National Grid's new I&M program is a result of a strategic shift in the operating focus of the Company's EDO annual work plan (Exh. NG-JP at 2-3). The Company claims that many of its key distribution assets are simultaneously approaching the end of their useful lives (Exh. NG-JP at 10). Historically, the Company has replaced infrastructure, on a system-wide basis, based on periodic engineering studies of asset performance and operating deficiencies (Exh. NG-JP at 8-9). The Company asserts that this strategy will no longer be effective in future years given the large amount of infrastructure that will need to be replaced over a relatively short time period (Exh. NG-JP at 8-9). As a result, the Company has adopted a series of asset strategies to guide the inspection, maintenance, and replacement of its various assets (Exh. NG-JP at 9-10).

National Grid states that systematic inspection of its infrastructure will be the basis for guiding the Company's capital replacement plans (Exh. NG-JP at 14). The incremental inspection activities planned by the Company include: (1) inspection of overhead distribution

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[173] The 2008 calendar year costs do not necessarily reflect actual inspection costs incurred during the test year because they are derived from specified work levels and associated full-time equivalents ("FTEs") that the Company reached during the course of the year. Of the 22 FTEs that the Company accounted for in the test year, 13 FTEs were hired by National Grid USA in late December 2008 (Exh. NG-JP-1; Tr. 2, at 295).

infrastructure on a five-year cycle; (2) inspection of underground transformers and internal switchgear on a five-year cycle; (3) sub-transmission ground-base patrol inspections on a five-year cycle; (4) sub-transmission aerial helicopter infrared patrol on a three-year cycle; (5) annual sub-transmission aerial helicopter visual patrols; and (6) semi-annual feeder patrol for all distribution feeders (Exh. NG-JP at 25-26). National Grid indicates that its new inspection processes will develop the categorization of assets into various condition levels (Exh. NG-JP at 26). Specifically, the condition of various assets will be scored as levels ranging from one through four, and this categorization will, in turn, guide the Company's maintenance and replacement work plans (Exh. NG-JP at 26).

According to National Grid, it expects to have its I&M program fully implemented, with 43 full-time equivalents ("FTEs"), by the end of 2010 (Exhs. NG-JP-1; DPU-NG 3-56). The Company asserts that 21 additional FTEs will be required in 2010, above the 22 FTEs included in the test year, to carry out inspection work in its New England operations (Exh. NG-JP-1).[174] As part of its anticipated incremental costs, the Company states that it will require $99,334 for external vendor costs and $167,627 for costs related to vehicles, equipment, and tools (Exh. NG-JP-1).

National Grid proposes to begin recovering incremental inspection costs in January 2010 by including an adjustment factor in base rates of $0.00008 per kWh

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[174] The Company allocated inspection costs to Massachusetts at a rate of 73.04 percent of National Grid USA's total New England inspection costs (Exh. NG-JP-1).

(Exh. NG-HSG-RR-9).[175] As noted above, the Company is also seeking approval of a rate adjustment to collect and reconcile future inspection-related costs (Exh. NG-JP at 42-43). If approved as proposed, National Grid would file a report with the Department by January 31st of each year, beginning in 2011, demonstrating the prior year cost of its I&M program, above the test-year level of $1,436,727 (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1175). The report would also include a calculation of the reconciliation adjustment to the prior year I&M program cost factor, if any. As proposed, the Department would have a minimum review period of one month, and adjustments to rates would take effect on March 31st of each year (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1175).

2. Positions of the Parties

a. Attorney General

The Attorney General offers various criticisms of automatic recovery mechanisms (see Attorney General Brief at 64-67). The Attorney General argues that reconciling mechanisms shift business risk from the utility to its customers by shifting recovery of the change in costs onto ratepayers and impairing the Department's ability to conduct a thorough review of costs because of the constrained review period and, thus, almost guarantee cost recovery and return on the Company's rate base (Attorney General Brief at 67). The Attorney General also argues that such mechanisms incent companies to spend money in order to make more money, resulting in higher bills to customers and decreased operational efficiency

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175 The adjustment factor is derived by dividing incremental inspection costs of $1,830,748 by the Company's forecasted electricity sales for 2010 (i.e., 22,093,104,375 kWh) (Exh. NG-HSG-RR-9).

(Attorney General Brief at 67). In addition, the Attorney General maintains that cost reconciliation mechanisms undermine the positive benefits to customers of regulatory lag on a utility's costs and, as such, remove the incentive for a company to keep its costs down between rate cases (Attorney General Brief at 68).

The Attorney General asserts that National Grid inappropriately relies on an NSTAR Electric rate settlement approved in NSTAR Electric, D.T.E. 05-85 (2005) to justify its proposed I&M recovery mechanisms (Attorney General Brief at 89, citing Exh. AG-7-7). She argues that no matter how well-supported a settlement may be, the Department has found that it would be inappropriate to rely on outcomes reached in settlement discussions as precedent in future proceedings (Attorney General Brief at 89, citing Massachusetts-American Water Company, D.P.U. 95-118, at 139 (1996)). The Attorney General asserts that because of the inherent process of negotiation and compromise that leads to settlement agreements, the Department should not approve the Company's I&M proposal without National Grid "voluntarily giving up something of substantial benefit in exchange" (Attorney General Brief at 89).

In addition, the Attorney General argues that the Company has failed to demonstrate that the I&M program is necessary. Specifically, the Attorney General suggests that there is a no distinction between the work to be performed under its proposed I&M program and that of the Company's current reliability enhancement program, which National Grid claims to be phasing out (Attorney General Brief at 90, citing Tr. 2, at 405; Tr. 21, at 3850). In addition, the Attorney General asserts that the I&M program does not qualify under traditional

ratemaking standards for pass-through tariff recovery (Attorney General Brief at 91). The Attorney General maintains that reconciling tariffs are used to recover costs that: (1) may materially affect a company's operations; (2) are objectively ascertainable; and (3) over which the company has very little control (Attorney General Brief at 91, citing 368 Mass. at 601-608; Exh. AG-61, at 34-36). First, the Attorney General finds it difficult to justify a separate tracking mechanism for a program that represents such a minimal impact to the Company's finances and is relatively small compared with its other costs, such as a distribution O&M budget that has exceeded $140 million in recent years (Attorney General Brief at 89, 91). Second, the Attorney General asserts that the costs of the program are not objectively ascertainable because they involve the use of the Company's own employees (Attorney General Brief at 91). Finally, the Attorney General argues that the proposed tariff adjustment is designed to recover costs related to functions that are completely under the control of the Company's management (Attorney General Brief at 91).

The Attorney General further argues that National Grid has failed to offer a consistent definition of the "incremental costs" that the I&M reconciling mechanism will recover (Attorney General Brief at 91-92). Specifically, the Attorney General contends that because the Company has not identified which costs are already included in base rates, there is no way to determine which costs are truly incremental and, thus, there is a risk that certain costs may be collected twice (Attorney General Brief at 92).

b. International Brotherhood of Electric Workers, Local 103

IBEW opines that the Company's comprehensive approach to inspection and maintenance and systematic capital investment will result in significant improvements in safety and reliability (IBEW Reply Brief at 3). IBEW argues that the Department in D.P.U. 07-50-A at 48-49, recognized distribution utilities may need certain recovery mechanisms in place to ensure adequate replacement and maintenance of capital (IBEW Reply Brief at 3). Therefore, the IBEW requests that the Department approve the Company's I&M proposal (IBEW Reply Brief at 4).

c. The Energy Network

TEN recommends that the Department reject the Company's proposal to create an additional tracking mechanism for I&M costs and instead rely on traditional ratemaking precedent to recover these costs (TEN Brief at 14). TEN suggests that under a decoupled regime, there is reason to conduct rate cases more often in order to more closely monitor a company's finances (TEN Brief at 14). By having more frequent rate cases, TEN asserts that there is a diminished need to implement self-reconciling mechanisms outside of base rates (TEN Brief at 14). TEN also questions whether a separate reconciling mechanism is needed for a marginal cost that will amount to only $1.8 million over the first year (TEN Brief at 16). In addition, TEN supports the Attorney General's position that utilities should already be conducting this type of I&M program and that neither pre-approval nor a special cost recovery mechanism is needed (TEN Brief at 16, citing Exh. AG-64, at 9, lines 9 to 15). Finally, TEN argues that if a separate I&M charge is approved by the Department, it should not be allocated

on a kWh basis but, instead, should be allocated to customers in the same manner as the cost would be allocated were the I&M program included in base rates (TEN Brief at 17).

d. Company

National Grid maintains that by implementing its proposed I&M program, the operational safety and reliability of the distribution system can be improved (Company Brief at 109). Furthermore, the Company believes that the scale of work and associated costs involved in the full implementation of the Company's program merit the approval of a separate adjustment mechanism (Company Brief at 109). The Company also asserts that timely recovery of these costs will encourage it to aggressively maintain the reliability of its assets and distribution infrastructure (Company Brief at 110). National Grid states that the expected increase to the costs of the I&M program will be greater than can be absorbed by the Company without annual rate relief (Exh. NG-JP at 28). The Company expects that future incremental costs of the I&M program will decrease or disappear over time, as the program progresses through its five-year working cycle (Company Brief at 109-110). Accordingly, the Company maintains that customers will benefit from a separate adjustment mechanism that appropriately accounts for these future cost decreases (Company Brief at 109-110). In the alternative, National Grid proposes that if the Department disagrees that the costs of the I&M program should be recovered through a reconciling mechanism, the Department approve the program's $1.8 million incremental expense in base rates as a known and measureable increase to test year O&M expense (Company Reply Brief at 37).

3. Analysis and Findings

The Company is seeking approval of two separate components related to its I&M program. First, it seeks approval of an annual rate adjustment through which it may collect and reconcile incremental costs of its inspection program (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1175). Second, the Company seeks to recover $1,830,748, associated with the incremental post-test-year expense that it expects to incur during 2010 in order to fully deploy its I&M program (Exhs. NG-JP at 28; NG-JP-1).

The Department finds that the incremental costs of the I&M program do not qualify under traditional ratemaking standards for pass-through recovery through an annual reconciling rate adjustment mechanism. Reconciling pass-through treatment may in some cases be appropriate to protect utilities and ratepayers from extraordinary financial pressures. See D.T.E. 03-47-A at 27; D.T.E. 03-47, at 8-9; D.T.E. 02-40, at 20. Nonetheless, the expected incremental costs of the Company's I&M program are relatively small. In the absence of a reconciling mechanism to recover I&M program costs, it is unlikely that the Company would realize any significant material impact to its operations or finances. Further, reconciling rate adjustment mechanisms are typically considered in circumstances in which a company's operating costs are pressured by significant volatility due to circumstances outside its control. 368 Mass. at 601-608; D.P.U. 07-50-A at 50. The Company's decision to refine its inspection strategy is completely within its management control.

The Department disagrees with the IBEW's conclusion that National Grid's proposed reconciliation mechanism is supported by a recognition in the Department's decoupling order

that recovery mechanisms may be required in order to ensure adequate replacement and maintenance of capital among decoupled utilities (See IBEW Reply Brief at 3-4). Although the Department's decoupling Order acknowledges that reconciling mechanisms may be warranted in some cases, our Order in no way authorizes decoupled distribution companies to adopt fully-reconciling mechanisms for their operating and capital costs. The Department recognized that circumstances vary from company to company and reiterated that distribution companies have the burden of proof to demonstrate the reasonableness of their proposals. See D.P.U. 07-50-A at 50.

The record does not support the Company's position that ratepayers will be better served by a rate reconciliation mechanism because costs of the I&M program are likely to decrease in the future. This determination depends on factors that are not currently known, such as the timing of future rate cases and any contingencies that may affect scheduled deployment of the Company's I&M program.

National Grid argues that if the Department rejects its proposed I&M reconciling mechanism, it should allow the Company to recover the incremental $1.8 million in base rates because these costs represent a known and measurable adjustment to test-year costs (Company Reply Brief at 37). In order to find that the costs of the program are known and measurable, the Department must find that the adjustments have actually taken place or that record evidence demonstrates that the adjustment will take place. The amount of the adjustment must also be quantifiable. The Department 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.

Despite the Company's assertion that the proposed incremental costs are known and measureable, however, the costs are estimates. The Company has acknowledged that contingencies such as labor negotiations and the acceptance of relocation packages could affect these estimates (Exh. AG-13-27; Tr. 2, at 300-301). National Grid has also not established when new employees will be hired, the compensation such employees will receive or when the employees will become fully operational (Tr. 2, at 241-243; 295-296; 300-301). Thus, we determine that the proposed incremental costs are neither known nor measurable.

The Department has in certain cases recognized estimates of incremental expenses associated with new projects in order to avoid severe financial impact to the utility. Massachusetts-American Water Company, D.P.U. 95-118, at 148 (1996); D.P.U. 85-270, at 153-157. National Grid has failed to demonstrate, however, that its inability to collect future incremental inspection costs will have a severe financial impact on the Company (Tr. 2, at 309-310). In the event that the Company's finances are adversely impacted by the deployment of its I&M strategy, National Grid will have the option to file a rate case seeking recovery of incremental costs once the program is implemented. Accordingly, the Company will not be permitted to pre-recover the incremental costs that it expects to incur to fully implement its I&M program.

In sum, the Department rejects the Company's proposal to establish a separate reconciling rate adjustment mechanism to recover its incremental I&M program costs. In

addition, the Department rejects National Grid's proposal to increase base rates by $1,830,748 to recover post- test year expenses associated with its I&M program.

The Department is sensitive to the Company's assertion that its infrastructure is becoming increasingly aged and that a higher level of inspection costs may be required to effectively manage its new capital replacement plan. The Department also recognizes that while some of the work to be performed under the Company's I&M strategy is similar to work conducted in the past, the frequency and scale of inspections will be significantly expanded and new inspection processes will be adopted (Exhs. NG-JP at 13-14; AG-7-6). This alone does not justify the need for a separate reconciling mechanism or pre-recovery of costs. If the Company's management has independently concluded that a new inspection strategy will reduce costs and improve value to ratepayers, the Company should adopt it. These are the types of decisions that the Company's management must make on its own. As National Grid continues to implement and possibly refine the program further, the Company will have the opportunity to seek recovery of costs in a future rate case proceeding.

P. Basic Service Adjustment Provision

1. Introduction

The Company currently recovers, through its basic service rates, supply-related bad debt and certain administrative costs that were transferred from base distribution rates to basic service rates as part of a settlement approved by the Department in Costs to Be Included in Default Service, D.T.E. 03-88A-F (2005). The transfer was done on a revenue neutral basis

by applying a credit to distribution rates that returned to ratepayers the amount transferred to basic service rates. Costs to be Included in Default Service, D.T.E. 03-88A-F (2005).

In its filing, the Company proposed to recover its actual commodity-related bad debt and administrative costs on a reconciling basis through basic service rates (Exh. NG-RLW at 9, 12-13). Commodity-related administrative costs are associated with: (1) working capital related to the provision of basic service; (2) compliance with the requirements of renewable energy portfolio standards, creation of the of the environmental disclosure label, and the New England Power Pool ("NEPOOL") generation information system attributable to basic service load; (3) procurement of basic service including requests for bids and contract negotiation, execution, and administration; and (4) notice to basic service customers of basic service rates as well as updating rate changes in the Company's billing system (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1162).

For rates effective January 1, 2010, National Grid proposed to recover $29,226,690 through its reconciling mechanism, which the Company calculated as the initial target level of commodity-related bad debt and administrative costs based on the twelve-month period beginning January 2009 (Exh. NG-RLW at 15; NG-HSG-RR-2 (Revised), at 3-4; RR-DPU-15 (Supp.), Sch. 1). The Company proposed to remove the initial target level from its distribution revenue requirement (Exhs. NG-HSG-RR at 45; NG-RLW at 12; RR-DPU-15 (Supp.), Sch. 2). In subsequent years, the Company would recover actual amounts on a fully-reconciling basis (Exh. NG-RLW at 15).

The Company's proposed basic service adjustment factor has two reconciling components. First, the Company would reconcile power supply cost of providing basic service with its basic service revenue associated with the recovery of the power supply costs (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1162). The excess or deficiency would be credited or charged to customers over the following twelve months with interest at the customer deposit rate (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1162). Second, the Company would reconcile administrative costs associated with providing basic service with its basic service revenue associated with recovery of the administrative costs. Again, any excess or deficiency would be credited or charged to customers over the following twelve months with interest at the customer deposit rate (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1162).

2. Positions of the Parties

a. Attorney General

While the Attorney General does not specifically address the Company's proposed change in its method for recovery of commodity-related bad debt and administrative costs, she asserts generally that the Department should deny the Company's proposed array of new reconciliation adjustment mechanisms (Attorney General Brief at 4, 67). The Attorney General argues that because costs associated with reconciliation mechanisms will be ultimately recovered directly from customers on a dollar-for-dollar basis, management has little incentive to minimize those costs, which will result in higher customer rates (Attorney General Brief at 67, citing Exh. AG-59 at 5-6). The Attorney General also asserts that cost reconciliations shift risk from the utility shareholders to customers (Attorney General Brief at 70-71). The

Attorney General contends that reconciling tariffs are appropriately used to recover costs: (1) that are objectively ascertainable; (2) over which a company has very little control; and (3) that may materially affect a company's operations (Attorney General Brief at 71, citing 368 Mass. at 601-608; Exh. AG-61, at 36). The Attorney General argues where that Company has failed to demonstrate that a proposed reconciliation mechanism complies with this standard, it should be rejected (Attorney General Brief at 71).

b. Company

The Company maintains that its proposal to recover the commodity-related portion of its bad debt through a fully reconciling mechanism is consistent with Department precedent (Company Brief at 104-105, citing D.T.E. 05-27, at 186-186; D.T.E. 05-GAF-P4/06-28, at 6-7). The Company asserts that the Department has previously determined that commodity price volatility is beyond the control of the distribution utility and can have a substantial and detrimental impact on the amount of bad debt (Company Brief at 104-105, citing D.T.E. 05-27, at 182).

National Grid asserts that a reconciling mechanism for the commodity-related portion of its bad debt is appropriate because the Company has no opportunity to earn a profit on basic service yet, absent a reconciling mechanism, it bears the risk of non-recovery of these costs (Company Brief at 105). National Grid also argues that bad debt should be reconciled on an annual basis because locking in a fixed level of commodity-related bad debt could be disadvantageous to customers during a period of declining basic service rates (Company Brief

at 105). The Company does not address on brief its proposed inclusion of commodity-related administrative costs in its reconciling mechanism.

3. Analysis and Findings

The Company proposes to recover its actual commodity-related bad debt and certain commodity-related administrative costs on a reconciling basis through basic service rates (Exh. NG-RLW at 9, 12-13). The first issue to address is whether National Grid may recover actual commodity-related bad debt on a going-forward basis. The Department has previously noted that, in a market characterized by price volatility, fixing the total amount of uncollectible expense that could be recovered as part of a base rate proceeding may have a significant impact on a company's earnings and could violate the Department's rate structure goal of earnings stability. D.T.E. 05-27, at 183. Notably, the Department found that the recovery method for gas cost-related bad debt expense established in D.T.E. 02-24/25 and affirmed in D.T.E. 03-40 no longer achieves the Department's rate structure goal of earnings stability. D.T.E. 05-27, at 183-184. Hence, the Department determined that on a going-forward basis, it is appropriate to permit recovery of increases in supply-related bad debt expenses. D.T.E. 05-27, at 185-186.

The Department determines that there continues to be factors that are outside of the utility's control that could result in the level of actual post test year write-offs to deviate from the level initially determined to be reasonable. Any over- or under-collections that occur as a result of such deviation could, over time, impact the Company's earnings stability, financial integrity, and its ability to attract capital. Further, the Department has previously determined

that it is appropriate for utilities to recover commodity-related bad debt through a reconciling mechanism similar to that proposed by National Grid in this case. D.T.E. 05-27, at 185-186; D.T.E. 02-24/25, at 170-171. Therefore, the Department will remove $23,813,772, representing National Grid's test year commodity-related bad debt as shown on Exhibit NG-HSG-RR-7 (Rev.) at 2, from the Company's cost of service and allow the Company to recover its commodity-related bad debt through a reconciling mechanism.

In addition to its commodity-related bad debt, the Company proposes to recover commodity-related administrative costs through a reconciling mechanism. Commodity-related administrative costs are comprised of: (1) $5,038,920 in working capital related to the provision of basic service; (2) $86,392 in costs related to complying with the requirements of renewable energy portfolio standards, creation of the of the environmental disclosure label, and the NEPOOL generation information system attributable to basic service load; (3) $273,795 in costs related to procurement of basic service including requests for bids and contract negotiation, and execution, and administration; and (4) $13,811 in costs related to notifying basic service customers of basic service rates as well as updating rate changes in the Company's billing system (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1162). In addition, the Company proposes to recover interest on the administrative costs at the interest rate paid on customer deposits (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1162).

The Department has previously permitted recovery of working capital through a commodity-related bad debt reconciling mechanism. D.T.E. 02-24/25, at 51. The Department has stated that in principle, all costs of providing basic service should be

unbundled and included in the rates paid by customers receiving basic service so as not to act as a barrier to competition. Pricing and Procurement of Default Service, D.T.E. 99-60-B at 19 (2000). Therefore, we find it appropriate to recover working capital associated with basic service through basic service rates.

National Grid proposes to recover the remaining three commodity-related administrative costs through the reconciling mechanism with the costs adjusting each year (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1162). The Department has previously allowed recovery of such administrative costs through a reconciling mechanism. D.P.U. 07-71, at 144-145. The Department, however, has not allowed companies to adjust these costs on an annual basis and, instead, has required companies to include a set level of the costs in the reconciling mechanism because we have previously determined that the costs are analogous to test year costs included in base distribution rates and have been moved out of distribution rates simply because such costs relate to supply. D.P.U. 07-71, at 144-145; D.T.E. 05-27, at 313; D.T.E. 02-24/25, at 281-284; D.T.E. 98-51, at 154; D.P.U. 96-50 (Phase I) at 50. Therefore, the Department rejects the Company's proposal to reconcile these administrative costs on an annual basis. Instead, we find that the Company may recover $373,998 as a fixed cost on an annual basis through its basic service adjustment provision.

Q. Inflation Allowance

1. Introduction

The Company proposed an inflation adjustment of $1,886,977 (Exh. NG-HSG-RR-2 (Rev.) at 18).[176] The Company used the GDP-PI to calculate the inflation allowance (Exh. NG-HSG-RR-2 (Rev.) at 18). The Company applied the GDP-PI from the midpoint of the test year to the midpoint of the rate year, which resulted in a 1.28 percent inflation factor (Exh.NG-HSG-RR-2 (Rev.) at 18). The Company calculated the inflation adjustment by multiplying the inflation factor of 1.28 percent by its residual O&M expenses of $147,420,093, thus producing an inflation adjustment of $1,886,977 (Exh. NG-HSG-RR-2 (Rev.) at 18).

2. Analysis and Findings

The inflation allowance recognizes that known inflationary pressures tend to affect a company's expenses in a manner that can be measured reasonably. D.T.E. 05-27, at 203; D.T.E. 02-24/25, at 184; D.T.E. 01-56, at 71; D.T.E. 98-51, at 100; D.T.E. 96-50 (Phase I) at 112; D.P.U. 95-40, at 64). The inflation allowance is intended to adjust certain O&M expenses for inflation, where the expenses are heterogenous in nature and include no single expense large enough to warrant specific focus and effort in adjusting. D.P.U. 1720, at 20-21; D.P.U. 956, at 40. The Department permits utilities to increase their test year residual O&M

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[176] The Company provided a revised inflation adjustment of $1,808,415 when it submitted its final proposed schedules on November 4, 2009 (RR-DPU-15 (Supp.), at 2). The Company did not, however, provide any supporting documentation or explanation of the decrease in its proposed inflation adjustment.

expense by the projected GDP-PI from the midpoint of the test year to the midpoint of the rate year. D.P.U. 95-40, at 64; D.P.U. 92-250, at 97; D.P.U. 92-78, at 60.

In order for the Department to allow a utility to recover an inflation adjustment, the utility must demonstrate that it has implemented cost containment measures. D.P.U. 96-50 (Phase I) at 113. In other words, the Department requires companies to reduce or minimize increased O&M levels. National Grid has implemented the following cost containment measures. First, the Company self-insures for the medical and dental programs offered to employees (Exh. NG-WFD at 17). By self insuring, the Company is able to save on agency and margin costs (Tr. 6, at 1137). Second, the Company offers a variety of health and wellness programs to its employees that reduce the occurrence of costly diseases (Exh. NG-WFD at 17; Tr. 6, at 1135). The Department considers that health and wellness programs will assist in controlling health care costs and minimizing absenteeism, thereby improving employee productivity. Third, the Company's incentive pay program provides its workforce with an incentive for greater productivity which reduces labor costs (Exh. NG-WFD at 6). Finally, the Company has implemented an enhanced collections program to address and mitigate the rising level of uncollectible accounts (Exhs. NG-RLW at 7, 23-24; AG-4-31; Tr. 2, at 425). Accordingly, we find that National Grid has implemented cost containment measures, and has thereby demonstrated that it is eligible to recover an inflation allowance.

If an O&M expense has been adjusted or disallowed by the Department for ratemaking purposes, that expense is also removed in its entirety from the inflation allowance. D.T.E. 05-27, at 204; D.T.E. 02-24/25, at 184; D.P.U. 87-122, at 82. The Department has

adjusted the Company's O&M expense for medical and dental expenses, employee thrift plan-company match expenses, relocation and home buyout, employee lease terminations, and affiliated transactions, as well as software leases. Therefore, the test year expense associated with these items, totaling $126,301,029, will be added back to National Grid's residual O&M expense calculations. As shown in Table 1, the Company's initially requested an inflation allowance of $2,123,609, which was subsequently reduced in the Company's revised schedules to $1,808,415. Accordingly, the Department will increase the Company's proposed cost of service by $315,194.

Table 1: Adjustment to Operating Expenses - Inflation Adjustment

		DPU ADJUSTMENTS	
Test Year O&M Expense Per Books	$292,257,576	(49,621)	$292,207,955
Less Normalizing Adjustments Items			
Salaries and Wages			
MECo/Nantucket employees			59,562,396
Service Employees			51,932,875
KeySpan Employees			2,363,449
Medical and Dental Expense			13,345,419
Group Insurance Expense			1,591,751
Employee Thrift Plan- Company Match			3,723,303
Lease Terminations			1,997,899
Postage Expense			4,855,204
Environmental Fund Collections			4,028,460
Inspection & Maintenance program rate			1,436,727
			144,837,483
O&M Expenses Subject to Inflation per Company			147,420,093
Projected Inflation Rate			1.28%
Inflation Allowance			$1,886,977
LESS: DPU Adjustments			
Company Adjustments		144,837,483	
Medical and Dental Expense		-13,345,419	
Employee Thrift Plan- Company Match		-3,723,303	
Relocation and Home Buyout Expense		325,592	
Lease Terminations		-1,997,899	
Lease Terminations		204,575	
DPU Sub-total		126,301,029	
Residual O&M Expense			$165,906,926
Projected Inflation Rate			1.28%
Inflation Allowance			$2,123,609
Inflation Expense per Revised Schedules			1,808,415
Adjustment			**315,194**

R. Interest on Customer Deposits

1. Introduction

During the test year, National Grid booked $343,981 in interest paid on customer security deposits (Exh. NG-HSG-RR-2 (Rev.) at 3). The Company has proposed to include this interest expense in its proposed cost of service (Exh. NG-HSG-RR-2 (Rev.) at 3).

2. Analysis and Findings

The Department's policy is to treat customer deposits as an offset to rate base, and to include in cost of service the interest paid on these deposits. D.P.U. 1720, at 90; D.P.U. 1580, at 46; D.P.U. 1350, at 20. The Company has included its customer deposit balance of $7,626,729 as an offset to rate base (Exh. NG-HSG-RR-2 (Rev.) at 26). Consistent with this treatment, the Department finds it appropriate to include in the Company's cost of service the appropriate interest expense associated with these deposits.

The Department's regulations require utility companies to pay interest on any customer deposit, represented by cash or cash-equivalent securities, that are held for more than six months. 220 C.M.R. § 26.09. The interest paid is equal to the rate paid on two-year U.S. Treasury notes for the preceeding twelve months ending December 31 of each year, as reported by the Federal Reserve System's monthly bulletin. 220 C.M.R. § 26.09. The interest rate on two-year Treasury notes for the year ending December 31, 2008 was 2.01 percent (see Federal Reserve Statistical Release H.15, "Selected Interest Rates"). Therefore, the Department will apply this interest rate to the Company's test year-end balance of customer

deposits, producing a total interest expense of $153,297. Accordingly, the Company's proposed cost of service will be reduced by $190,684.

VI. CAPITAL STRUCTURE AND RATE OF RETURN

A. Introduction

National Grid proposed a 9.20 percent weighted average cost of capital ("WACC"), representing the rate of return to be applied on rate base to determine the Company's total return on its investment (Exhs. NG-PRM at 2; NG-PRM-1, Sch. NG-PRM-1, at 1). This rate is based on: (1) a proposed capital structure that consists of 49.50 percent long-term debt, 0.14 percent preferred stock and 50.36 percent common equity; (2) a proposed cost of long-term debt of 6.78 percent; (3) a proposed cost of preferred stock of 4.44 percent; and (4) a proposed rate of ROE of 11.60 percent (Exhs. NG-PRM at 3-5; NG-PRM-1, Sch. 1, at 1).

In determining its proposed ROE, the Company applied three equity cost models, consisting of the discounted cash flow ("DCF") model, the risk premium model ("RPM"), and the capital asset pricing model ("CAPM") on the market and financial data for a comparison group of seven electric distribution companies (Exhs. NG-PRM at 5; NG-PRM-1, Sch. NG-PRM-3, at 2). In addition, the Company applied a fourth model, the comparable earnings model ("CEM"), on the market and financial data for a comparison group of 26 non-regulated firms (Exhs. NG-PRM at 5, 61-65; NG-PRM-1, Sch. NG-PRM-11).

The components of National Grid's proposal, including the capital structure, the companies that compose the comparison group used by the Company, the applications of the

equity cost models to determine the proposed ROE, and the impact on ROE of the Company's proposed revenue decoupling mechanism, are discussed below.

B. Capital Structure

1. Description

The Company initially proposed a capital structure for the combined MECo and Nantucket Electric operations consisting of $796,965,000 in long-term debt at a proposed cost of 6.78 percent, $2,259,000 in preferred stock at a proposed cost of 4.44 percent and $810,875,000 in common equity at a proposed cost of 11.60 percent, for a total capitalization of $1,610,099,000 with the corresponding capital structure ratios of 49.50 percent, 0.14 percent, and 50.36 percent, respectively (Exhs. NG-PRM at 3-5; NG-PRM-1, Sch. NG-PRM-1, at 1-2). The Company proposed this capital structure for rate setting purposes as a basis for determining its WACC that excludes $86,400,000 representing the combined amount of short-term debt for MECo and Nantucket Electric (Exh. NG-PRM-1, Sch. NG-PRM-1, at 2).[177]

The proposed capital structure incorporated the intended refinancing and recapitalization proposal of MECo filed with the Department on May 13, 2009 (Exhs. NG-PRM at 2-3; NG-PRM-1, Sch. NG-PRM-1, at 2).[178] On October 19, 2009, the

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[177] If short term debt were included, the resulting capital structure ratios will consist of 46.98 percent long term debt, 5.09 percent short term debt, 0.13 percent preferred stock, and 47.80 percent common equity (Exh. NG-PRM-1, Sch. NG-PRM-1, at 2).

[178] On May 13, 2009, MECo filed an application for authorization and approval to issue long term debt securities in an amount not to exceed $1.075 billion (Exh. DPU-NG 2-12, Att. 1, at 1). The Company indicated that its immediate

Department approved the Company's financing application in Massachusetts Electric Company, D.P.U. 09-41 (October 21, 2009).

On November 10, 2009, MECo initiated the issuance of $800 million in long-term debt pursuant to the Department's Order in D.P.U. 09-41 (RR-DOER-2). The Company stated that the proceeds from the debt issuance will be received on November 18, 2009, the closing date of the transaction, at which time MECo will pay a dividend of $335 million to its immediate parent company, National Grid USA. The remaining proceeds of $465 million, net of a discount and estimated issuance costs totaling $9.072 million that will be deducted at the time of closing, will be used to reduce MECo's outstanding short-term debt balance (RR-DOER-2).

MECo's revised capital structure pro forma to reflect the above-described recapitalization consists of $820,000,000 in long-term debt, $114,697,000 in short-term debt, $2,259,000 in preferred stock, and $820,873,000 in common equity for a total capitalization of $1,757,829,000 (RR-DOER-2, Att. RR-DOER-2-1, at 2). This pro forma capital structure post capital restructuring is based on MECo's pro forma capital structure as of September 30, 2009 (instead of December 31, 2008 as initially filed) (RR-DOER-2, Att. RR-DOER-2-1, at 2; Exh. NG-PRM-1, Sch. NG-PRM-1, at 2).

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financing need was the issuance of approximately $775 million of new long-term debt to repay $427 million of short-term debt and pay $348 million of dividends (Exhs. DPU-NG 2-12, Att. 1, at 12-13; DPU-NG-2-13). The remaining $300 million would be issued from time to time through March 31, 2012, to finance a portion of the Company's future capital expenditures (Exh. DPU-NG-2-12, Att. 1, at 13; Tr. 3, at 571-572).

Nantucket Electric's adjusted capital structure as of December 31, 2008 consists of $1,965,000 in long-term debt, $2,650,000 in short-term debt and $14,396,000 in common equity (Exh. NG-PRM-1, Sch. NG-PRM-1, at 2; RR-DOER-2, Att. RR-DOER-2-1). Combining MECo's pro forma adjusted capital structure as of September 30, 2009, that incorporates its recapitalization pursuant to D.P.U. 09-41, with Nantucket Electric's adjusted capital structure as of December 31, 2008, results in an updated pro forma capital structure consisting of $821,965,000 in long term debt at a proposed cost of 5.96 percent, $2,259,000 in preferred stock at a proposed cost of 4.44 percent and $835,269,000 in common equity at a proposed cost of 11.60 percent, for a total capitalization of $1,659,493,000 with the corresponding capital structure ratios of 49.53 percent, 0.14 percent and 50.33 percent, respectively (RR-DOER-2, Att. RR-DOER-2-1, at 1-2). The Company proposed this capital structure for rate setting purposes as a basis for determining its WACC, excluding $117,347,000 representing the combined amount of short term debt for MECo and Nantucket Electric (RR-DOER-2, Att. RR-DOER-2-1, at 2; Exh. NG-PRM-1, Sch. NG-PRM-1, at 2).[179]

MECo's pro forma common equity balance of $1,155,873,000 as of September 30, 2009 incorporates the removal of goodwill in the amount of $1,008,244,000 and accumulated other comprehensive income of negative $197,382,000 for a net adjustment of $810,862,000 (= $1,008,244,000 - $197,382,000) (RR-DOER-2, Att. 1, at 2; see

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[179] If short-term debt were included, the resulting capital structure ratios will consist of 46.26 percent long-term debt, 6.60 percent short-term debt, 0.13 percent preferred stock, and 47.01 percent common equity (RR-DOER-2, Att.; RR-DOER-2-1, at 2; Exh. NG-PRM-1, Sch. NG-PRM-1, at 2).

Exhs. DPU-NG 2-19, Att.; DPU-NG 2-19-6 (Supp.)).[180] In addition, MECo's pro forma common equity balance as of September 30, 2009 reflects a retained earnings balance of $547,398,000 (RR-DOER-2, Att. at 1).[181]

Nantucket Electric's adjusted common equity balance of $14,396,000 as of December 31, 2008 incorporates the removal of goodwill in the amount of $15,706,000 and accumulated other comprehensive income of negative $978,000 for a net adjustment of $14,728,000 (= $15,706,000 - $978,000) (Exhs. NG-PRM-1, Sch. NG-PRM-1, at 2; DPU-NG 2-19; DPU-NG 2-19, Att. 6 (Supp.); RR-DOER-2, Att. 1, at 2). Nantucket Electric's adjusted long-term debt as of December 31, 2008 reflects the removal of $13.3 million of outstanding debt dedicated to the financing of the first undersea cable project, $38.0 million of debt dedicated to the second undersea cable project and $0.054 million of unamortized debt issuance expenses (Exhs. NG-PRM-1, Sch. NG-PRM-1, at 2; DPU-NG 2-19; DPU-NG 2-19 (Supp.); RR-DOER-2, Att. 1, at 2).[182]

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180 The pro forma adjusted capital structure as of September 30, 2009, prior capital restructuring also incorporates the removal of unamortized long-term debt issuance expense of $245,000, instead of the initially-filed amount of $310,000 as of December 31, 2008 (RR-DOER-2, Att. 1, at 2; Exh. NG-PRM-1, Sch. NG-PRM-1, at 2; see D.P.U. 09-41, at 5).

181 MECo's retained earnings balance as of December 31, 2008, is $536,004,855 (Exh. AG-1-2, Att. AG-1-2-8, at 33; see D.P.U. 09-41, at 5).

182 In addition, the principal amount of Massachusetts Development Finance Agency ("MDFA") Electric Utility Revenue Bonds ("EURB") Series 2004 of $2.16 million outstanding at December 31, 2008, was reduced by $0.195 million representing a sinking fund payment made in March 2009 (Exhs. NG-PRM-1, Sch. NG-PRM-1, at 2; DPU-NG-2-19; DPU-NG-2-19 (Supp.); RR-DOER-2, Att. RR-DOER-2-1, at 2).

2. Positions of the Parties

a. Attorney General

The Attorney General opposes the Company's capital structure ratio claiming that it is not appropriate and not in line with the electric industry generally (Attorney General Brief at 164). The Attorney General claims that the Company, having acknowledged that its test-year capital structure substantially deviates from sound utility practice, proposed a capital structure based on its financing application in Massachusetts Electric Company d/b/a National Grid, D.P.U. 09-41 (October 19, 2009) (Attorney General Brief at 164, citing Exh. NG-PRM-1). The Attorney General argues that the Company's proposal is a hypothetical capital structure that is based on MECo's projected capital structure after the Company's financing proposal for the issuance of long-term debt securities (Attorney General Brief at 164). The Attorney General claims that where a company's capital structure deviates substantially from sound and well-established utility practice, the Department has imposed a hypothetical structure for rate setting purposes (Attorney General Brief at 163, citing Nantucket Electric Company, D.P.U. 91-106/91-138, at 96 (1991)). The Attorney General maintains that National Grid's capital structure deviates substantially from sound utility practice (Attorney General Brief at 164).

The Attorney General instead recommends a capital structure that includes $83,750,000 in short-term debt, $796,965,000 in long-term debt, $2,259,000 in preferred stock and $810,875,000 in common equity for a total capitalization of $1,693,849,000 (Exh. AG-63, exh. JRW-5, at 1). The corresponding capital structure ratios are: 4.94 percent in short-term

debt, 47.05 percent in long-term debt, 0.13 percent in preferred stock, and 47.87 percent in common equity (Attorney General Brief at 165, citing Exh. AG-63, exh. JRW-5).[183] The Attorney General claims that her proposed capital structure more accurately reflects the Company's capitalization post refinancing as well as the capital structures of electric utilities, noting that the average quarterly capital structure ratio, that includes short-term debt for her proxy group of electric companies, is 44.0 percent (Attorney General Brief at 164-165, citing Exh. AG-63, exh. JRW-5, at 2). The Attorney General adds that her proposed capital structure ratio meets the Department primary objective of setting an appropriate capital structure that relieves ratepayers from the burden of higher-cost equity capital (Attorney General Brief at 165, citing North Attleboro Gas Company, D.P.U. 86-86, at 21-22 (1986)).

Contrary to the Company's proposal, the Attorney General's proposed capital structure includes short-term debt because the Company finances a large portion of its rate base through short-term debt (Attorney General Brief at 166). More specifically, the Attorney General claims that MECo has consistently used short-term debt in place of long-term debt, noting that as of December 31, 2008, the Company's capital structure had only 1.19 percent long-term debt while it had 30.45 percent short-term debt (Attorney General Brief at 166, citing Exh. NG-PRM at 3).

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[183] In her proposal for a capital structure that includes short-term debt, the Attorney General used the same amounts that the Company proposed for the long-term debt, preferred stock, and common equity components that represent the combined amounts for MECo and Nantucket Electric (Exh. AG-63, exh. JRW-5, at 1). The Attorney General, however, only used MECo's short-term debt and did not include Nantucket Electric's short-term debt of $2,650,000 (Exhs. AG-63, exh. JRW-5, at 1; NG-PRM-1, Sch. PRM-1, at 2).

The Attorney General claims that the Department, as a general rule, does not include short-term debt in capitalization based on the notion that short-term debt is generally not used to finance costs included in rate base (Attorney General Brief at 165, citing D.P.U. 02-24/25, at 209). The Attorney General adds that short-term debt is primarily used to finance construction and the day-to-day operations of a utility (Attorney General Brief at 166, citing D.P.U. 02-24/25, at 209).

The Attorney General, however, claims that the Department has occasionally included short-term debt in capital structure upon a demonstration that the utility's short-term debt functions as long-term debt (Attorney General Brief at 166, citing D.P.U. 02-24/25, at 209; North Attleboro Gas Company, D.P.U. 86-86, at 22-23 (1986); Chatham Water Company, D.P.U. 323, at 8 (1981)). The Attorney General contends that all of the attendant costs and benefits needed to address the Company's significant reliance on short-term debt are in the record in this case (Attorney General Brief at 166, citing D.P.U. 02-24/25, at 213 n.90). The Attorney General recommends that the Department find that when companies rely on short-term debt to finance a significant portion of the construction and day-to-day operations, as she claims the Company has done here, the inclusion of short-term debt is a necessary component of capital structure (Attorney General Brief at 166, citing D.P.U. 08-27, at 126-127).

In addition, the Attorney General claims that, with decoupled rates, the Company has the ability to true-up its revenues, will actually earn the rates established in this proceeding during the period in which those rates are effective, and can no longer claim that the rate to

which it has been "found to be presently entitled, clearly cannot be earned during the foreseeable effective period of the ordered rates" (Attorney General Brief at 167, citing New England Telephone and Telegraph Company, 331 Mass. 604, 622 (1954)). The Attorney General asserts that the failure to reflect short-term debt in the capital structure, "in effect, double charges customers by having them pay an equity price for short-term debt when the current cost of short-term debt is 1 percent" (Attorney General Brief at 167, citing Exhs. AG-63, exh. JRW-1).

b. Company

The Company states that, although its capitalization ratios as of December 31, 2008, after removing goodwill and accumulated other comprehensive income, were 68.23 percent common equity, 30.45 percent short-term debt, 1.19 percent long-term debt, and 0.13 percent preferred stock, those ratios will change to approximately 50.36 percent common equity, 49.50 percent long-term debt and 0.14 percent preferred stock after its recapitalization plan filed in D.P.U. 09-41 (Company Brief at 50-51, citing Exh. NG-PRM-1, Sch. NG-PRM-1, at 1).[184] The Company noted that it will continue to have a small component of short-term debt but did not include it in its capital structure for purposes of determining its overall rate of return (Company Brief at 51 n.13).

The Company asserts that the resulting common equity ratio of 50.36 percent is similar to the ratio that was used by the Department to establish its rates in D.P.U. 95-40 (Company

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[184] The Company stated that it would submit updated capitalization data upon completion of its plan of recapitalization and prior to issuance of the Department's Order in this proceeding (Company Brief at 51 n.14, citing RR-DOER-2).

Brief at 50-51, citing Exh. NG-PRM at 3).[185] The Company added that this common equity ratio is generally in line with the 48 percent average for the electric utility industry in 2008, exclusive of short-term debt, and projected to increase to 50 percent (Exh. NG-PRM at 3-4, citing The Value Line Investment Survey (February 27, 2009)).

National Grid opposes the Attorney General's proposal to include short-term debt in the Company's capital structure for the purpose of determining its WACC for several reasons (Company Brief at 51-52). First, such a proposal is contrary to Department's long standing precedent (Company Brief at 51, citing D.P.U. 02-24/25, at 209; New England Telephone and Telegraph Company, D.P.U. 94-50, at 432 (1995)). The Company claims that the existence of short-term debt in the Company's capital structure, above the level needed for working capital, is temporary in nature given the long-term nature of the assets being financed and the Company's refinancing proposal in D.P.U. 09-41 (Company Brief at 51).

Second, the Company claims that its total capitalization exceeds its rate base (Company Brief at 51, citing Exh. NG-PRM-Rebuttal at 5). The Company argues that to the extent that total capitalization exceeds the assets included in rates, it would be inappropriate to include such capital for purposes of determining the Company's WACC (Company Brief at 51, citing Exh. NG-PRM-Rebuttal at 5). The Company explains that MECo's total capitalization, including short-term debt, exceeds MECo's rate base plus construction work in progress ("CWIP") at the end of the test year by more than the amount of short-term debt and,

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[185] MECo's capital structure approved in its last rate case consisted of 43.13 percent long-term debt, 6.44 percent preferred stock, and 50.44 percent common equity. Massachusetts Electric Company, D.P.U. 95-40, at 177 (1995).

therefore, demonstrates that short-term debt is not supporting rate base and CWIP (Company Brief at 51-52, citing Exh. NG-PRM-Rebuttal at 5). The Company adds that since CWIP is not included in rate base for purposes of determining rates, it also should be excluded from the calculation of WACC (Company Brief at 52). The Company contends that a substantial amount of short-term debt has been incurred by MECo to redeem long-term debt and preferred stock and finance investments in utility plants, which are now in service and have long service lives (Exh. NG-PRM at 2-3). The Company added that its proposed recapitalization plan to pay off its short-term debt with new long-term debt will free up its short-term debt borrowing capacity that serves the purpose of providing bridge financing to temporarily fund new CWIP until such time as these projects are placed in service and permanently financed (Exh. NG-PRM at 3).

Finally, the Company argues that it would be punitive to include short-term debt based on the Company's test year capital structure without giving weight to the higher equity level that also was a part of its test year capital structure (Company Brief at 52). More specifically, the Company contends that there is no basis to take one component of the Company's historical capital structure and use it for ratemaking purposes without also taking into account the remainder of the capital structure (Company Brief at 52).

3. Analysis and Findings

A company's capital structure typically consists of long-term debt, preferred stock, and common equity. D.P.U. 07-71, at 122; D.T.E. 03-40, at 319; Pinehills Water Company, D.T.E. 01-42, at 17-18 (2001). The ratio of each capital structure component to the total

capital structure is used to weigh the cost (or return) of each capital structure component to derive a WACC. The WACC is used to calculate the return on rate base for calculating the appropriate debt service and profits for the company to be included in its revenue requirements. D.P.U. 07-71, at 122; D.T.E. 03-40, at 319; D.T.E. 01-42, at 17-18; South Egremont Water Company, D.P.U. 86-149, at 5 (1986).

The Department will normally accept a utility's test year-end capital structure, allowing for known and measurable changes, unless the capital structure deviates substantially from sound utility practice. D.T.E. 03-40, at 319; High Wood Water Company, D.P.U. 1360, at 26-27 (1983); Blackstone Gas Company, D.P.U. 1135, at 4 (1982). The Company performed certain adjustments to MECo's actual capital structure as of December 31, 2008 and updated as of September 30, 2009. Similarly, the Company performed certain adjustments to Nantucket Electric's actual capital structure as of December 31, 2008.

The Company included in its capitalization a negative balance of $197,382,000 and $978,000 for MECo and Nantucket Electric, respectively, in accumulated other comprehensive income losses (RR-DOER-2, Att. 1, at 2; Exh. DPU-2-19 (Supp.), Atts. 3 (Supp.), 6 (Supp.)).[186] This balance sheet item does not represent "outstanding stock" as used in G.L. c. 164, Section 16, and, therefore, will be excluded from the Company's capitalization. See

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[186] Other comprehensive income refers to balance sheet entries associated with certain types of financial activity, including gains and losses or investments and pension obligations (Exh. DPU-NG 2-19 (Supp.), Atts. 3 (Supp.), 6 (Supp); see Nantucket Electric Company and Massachusetts Electric Company, D.T.E. 04-74, at 21-22 (2004)).

Nantucket Electric Company and Massachusetts Electric Company, D.T.E. 04-74, at 21-22 (2004).

In addition, the updated pro forma capital structure for MECo incorporates a retained earnings balance of $547,398,000 as of September 30, 2009 compared to the retained earnings balance of $536,004,855 as of December 31, 2008 (RR-DOER-2, Att. RR-DOER-2-2; Exh. AG-1-2, Att. AG-1-2-8, at 33). Retained earnings balances fluctuate from one quarter to another to a greater degree than other components of capitalization, such as long-term debt and common stock. Because this adjustment was filed after the record was closed in this proceeding, the Department is unable to ascertain whether such an adjustment is appropriate. Milford Water Company, D.P.U. 92-101, at 36-37 (1992). Accordingly, the Department will disallow the use of MECo's retained earnings as of September 30, 2009 and instead direct the Company to use MECo's retained earnings balance of $536,004,855 as of December 31, 2008 for the purpose of determining its common equity balance in its capital structure.

Regarding the removal of unamortized debt issuance expenses of $245,000 and goodwill of $1,008,244,000 for MECo and the other adjustments in the capitalization for Nantucket Electric as described above, no party contested those adjustments. The Department finds that those proposed adjustments are known and measurable and consistent with Department precedent. D.T.E. 05-27, at 269-272; D.T.E. 03-40, at 319-324; Colonial Gas Company, D.P.U. 84-94, at 51-52 (1984).

On November 10, 2009, MECo initiated the issuance of $800 million in long-term debt and that the proceeds will be received on November 18, 2009, the closing date of the

transaction (RR-DOER-2). At that time, MECo will pay a dividend of $335 million to its parent company, National Grid USA, and the remaining proceeds of $465 million, net of a discount and estimated issuance costs totaling $9.072 million that will be deducted at the time of closing, will be used to reduce MECo's outstanding short-term debt (RR-DOER-2).[187]

Although the Department has previously rejected adjustments to a company's capital structure for changes which may occur in the future after the issuance of an order,[188] we will accept the Company's proposed pro forma capital structure in this case for two reasons. First, the Company has completed the issuance of $800 million long-term debt and that the dividend payment of $335 million has been authorized by the Company's board of directors as of November 6, 2009 (RR-DOER-2, Att. RR-DOER-2-3). In addition, the Company has represented that the remaining balance of $465 million ($800 million - $355 million), net of

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[187] On November 24, 2009, the Company filed a supplemental response to Record Request DOER-2 indicating that as of November 23, 2009 it has ascertained the final costs for all expense items except legal fees, the final costs of which will not be known for some time (RR-DOER-2 (Supp.)). The updated annual amortization of debt discount and expenses is $327,000 compared to the $329,000 filed on November 18, 2009 (RR-DOER-2, Att. 1; RR-DOER-2 (Supp.)). This change, however, has no effect on the long-term debt cost rate of 5.96 percent (RR-DOER-2, Att. 1; RR-DOER-2 (Supp.)).

[188] In Colonial Gas Company, D.P.U. 84-94, at 50, 52 (1984), the Department rejected adjustments to the company's capital structure for changes, which may occur after the date of the Order, to reflect the appropriate balance between the various elements of such a capital structure as it actually exists on the latest available date prior to the issuance of a rate order. Colonial Gas Company, D.P.U. 84-94, at 50, 52 (1984), citing Bay State Gas Company, D.P.U. 1122 (1982). While the Attorney General opposed the proposed changes after the date of Order in D.P.U. 84-94, theAttorney General did not contest the proposed changes arising from Company's recapitalization plan in this case. See generally Attorney General Brief at 163-165, Attorney General Reply Brief at 56-57, and Attorney General Supplemental Brief at 12-13.

discount and issuance costs, will be used to reduce MECo's outstanding short-term debt (RR-DOER-2).

Second, we note that the Company's end-of-test-year adjusted capital structure shows a common equity ratio of 68.31 percent (see Exh. NG-PRM-1, Sch. PRM-1, at 2).[189] In reviewing and applying utility company capital structures, the Department seeks to protect ratepayers from the effect of excessive rates of return. D.T.E. 03-40, at 319; Assabet Water Company, D.P.U. 1415, at 11 (1983); D.P.U. 1135, at 4; see Mystic Valley Gas Company v. Department of Public Utilities, 359 Mass. 420, 430 n.14 (1971). In D.T.E. 03-40, at 324-325, for example, the Department, noting that the company's removal of goodwill from its adjusted capital structure would have resulted in a common equity ratio of 66.11 percent, found that such a structure was over-reliant on common equity and deviates substantially from sound utility practice. D.T.E. 03-40, at 324-325, citing D.T.E. 01-50, at 25; Southern Union Company, D.T.E. 03-3, at 16 (2003). The Department accordingly approved in that case the company's hypothetical capital structure that included a 50.0 percent common equity ratio. D.T.E. 03-40, at 325.

In this case, we similarly find that the Company's test year adjusted capital structure, which includes a 68.31 percent common equity ratio, is over-reliant on equity and deviates substantially from sound utility practice. Based on these considerations, we accept the

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[189] In its brief, the Company indicated an adjusted common equity ratio of 68.23 percent as of December 31, 2008 (Company Brief at 60). This ratio only refers to that of MECo and does not include that of Nantucket Electric (see Exh. NG-PRM-1, Sch. NG-PRM-1, at 2).

Company's pro forma capital structure that reflects its recapitalization plan approved in D.P.U. 09-41, as described in Record Request DOER-2 and supplemented in Record Request DOER-2 (Supp.), with exceptions relating to adjustments in accumulated other comprehensive income and retained earnings described above.

Regarding the Attorney General's proposal, to include short-term debt in the Company's capital structure after its recapitalization plan is implemented, the Department emphasizes its policy that it does not generally include short-term debt in the capital structure used as a basis for determining the WACC because short-term debt is traditionally not used to finance costs included in rate base. D.T.E. 05-27, at 270; D.T.E. 02-24/25, at 209. Rather, short-term debt is primarily used to finance (1) construction, and (2) the day-to-day operations of the utility. D.T.E. 02-24/25, at 209; see also Massachusetts Electric Company, D.P.U. 19497, at 32 (1978). The interest costs associated with short-term debt used for these two purposes are provided for through the utility's allowance for funds used during construction ("AFUDC") and working capital allowance, respectively. D.T.E. 02-24/25, at 209; New England Telephone and Telegraph Company, D.P.U. 86-33-G at 380-381 (1989). Also, short-term balances and interest rates are often considered too volatile to be representative of a company's long-term capital costs. D.T.E. 02-24/25, at 209; D.P.U. 95-40, at 85; New England Telephone and Telegraph Company, D.P.U. 86-33-G at 380-381 (1989). For example, although the Company's end-of-month short-term debt, as of January 2005, was 51 percent of total debt and steadily increased up to 87 percent as of the end

of December 2008, the percentage of short-term debt to total debt will decrease to less than ten percent after the Company's recapitalization plan (Exh. DPU-NG 2-16, Att.).[190]

On occasion, the Department has included, and will include, short-term debt in capitalization when it is demonstrated that the utility's short-term debt plays the role of long-term debt. North Attleboro Gas Company, D.P.U. 86-86, at 22-23 (1986); Chatham Water Company, D.P.U. 323, at 8 (1981). In addition, the Department has recognized that including short-term debt in a company's capitalization may require accompanying changes in several Department policies, including CWIP, AFUDC, and a reevaluation of the risk component of a company's return, and that these changes would require a careful assessment of the costs and benefits of including short-term debt. D.T.E. 02-24/25, at 213 n.90. Based on the record in this case, we are not convinced that the Company's short-term debt plays the role of long-term debt.

Based on the above consideration, the Department denies the Attorney General's proposal to include short-term debt in the Company's capital structure. Accordingly, the Department directs the Company to use in this case a capital structure consisting of $821,965,000 in long-term debt, $2,259,000 in preferred stock, and $625,516,000 in common

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190 MECo's and Nantucket Electric's combined end-of-month short-term and long-term debts as of January 2005 were $248,775,000 and $237,275,000, respectively, for a total debt of $486,050,000 (Exh. DPU-NG 2-16, Att.). As of December 2008, the corresponding figures were $513,400,000 and $73,460,000, respectively, for a total $586,860,000 (Exh. DPU-NG 2-16, Att.). After implementation of the Company's recapitalization plan, as approved in D.P.U. 09-41, however, the amounts of short-term and long-term debts will be $86,400,000 and $796,965,000, respectively, for a total of $883,365,000 (Exh. NG-PRM-1, Sch. PRM-1, at 2).

equity[191] for a total capitalization of $1,449,740,000 with the corresponding capital structure ratios of 56.70 percent for long-term debt, 0.15 percent for preferred stock and 43.15 percent for common equity.

Regarding the Company's proposed costs of long-term debt and preferred stock, no party commented on such proposed cost rates. We find that the Company calculated its cost of long-term debt and preferred stock in a manner consistent with Department precedent. D.T.E. 01-56, at 97-100. Accordingly, the Department finds that the Company's effective cost of long-term debt is 5.96 percent and that the effective cost of preferred stock is 4.44 percent. We address the Company's 11.60 percent cost of equity proposal in the following sections.

C. Comparison Groups of Companies

1. Introduction

In determining its proposed rate of return on common equity, the Company applied the DCF model, CAPM, and the RPM on the financial and market data of a comparison or proxy group of seven electric utility companies selected by the Company (Exhs. NG-PRM at 6, 8-9, NG-PRM-1, Schs. NG-PRM-5, NG-PRM-6).[192] In determining her rate of return recommendation, the Attorney General applied the DCF model and the CAPM on the financial

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191 This total common equity capitalization incorporates the removals of accumulated other comprehensive income of negative $197,382,000 and negative 978,000 for MECo and Nantucket Electric, respectively, and the use of MECo's retained earnings of $536,004,855 as of December 31, 2008 instead of the retained earnings of $547,398,000 shown in Record Request DOER-2, Att. 2.

192 For the CEM, the Company applied that model on the financial and market data for 26 non-regulated firms (Exhs. NG-PRM at 61-65, NG-PRM-1, Sch. NG-PRM-11).

and market data of a comparison or proxy group of nine electric utility companies selected by the Attorney General (Exh. AG-63, at 14-15, 38, 54, Exhs. JRW-4, JRW-10, JRW-11).[193] The Attorney General similarly applied the DCF model and the CAPM on the financial and market data of the seven electric utility companies selected by the Company (Exh. AG-63, at 15, 38, 54, Exhs. JRW-4, JRW-10, JRW-11). These two proxy groups of companies are described in the following sections.

2. Description of the Company's Proxy Group of Companies

The Company established its proposed cost of common equity using capital market and financial data relied upon by investors to assess the relative risk and cost of equity for an electric utility (Exh. NG-PRM at 5). The Company's comparison group of companies consist of: Consolidated Edison, Edison International, IDACORP Inc., PEPCO Holdings, Inc., PG&E Corporation, Portland General Electric, and Sempra Energy (Exhs. NG-PRM-1, Sch. NG-PRM-3, at 2; NG-RBH-Rebuttal, exh. RBH-1, at 1). The Company assembled this comparison group of publicly-traded utility companies based on six selection criteria requiring that these companies: (1) are included in The Value Line Investment Survey; (2) are currently paying a dividend on their common stock; (3) are not presently the target of an announced acquisition; (4) have at least 60 percent of their identifiable assets devoted to utility regulation;

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[193] One company, IDACORP, Inc., is included in both the Company's proxy group and the Attorney General's proxy group (Exhs. NG-PRM-1, Sch. NG-PRM-3, at 2; AG-63, exh. JRW-4).

(5) currently have a revenue decoupling mechanism;[194] and (6) have a credit quality rating of Baa2/BBB or higher (Exhs. NG-PRM at 6; NG-PRM-1, Sch. NG-PRM-3, at 2).[195]

Six of the electric companies in the Company's comparison group are holding companies, three of which have multiple subsidiaries and operate in multiple state jurisdictions (Exh. DPU 2 28).[196] Also, a portion of the revenues of the companies included in the Company's comparison group are derived from non regulated business lines of operations (Exh. DPU 2 28).[197]

3. Description of the Attorney General's Proxy Group of Companies

In order to develop her rate of return recommendation for the Company, the Attorney General evaluated the return requirements of investors on the common stock of a proxy group of nine publicly-held electric utility companies (Exh. AG-63, at 14). In selecting those nine companies, the Attorney General used six selection criteria that require that the company:

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194 This criteria is in response to the Department's directives in D.P.U. 07-50-A (Exh. NG-PRM at 6-7, citing D.P.U. 07-50-A at 85).

195 Using the above-listed criteria, the Company selected the seven companies in its comparison group from a group of 55 electric utility companies (Exhs. NG-PRM at 6; AG 12-4(1-3)).

196 Except for Portland General Electric, all companies in the Company's comparison group are holding companies: Consolidated Edison, Inc. operating in New York, New Jersey, and Pennsylvania; IDACORP, Inc. operating in Idaho and Oregon; and PEPCO Holdings operating in the District of Columbia, Maryland, Delaware, and New Jersey (Exh. DPU-NG-2-28).

197 In 2008, the percentage of utility revenues for the Company's comparison group ranged from 51.3 percent (PEPCO Holdings) to 100 percent (PG&E Corporation) (Exh. DPU-NG 2-28). The percentage of identifiable assets relating to utility operations in 2008 ranged from 62.2 percent (Sempra Energy) to 100 percent (Portland General Electric) (RR-DPU-9).

(1) be listed as an electric utility or combination electric and gas company in the AUS Utility Reports; (2) be listed as an electric utility in the Standard Edition of The Value Line Investment Survey; (3) has at least 75 percent regulated electric revenues; (4) operating revenues of less than $10 billion; (5) has at least a three-year history of paying dividends with no actual or pending dividend cuts; and (6) has an investment grade bond rating by Moody's and/or Standard & Poor's (Exh. AG-63, at 15).

In arriving at her 9.75 percent cost of common equity recommendation for National Grid, which excludes a proposed 25 basis points reduction described below, the Attorney General applied the DCF model and the CAPM on the financial and market data of her comparison group of nine electric utility companies comprising: ALLETE, Inc., Central Vermont Public Service Corporation, Cleco Corporation, DPL Inc., IDACORP, Inc., Northeast Utilities, NSTAR, Progress Energy Inc., and UIL Holdings Corporation (Exh. AG-63, at 14-15, exh. JRW-10, at 2, Panel A).[198] In addition, the Attorney General developed financial and market data for the Company's proxy group of seven companies and applied the DCF model and the CAPM on those data (Exh. AG-63, at 31-38, 40-54, Exhs. JRW-10, JRW-11).

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[198] The Attorney General stated that, based on National Grid's bond ratings, its risk profile appears to be comparable to both the Company's and her proxy groups (Exhs. AG-63, at 16). The Attorney General, however, added that from size and scale perspective, National Grid, with operating revenues and net plant of $2,419.6 million and $2,879.8 million, respectively, is more comparable with her proxy group, which has median operating revenues and net plant of $1,070.6 million and $2,768.8 million, respectively (Exhs. AG-63, at 15-16; Exh. AG-63 (Supp.); Tr. 17, at 2955-2956).

4. Positions of the Parties

The Attorney General did not comment on the companies included in the Company's proxy group but questioned the Company's method for evaluating the information relating to the various revenue decoupling mechanisms in place and their impact on the appropriate rate of ROE (Attorney General Brief at 177-178).[199] The Company notes that the Attorney General selected a proxy group that primarily included companies without any revenue decoupling mechanism unlike the proxy group it selected, which included companies with revenue decoupling and other ratemaking mechanisms that are similar to that of the Company (Company Reply Brief at 18). The Company claimed that, unlike the Attorney General, it was able to assemble a group of proxy companies that are reasonably similar in risk to the Company thereby directly addressing the Department's requirement that the Company's analysis address any impact that the adoption of revenue decoupling will have on ROE (Company Reply Brief at 18-19, citing Tr. 14, at 2381-2382; Tr. 17, at 3023).

5. Analysis and Findings

The Department has accepted the use of a comparison group of companies for evaluation of a cost of equity analysis when a distribution company does not have a common stock that is publicly traded. See D.P.U. 08-35, at 176-177; D.T.E. 99-118, at 80-82; D.P.U. 92-78, at 95-96. The Department has stated that companies in the comparison group must have common stock that is publicly traded and must be generally comparable in investment risk. Western Massachusetts Electric Company, D.P.U. 1300, at 97 (1983).

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[199] This issue is addressed in Section VI.G.6. of this Order.

Although the common stock of National Grid plc is publicly traded, ROE models typically rely on the analysis of a comparison group for consistency with the standards set forth in Bluefield Waterworks Improvement Company v. Public Service Commission, 262 U.S. 679 (1923) ("Bluefield") and Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1944) ("Hope"). See D.P.U. 87-59, at 68, 70-71.

In this case, given its proposal for a revenue decoupling mechanism, the Company selected seven electric utility companies based on a number of criteria, including the criterion that each of the companies in the comparison group should have a revenue decoupling mechanism. Although such a criterion was not specifically employed by the Attorney General in selecting the companies in her proxy group, the record shows that two of the companies in that proxy group have some forms of revenue decoupling or stabilization mechanism (Exh. NG-RBH-Rebuttal at 8 & n.4, exh. RBH-1, at 3, 10, 16). None of the companies in the Company's proxy group or the Attorney General's proxy group rely solely on base rates to recover their incurred costs (Exh. NG-RBH-Rebuttal at 8).

There are a wide range of revenue recovery mechanisms that the financial market and regulatory community have considered to be a form of revenue stabilization mechanism (Exh. DPU-NG 2-19, Atts. DPU-NG 2-19(b), DPU-NG 2-19(c)). In our evaluation of the comparison groups used by the Company and the Attorney General, we recognize that it is neither necessary nor possible to find a group that matches the Company in every detail. See D.T.E. 99-118, at 80; D.P.U. 87-59, at 68; D.P.U. 1100, at 135-136. Rather, we may rely on an analysis that employs valid criteria, and in this case an additional criterion requiring the

presence of a revenue decoupling mechanism, to determine which utilities will be in the comparison group and then provides sufficient financial and operating data to discern the investment risk of the Company versus the comparison group. See D.T.E. 99-118, at 80; D.P.U. 87-59, at 68; D.P.U. 1100, at 135-136.

We find that the Company has employed a set of valid criteria to select its comparison group and has provided sufficient information about the comparison group to allow the Department to draw conclusions about the relative risk characteristics of the Company versus the members of its comparison group. We will, therefore, accept the Company's use of a comparison group of seven electric utility companies with publicly traded stocks as a basis for its cost of capital proposal.

Although the Attorney General did not specifically use the selection criterion that the companies in her proxy group should have some form of revenue decoupling or stabilization mechanism, at least two of those companies in her comparison group have such a mechanism in place (Exh. NG-RBH-Rebuttal at 8 & n.4, exh. RBH-1, at 3, 10, 16). As we noted above, we recognize that it is neither necessary nor possible to find a group that matches the Company in every detail for the purpose of applying the standard of risk comparability. We find that the Attorney General has provided sufficient comparative information about her comparison group, as well as that for the Company's comparison group, and applied her equity cost models on the financial and market data for both groups of companies to allow the Department to draw conclusions about the relative risk characteristics of the Company versus the members of those

comparison groups. Accordingly, we accept in this case the Attorney General's comparison group as a basis for her cost of capital recommendation.

The Department, however, notes that the Company's and the Attorney General's comparison groups include holding companies that are also involved in non-regulated businesses beyond electric distribution that could make these companies relatively more risky and, in turn, potentially more profitable. As discussed below, we will take this factor into consideration in determining the appropriate rate of return on common equity for the Company.

D. Company Common Equity Cost Models

1. Introduction

As noted above, in determining its proposed 11.60 percent rate of return on common equity, the Company initially applied the DCF model, the RPM, and the CAPM on the average financial and market data of seven electric utility companies in the comparison group (Exhs. NG-PRM at 2, 5, 7-9, 19, 29, 65; NG-PRM-1, Schs. NG-PRM-1, at 1, NG-PRM-3, at 2). The Company applied the CEM on the financial and market data of 26 non-utility firms (Exhs. NG-PRM at 61-65, WP NG-PRM-I, NG-PRM-1, Sch. NG-PRM-11). Based on its analyses, the Company determined common equity cost rates of 11.17 percent, 12.00 percent, 11.80 percent, and 14.90 percent based on the DCF, RPM, CAPM, and CEM, respectively (Exh. NG-PRM at 8).

Based on the 11.66 percent average of the equity costs determined using the DCF, RPM, and CAPM, which the Company characterized as market-based models, the Company

proposed an 11.60 percent rate of return on common equity (Exh. NG-PRM at 2, 8-9, 65). The Company indicated that in determining its proposed ROE, it emphasized the above-stated market-based models because their results are influenced by bond and stock market performance as opposed to the CEM, which is mostly influenced by business cycle (Exh. NG-PRM at 8-9). The Company's analysis applying the DCF, RPM, CAPM, and CEM is discussed in the following sections.

2. Discounted Cash Flow Model

The Company stated that the DCF model seeks to explain the value of an economic or financial asset as the present value of future expected cash flows, discounted at the appropriate risk-adjusted rate of return (Exh. NG-PRM at 30, WP NG-PRM-E at E1). The Company stated that, in its simplest form, the DCF return on common stock consists of a current cash (dividend) yield and future appreciation (growth) of the investment (Exh. NG-PRM at 30).

The Company used a DCF form of the model, referred to as the Gordon model,[200] which assumes an infinite investment horizon and a constant growth rate (Exh. NG-PRM at 37, WP NG-PRM-E at E1-E3). The Company noted that the DCF assumes constant price-earnings multiple such that the price per share of stock will grow at the same rate as earnings per share (Exh. NG-PRM at 32). In addition, the Company stated that the DCF model has other

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[200] The Gordon model is expressed as: $k = D/P + g$, where k is the investor's required return on common equity, D is the dividend per share paid in the next period, P is the current market price per share of the common stock, D/P is the expected dividend yield, and g is the investor's mean expected long-run growth rate in dividend per share (Exh. NG-PRM at 42, WP NG-PRM-E at E3). See, e.g., D.P.U. 08-35, at 193; Fitchburg Gas and Electric Light Company, D.P.U. 07-71, at 125 (2008).

limitations, including an element of circularity in the DCF method when applied in a rate case because investors' expectations depend upon regulatory decisions (Exh. NG-PRM at 30). The Company stated that, due to this circularity, the DCF model may not fully reflect the true risk of a utility (Exh. NG-PRM at 30). The Company also stated that the DCF model diminishes its usefulness in the rate setting process, where the firm's market capitalization diverges from book value capitalization (Exh. NG-PRM at 30-31).

In applying the DCF model, the Company calculated a dividend yield of 5.02 percent and a growth component of 6.00 percent (Exh. NG-PRM at 32, 39). The Company performed a leverage adjustment of 0.15 percent giving a DCF cost rate of 11.17 (= 5.02 + 6.0 + 0.15) percent (Exh. NG-PRM at 44-45). Each of these components in the Company's DCF calculations is described below.

Regarding the dividend yield, the Company initially determined a rate of 4.86 percent based on the average of monthly dividend yields from October 2008 through March 2009 for the comparison group (Exhs. NG-PRM at 31, WP NG-PRM-E at E4; NG-PRM-1, Sch. NG-PRM-5). The Company claimed that the use of the six-month average dividend yield will reflect current capital costs while avoiding spot yields (Exh. NG-PRM at 31). The Company stated that for the purpose of the DCF calculations, the average dividend yield must be adjusted to reflect the prospective nature of the dividend payments, i.e., the higher expected

dividend payments (Exh. NG-PRM at 32; WP NG-PRM-E at E4-E5). This adjustment results in a dividend yield of 5.02 (Exh. NG-PRM at 32, WP NG-PRM-E at E7).[201]

For the growth rate component, the Company estimated a 6.00 percent growth rate based on five-year forecasts of earnings per share growth rate (Exh. NG-PRM at 37-39). The Company stated that in arriving at this estimate, it considered all forecast earnings growth rate available to investors (Exhs. NG-PRM at 39; NG-PRM-1, Sch. NG-PRM-7). The Company explained that for the comparison group of companies, greater emphasis should be placed upon projected earnings per share growth because their historical growth does not provide a reliable basis for projecting growth (Exh. NG-PRM at 38). The Company added that future earnings projections provide the principal focus of investor expectations and that projected earnings per share is the best measure of growth in the DCF model (Exhs. NG-PRM at 38; DPU-NG 2-39, Att. 1; DPU-NG 2-40).

Based on a dividend yield of 5.02 percent and a growth rate of 6.00 percent, the Company's DCF model gives a rate of ROE for the electric comparison group of 11.02 percent (Exh. NG-PRM at 45). The Company, however, adjusted the DCF-determined cost of equity by adding 0.15 percent to represent a leverage adjustment resulting in a DCF-determined cost rate of 11.17 percent (Exh. NG-PRM at 45).

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[201] In determining the adjustment to the dividend yield, the Company stated that it used three alternative methods and took the average of the results of the three methods to arrive at the adjusted dividend yield of 5.02 percent (Exh. NG-PRM at 32, WP NG-PRM-E at E4-E7).

Regarding the above-noted leverage adjustment, the Company explained that the only perspective that is important to investors is the return they can realize on the market value of their investment, and that all the terms in the DCF model represent investors' assessment of expected future cash flows that they will receive in relation to the value that they set for a share of stock (Exh. NG-PRM at 42). The Company added that the need for the leverage adjustment arises when the equity cost result of the DCF model is applied to a capital structure that is different than indicated by the market price of stocks (Exh. NG-PRM at 42).[202]

The Company noted that in the case of the comparison group of electric companies, the market value of its capitalization contains more equity than that shown by book capitalization (Exhs. NG-PRM, WP NG-PRM-E at E12-E13; NG-PRM-1, Sch. PRM-3, at 1). The Company reasoned that if a utility's stock market price diverges from its book value, the potential exists for a financial risk difference because capitalization of a utility measured at its market value contains more equity and less debt and, therefore, is less risky than the capitalization measured at its book value (Exh. NG-PRM at 40-41).[203]

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[202] The Company claimed that this shortcoming of the DCF has persuaded the Pennsylvania Public Utility Commission to adjust the cost of equity upward to make the return consistent with the book value capital structure (Exh. NG-PRM at 41 citing, e.g., Pennsylvania-American Water Company, Docket No. R-00016339 (January 10, 2002).

[203] The Company indicated that the capital structure ratios for its comparison group of electric companies based on capitalization at market value consists of 48.00 percent long-term debt, 1.02 percent preferred stock, and 50.98 percent common equity; the corresponding ratios based on book value consists of 50.14 percent long-term debt, 1.12 percent preferred stock, and 48.74 percent common equity (Exh. NG-PRM, WP NG-PRM-E at E13).

3. Risk Premium Model

The Company stated that the risk premium approach recognizes the required compensation for the more risky common equity over the less risky secured debt position of a lender (Exh. NG-PRM, WP NG-PRM-G at G2). The Company explained that in the case of senior capital, represented by long-term debt or preferred stock, a company contracts for the use of that debt capital at a stated coupon rate for a specific period of time and, in the case of preferred stock capital, at a stated dividend rate, usually with provision for redemption through sinking fund requirements (Exh. NG-PRM, WP NG-PRM-G at G1). The Company stated that in the case of senior capital, the cost rate is known with a high degree of certainty because the payment for the use of this capital is a contractual obligation and the schedule of future payments is known (Exh. NG-PRM, WP NG-PRM-G at G1).

In the case of common equity, the Company explained that the equity cost rate is not fixed but varies with investors' perception of the risk associated with the common stock (Exh. NG-PRM, WP NG-PRM-G at G1). The Company stated that the cost of equity according to the risk premium approach is equal to the interest on long-term corporate debt plus an equity risk premium, which represents the additional compensation for the riskier common equity (Exh. NG-PRM at 50, WP NG-PRM-G at G2).[204] The Company noted that like the other models for cost of equity, RPM has its limitations including potential imprecision in assessing the future cost of corporate debt and the measurement of the risk-adjusted common

[204] The Company stated that the formula for the RPM is: $k = i + RP$, where k is the cost of equity, i is the interest rate on long-term corporate debt, and RP is the equity risk premium (Exh. NG-PRM, WP NG-PRM-G at G2).

equity premium (Exh. NG-PRM at 50). The methods that the Company used in determining the interest and equity risk premium components of the RPM are described below.

Regarding the interest component, the Company stated that a 6.50 percent yield represents a reasonable estimate of the prospective yield on long-term A-rated public utility bonds (Exh. NG-PRM at 50). The Company claimed that the forecasts of Moody's index and the Blue Chip Financial Forecasts ("Blue Chip") support this figure, noting that during the twelve-month period ended March 2009, the average yields on A-rated public utility bonds was 6.58 percent ranging from 6.28 percent to 7.60 percent (Exhs. NG-PRM at 50-51; NG-PRM-1, Sch. NG-PRM-8, at 2). The Company added that this 6.50 percent rate is also supported by Blue Chip's long-term forecasts of interest rates (Exh. NG-PRM at 51-52).

Regarding the equity risk premium, the Company claimed that 5.50 percent would be a reasonable level (Exh. NG-PRM at 55). In arriving as this equity risk premium, the Company first calculated the average risk differential between the S&P Public Utility index and the yields for Public Utility bonds for the 1928-2007 period (5.51 percent), 1952-2007 period (6.58 percent), 1974-2007 period (6.08 percent), and 1979-2007 period (6.37 percent) (Exhs. NG-PRM at 53; NG-PRM-1, Sch. NG-PRM-9, at 2). The Company stated that it selected the results for the shorter periods of 1974-2007 and 1979-2007, giving an average differential of 6.23 percent, in order to provide a risk premium that conforms more nearly to investment fundamentals and removes some of the more distant data from the analysis (Exhs. NG-PRM at 53-55; NG-PRM-1, Sch. NG-PRM-9, at 2). The Company claimed that

this 6.23 percent represents a reasonable risk premium for the S&P Public Utilities in this case (Exh. NG-PRM at 55).

The Company, however, added that there are differences in risks associated with the S&P Public Utilities and the comparison group of electric companies (Exh. NG-PRM at 55). The Company stated that, based on its analysis of these differences in risks based on various market fundamentals including size, market ratios, common equity ratios, return on book equity, operating ratios, coverage quality of earnings, internally generated funds, and betas, 5.50 percent would represent a reasonable common equity risk premium for the Company's comparison group of electric companies group (Exh. NG-PRM at 55).[205] The Company concluded that its risk premium approach provides a cost of equity of 12.00 percent (= 6.5 + 5.5) (Exh. NG-PRMat 55-56).

4. Capital Asset Pricing Model

The Company stated that the CAPM attempts to describe the way prices of individual securities are determined in efficient markets where information is freely available and is reflected instantaneously in security prices (Exh. NG-PRM, WP NG-PRM-H at H1). More specifically, the Company stated that, under the CAPM, the expected return on a security is

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205 The Company noted that this 5.50 percent equity risk premium is 88 percent (= 5.50/6.23) of the risk premium of the S&P Public Utilities and claimed that 5.50 percent is reflective of the risk of the comparison group of electric companies relative to the S&P Public Utilities (Exh. NG-PRM at 55).

equal to a risk-free rate plus the market risk premium multiplied by the non-diversifiable or systematic risk of that security (Exh. NG-PRM, WP NG-PRM-H at H1).[206]

The Company stated that the CAPM is based on portfolio theory and assumes all other risks, except the systematic risk, are eliminated through diversification (Exh. NG-PRM at 56, WP NG-PRM-H at H1-H2). The Company claimed that although the diversifiable or unsystematic risk is unimportant to some investors, this contention may not be justified because the business and financial risk of an individual company, including regulatory risk, are widely discussed within the investment community and therefore influence investors in regulated firms (Exh. NG-PRM, WP NG-PRM-H at H1-H2).

In addition, the Company claimed that significant academic research on the CAPM indicates that the empirical security market line, based on historical data, has a less steep slope and higher intercept than the theoretical security market line predicted by the CAPM (Exh. NG-PRM, WP NG-PRM-H at H1). The Company claimed that these empirical tests indicate that for equities with betas less than 1.0, such as utility common stocks, the traditional CAPM would understate the returns for such stocks, and for portfolios with betas above 1.0, these companies had lower returns than indicated by the traditional CAPM (Exh. NG-PRM,

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[206] The traditional CAPM is a linear relationship expressed as $k = Rf + \beta(Rm-Rf)$, where k is the return rate on the common stock, Rf is the risk-free rate of return, β is the non-diversifiable or systematic risk, (Rm - Rf) is the market risk premium, and Rm is the market rate of return (Exh. NG-PRM, WP NG-PRM-H at H2). The line traced by this return-risk relationship, with the intercept equal to Rf, is also referred to as the security market line (Exh. NG-PRM, WP NG-PRM-H at H2).

WP NG-PRM-H at H1-H2). Noting these limitations, the Company concluded that the CAPM must also be used with other equity cost models (Exh. NG-PRM, WP NG-PRM-H at H2).

In applying the CAPM, the Company first determined the risk-free rate to be equal to 4.00 percent (Exh. NG-PRM at 59). The Company stated that this rate, which is based on the yields of 20-year treasury bonds, also considers interest forecasts and recent trends in the yields on long-term Treasury bonds (Exhs. NG-PRM at 59, WP NG-PRM-F; NG-PRM-1, Sch. NG-PRM-10, at 3-4).

As its basis for determining the beta in the CAPM, the Company initially considered the Value Line betas for the seven companies in the comparison group ranging from 0.65 to 0.95, with a group average of 0.75 (Exhs. NG-PRM at 57-58; NG-PRM-1, Sch. NG-PRM-10, at 1).[207] The Company claimed that the betas must be reflective of the financial risk associated with the rate setting capital structure that is measured at book value (Exh. NG-PRM at 57). The Company explained that Value Line betas are calculated with the market price of stocks and, therefore, are related to market capitalization (Exh. NG-PRM at 58). Accordingly, the Company adjusted upward the average beta of the comparison group of companies from 0.75, corresponding to a market value common equity ratio of 50.98 percent, to 0.78 representing

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[207] The Company stated that the beta coefficient (β) is derived from a statistical application that regresses the returns on an individual security with the returns on the market as a whole (Exh. NG-PRM, WP NG-PRM-H at H3). The Company noted that the beta coefficients for utility companies typically describe a small proportion of the total investment risk because the coefficients of determination are low (Exh. NG-PRM, WP NG-PRM-H at H3). The Company added that the raw historical beta is adjusted by Value Line for the measurement effect resulting in overestimates in high beta stocks and underestimates in low beta stocks and that Value Line does not consider dividends in the computation of its betas (Exh. NG-PRM, WP NG-PRM-H at H3-H4).

what the Company claimed to be the book value leveraged beta that corresponds to a book value common equity ratio of 48.74 percent (Exh. NG-PRM at 58).

Next, the Company estimated a market risk premium of 8.80 percent (Exh. NG-PRM at 59-60). The Company stated that this rate is equal to the average of 6.05 percent, derived from the SBBI Classic Yearbook, and 11.54 percent, derived from Value Line and S&P 500 returns (= (11.54 + 6.05)/2) (Exh. NG-PRM at 59-60, WP NG-PRM-H at H4-H6).

The Company also claimed that the technical literature supports an adjustment relating to the size of the company or portfolio for which the calculation is performed (Exh. NG-PRM at 60). More specifically, the Company claimed that as the size of a firm decreases, its risk and, hence, its required return increases, noting that the SBBI Yearbook demonstrated that the returns for stocks in lower deciles, i.e., smaller stocks, exceed those shown by the traditional CAPM (Exh. NG-PRM at 60). The Company stated that its comparison group of companies has an average market capitalization of its equity of $7,164 million, representing a mid-capitalized portfolio, with a size premium of 0.94 percent as published in the 2009 SBBI Yearbook (Exh. NG-PRM at 60-61). Accordingly, the Company adjusted upward the equity cost based on the CAPM by 0.94 percent resulting in a CAPM-determined rate of ROE of 11.80 percent (= 4.00 + 0.78 x (8.80) + 0.94) (Exh. NG-PRM at 61).

5. Comparable Earnings Model

The Company stated that because regulation is a substitute for competitively-determined prices, the returns realized by non-regulated firms, with comparable risks to a public utility, provide useful insight into a fair rate of return (Exh. NG-PRM at 61). The Company

explained that in order to identify the appropriate return, it is necessary to analyze returns earned or realized by other firms within the context of the comparable earnings standard (Exh. NG-PRM at 61). The Company emphasized that the firms selected for the comparable earnings approach should be unregulated companies whose prices are not subject to cost-based price ceilings to avoid circularity in the analysis (Exh. NG-PRM at 61).

The Company stated that in selecting those firms to be used in the CEM, two methods are available: (1) select another industry with comparable risk to the public utility in question; or (2) choose parameters that represent similar risk traits for the public utility and the comparable risk companies (Exh. NG-PRM at 62). The Company stated that the second method is preferable and, accordingly, selected a total of 26 unregulated companies from the Value Line Investment Survey for Windows based on six parameters of risk comparability: timeliness rank, safety rank, financial strength, price stability, Value Line betas, and technical rank (Exhs. NG-PRM at 63; NG-PRM-1, Sch. NG-PRM-11, at 1).

The Company used five-year historical returns and five-year forecasted returns covering a total period of ten years, claiming that this period is sufficient to cover an average business cycle (Exh. NG-PRM at 64). The Company stated that the historical rate of return on book common equity was 15.5 percent based on the median value (Exhs. NG-PRM at 64; NG-PRM-1, Sch. NG-PRM-11, at 2). The Company added that the forecast rate of return, as published by Value Line, is 14.3 percent based on the median value (Exhs. NG-PRM at 64; NG-PRM-1, Sch. NG-PRM-11, at 2). The Company took the average of these two rates equal

to 14.90 percent (=(15.50 + 14.30)/2) as its CEM-determined rate of return on common equity (Exh. NG-PRM at 64-65).

E. Attorney General's Proposal

1. Introduction

The Attorney General applied the DCF model and the CAPM to a group of nine publicly-held electric utility companies selected by the Attorney General and applied the same models to the seven companies comprising the comparison group of the Company (Exh. AG-63, at 14-15, 27-54, exh. JRW-10, at 2-5). The Attorney General initially determined a rate of ROE for National Grid of 9.75 percent based on the application of the DCF model and the CAPM, and then reduced this rate by 25 basis points, to reflect the impact of the implementation of the Company's proposed revenue decoupling mechanism, resulting in a proposed rate of return on common equity of 9.50 percent (Exh. AG-63, at 54-55). The following sections described how the Attorney General arrived at this recommendation.

2. DCF Model Cost of Equity

In applying the constant growth DCF model, the Attorney General calculated a dividend yield of 5.35 percent, based on the monthly issues of the AUS Utility Reports, equal to the average of the 5.4 percent six-month dividend yield from February 2009 through July 2009 and the July 2009 dividend yield of 5.3 percent (Exh. AG-63, at 31, exh. JRW-4). The corresponding dividend yield for the Company's comparison group calculated by the Attorney General is 5.15 percent (Exh. AG-63, at 31).

The Attorney General estimated a 4.75 percent DCF growth rate for both her proxy group and that of the Company based on her evaluation of projected growth rates on earnings per share, dividends per share, and book value per share (Exh. AG-63, at 37-38, exh. JRW-10, at 6). The Attorney General, claimed that by giving greater weight on projected growth rates, an expected DCF growth rate in the 4.5 percent to 5.0 percent range is indicated for both her proxy group and that of the Company, or 4.75 percent growth rate using the mid-point of that range (Exh. AG-63, at 37, exh. JRW-10, at 6).

The Attorney General adjusted the estimated dividend yields by one-half the expected growth rate of 4.75 percent to reflect growth over the coming year, resulting in adjusted dividend yields of 5.48 percent for the Attorney General's proxy group and 5.27 percent for the Company's proxy group (Exh. AG-63, at 32, 38, exh. JRW-10, at 1). Finally, the Attorney General applied the DCF model and arrived at DCF-determined rates of return of 10.23 percent (= 5.48 + 4.75) for her proxy group and 10.02 percent (= 5.27 + 4.75) for the Company's proxy group (Exh. AG-63, at 38, exh. JRW-10, at 1).

3. CAPM Cost of Equity

In applying the traditional CAPM, the Attorney General determined a risk-free rate of 4.50 percent (Exh. AG-63, at 41, exh. JRW-11, at 2). In arriving at this rate, the Attorney General claimed that the yield on the long-term U.S Treasury bonds has usually been viewed as the risk-free rate of interest in the CAPM (Exh. AG-63, at 40). Noting that the 30-year U.S. Treasury bonds rate as of July 20, 2009 was 4.47 percent, the Attorney General

concluded that a long-term Treasury rate of 4.50 percent is reasonable in the near future (Exh. AG-63, at 41, exh. JRW-11, at 2).

Regarding the systematic risk or beta, the Attorney General used the betas for the companies in her proxy group and the proxy group of the Company as provided by The Value Line Investment Survey (Exh. AG-63, at 42, exh. JRW-11, at 3). The Attorney General calculated an average beta of 0.69 for her proxy group and 0.74 for the Company's proxy group (Exh. AG-63, at 42, exh. JRW-11, at 3).

Regarding the market equity risk premium of the CAPM, the Attorney General stated that this is equal to the expected return on the stock market (e.g., the expected return on the S&P 500) minus the risk-free rate (Exh. AG-63, at 42). The Attorney General noted that the traditional way to measure the equity risk premium, which uses the difference between historical average stock and bond returns, i.e., ex post returns were used as measures of market's expected or ex ante returns, has been criticized in numerous academic studies (Exh. AG-63, at 42-43).

The Attorney General listed a number of approaches and provided the results of previous studies performed, including historical risk premium approach (seven studies for an average of 5.39 percent), ex ante models (23 studies for an average of 4.12 percent), surveys (four studies for an average of 4.00 percent), and building block approach (two studies for an average of 3.90 percent) (Exh. AG-63, exh. JRW-11, at 4-6). The overall average equity risk premium for the studies listed was 4.35 percent, which the Attorney General used as her

estimate of the equity risk premium for the CAPM (Exh. AG-63, at 51, exh. JRW-11, at 5; Tr. 17, at 3144).[208]

Based on the above results, the Attorney General determined a CAPM rate of ROE based on her proxy group equal to 7.5 percent (= 4.50 + 0.69 x (4.35)) (Exh. AG-63, at 54). Based on the Company's proxy group, the Attorney General determined a CAPM rate of ROE equal to 7.7 percent (= 4.50 + 0.74 x (4.35)) (Exh. AG-63, at 54).

The Attorney General stated that the appropriate equity cost rate for the two groups of companies is in the 7.5 percent to 10.2 percent range based on the CAPM and DCF model, with a mid-point of 8.9 percent (Exh. AG-63, at 54). The Attorney General claimed that this wide range reflects the uncertainty and volatility in today's capital market (Exh. AG-63, at 54). In recognition of this uncertainty and volatility, the Attorney General stated that the relevant range should instead be 9.5 percent to 10.0 percent and accordingly recommended the mid-point of this range of 9.75 percent as an equity cost for the Company (Exh. AG-63, at 54).

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[208] The Attorney General's cost of capital witness indicated that, in the above-listed studies, the rates of return were calculated in different ways, including the use of arithmetic and geometric measures, although his opinion was that the correct method should use the geometric measure (Exh. AG-63, exh. JRW-11, at 5-6; Tr. 17, at 3139-3143). Based on the average of the above-listed studies that specifically indicated the use of geometric and arithmetic measures, the overall average equity risk premiums are 4.67 percent and 4.00 percent, respectively (RR-DPU-44; Tr. 17, at 3145).

4. Equity Cost Impact of Revenue Decoupling

The Attorney General stated that her 9.75 percent rate of return on common equity recommendation assumes that the Department does not approve a revenue decoupling mechanism for the Company (Exh. AG-63, at 55). The Attorney General, however, stated that if the Department does approve a revenue decoupling mechanism, such a mechanism would reduce the volatility in the Company's revenues, risk, and earned ROE (Exh. AG-63, at 55).

The Attorney General claimed that a number of state regulatory commissions that have adopted some forms of revenue decoupling mechanism have recognized the risk reduction associated with adopting such mechanisms and made downward adjustments in the authorized ROE ranging from 6.5 to 50 basis points (Exhs. AG-63, at 55-56; AG-62, at 23, Sch. DED-6). The Attorney General observed that some companies in both the Company's and her comparison groups already have revenue decoupling rate design mechanisms in place and, therefore, the stocks of these companies reflect the lower risks associated with revenue decoupling (Exh. AG-63, at 55-56). Accordingly, the Attorney General recommends a 25 basis points reduction, instead of the full 50 basis points, in the authorized rate of return on common equity for the Company to reflect such reduction in risk (Exh. AG-63, at 55-56).

The Attorney General claimed that because the Company's proposed revenue decoupling mechanism does not have any form of ratepayer protection, if the economy underperforms ratepayers will be required to make the Company whole even though revenue losses associated with an economic downturn had nothing to do with the implementation of

energy efficiency programs (Exh. AG-62, at 20).[209] The Attorney General maintained that implementing the revenue decoupling mechanism proposed by the Company, without any corresponding adjustment for a shift in revenue recovery risk, results in rates that are inconsistent with fair, just, and reasonable standards of traditional utility regulation (Exh. AG-62, at 20, 26-27).

F. Positions of the Parties

1. DCF Model

a. Attorney General

The Attorney General states that the Company determined a dividend yield of 5.02 percent for its DCF analysis based on the most recent six months of dividend yield information in the Company's comparison group of companies (Attorney General Brief at 179). The Attorney General does not oppose this dividend yield estimate (Attorney General Brief at 179-180).

The Attorney General, however, claims that the Company's 6.00 percent DCF model growth rate estimate, based on the Company's comparison group and using short-term earnings per share forecasts, is over-inflated and should be rejected (Attorney General Brief at 180). The Attorney General contends that the measurement of such growth rate would require a balanced consideration of historical and forecasted measures of dividends, earnings, and book value per share growth rates and growth rates from retained earnings (Attorney General Brief

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[209] The Attorney General cited the electric revenue adjustment mechanism ("ERAM") of Central Maine Power ("CMP"), designed to promote energy efficiency but terminated on November 30, 1993, as an example of a failed revenue decoupling mechanism that resulted in serious problems during an economic downturn (Exh. AG-62, at 19-20).

at 179-180, citing Exh. NG-PRM-1, WP NG-PRM-E, at 7-12). The Attorney General asserts that had the Company considered all available information based on such a balanced manner, rather than simply relying on short-term earnings per share forecasts, the DCF growth rate estimate would have been in the 4.0 percent to 5.0 percent range, rather than the 6.0 percent growth rate used by the Company (Attorney General Brief at 180). The Attorney General recommends that the Department reject the Company's DCF analysis and instead rely on the Attorney General's DCF analysis (Attorney General Brief at 180).

The Attorney General opposes the Company's proposed 15 basis points upward leverage adjustment on the DCF determined rate of ROE (Attorney General Brief at 188). The Attorney General contends that such an adjustment, which she characterized as a "market-to-book ratio adjustment," is unwarranted because the market value of a firm's equity exceeds the book value of equity when the firm is expected to earn more on the book value of investment than investors require (Attorney General Brief at 188-189, citing Exh. AG-63, at 68-70).[210] The Attorney General argues that there is no change in leverage because the financial statements and the fixed financial obligations remain the same and that financial publications and investment firms report capitalization on a book value basis and not on a market value basis (Attorney General Brief at 188, citing Exh. AG-63, at 68-70). The Attorney General contends that the Company's claim that such a leverage adjustment is based

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[210] The Attorney General claimed that although the Pennsylvania Public Utility Commission ("PPUC") had previously accepted the leverage adjustment, the PPUC did not include such a leverage adjustment in the recent Agua Pennsylvania case (Exh. AG-63, at 69-70; RR-DPU-43, Att. at 52).

on the accepted finance research is incorrect because the Company was unable to identify where one could find such an adjustment in the cited research (Attorney General Brief at 188-189, citing Exh. AG-63, at 68-70; see Exh. AG-63, at 69, citing Exh. AG 12-9). The Attorney General claims that Department has rejected such a leverage adjustment in the past and that the Company has not provided new evidence or arguments that should cause the Department to change or re-evaluate its previous findings (Attorney General Brief at 189, citing, e.g., D.T.E. 05-27, at 298).

b. Company

The Company reiterates that it relied on forecasted earnings per share information because investors are interested primarily in the future growth of their investments (Company Brief at 58-59, citing Exh. NG-PRM at 32). The Company claims that future earnings per share growth represents the primary focus of investors because under the constant price-earnings multiple assumption of the DCF model, the price per share of stocks will grow at the same rate as earnings per share (Company Brief at 58-59, citing Exh. NG-PRM at 32). In addition, the Company claims that analysts' forecasts significantly influence investor growth expectations and that the best measure of growth for the DCF model is forecasted earnings per share growth (Company Brief at 59 & n. 20, citing Exhs. NG-PRM at 37, NG-PRM-Rebuttal at 8-9).

The Company also argues that historical information growth rate should not be given independent weight because in developing forecasts of future earnings growth, analysts would have already considered the historical performance of a company and, therefore, there is no

need to count historical growth rate twice (Company Brief at 59-60). The Company contends that the Attorney General, by including historic growth rate artificially reduced the growth rate used in her DCF calculations and therefore should be rejected (Company Brief at 60).

The Company argues that its proposed leverage adjustment is designed to account for the difference in financial risk caused by the differences in the amount of leverage contained in the Company's proxy group average capital structure based on market value capitalization compared to book value capitalization (Company Brief at 61, citing Exh. NG-PRM at 40-44). The Company explains that this adjustment is needed because the cost of equity being determined will be applied to the book value of common equity, not its market value and, therefore, the cost of equity should also reflect the risk associated with the proxy group's book value capitalization, rather than market value capitalization in the DCF and CAPM analyses (Company Brief at 61, citing Exh. NG-PRM at 42).

The Company argues that there are a number of different reasons that stocks may trade at values that vary from their book value and that the leverage adjustment is not dependent on market to book ratios but rather on the fact that differences in leverage translate into differences in risk and, therefore, differences in the cost of equity (Company Brief at 61-62, citing Exhs. NG-PRM at 45-46; NG-PRM-Rebuttal at 16-17).

The Company claims that the Attorney General's opposition to the leverage adjustment is at odds with the position taken by her cost of equity witness in published writings (Company

Brief at 62, citing Exh. NG-PRM at 15).[211] The Company also claims that the Attorney General did not dispute the observation that there is less financial risk associated with the 50.98 percent average equity ratio of the Company's proxy group of companies based on market price compared to the 48.74 percent average equity ratio based on book value (Company Brief at 62). The Company argues that because financial risk increases when the common equity ratio is lower, the cost of equity must likewise increase, thereby justifying the proposed leverage adjustment (Company Brief at 62, citing Exhs. NG-PRM at 46-47; NG-PRM-Rebuttal at 15).

The Company contends that the Attorney General's data selection for her DCF model resulted in a significant downward bias (Company Brief at 62). The Company claims that had the Attorney General adjusted her calculations by using instead earnings forecasts to determine the DCF growth rate, the result would have been a DCF-determined equity cost of 11.92 percent, which is close to the 11.60 percent ROE proposed by the Company (Company Brief at 62).

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[211] The Company states that a book co-authored by the Attorney General's witness provides: "Market professionals always use the market value of common stock when they examine the capitalization of the corporation. As we will see in valuation examples, the market value of common stock sometimes bears little relationship to its book value. Stock prices are readily available" (Company Brief at 62, citing Exh. NG-PRM-Rebuttal at 15).

2. Risk Premium Model

a. Attorney General

The Attorney General claims that the Company's equity cost analysis using the RPM is flawed because it overstated the interest on utility bonds and estimated an equity risk premium that is in excess of what investors expect (Attorney General Brief at 185).[212] On the interest component of the RPM, estimated by using the yield on utility bonds, the Attorney General claims that the Company's use of a 6.5 percent yield is not reflective of current market yield, which she contends is 6.0 percent for A-rated utility bonds (Attorney General Brief at 185, citing Exh. AG-63, at 71, exh. JRW-3, at 1). In addition, the Attorney General claims that because a bond's yield to maturity includes a premium for default risk, using such yield as the interest component in the RPM overstates investors' return expectations (Attorney General Brief at 185, citing Exh. AG-63, at 71-72).

Regarding the equity risk premium component of the Company's RPM analysis, the Attorney General notes that the Company's analysis is based on the historical differences between the Standard and Poor's Public Utility Index stock returns and public utility bond returns over various time periods from 1928 and 2007 using the geometric and arithmetic means and the median (Attorney General Brief at 185, citing Exh. AG-63, at 72-82, WP NG-PRM-G). The Attorney General claims that such an analysis is flawed and overstates

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212 The Attorney General claims that, although the Company represented that the RPM is separate and distinct from the CAPM, the two approaches are essentially the same, noting that the cost of equity capital is equal to the yield on utility bonds plus an equity risk premium (Attorney General Brief at 184-185, citing Exh. NG-PRM, at 50-56, WPs NG-PRM-F, NG-PRM-G, Schs. NG-PRM-8, NG-PRM-9).

the equity risk premium (Attorney General Brief at 186, citing Exh. AG-63, at 72-82). More specifically, the Attorney General claims that the equity risk premium must be based on investors' expected premium and not simply based an analysis of historical results, particularly given the difference of present and future market expectations from past market conditions (Attorney General Brief at 186).[213]

The Attorney General adds that the Department has previously reviewed and rejected the risk premium analysis many times in the past (Attorney General Brief at 187-188, citing D.T.E. 03-40, at 359; Boston Gas Company, D.P.U. 96-50 (Phase I) at 128 (1996); D.P.U. 95-40, at 97; D.T.E. 93-60, at 261; D.P.U. 92-111, at 265-266; D.P.U. 92-210, at 138-139; D.P.U. 90-121, at 171. The Attorney General claims that in each of the

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[213] The Attorney General listed what she claims to be additional flaws in the Company's calculation of the equity risk premium, including: (1) historical bond returns are biased downward as a measure of expectancy because of capital losses suffered by bondholders in the past, thereby resulting in the equity risk premium being biased upwards; (2) the use of the arithmetic mean over the geometric mean to calculate returns biases the equity risk premium upwards when a study covers more than one period as done by the Company; (3) a large error in measuring the equity risk premium derive from historical returns as shown by the standard deviation equal to 20.6 percent around an average premium of 6.5 percent; (4) unattainable and biased historical stock returns using a method that incorrectly assumes that portfolios can be rebalanced monthly at zero cost; (5) a "survivorship" upward bias because companies that survived are counted in the return calculations while those that did not survive are not included in the return calculations; (6) the U.S. stock market survivorship bias resulting in historical stock returns being overstated as measures of expected returns because the U.S. markets have not experienced the disruptions of other major markets around the world; (7) current market conditions are significantly different than those of the past such that historical data does not provide a realistic or accurate barometer of investors' current expectations; and (8) changes in risk and return in the markets associated with the dramatic change in the risk and return relationship between stocks and bonds where bonds have increased in risk relative to stocks, thus lowering the equity risk premium (Attorney General Brief at 186-187, citing Exh. AG-63, at 72-82).

above-cited cases, the Department found that the RPM overstates the amount of company-specific risk and therefore overstates the cost of equity (Attorney General Brief at 188, citing D.T.E. 03-40, at 359, Boston Gas Company, D.P.U. 96-50 (Phase I) at 128 (1996); D.P.U. 95-40, at 97; D.T.E. 93-60, at 261; D.P.U. 92-111, at 265-266; D.P.U. 92-210, at 138-139; D.P.U. 90-121, at 171). The Attorney General asserts that because the Company has provided no new analyses and no new argument, the Department should reject the Company's risk premium analysis (Attorney General Brief at 188).

b. Company

The Company claims that the Attorney General did not perform an equity cost analysis based on the RPM (Company Brief at 63). The Company states that based on its RPM, it calculated a cost of equity of 12.00 percent, equal to the sum of a 6.50 percent yield based on A-rated public utility bonds and an equity risk premium of 5.50 percent, equal to difference between the returns on S&P Public Utilities and yields on A-rated public utility bonds, adjusted downward to reflect the lower risk of the Company's comparison group of companies (Company Brief at 63, citing Exh. NG-PRM at 51-55).

The Company states that although both the RPM and the CAPM use the concept of adding an equity risk premium to a base yield on bonds, the two methods do so in different ways (Company Reply Brief at 20-21, citing Exh. NG-PRM at 56-57, WPs NG-PRM-G, NG-PRM-H). The Company explains that while the CAPM uses a risk-free rate of return and then adds the appropriate risk premium to that amount, the RPM starts with the yield on high-grade utility bonds and then adds the appropriate equity risk premium to that amount

(Company Reply Brief at 20-21). In addition, the Company states that while the CAPM accounts for differences in systematic risk between an individual firm and the entire market for equities, the RPM is not limited to measuring only the systematic risk but also other firm- and industry-specific factors (Company Reply Brief at 20, citing Exh. NG-PRM at 56-57).

Regarding the 6.50 percent corporate bond yield used in its RPM analysis, the Company explains that its analysis was filed in May 2009 based on the most recent information available at that time (Company Reply Brief at 21). The Company, however, claims that changing interest rates over time do not invalidate the underlying method and that the Company provided an updated calculation of all its cost equity methods (Company Reply Brief at 21, citing RR-DPU-7 (Rev.); Exh. DPU-NG 2-56; see RR-DPU-8 (Rev.)).

3. Capital Asset Pricing Model

a. Attorney General

The Attorney General recommends that the Department reject the Company's CAPM-determined cost of equity because the underlying assumptions of the model depart substantially from the real world that the model cannot reliably determine the cost of common equity for a utility company and that the Company applied the model poorly (Attorney General Brief at 180). The Attorney General claims that the Department has found that the assumptions underlying the CAPM are too "heroic" to make its application to a utility stock useful (Attorney General Brief at 182-183, citing D.T.E. 03-40, at 360; Boston Gas Company, D.P.U. 96-50, at 125 (1996); D.P.U. 92-210, at 148-150; D.P.U 92-78, at 113; D.P.U. 88-67 (Phase I), at 184; Commonwealth Electric Company, D.P.U. 956, at 54-55 (1982)).

The Attorney General claims that the Department, for example, has found the following assumptions of the CAPM to be unrealistic: (1) investors can borrow and lend an unlimited amount of money at a risk-free rate; (2) investors evaluate equity or security portfolios according to the means and standard deviations of portfolio returns; and (3) investors are "single period expected utility of terminal wealth maximizers," that is a 100 percent liquidating dividend is paid at the end of the period (Attorney General Brief at 183, citing Commonwealth Electric Company, D.P.U. 956, at 54 (1982)). The Attorney General claims that the Company's analysis applying the CAPM did not address the fundamental problems associated with these model assumptions (Attorney General Brief at 183). The Attorney General recommends that the Department reject the use of the CAPM as a method for determining the cost of equity for utilities as it has done in the past (Attorney General Brief at 183, citing Commonwealth Electric Company, D.P.U. 956, at 54 (1982)).

b. Company

The Company states that based on its CAPM analysis, it determined a cost of equity of 11.80 percent (Company Brief at 63-64, citing Exh. NG-PRM at 58-61). The Company criticizes the Attorney General's CAPM-determined cost of equity of 7.5 percent, which is much lower than her DCF-determined cost of equity of 10.2 percent (Company Brief at 64). The Company claims that the Attorney General, rather than questioning whether the large difference between her DCF- and CAPM-determined costs of equity reflects a flaw in the methods used, dismissed this difference by stating that it is due to uncertainty in the market (Company Brief at 64).

The Company also claims that the Attorney General did not provide any explanation why such market uncertainty would affect one method and not the other method (Company Brief at 64). The Company argues that by comparing the Attorney General's 7.5 percent CAPM-determined cost of equity, with the yield on Baa-rated public utility bonds of 6.89 percent as of July 2009, demonstrates a flawed method used by the Attorney General (Company Brief at 64, citing Exh. NG-PRM-Rebuttal at 24).

The Company states that the Attorney General instead ignored the result of his CAPM analysis by stating that a relevant range of 9.5 percent to 10.0 percent without any empirical or theoretical basis (Company Brief at 64). The Company also states that the Attorney General took the mid-point of that range and subtracted 25 basis points, to reflect the change in risk should the Department approve the Company's revenue decoupling proposal, based on a survey of adjustments made by other public utility commissions (Company Brief at 64, citing Exh. AG-63, at 54). The Company contends that although the Attorney General went through the motion of performing quantitative analyses to determine the proper ROE for the Company, her ultimate recommendation was arbitrary (Company Brief at 65).

The Company claims that the Attorney General's position to disregard the results of the CAPM, in determining the authorized rate of return for the Company, is inconsistent with her cost of equity witness who performed an analysis using the CAPM (Company Reply Brief at 19, citing Exh. AG-63, at 38-54). The Company contends that the Attorney General, rather than having the Department give weight to the Company's CAPM analysis, completely rejected the CAPM approach for expediency because the results of her CAPM analysis lacked

credibility (Company Reply Brief at 19). The Company asserts that the circumstances of this case militate in favor of using multiple ROE methods and therefore calls for the Department to rely on the CAPM and RPM in addition to the DCF model (Company Reply Brief at 19-20).

4. Comparable Earnings Model

Regarding the Company's comparable earnings approach, the Attorney General notes this approach involves averaging the historic and prospective returns on common equity for a proxy group of 26 unregulated non-utility companies comparable in risk to the Company's proxy group of regulated utilities as determined from Value Line's Value Screen Database (Attorney General Brief at 183, citing Exh. NG-PRM-1, at 61-65; WP NG-PRM-I; see Exh. AG-63, at 91, exh. JRW-12). The Attorney General claims that the Department has repeatedly rejected this CEM approach (Attorney General Brief at 183-184, citing D.T.E. 03-40, at 360-361; Boston Gas Company, D.P.U. 96-50, at 131-132 (1996); D.P.U. 92-250, at 160-161; D.P.U. 92-111, at 280-282; D.P.U. 92-210, at 155; The Berkshire Gas Company, D.P.U. 905, at 48-49 (1982)). The Attorney General also claims that the Company's cost of equity witness's use of the CEM has been rejected by the Department to be unreliable because the earned return on common equity did not necessarily equal the utility companies' cost of capital (Attorney General Brief at 184, citing The Berkshire Gas Company, D.P.U. 905, at 48-49 (1982)).

The Attorney General also criticizes the Company's application of the CEM because she argues it did not evaluate the market-to-book ratios for those proxy group of companies used in the CEM analysis and, therefore, the Company cannot indicate whether the past and

projected returns on common equity are above or below investors' return requirements (Attorney General Brief at 184, citing Exh. AG-63-1, at 91-92). The Attorney General claims that such returns would be excessive because the market-to-book ratios for those companies are above 1.0 (Attorney General Brief at 184, citing Exh. AG-63-1, at 91-92).[214] The Attorney General, claiming that the Company has provided no reason in this case for the Department to change its precedent, recommends that the Company's CEM analysis should be rejected (Attorney General Brief at 184). The Company did not comment at brief on the CEM.

5. Equity Cost Impact of Decoupling

a. Attorney General

The Attorney General recommends that the Department adopt an ROE adjustment that is commensurate with the degree of risk shifting included in the Company's revenue decoupling mechanism approved in this case (Attorney General Brief at 38). The Attorney General claims that the Department recognized risk shifting impact of revenue decoupling noting that changes in the means by which a distribution company recovers its allowed revenues could materially alter the distribution of risks among the distribution company, its shareholders and its customers (Attorney General Brief at 38, citing D.P.U. 07-50-A at 64). The Attorney General claims that revenue decoupling reduces earnings risk by eliminating the

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[214] The Attorney General, for example, noted that Pitney Bowes, one of the companies included in the Company's unregulated proxy group of companies, had a projected rate of return on equity of 91.5 percent (Exh. AG-63, at 92). The Attorney General expressed doubt that any analyst would expect that Pitney Bowes would have an equity cost rate of 91.5 percent, noting that its market-to-book ratio is in excess of 10.0, which indicates that the company's return on equity is well above its cost of equity capital (Exh. AG-63, at 92).

variations in revenues and that once the Company's rates are decoupled, it will be guaranteed positive revenue growth on a going forward basis (Attorney General Brief at 39).[215]

The Attorney General states that the proposed rate of ROE of 9.75 percent for the Company should be further reduced to reflect the reduction in risk if the Department adopts the Company's proposed revenue decoupling mechanism (Attorney General Brief at 39, 175; Exh. AG-63, at 55). The Attorney General claims that the Department has recognized that when a utility decouples its distribution revenues from sales, it will shift economic risks from utility shareholders to utility customers, reduce the utility's cost of capital, including its cost of common equity (Attorney General Brief at 175, citing D.P.U. 07-50-A at 73-74; see Exh. AG-63-1, at 55). The Attorney General recommends that if the Department chooses to adopt the Company's proposal as filed, a 25 basis point reduction to the Company's allowed ROE is appropriate (Attorney General Brief at 41).

The Attorney General claims that such risk reduction is supported by basic financial theory and that under traditional regulation utilities are only given an opportunity to earn revenues with no guarantee for revenue recovery (Attorney General Brief at 175, citing Exh. AG-62, at 10-15). The Attorney General states the financial risk associated with changes in sales and revenues associated with the weather, economy, commodity prices, and other factors, that normally account for greater changes in sales and revenues compared to those

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[215] The Attorney General claims that revenue decoupling will likely enhance the Company's earnings prospects and will be given ample opportunity to achieved its authorized rate of return under revenue decoupling without the need for its CapEx mechanism proposal (Attorney General Brief at 74).

associated with energy efficiency programs, have been borne by Company shareholders (Attorney General Brief at 175, citing Exh. AG-62, at 10-15; Tr. 16, at 2745). The Attorney General contends that with full decoupling such risk is transferred from the Company shareholders to its ratepayers and that the Department must recognize this reduction in risk when setting the cost of equity for the Company (Attorney General Brief at 175, citing Exh. AG-62, at 10-15).

The Attorney General states that her two cost of equity witnesses have reviewed a number of jurisdictions that implemented revenue decoupling and noted downward adjustments in the allowed rate of ROE ranging from 10 basis points to 50 basis points and from 6.5 basis points to 50 basis points (Attorney General Brief at 176, citing Exhs. AG-62, Sch. DED-6; AG-63, at 55-56). The Attorney General, however, noting that only two out of the nine distribution companies in her proxy group have decoupled rates and, therefore, recommends a 25 basis points reduction, instead of the full 50 basis point reduction to adjust her cost of equity recommendation (Attorney General Brief at 176, citing Exh. AG-63, at 55-56).

The Attorney General claims that the Company failed to recognize or make any adjustment to the cost of equity to reflect the reduction in investment risk associated with decoupling (Attorney General Brief at 177, citing Exh. NG-PRM-1, at 5-6). The Attorney General claims that the Company only made a cursory review of the forms or types of revenue decoupling mechanism and did not recognize how their differences may impact the degree to which risk has shifted under the particular regulatory scheme (Attorney General Brief at 177).

The Attorney General contends that the Company's approach biases its proposed rate of return on common equity (Attorney General Brief at 177).

The Attorney General explains that some mechanisms in effect for the companies in the Company's proxy group do not provide for full sales and revenue decoupling, such as the presence of weather adjustments that do not provide shareholders protection for other changes in sales like economic downturn and price-induced demand reduction (Attorney General Brief at 177-178). The Attorney General claims that the Company failed to analyze the extent to which existing revenue adjustment mechanisms cover all the service territories in its proxy group, adding that companies in such proxy group have different subsidiaries that operate in different states which have different rate structures and different rate mechanisms (Attorney General Brief at 178).

In addition, the Attorney General claims that some companies in the proxy group have regulated business that represent less that 85 percent of total revenues (Attorney General Brief at 178, citing Exh. DPU-NG 2-28). The Attorney General asserts that the Department must determine the cost of common equity for the Company based on its distribution service (Attorney General Supplemental Reply Brief at 13). The Attorney General contends that because the Company made no attempt to recognize the greater risks associated with the energy, energy trading, and the many other unregulated businesses of the companies in the Company's proxy group, the Company's analysis results in higher cost of equity than would be required for a distribution only utility like MECo (Attorney General Supplemental Reply Brief at 13).

The Attorney General contends that because it is generally accepted by state public utility commissions that decoupling sales and revenues will reduce the cost of capital for a company, the remaining question for the Department, with a regard to such equity cost reduction, is whether and to what extent the sales and revenues of the utilities in the two comparison groups of companies are decoupled (Attorney General Brief at 178, citing Exhs. AG-62, at 24; NG-RBH-1, at 24; Attorney General Reply Brief at 57). The Attorney General claims that she provided a better comparison group and performed an analysis to ensure that customers get the full benefit of the lower cost of capital (Attorney General Brief at 178).

The Attorney General claims that her 25 basis points recommended reduction in the Company's authorized ROE reflect the associated reduction in shareholders' investment risk and that it is conservative when viewed against what other public utility commissions have done (Attorney General Brief at 178; Attorney General Reply Brief at 57). The Attorney General concludes that based on the record in this case, the Company should be awarded no more than 9.5 percent rate of return on common equity (Attorney General Brief at 168; Attorney General Reply Brief at 57).

b. Company

The Company claims that its selection of a proxy group of companies was a critical element of its analysis in order to address the Department's directive in D.P.U. 07-50-A relating to the effect of the implementation of revenue decoupling on a company's risk profile and rate of ROE (Company Brief at 55-56, citing D.P.U. 07-50-A at 85). The Company

claims that by requiring that all members of its comparison group have a revenue decoupling mechanism similar to what the Company proposed, this would have fully accounted for the impact of revenue decoupling (Company Brief at 57, citing Exhs. NG-PRM at 7; AG 12-4(4&5); DPU-NG 2-29; Tr. 13, at 2226-27, 2258-59, 2285-327; RR-DPU-36A; RR-DPU-36B; RR-DPU-37, RR-DPU-38, RR-DPU-39). The Company explains that any impact that revenue decoupling may have on the cost of equity was embedded in the results of its cost of equity analysis and need not be separately identified and quantified, otherwise making such quantification would result in double counting the impact of revenue decoupling (Company Brief at 57-58).

The Company criticizes the Attorney General's approach of isolating revenue decoupling as a single factor that affects the Company's ROE without taking into account the impact of other factors including the use of future test year versus historical test year, the presence of pension and other expense tracker mechanisms, or a weather stabilization mechanism (Company Brief at 56-57, citing Tr. 17, at 3025-3026). The Company adds that although not all the companies in the Attorney General's proxy group have decoupling mechanisms in place, many of those companies have mechanisms to enable the recovery of specific operating or capital expenses, which do not necessarily make them demonstrably more risky than the Company (Company Brief at 57, citing Exh. NG-RBH-Rebuttal at 9). The Company argues that the presence of those other mechanisms could explain the reason why trading multiples for comparison companies with decoupling structures are not materially

different than those companies without such structures (Company Brief at 57, citing Exh. NG-RBH-Rebuttal at 9).

The Company rebuts the Attorney General's claim that revenue decoupling eliminates revenue variations, reduces earnings risk, and enhances earnings prospects, stating that such claim is erroneous and not supported by the record (Company Reply Brief at 23, citing Attorney General Brief at 39, 74). Contrary to the Attorney General's claim, the Company reasons that if revenues are capped by a decoupling mechanism and expenses continue to vary, in all likelihood, earnings will be threatened, rather than enhanced, by the dual effect of rising capital and operating expenses (Company Brief at 78-79; Company Reply Brief at 23, citing Exh. NG-MDL at 5-8).

The Company faults the Attorney General's 25 basis points proposed reduction in the Company's authorized ROE to account for any change in risk associated with the implementation of revenue decoupling (Company Brief at 58). The Company claims that such an adjustment was not derived from any quantitative study but rather based on a survey of adjustments made in other regulatory proceedings (Company Brief at 58, citing Tr. 17, at 3028). The Company also questions the validity of the Attorney General's approach because her survey did not include cases where regulators did not make any adjustments in rate of return as a result of revenue decoupling (Company Brief at 58, citing Tr. 17, at 3029-30; Exh. NG-RBH-Rebuttal at 16-17).

G. Analysis and Findings

1. Introduction

As the basis for its recommended ROE, the Company applied the DCF model, RPM, and CAPM on the financial data of seven electric utility companies that compose the Company's comparison group (Exhs. NG-PRM at 8-9, 61-65; NG-PRM-1, Schs. NG-PRM-5, NG-PRM-6, NG-PRM-7, NG-PRM-8, NG-PRM-9, NG-PRM-10).[216] The Attorney General applied the DCF model and the CAPM on the financial data of nine electric utility companies that comprise her proxy group, as the basis for her recommended ROE (Exh. AG-63, at 14-15, 38, 54, exhs. JRW-4, at 1-2, JRW-10, JRW-11). Similarly, the Attorney General applied the DCF model and the CAPM on the financial data of seven electric utility companies that compose the Company's proxy group (Exh. AG-63, at 14-15, 38, 54, exhs. JRW-4, at 1-2, JRW-10, JRW-11).

All companies in the Company's proxy group of seven companies and two companies, IDACORP, Inc. and UIL Holdings Corporation, included among the nine electric utility companies in the Attorney General's proxy group, employ some form of revenue decoupling mechanism (Exhs. AG-63, exhs. JRW-4, at 1-2, JRW-10, at 2-5; NG-RBH-Rebuttal, exh. RBH-1, at 3, 10, 16). As we noted above, in our evaluation of a comparison group, we recognize that it is neither necessary nor possible to find a group that matches the Company in every detail. See D.T.E. 99-118, at 80; D.P.U. 87-59, at 68; D.P.U. 1100, at 135-136.

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[216] Although the Company applied the CEM on the financial data of 26 non-regulated companies, it did not directly use the result of its CEM analysis in determining its recommended ROE (Exh. NG-PRM at 8-9, 61-65).

Therefore, we have accepted the Company's as well as the Attorney General's proxy groups of electric utility companies with publicly-traded stocks as a basis for their costs of capital proposals and will consider the investment risk of the Company versus the comparison groups when determining the appropriate rate of return on common equity for the Company.

2. Discounted Cash Flow Model

The constant growth DCF, or the Gordon model, used by the Company and the Attorney General has a number of very restrictive assumptions (Exh. NG-PRM at 29-32, WP NG-PRM-E at E1-E4). For example, the constant growth rate form of the DCF model assumes that future earnings per share, dividends per share, book value per share, and price per share will all appreciate at the same rate absent any change in price-earnings multiples (Exh. NG-PRM at 32). In addition, the DCF model has other limitations including an element of circularity when applied in a rate case because investors' expectations depend upon regulatory decisions (Exh. NG-PRM at 30). The Department is not persuaded by the validity of the assumptions that underlie the constant growth rate DCF model. See D.P.U. 08-35, at 199. Accordingly, we will consider these model limitations in evaluating the DCF-determined equity cost rates presented in this proceeding.

Regarding the Company's proposed leverage adjustment, which increases by 0.15 percent the DCF cost of equity, the Company argued that this adjustment is necessary to account for the difference in financial risk between the equity ratio measured at market value and the equity ratio measured at book value (Exh. NG-PRM at 40-41). The Company claimed that the 0.15 percent upward adjustment reflects the increased risk associated with the higher

financial leverage shown by the book value capital structure, as compared to the market value capital structure that contains lower financial risk (Exh. NG-PRM at 42-45).

The Department has consistently rejected a DCF leverage adjustment. D.T.E. 05-27, at 298; D.T.E. 03-40, at 357-359; D.T.E. 01-56, at 105-106; D.P.U. 906, at 100-101; Eastern Edison Company, D.P.U. 837/968, at 49 (1982). Based on our review of the record in this case, we are not persuaded to re-evaluate our previous finding on this issue. The Company's proposed leverage adjustment relies on a comparison between book and market capitalization and, thus, contains the same defects as the Department previously identified, including insufficient consideration of the multiplicity of factors that affect investor decisions. See D.T.E. 01-56, at 105-106. In addition, although the Company claimed that such a leverage adjustment is applied to account for the difference in financial risks between the equity ratio measured at market value and the equity ratio measured at book value, we are not persuaded that an investors' market assessment of the underlying risks of a regulated utility does not consider such difference between book and market capitalization. Accordingly, the Department rejects the Company's proposed leverage adjustment.

3. Risk Premium Model

The Department has repeatedly found that a risk premium analysis could overstate the amount of company-specific risk and, therefore, overstate the cost of equity. See D.P.U. 90-121, at 171; D.P.U. 88-135/151, at 123-125; D.P.U. 88-67 (Phase I) at 182-184. More specifically, the Department has found that the return on long-term corporate or public utility bonds may have risks that could be diversified with the addition of

common stocks in investors' portfolios and, therefore, overstates the risk accounted for in the resulting cost of equity. D.P.U. 90-121, at 171; D.P.U. 88-67 (Phase I) at 182-183.

The RPM, like the other equity cost models used by the Company, suffers from a number of limitations including the potential imprecision in assessing the future cost of debt and measuring the risk-adjusted common equity premium (Exh. NG-PRM at 50, WP NG-PRM-G at G1). The Department has acknowledged the value of risk premium analysis as a supplemental approach to other ROE models and accorded it, at best, limited weight in our determination of the cost of equity. D.P.U. 07-71, at 137; D.T.E. 99-118, at 85-86. As it suffers from the same limitations previously noted, the Department finds that the Company's RPM analysis does not accurately measure the required return on common equity for the Company.

4. Capital Asset Pricing Model

The Department has rejected the use of the traditional CAPM as a basis for determining a utility's cost of equity because of a number of limitations, including questionable assumptions that underlie the model. D.P.U. 08-35, at 207; D.T.E. 03-40, at 359-360; D.P.U. 956, at 54.[217] The Department notes that the Company made two adjustments in its analysis when

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

applying the CAPM on the average financial and market data of the seven electric companies in its comparison group.

First, the Company adjusted upward the average beta coefficient for the proxy group from 0.75 to 0.78 (Exh. NG-PRM at 58). Because the cost of equity under the CAPM is equal to the risk-free rate of return plus the product of the beta and the market risk premium, such adjustment correspondingly increases the resulting ROE (Exh. NG-PRM at 61; WP NG-PRM-H at H2). As in our analysis of the leverage component of the Company's DCF model, the Department finds that the use of leveraged betas in the Company's CAPM overstates the required ROE for the Company. See D.P.U. 09-30, at 358-359.

Second, the Company added 0.94 percent to the rate of return determined after the application of the CAPM on the average financial and market data of the comparison group of companies (Exh. NG-PRM at 60-61). The Company claimed that this adjustment is to account for the empirical results using the CAPM, indicating that the cost of equity is understated for relatively small firms (Exh. NG-PRM at 60-61). The Department has previously rejected this adjustment based on the size premia determined in the Ibbotson SBBI Classic Yearbook. D.P.U. 08-35, at 216-217.[218] The Company has not presented any new evidence that would

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maximize the expected utility of the terminal value of their investment at the end of one period.

[218] In D.P.U. 08-35, the study used by the company as the basis for the size premium adjustment was the Stocks, Bonds, Bills, and Inflation ("SBBI") – Market Results for 1926-2007, 2008 Yearbook Valuation Edition, Morningstar, Inc., 2008 Chicago, IL. (formerly Ibbotson SBBI). D.P.U. 08-35, at 211-212. In this case, the Company based its proposed size premium adjustment on the 2009 SBBI Yearbook (Exh. NG-PRM at 61).

serve as a basis for the Department to re-evaluate our previous findings. Accordingly, the Department rejects the Company's proposed adjustment. Based on the above considerations, the Department finds that the traditional CAPM would have a limited value in determining the Company's rate of return on common equity in this case.

5. Comparable Earnings Model

The Department has generally rejected the results of the CEM analysis because the risk criteria provided were not sufficient to establish the comparability of the non-regulated group of firms with the distribution company being considered. D.P.U. 08-35, at 210; D.T.E. 01-56, at 116. Although the average adjusted and unadjusted betas of the CEM comparison group of 26 non-price regulated companies are comparable with the average adjusted and unadjusted betas of the nine comparison group of companies, there are other risk criteria that must be evaluated as the basis for selecting an appropriate CEM comparison group of companies. D.P.U. 08-35, at 210; D.T.E. 01-56, at 116.

In addition, the Department has found that the use of the beta as a criterion in selecting a comparable group of companies is not a reliable investment risk indicator given its statistical measurement limitations. D.P.U. 96-50 (Phase I) at 132.[219] Moreover, the beta, which is a measure of risk based on the CAPM, reflects the limitations of that model, including its unrealistic assumptions as noted above. We note that the results of the CEM analysis here were not directly used by the Company (Exh. NG-PRM at 8-9). Accordingly, the Department

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[219] The Company, for example, stated that Value Line does not publish the coefficients of determination for its calculated betas (Exh. DPU-NG 2-27).

will not rely on the results of the CEM analysis as a basis for determining the rate of return on common equity for the Company.

6. Equity Cost Impact of Decoupling

In D.P.U. 07-50-A, the Department stated that, because decoupling is designed to ensure that distribution companies' revenues are not adversely affected by reductions in sales, and do not increase from undue increases in sales, by definition, decoupling reduces earnings volatility. D.P.U. 07-50-A at 72; D.P.U. 07-50, at 1-2. The Department added that, assuming everything else remains the same, such reduction in earnings volatility should reduce risks to shareholders and, thereby, should serve to reduce the required ROE. D.P.U. 07-50-A at 72-73.

The Department stated, however, that it will consider the impact of a decoupling mechanism for a distribution company along with all other factors affecting that company's required ROE in the context of a rate proceeding, where the evidence and arguments may be fully tested. D.P.U. 07-50-A at 74. We consider below the impact of the Company's revenue decoupling mechanism on its cost of common equity.

The Attorney General asserts that the implementation of National Grid's revenue decoupling mechanism as proposed in this case will shift risks from shareholders to ratepayers (Attorney General Brief at 38-41). Further, the Attorney General argues that many factors impact utility revenues, including weather, the economy, commodity prices, and factors other than the minor amounts of utility lost revenues from energy efficiency programs, and that under traditional regulation, the risks of potential shortfalls in revenues caused by these factors

are borne by shareholders (Attorney General Brief at 175, citing Exh. AG-62, at 10-15; Tr. 16, at 2745). The Attorney General maintains that the Department must recognize the reduction in risk that would occur under the Company's proposed revenue decoupling mechanism when setting the cost of equity for the Company (Attorney General Brief at 175, citing Exh. AG-62, at 10-15). To recognize this reduction in risk, the Attorney General recommends that the Department make a 25 basis points reduction on the Company's ROE (Exhs. AG-62, at 23, Sch. DED-6; AG-63, at 2, 55-56).[220]

Alternately, the Company argues that there is no change in investors' risk perception before and after implementation of revenue decoupling (Exh. NG-RBH-Rebuttal at 9). Further, the Company contends that there is no need to adjust its ROE because all companies in the comparison group used by National Grid and two companies in the comparison group used by the Attorney General, have some form of decoupling or revenue stabilization mechanism and, therefore, any effect from decoupling is already factored into the proposed ROEs (Exhs. NG-PRM at 7; NG-RBH-Rebuttal at 5).

The evidence in this proceeding demonstrates that the variability in the Company's base distribution revenues will be significantly reduced as a result of the implementation of the revenue decoupling mechanism approved in this case, including the approved tracking mechanisms (Exhs. NG-HSG-RR-8 (Rev.); NG-HSG-P-12, Proposed M.D.P.U. No. 1165). The annual revenue requirements approved by the Department are established on the basis of

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[220] The Attorney General surveyed the ROE downward adjustments by a number of regulatory commissions indicating a range of 6.5 basis points to 50 basis points (Exhs. AG-62, at 23, Sch. DED-6; AG-63, at 55-56).

the distribution revenue requirement approved in this case and test year billing determinants (Exh. NG-HSG-RR-1 (Rev.)). Further, the approved revenue requirement includes a provision for the Company's return on capital (see Schedule 1 of this Order). Prior to decoupling, any variations in billing units from test year levels arising from any factors such as changes in the weather, are reflected in the level of distribution revenues actually collected by the Company. Similarly, any changes in economic factors, such as the impact of price increases, affected the amount of distribution revenues actually collected by the Company.

Under the revenue decoupling mechanism approved in this proceeding, the Company at the end of each annual period will compare the difference between the annual target base distribution revenue with the actual collected base distribution revenues and refund or collect the difference through a revenue reconciliation component of the revenue decoupling plan (Exhs. NG-HSG-P-12; NG-HSG-RR-1 (Rev.)). Because the Company will recover fully during the ensuing years its approved based distribution revenue requirement (including a component return on rate base), we find that the decoupling revenue adjustment will result in rate year distribution revenues that will closely reflect the distribution revenue requirement approved in this base rate proceeding.

The Department previously has rejected proposals for adjusting rate year revenues due to deviations in weather. See e.g., D.T.E. 03-40, at 407, 423; D.P.U. 92-210, at 157-172, 199; D.P.U. 92-111, at 18-33, 60-61. In rejecting those proposals, the Department found that they would result in a less risky profile for the company and that any resulting reduction in risk of equity investments should be shared with ratepayers through a commensurate adjustment in

a company's rate of return on capital. D.T.E. 03-40, at 423; D.P.U. 92-210, at 199; D.P.U. 92-111, at 60-61. In the instant case, where changes in sales arising from all factors, including weather, are decoupled from the Company's approved base distribution rates, we reaffirm the above findings regarding the resulting lowered risk profile of a company and the resulting impact on its cost of equity. See D.P.U. 09-30, at 369. In addition, we confirm the Department's generic finding in D.P.U. 07-50-A at 72-73 that, because decoupling is designed to ensure that distribution companies' revenues are not adversely affected by reductions in sales and do not increase from undue increases in sales, such a reduction in revenues and earnings volatility should, all else being equal, reduce risks to shareholders and, thereby, serve to reduce the required ROE. In sum, we find that the revenue decoupling mechanism that we have approved in this case will reduce the variability of the Company's revenues and, accordingly, reduce its risks and its investors' return requirement. See D.P.U. 09-30, at 367, 369; D.P.U. 07-50-A at 72-73.

As noted above, all companies in National Grid's comparison group and two companies in the Attorney General's comparison group have some form of decoupling or revenue stabilization mechanisms (Exhs. DPU-NG 2-29 & Att.; NG-RBH-Rebuttal, exh. RBH-1; NG-PRM-1 at 6, Sch. NG-PRM-3; AG-63, exh. JRW-4; RR-DPU-36; RR-DPU-37; RR-DPU-38; RR-DPU-39; RR-DPU-42; Tr. 13, at 2288-2323; Tr. 16, at 3024, 3117). A review of the various mechanisms indicates that there are a wide range of approaches used for revenue stabilization from one regulatory jurisdiction to another. Thus, the fact that the comparison groups of companies have revenue stabilization mechanisms does not mean that the

comparison groups fully match the risk profile of the Company with respect to its proposed decoupling mechanism. Accordingly, we do not accept the Company's argument that there is no need to consider the equity cost impact of decoupling because the comparison groups use some form of revenue stabilization mechanism and, in fact, we are not convinced that the comparison groups fully capture the risk-reducing impact of the Company's decoupling mechanism.

As a basis for her proposed 25 basis points reduction on the Company's ROE, the Attorney General surveyed the ROE downward adjustments by a number of regulatory commissions indicating a range of 6.5 basis points to 50 basis points (Exhs. AG-62, at 23 & Sch. DED-6; AG-63, at 55-56). While we will accord this evidence appropriate weight, we are not persuaded that the evidence is sufficient to quantify at 25 basis points the change in investors' risks perception associated with the Company's implementation of revenue decoupling.[221]

7. Conclusion

The standard for determining the allowed rate of return on common equity is set forth in Bluefield and Hope. The allowed return on common equity should preserve the Company's financial integrity, allow it to attract capital on reasonable terms, and be comparable to returns on investments of similar risk. See Bluefield at 692-693; Hope at 603, 605.

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[221] For example, certain regulatory decisions in the Attorney General's survey were the result of settlements that did not identify a specific adjustment to allowed ROE to account for the impact of the implementation of a revenue stabilization or decoupling mechanism (Exh. AG-62, Sch. DED-6).

In support for its calculations of an appropriate ROE, the Company has presented analyses using the DCF model, RPM, and CAPM applied on the financial data of a comparison group of seven electric distribution companies, and the CEM applied on the financial data of 26 non-utility companies. The use of these empirical analyses in this context, however, is not an exact science. A number of judgments are required in conducting a model-based rate of return analysis. The Department looks to base its judgment on substantial evidence. Each level of judgment to be made contains the possibility of inherent bias and other limitations. D.T.E. 01-56, at 117; Western Massachusetts Electric Company, D.P.U. 18731, at 59 (1977).

As stated above, the record demonstrates that all these equity cost models suffer from a number of simplifying and restrictive assumptions. Applying them on the financial data of a comparison group of companies could provide results that may not be reliable for the purpose of setting the Company's ROE. In the case of the DCF model, for example, which was used by the Company and the Attorney General, we note the limitations of the DCF analysis, including the simplifying assumptions that underlie the Gordon model and the inherent limitations in comparing the Company to publicly-traded companies. As stated above, we reject the Company's attempt to adjust its DCF-determined ROE of 11.02 percent by adding a leverage adjustment of 15 basis points. In the case of the Attorney General, we note that she determined a 10.23 percent cost of equity based on the Gordon model and a 7.50 percent based on the CAPM applied on the financial and market data of nine electric companies in her proxy group. Applying the DCF model and the CAPM on the seven companies in the Company's

proxy group, the Attorney General determined a 10.02 percent and 7.72 percent cost of equity, respectively. The Attorney General, instead used range of 7.50 percent to 10.0 percent and took the mid-point of this range to arrive at a 9.75 percent cost of equity, which she further proposed to be reduced by 25 basis points in order to reflect the impact on ROE by the implementation of revenue decoupling.

We recognize that the revenue decoupling mechanism we have approved in this case will reduce the variability of the Company's revenues and, accordingly, reduce its risks and its investors' return requirement. See D.P.U. 07-50-A at 72-73; D.P.U. 09-30, at 371-372. Although the companies in the comparison groups used by the Company and the Attorney General have some forms of revenue stabilization or decoupling mechanisms, the degree of revenue stabilization varies among the companies in the comparison groups and, on the whole, is not as comprehensive as the decoupling mechanism (including reconciling mechanisms) approved for the Company in this Order. As stated above, however, we do not adopt the Attorney General's precise 25-basis-point reduction.

Further, we note that a portion of the revenues of the electric companies in the Company's comparison group are derived from non-regulated and competitive lines of business that could skew the risk profile comparability with the regulated electric distribution operations of the Company in a manner that, all else being equal, would tend to overstate the comparison group's risk profile relative to that of the Company. Therefore, in applying this comparability standard, we will consider such risk differential in determining the Company's allowed return on common equity.

Therefore, while the results of analytical models are useful, the Department must ultimately apply its own judgment to the evidence to determine an appropriate rate of return. We must apply to the record evidence and argument considerable judgment and agency expertise to determine the appropriate use of the empirical results. Our task is not a mechanical or model-driven exercise. D.P.U. 08-35, at 219-220; D.T.E. 07-71, at 139; D.T.E. 01-56, at 118; D.P.U. 18731, at 59; see also Boston Edison Company v. Department of Public Utilities, 375 Mass. 1, 15 (1978).

Finally, there are other factors that we consider in determining the allowed return on common equity in this case related to National Grid's contribution to meeting the fundamental public service obligations of franchised utilities.[222] As the providers of electric and natural gas service to business and residential consumers in Massachusetts, the activities and operations of regulated utilities play a fundamental role in the provision of reliable and safe electric service, including the restoration of utility service following major disruptions. The critical importance of the rapid restoration of service to disrupted customers following major storms or other events is evidenced by the recent passage by the Legislature of a new utility oversight law aimed at protecting consumers against prolonged power failures following major storms. Chapter 133 of the Acts of 2009. In setting the allowed return on common equity in this case,

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[222] The Department has set returns on common equity that are at the higher or lower end of the reasonable range based on above average or subpar management performance. See, e.g., Massachusetts Electric Company, D.P.U. 92-78, at 115 (1992); Aquarion Water Company of Massachusetts, D.P.U. 08-27, at 134-138 (2008); Fitchburg Gas and Electric Light Company, D.T.E. 02-24/25, at 231 (2002); Commonwealth Electric Company, D.P.U. 89-114/90-331/91-80 (Phase One) at 225 (1991); Cambridge Electric Light Company, D.P.U. 92-250, at 161-162 (1993).

we take note of National Grid's aggressive response to the call for assistance from Massachusetts municipal and public safety officials to restore power to the customers of Unitil following the severe ice storm in December 2008 (Exhs. NG-TBK at 10, NG-JP at 44-45; see also D.P.U. 09 01-A, at 63-64, 66 n. 65, 76-77, 83).

In addition, going forward, the Department will look to the role that utilities play in achieving the energy policy goals of the Commonwealth when setting a company's required ROE. There is a recent direction in energy policy towards greater promotion and reliance on energy efficiency, distributed generation, and renewable technologies as well as a commitment to proactively address the social and economic risks associated with climate change. Such policy goals have recently been established within Massachusetts through two key pieces of legislation – the Green Communities Act, Chapter 169 of the Acts of 2008, and the Global Warming Solutions Act, Chapter 298 of the Acts of 2008. In the future, when setting the required return on common equity, the Department will weigh each company's performance in implementing key provisions of energy policy legislation and meeting the energy policy objectives established through such legislation or agency regulations (e.g., the provision of energy efficiency, solar photovoltaic facility investment, net metering, long-term contracts for new renewable resources, and smart grid pilot programs).

Based on a review of the evidence presented in this case, the arguments of the parties, and the considerations set forth above, the Department finds that an allowed rate of return on common equity of 10.35 percent is within a reasonable range of rates that will preserve the Company's financial integrity, will allow it to attract capital on reasonable terms, will be

comparable to earnings of companies of similar risk and, therefore, is appropriate in this case. In making these findings, we have considered both qualitative and quantitative aspects of the Company's various methods for determining its proposed rate of ROE, as well as the arguments of the parties in this proceeding.

VII. RATE STRUCTURE

A. Rate Structure Goals

Rate structure defines the level and pattern of prices charged to each customer class for its use of utility service. The rate structure for each rate class is a function of the cost of serving that rate class and how rates are designed to recover the cost to serve that rate class. The Department has determined that the goals of designing utility rate structures are to achieve efficiency and simplicity as well as to ensure continuity of rates, fairness between rate classes, and corporate earnings stability. D.T.E. 03-40, at 365; D.T.E. 02-24/25, at 252; D.T.E. 01-56, at 134; Blackstone Gas Company, D.T.E. 01-50, at 28 (2001); Boston Gas Company, D.P.U. 96-50 (Phase I) at 133 (1996). Efficiency means that the rate structure should allow a company to recover the cost of providing the service and should provide an accurate basis for consumers' decisions about how to best fulfill their needs. The lowest-cost method of fulfilling consumers' needs should also be the lowest-cost means for society as a whole. Thus, efficiency in rate structure means that it is cost-based and recovers the cost to society of the consumption of resources to produce the utility service. D.T.E. 03-40, at 365-366; D.T.E. 02-24/25, at 252; D.T.E. 01-56, at 135. In practice, meeting the goal of efficiency should involve rate structures that provide strong signals to consumers to decrease

excess energy consumption in consideration of price and non-price social, resource, and environmental factors.

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

There are two steps in determining rate structure: cost allocation and rate design. Cost allocation assigns a portion of the company's total costs to each rate class through an embedded allocated cost of service study ("COSS"). The COSS represents the cost of serving each class at equalized rates of return given the company's level of total costs. D.T.E. 03-40, at 366; D.T.E. 02-24/25, at 253; D.T.E. 01-56, at 135; Blackstone Gas Company, D.T.E. 01-50, at 29 (2001); Boston Gas Company, D.P.U. 96-50 (Phase I) at 133 (1996).

There are four steps to develop a COSS. The first step is to functionalize costs. In this step, costs are associated with the production, transmission, or distribution function of providing service. The second step is to classify expenses in each functional category according to the factors underlying their causation. Thus, the expenses are classified as demand-, energy-, or customer-related. The third step is to identify an allocator that is most appropriate for costs in each classification within each function. The fourth step is to allocate

all of a company's costs to each rate class based upon the cost groupings and allocators chosen and to sum these allocations in order to determine the total costs of serving each rate class. D.T.E. 03-40, at 366-367; D.T.E. 02-24/25, at 253; D.T.E. 01-56, at 136; Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 131-132 (1998); Boston Gas Company, D.P.U. 96-50 (Phase I) at 133-134 (1996).

The results of the COSS are compared to the revenues collected from each rate class in the test year. If these amounts are close, then the revenue increase or decrease may be allocated among the rate classes so as to equalize the rates of the return and ensure that each rate class pays the cost of serving it. If, however, the differences between the allocated costs and the test-year revenues are great, then, for reasons of continuity, the revenue increase or decrease may be allocated so as to reduce the difference in rates of return, but not to equalize the rates of return in a single step. D.T.E. 02-24/25, at 253-254; D.T.E. 01-56, at 136; Blackstone Gas Company, D.T.E. 01-50, at 29 (2001).

As the previous discussion indicates, the Department does not determine rates based solely on costs but also explicitly considers the effect of its rate structure decisions on customers' bills and the Department's goals with respect to rate structures. For instance, the pace at which fully cost-based rates are implemented depends, in part, on the effect of the changes on customers. For example, considering the goals of efficiency and fairness, the Department has also ordered the establishment of special rate classes for certain low-income customers and considers the effect of such rates and rate changes on low-income customers.

D.T.E. 03-40, at 367; D.T.E. 02-24/25, at 254; D.T.E. 01-56, at 137; Blackstone Gas Company, D.T.E. 01-50, at 29-30 (2001).

In order to reach fair decisions that encourage efficient utility and consumer actions, the Department's rate structure goals must balance the often divergent interests of various customer classes and work to decrease inter-class subsidies unless a clear record exists to support — or statute requires — such subsidies. See, e.g., G.L. c. 164, § 1F(4)(i). The Department reaffirms its rate structure goals that result in rates that are fair and cost-based and enable customers to adjust to changes. D.T.E. 02-24/25, at 254; D.T.E. 01-56, at 137; Blackstone Gas Company, D.T.E. 01-50, at 30 (2001).

The second step in determining the rate structure is rate design. The level of the revenues to be generated by a given rate structure is governed by the cost allocated to each rate class in the cost allocation process. The pattern of prices in the rate structure, which produces the given level of revenues, is a function of the rate design. The rate design for a given rate class is constrained by the requirement that it should produce sufficient revenues to cover the cost of serving the given rate class and, to the extent possible, meet the Department's rate structure goals discussed above. D.T.E. 03-40, at 368; D.T.E. 02-24/25, at 254-255; D.T.E. 01-56, at 136-137; Blackstone Gas Company, D.T.E. 01-50, at 30 (2001). Rate design is particularly important with respect to the goals of achieving efficiency in customer consumption decisions.

B. Cost Allocation

The Company performed an allocated COSS as a basis to assign or allocate costs to customer rate classes (Exh. NG-HSG-P at 4-5). The COSS identified each item contributing to National Grid's revenue requirement for distribution service only (Exh. NG-HSG-P at 4).

The COSS used a three-step process to allocate costs to the various rate classes. First, plant investment costs and operating expenses were categorized by the operational functions with which they are associated (i.e., sub-transmission, primary distribution, secondary distribution, and billing) (Exh. NG-HSG-P at 5). Second, the functional cost elements were classified by the factor of use most closely matching cost causation (i.e., customer, demand, and energy) (Exh. NG-HSG-P at 5). Third, the functionalized and classified costs were allocated to the various rate classes (Exh. NG-HSG-P at 5).

The COSS used sub-transmission, primary distribution, secondary distribution, and billing as the four functions in the study (Exh. NG-HSG-P at 5). The sub-transmission function includes the portions of the Company's system that operate at voltages between 23 and 115 kilovolts ("kV") (Exh. NG-HSG-P at 6). Transmission assets are also included in the sub-transmission function (Exh. NG-HSG-P at 6). The primary distribution function includes substations as well as conductors rated from four kV to 23 kV and related assets (Exh. NG-HSG-P at 6). The secondary distribution function includes conductors and related assets that move electricity from the primary system to customers' premises, including services (Exh. NG-HSG-P at 6). The billing function includes the meter as well as the assets and activities related to the distribution of electricity to the customer along with billing and

collection for service provided (Exh. NG-HSG-P at 6). The COSS includes all rate classes, with the residential Rate R-1 and the residential low-income Rate R-2 combined due to similar usage profiles and the street lighting classes combined also due to similar usage profiles (Exh. NG-HSG-P at 6).

The Company determined a total distribution revenue requirement of $653,196,000 (Exh. NG-HSG-P at 5). This value excludes amounts that the Company proposes to recover outside of base rates through separate adjustment mechanisms (Exh. NG-HSG-P at 5). This revenue requirement was then allocated among the four functions referenced above (i.e., sub-transmission, primary distribution, secondary distribution, and billing) (Exhs. NG-HSG-P at 8; NG-HSG-P-1, at 8-12). Then, within each function, the costs were allocated between "customer," "energy," and "demand" according to the system design or operating characteristics that cause them to be incurred (Exh. NG-HSG-P at 13). The sub-transmission and primary distribution functions were allocated 100 percent to "demand," while the billing function was allocated 100 percent to "customer" (Exhs. NG-HSG-P at 8; NG-HSG-P-1, at 13-17). The Company allocated the costs for the secondary distribution function between the "demand" and "customer" classifications (Exhs. NG-HSG-P at 8; NG-HSG-P-1, at 13-17). The Company then allocated the functionalized, classified revenue requirement among the rate classes (Exhs. NG-HSG-P at 9; NG-HSG-P-1, at 18-42). The allocation among the rate classes was based on causal relationships (Exh. NG-HSG-P at 16). Demand-related assets were allocated based on non-coincident peaks at the appropriate service level: sub-transmission, primary distribution, and secondary distribution (Exh. NG-HSG-P

at 16). Other assets were allocated based on special studies, such as line transformers (Account 368) which were allocated based on a study of the customers served by each transformer (Exh. NG-HSG-P at 17).

In developing its COSS, the Company used external and internal allocators (Exh. NG-HSG-P at 10). External allocators are derived from the Company's accounting records, operating records, and other records (Exh. NG-HSG-P at 10). Examples of external allocators are numbers of customers in each rate class, class non-coincident peak demands, and historical bad debt experience for each rate class (Exh. NG-HSG-P at 10). Internal allocators are developed based on some combination of external allocators and internal allocators (Exh. NG-HSG-P at 11). The Company cites, as an example, that the internal allocator for property insurance costs is based on plant investment; therefore, plant investment must be allocated before property insurance costs can be assigned (Exh. NG-HSG-P at 11).

When performing the COSS, the Company allocated transformer costs (Account 368) based on a study of the number of customers served by each transformer (Exhs. NG-HSG-Rebuttal at 22; NG-HSG-P-2, at 12-18). In rebuttal testimony, the Company modified its proposed allocation of transformer costs (Exhs. NG-HSG-Rebuttal at 23-24; NG-HSG-RE-4). This revised method allocates line transformers (Account 368) and maintenance of line transformers (Account 595) by weighing the class allocators: (1) 50 percent using the values found in Exhibit NG-HSG-P-2 (RE), which are the results from the Company's allocation method; and (2) 50 percent using the results from the Attorney General's proposed allocation, modified to reflect the updated cost of line transformers

(Exh. NG-HSG-Rebuttal at 23-24). The Company also includes transmission assets and associated expenses in its revenue requirement calculation (Exhs. NG-HSG-P at 16; AG 5-6). Included in this cost category is an offset in the form of a credit that the Company receives from its affiliate, New England Power Company ("NEP"), under the terms of an integrated facilities agreement ("IFA") between the Company and NEP (Exh. AG 5-6). The credit provided to National Grid by NEP under the IFA is intended to reimburse the Company for the costs associated with its transmission facilities that are operated by NEP for transmission services (Exh. AG 5-6).

The Attorney General proposed an alternative method for allocating transformer costs (Exh. AG-61, at 21-22). The Attorney General's proposed allocation method used Company data and allocated costs of each type of transformer to each rate class based on the non-coincident peak load of the customers using that type of transformer (Exh. AG-61, at 22).

1. Positions of the Parties

a. Attorney General

The Attorney General is concerned that the inclusion of transmission assets in the retail revenue requirement violates Department precedent and would require the Department to address ratemaking differences between retail and wholesale regulation (Attorney General Brief at 195, citing D.P.U. 87-260, at 114-115). The Attorney General argues that without jurisdictional separation of costs, the costs of future expansion of transmission assets by the Company will be passed through to NEP by National Grid through the IFA, however, National Grid retail customers will not receive the full amount of the IFA credit if distribution rates only

include the amount of the IFA credit from the test year (Attorney General Brief at 196). The Attorney General argues that the Company should be required to adhere to the Department's jurisdictional separation of wholesale and retail rates and remove all transmission costs from base distribution rates and include those costs and revenues in the Company's transmission cost tracker (Attorney General Brief at 197).

The Attorney General also takes issue with National Grid's allocation of transformer costs (Attorney General Brief at 199). The Attorney General states that the allocation method employed by the Company is incorrect because transformers are sized to meet the maximum expected load on each transformer and residential customers have much smaller peak loads than C&I customers (Attorney General Brief at 199).

The Attorney General states that the Company's proposed allocation method is not equivalent to direct assignment because allocating the costs associated with transformers based on the number of customers that are served by that transformer ignores the fact that just one large customer may be served by a single transformer, while many residential customers may be served by a single large transformer (Attorney General Reply Brief at 60). Rather than allocate transformer costs based on the number of customers served by each transformer type, the Attorney General recommends that these costs be allocated based either on the alternative method proposed by the Attorney General or based on the non-coincident peak allocation method (Attorney General Brief at 199; Attorney General Reply Brief at 60).

The Attorney General also avers that the revised allocation method employed by the Company in rebuttal testimony is inadequate because it is simply an average of the Company's

results and those of the Attorney General (Attorney General Brief at 201). The Attorney General provided an alternative allocation method based on Company data that incorporates both the number of customers and peak loads (Attorney General Brief at 201). The Attorney General argues that because the Company has neither provided a valid theoretical reason to reject the Attorney General's proposed allocation method nor an alternative method that simulates direct assignment of transformer costs, the Department should either adopt the Attorney General's proposed allocation method or allocate transformer costs based on non-coincident peak (Attorney General Brief at 201-202).

b. The Energy Network

TEN argues that the Attorney General's alternative cost allocation method for transformer costs is deficient (TEN Reply Brief at 7). TEN states that the Attorney General's proposed cost allocation method ignores the actual loads that National Grid took into consideration when sizing transformers (TEN Reply Brief at 7). TEN also avers that the Attorney General's proposed cost allocation method skews costs away from residential customers to large commercial customers (TEN Reply Brief at 8). For these reasons, TEN recommends that the Department approve the Company's direct assignment method for the allocation of transformer costs (TEN Reply Brief at 8).

c. Company

With regard to the Attorney General's argument that all transmission costs should be removed from the COSS, the Company states that the record in this case is insufficient to reassign these costs. The Company argues that, although it is possible to remove the

transmission costs, it would be extremely complex and would accomplish little (Company Reply Brief at 58).

With regard to the allocator to use to assign transformer costs to rate classes, the Company states that it used its proposed allocation method instead of the non-coincident peak allocation method because it allowed National Grid to allocate transformer costs more closely based on direct assignment, which is preferable to allocation (Company Brief at 115). The Company claims that the Department has previously found this method appropriate (Company Brief at 115, citing D.P.U. 95-40, at 127).

The Company states that the Attorney General's proposed allocation method is flawed because it ignores the actual loads that National Grid took into consideration when originally sizing each transformer (Company Brief at 115). The Company also argues that the results of the Attorney General's proposed allocation method do not comport with reality, specifically with regard to the results for the G-3 rate class (Company Brief at 115). For these reasons, National Grid recommends that the Department adopt its proposed allocation method (Company Brief at 115).

2. Analysis and Findings

Two issues have been raised regarding how the Company performed its COSS. The first is the inclusion of transmission costs and the application of the IFA credit in the COSS. The Attorney General expressed concern that the inclusion of the IFA credit from the test year will not sufficiently reimburse National Grid ratepayers for the Company's transactions with NEP (Attorney General Brief at 196). The Attorney General recommends that the

transmission assets be removed from the COSS and that the IFA be addressed in the Company's transmission cost tracker (Attorney General Brief at 197).

The record in this proceeding is insufficient to determine the level of transmission costs embedded in base rates and whether the IFA credit fully compensates ratepayers for this cost. The Department also is not convinced at this time that the cost and administrative burden to remove these costs through a separate proceeding is in the best interest of ratepayers. Therefore, in this proceeding, the Department will allow National Grid's proposal. In the Company's next base rate case, however, it is directed to identify all transmission costs requested to be recovered through base rates as well as the amount of the IFA credit.

The second issue concerns the allocation of transformer costs. The Attorney General has proposed an alternative that is based on the non-coincident peak cost allocation method. In response to the Attorney General's alternative proposal, the Company devised a hybrid method that is based 50 percent on direct assignment and 50 percent on the non-coincident peak cost allocation method (Exh. NG-HSG-Rebuttal at 23-24). This hybrid allocation method, while appearing to be a compromise on the part of the Company, ends up creating an allocation method that is the least desirable as it mixes two methods. The allocation of these costs should be done either by the direct allocation method or by the non-coincident peak load method. Any hybrid of the two creates an allocation method that is confused as to how to allocate these costs. Therefore, the Department finds this hybrid method lacking as the costs should either be allocated by direct assignment or by the non-coincident peak cost allocation method.

The Company has argued that the non-coincident peak load allocation method results in some "strange" results, especially for the G-3 rate class. It is evident, however, that the Company's allocation method also results in cost allocation figures that are difficult to tie to the actual costs of the Company's system (Tr. 19, at 3555). While neither method may result in a perfect allocation of transformer costs, the non-coincident peak cost allocation method most accurately captures the drivers behind transformer costs. Consequently, the Department directs the Company to allocate transformer costs based on the non-coincident peak cost allocation method. With the modification outlined above, the Department finds the Company's proposed COSS to be consistent with Department precedent and, therefore, accepts National Grid's COSS. D.T.E. 01-56, at 138; D.P.U. 96-50 (Phase I) at 136.

C. Marginal Cost

1. Introduction

The use of a marginal cost of service study ("MCOSS") in rate-making supplies consumers with price signals that accurately represent the cost associated with consumption decisions. D.T.E. 03-40, at 372. Rates based on the MCOSS will allow consumers to make informed decisions regarding their use of utility service, promoting efficient allocation of societal resources. Id.; D.T.E. 02-24/25, at 252-253.

The Company filed a MCOSS that included analyses of the estimated increased costs that would be incurred in providing an additional unit of service through the addition of customers, increased sales, or the addition of capacity (Exh. NG-JTT at 5-6). According to the Company, the purpose of the MCOSS is to determine the marginal cost of service for the

Company's facilities for the existing customer base by rate class (Exh. NG-JTT at 4). The results can be used to assist in the design of rates (Exh. NG-JTT at 4).

National Grid states that it prepared the MCOSS in accordance with the Department's directives in D.T.E. 05-27 (Exh. NG-JTT at 5). While the Company notes that an MCOSS normally presents both a demand component and a customer component of the marginal cost of distribution, this study excludes the production, transmission and customer components of the distribution system to comply with the Department's directives in D.T.E. 05-27 (Exh. NG-JTT at 5).

2. Marginal Distribution Costs

The Company calculated the incremental cost of expanding the local distribution network to accommodate growth in customers' requirements on a rate class basis using regression and other statistical techniques and engineering estimates (Exh. NG-JTT at 6-7). National Grid stated that it began by identifying the components of the distribution plant that were demand related: station equipment, overhead conductors, underground conductors, and line transformers (Exh. NG-JTT at 6). The Company adjusted historical capacity-related additions data with the Handy-Whitman Index to restate the historical dollars into constant 2008 dollars (Exh. NG-JTT at 6). As the MCOSS is only concerned with the plant additions that are made to support growth, the Company then segregated the plant additions that were made for replacement from those made for growth in load (Exh. NG-JTT at 6). The Company split the cost of adding distribution plant facilities in two major segments: (1) plant used in the

primary distribution system ("PAGPDS"); and (2) plant uses in the secondary distribution system ("PAGSDS") (Exh. NG-JTT at 6).

The Company then used regression models that evaluated 25 years of history to estimate the relationship between investment made in both the PAGPDS and the PAGSDS as a function of incremental system demand on a per kW basis (Exh. NG-JTT at 6). These annualized plant investment costs were then loaded for O&M expenses, administrative and general expenses and working capital (Exh. NG-JTT at 6-7). Lastly, these costs were escalated into the rate year, 2010 (Exh. NG-JTT at 7). The Company states that the sum of these costs equals $44.13 and $8.95 per kW of coincident system demand for primary distribution system and the secondary distribution system, respectively (Exh. NG-JTT at 14-15).

Once the marginal costs of both systems were determined, the Company used the system coincident peak to assign a dollar amount to each rate class (Exh. NG-JTT at 7). Finally, National Grid allocated the marginal revenue requirement to each MCOSS summary rate class by dividing by various billing determinants, which were then used to ascertain the marginal cost rates by MCOSS summary class (Exhs. NG-JTT at 7, 15; NG-JTT-8, lines 12-16). No party commented on this matter.

3. Analysis and Findings

The Department has evaluated the Company's MCOSS and finds that it is calculated consistent with Department precedent. D.T.E. 05-27, at 314-322; D.T.E. 02-24/25,

at 243-245; D.T.E. 01-56, at 122; D.P.U. 96-50 (Phase I) at 150-152; D.P.U. 93-30, at 368-376. Therefore, the Department accepts the results of the Company's MCOSS.

D. Rate Design

1. Introduction

In designing rates, the Company states it was guided by four principles: (1) to produce the desired revenue from each rate class as determined in the revenue allocation process; (2) to align distribution rates with the Department's goals to promote the most efficient use of resources, including energy conservation, which included the proposal of inclining block rates, when appropriate, pursuant to the Department's Order in D.P.U. 08-35; (3) to produce rates for customers that are based on cost causation (e.g., recovering customer-related costs through the customers charge) and revenues for the Company that are reasonably stable; and (4) to mitigate against extreme rate impacts on customer subgroups (Exh. NG-HSG-P at 22-23).

The Company states that the revenue requirement for each rate class was computed in the same manner as the overall revenue requirement (Exh. NG-HSG-P at 18). The revenue requirement for each rate class produces a return on rate base allocated to that specific rate class equal to the cost of capital after reflecting the amounts allocated to the rate class for operating expenses and other operating revenue and computing income tax expense (Exh. NG-HSG-P at 18-19). The revenue deficiency or excess for each rate class is determined by comparing the revenue requirement at the proposed cost of capital to the revenue at current rates for each rate class (Exh. NG-HSG-P at 19).

The Company operated under two main principles when allocating the revenues to each rate class (Exh. NG-HSG-P at 19). First, the Company attempted to reflect the results of the COSS as closely as possible (Exh. NG-HSG-P at 19). Second, the Company attempted to mitigate extreme rate impacts for overall rate classes as well as for individual customer subgroups within a rate class (Exh. NG-HSG-P at 19-20).

The Company examined the increase or decrease in base distribution revenues necessary to produce the allocated cost of service at National Grid's average rate of return, including the pension and PBOP adjustment, for each rate class (Exh. NG-HSG-P at 20). The allocation of revenues needed to produce the full cost of service for each rate class would result in substantial rate increases for the residential classes (R-1, R-2, R-4) and street lighting classes, while the small commercial (G-1) and large commercial time-of-use (G-3) rate classes would receive substantial rate decreases (Exh. NG-HSG-P at 20). Consequently, the Company proposed to limit the increases for the R-1, R-2, R-4, and street lighting rate classes, while limiting the decrease for the G-1 and G-3 rate classes (Exh. NG-HSG-P at 20).

To maintain rate continuity, the Company proposed to limit the revenue increases for the R-1, R-2, R-4, and street lighting rate classes to twice the average increase for all rate classes (Exh. NG-HSG-P at 21). Implementing this restriction on the rate increase for the R-1, R-2, R-4, and street lighting rate classes resulted in the Company collecting $25,195,000 of the $50,360,000 total revenue deficiency (Exhs. NG-HSG-P at 21; NG-HSG-P-4, at 2, line 51). The remaining revenue increase of $25,165,000 was collected from the G-1 and G-3 rate

classes, which resulted in both of these classes receiving less of a rate decrease than they would have at equalized rates of return (Exh. NG-HSG-P at 21).

The Company proposes to increase the customer charges for all rate classes, with the exception of the R-4 rate class (Exh. NG-HSG-P-6). These proposed increases are discussed in the individual rate class section, below. In addition, the Company has proposed inclining block rates for the R-1, R-2, and G-1 rate classes (Exh. NG-HSG-P at 22-23). For the R-1 and R-2 rate classes, the Company set the block break at 600 kWh, which the Company states is approximately equal to the average usage per month by customers in these rate classes (Exh. NG-HSG-P at 26). The Company set the rate for the second block 25.6 percent higher than the rate for the first block (Exh. NG-HSG-P at 26).

For the G-1 rate class, the Company set the block break at 2,000 kWh, which is higher than the average usage per month for G-1 customers (Exh. NG-HSG-P at 29). The Company states that setting the block rate at a lower consumption level would have necessitated either a reduction to the first block rate, which would have resulted in a very steep incline in rates or a reduction to the second block rate (Exhl. NG-HSG-P at 29). The Company set the second block rate 28.4 percent higher than the first block rate (Exh. NG-HSG-P at 29).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that the Company's proposed increases to the customer charge for all rate classes (except for the R-4 rate class) should be rejected because the proposal is inconsistent with the Department's rate design goals and lacks supporting cost data

(Attorney General Brief at 204). The Attorney General claims that these proposed increases are contrary to the Department's rate design goal of rate continuity (Attorney General Brief at 205). The Attorney General also avers that increasing the customer charges is contrary to the goal of energy conservation because the increase is to a fixed rate (Attorney General Brief at 205-206). The Attorney General recommends that customer charges be increased gradually over time to mitigate bill impacts on low-use customers who may receive little or no benefit from energy efficiency measures (Attorney General Brief at 207). The Attorney General also recommends that the Department adopt the customer charges proposed by its witness (Attorney General Brief at 208).[223]

The Attorney General asserts that the Company's proposed inclining block rate design is not supported by cost data (Attorney General Brief at 209). The Attorney General avers that inclining block rates do not necessarily lead to reduced usage and can be misunderstood by customers who have been trained to reason that "more is cheaper" (Attorney General Brief at 210). Consequently, the Attorney General recommends that the Department reject the Company's proposed inclining block rate structure and, instead, adopt a uniform rate structure (Attorney General Brief at 209, 214).

b. The Energy Network

TEN takes issue with the Company's allocation of the revenue requirement to each rate class, specifically addressing the subsidy of the residential and street lighting rate classes by

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[223] The Attorney General's witness recommended that the customer charge for the R-1 and R-2 rate classes be increased from $6.30 to $7.00, rather than to $7.25, as proposed by the Company (Exh. AG-61, at 30; Tr. 15, at 2618).

the G-1 and G-3 rate classes (TEN Brief at 7-8, 13-14). TEN states that the Company's proposal to limit the rate increase for any rate class to twice the overall average rate increase results in this subsidy (TEN Brief at 7-8, 13-14). TEN further states that this proposal results in a 22.4 percent increase in revenue responsibility for the G-1 rate class and a 7.4 percent increase in revenue responsibility for the G-3 rate class, while the revenue responsibility for the residential and street lighting rate classes has been reduced by 3.4 percent and 38.2 percent, respectively (TEN Brief at 13).

TEN does not oppose the subsidy of the street lighting rate class due to the public safety function of street lights but argues that the subsidy should be borne by all rate classes (TEN Brief at 13). TEN avers that any reduction to the revenue requirement from the Department's Order in this proceeding should first be applied to alleviating the subsidy from the C&I rate classes (TEN Brief at 7). TEN suggests that any remaining subsidies should be reduced in a gradual process through more frequent cost of service filings (TEN Brief at 14).

c. Western Massachusetts Industrial Group

The WMIG is concerned about the subsidy of small customers by large customers (WMIG Brief at 1). WMIG states that this subsidy runs counter to the continued economic viability of major industries and the purported goals of energy efficiency and decoupling (WMIG Brief at 1). While WMIG recognizes that a movement to full cost of service rate design may not be possible, WMIG supports TEN's recommendation of a gradual shift towards cost-based rates through more frequent cost of service filings by National Grid (WMIG Brief at 3).

d. Company

The Company states that it proposed inclining block rates to comply with the Department's directives in D.P.U. 08-35, at 249 (Company Brief at 117, citing D.P.U. 08-35, at 249). The Company recommends that the Department ignore the Attorney General's recommendation to adopt a uniform rate structure and, instead, adopt National Grid's proposed rate design, which complies with Department directives (Company Brief at 117).

3. Analysis and Findings

The Department must determine, on a rate class by rate class basis, the proper level at which to set the customer charge and delivery charges for each rate class, based on a balancing of our rate design goals. The Department's long-standing policy regarding the allocation of class revenue requirements is that a company's total distribution costs should be allocated on the basis of equalized rates of return. See, e.g., D.T.E. 02-24/25, at 256; D.T.E. 01-56, at 139; D.P.U. 92-250, at 193-194; D.P.U. 92-210, at 214. This allocation method satisfies the Department's rate structure goal of fairness. Nonetheless, the Department must balance its goals of fairness with its goal of continuity. To do this, we have reviewed the changes in total revenue requirements by rate class and bill impacts by consumption level within rate classes. Based upon our review, we modify the Company's proposal that to address the goal of continuity, no rate class shall receive an increase greater than 200 percent of the overall distribution rate increase. This decision is based on the fact that at equalized rates of return some classes receive a large decrease, such as G-1 and G-3, while other classes receive a large increase, such as R-1 and the street light class. Therefore, the Department finds that the

Company should redesign rates using a 200 percent cap so that no rate class will receive a decrease greater than 200 percent of the overall distribution rate decrease. The Department finds that 200 percent is an appropriate cap that meets our rate structure goals of fairness and continuity by ensuring that: (1) the final rates to each rate class represent or approach the cost to serve that class; (2) the limited level of cost subsidization created by the cap will not unduly distort rate efficiencies; and (3) the magnitude of change to any one class is contained within reasonable bounds. The Department directs National Grid to calculate the rate decrease cap as shown on Schedule 10.

The amount below the 200 percent cap will be allocated to those rate classes that would, at equalized rates of return, receive a rate increase based on the ratio of the class revenue requirement at equalized rates of return to the sum of the class revenue requirements at equalized rates of return for those classes receiving a rate increase. The Department notes that following these guidelines still results in a significant rate increase for the street lighting classes that violates our continuity goal. Consequently, the Department directs the Company to limit the distribution rate increase for the street lighting classes to ten percent of the class's distribution revenues and allocate the remaining revenue requirement to the other rate classes based on the ratio of the class revenue requirement at equalized rates of return to the sum of the class revenue requirement at equalized rates of return for all rate classes except the street lighting class.

Regarding the proposed increases to the customer charges for all rate classes (except R-4), the Department has examined the bill impacts that will result from these proposed

increases. In addition, the Department has reviewed the evidence regarding the unitized revenue requirement for customer-related costs for each rate class. Based on this evidence, the Department concludes that, with the exception of the R-1, R-2, and G-2 rate classes, which are discussed below, the Company's proposed increases to the customer charges are reasonable. The increases are limited so that no rate class will see an increase that is more than twice the average increase and the proposed customer charges are still below the unitized revenue requirement for customer-related costs. Therefore, the Department finds that the Company's proposed increases to the customer charges comport with the Department's rate setting goal of continuity.

Regarding concerns expressed by TEN and WMIG regarding the subsidization of small customers by large customers, the Department finds that while the Company's proposal does not perfectly match cost causation by rate class because of the constraints of rate continuity, this issue cannot be resolved completely in this proceeding. It has been nearly 15 years since National Grid has been before the Department for a distribution rate case. Any cross-subsidization issues that have existed or arisen during that time are difficult to address without severely straining the goal of rate continuity. The Department expects that any cross subsidization that still exists will be alleviated further in future distribution rate case proceedings.

In D.P.U. 08-35, at 249, the Department found that the design of distribution rates should be aligned with important state, regional, and national goals to promote the most efficient use of society's resources and to lower customers' bills through increased end-use

efficiency. To best meet these goals, the Department has found that rates should have an inclining block rate structure and any resulting loss in revenues from declining sales should be recovered through a decoupling mechanism as discussed in D.P.U. 07-50-A at 59-60. National Grid has properly included inclining block rates as part of its proposed rate design. The arguments raised by the Attorney General in this proceeding were addressed in the Department's D.P.U. 08-35 Order. Specifically, the Department determined that the design of distribution rates should be aligned with important state, regional and national goals to promote the most efficient use of society's resources and to lower customers' bills through increased end use efficiency. D.P.U. 08-35, at 249. The Department also determined that distribution rates with an inclining price structure are best to meet these goals. D.P.U. 03-35, at 249. The same considerations apply here. Therefore, the Department finds that National Grid's proposed inclining block rate design comports with the Department's directives in both D.P.U. 08-35 and D.P.U. 07-50-A.

E. Rate by Rate Analysis

1. Rate R-1 and Rate R-4

a. Introduction

Rate R-1 is available to all residential customers in private dwellings, individual apartments, churches, and farms (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1148). Rate R-4 is available to all residential customers in private dwellings, individual apartments, churches, and farms whose use exceeds 2,500 kWh per month for a twelve-month period and who opt for time-of use rates (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1150). National

Grid proposed to increase the monthly customer charge from $6.30 to $7.25 per month for Rate R-1 and maintain the customer charge for Rate R-4 at $20.87 per month (Exhs. NG-HSG-P-6, at 2-3; NG-HSG-P-12, Proposed M.D.P.U. Nos. 1148, 1150).

The Company proposed inclining block volumetric charges for the R-1 rate class with the block break set at 600 kWh per month, which is approximately equal to the average usage per month for the R-1 rate class (Exh. NG-HSG-P at 26). The proposed R-1 volumetric charge for the first 600 kWh remains the same as the current rate at $0.02727 per kWh, and $0.03417 per kWh for each additional kWh consumed (Exhs. NG-HSG-P-6, at 2; NG-HSG-P-12, Proposed M.D.P.U. No. 1148). The only proposed change from current rates for the R-4 volumetric charge is to increase the off-peak volumetric charge from $0.00444 per kWh to $0.00743 per kWh (Exhs. NG-HSG-P-6, at 3; NG-HSG-P-12, Proposed M.D.P.U. No. 1150).

The Company also proposed to eliminate the interruptible credit currently contained in the R-1 and R-2 tariffs (Exh. NG-HSG-P at 27). The R-1 and R-2 tariffs currently contain provisions that allow customers to receive a monthly credit if that customer has installed an approved water heater, central air conditioning system, or pool pump that allows National Grid to control the operation of the device (Exh. NG-HSG-P at 27). The Company states that it has not actively controlled this equipment for several years, but has continued to apply the monthly credit to customers' bills (Exh. NG-HSG-P at 27). Consequently, the Company is proposing to eliminate the interruptible credit provisions from the R-1 and R-2 tariffs and has adjusted the

calculation of test year normalized revenue to reflect the elimination of these bill credits (Exh. NG-HSG-P at 27).

b. Analysis and Findings

Based on the discussion of the R-1 and R-2 customer charge found in Section VII.E., below, the Department directs the Company to design rates for the R-1 rate class with a $4.00 monthly customer charge. The Department finds that the Company's proposed method for establishing the volumetric charges for the R-1 rate is reasonable and complies with the Department's directives in D.P.U. 08-35 and D.P.U. 07-50-A. The Department also finds that the Company's proposal to set the volumetric charge block break at 600 kWh is reasonable as it approximates the average monthly consumption for the customers in this rate class. Therefore, National Grid is directed to set the head block volumetric charge at $0.02727 per kWh and to set the tail block volumetric charge to collect the remaining class revenue requirement.

Based on the R-4 embedded costs and bill impacts, the Department finds that the Company's proposed customer charge and method for establishing the volumetric charges for Rate R-4 satisfy continuity goals and produce bill impacts that are moderate and reasonable. Therefore, the Company is directed to set the off-peak volumetric charge to collect the remaining class revenue requirement, keeping all other distribution charges at their current rate.

2. Rate R-2

a. Introduction

Rate R-2 is a subsidized rate that is available at single locations to all residential customers in private dwellings and individual apartments (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1149). A customer will be eligible for this rate upon verification of the customer's receipt of any means-tested public benefit program or verification of eligibility for the low-income home energy assistance program or its successor program, for which eligibility does not exceed 60 percent of the median income in Massachusetts based on a household's gross income or other criteria approved by the Department. See Investigation Commencing a Rulemaking Pursuant to 220 C.M.R. § 2.00 et seq., D.P.U. 08-104 (2008).

The Company proposed to change the way that the low-income discount is calculated (Exh. NG-HSG-P at 24; Tr. 5, at 961-962). Currently the distribution discount is calculated to achieve the same discount off the total bill as was in effect prior to March 1, 1998, up to the discount level where the distribution rate is zero pursuant to Expanding Low-Income Protections and Assistance, D.P.U. 08-4, at 36 (2009) (see Exh. NG-HSG-P at 24). The Company proposes to calculate the low-income discount based on all bill components and to show the amount of the discount as a line item on eligible customers' bills (Exh. NG-HSG-P at 24). The discount would be 25 percent, which was the total low-income discount prior to the unbundling of rates in 1998 (Exh. NG-HSG-P at 24). Under National Grid's proposal, the distribution rates for both the R-1 and R-2 rate classes would be the same, with the 25-percent

low-income discount provided to Rate R-2 customers through a line item on Rate R-2 customers' bills (Exh. NG-HSG-P at 25-26).

b. Positions of the Parties

i. Network

Network takes issue with the Company's proposed rate design for the R-2 rate class because it would lead to very severe bill impacts (16 percent) for low-use, low-income customers (Network Brief at 1). In addition, because the bill impacts decrease as the usage level within the rate class increases, Network argues that the proposed rate design would be counter to the Department's goal for inclining block rates (Network Brief at 1-2). Network also disagrees with National Grid's characterization of the bill impacts that result from its proposed rate design for the R-2 rate class as modest (Network Reply Brief at 1). Network states that the annual amount of the bill impact represents a week's worth of groceries for these households (Network Reply Brief at 1). Network also argues that low-use, low-income customers do not need any further incentive to decrease electricity use (Network Reply Brief at 2). Network proposes an alternative rate design for the R-2 rate class that would maintain the customer charge at zero for this rate class and would set the distribution charges at a level that recovers the revenue requirement with bill impacts that are as uniform as possible among all consumption levels within the R-2 rate class (Network Brief at 2, citing Exh. LI 1-11; Network Reply Brief at 2).

ii. Company

The Company states that, under its proposed rate design for the R-2 rate class, each customer receiving service under National Grid's low-income tariff will receive the same total bill discount (Company Brief at 118). National Grid argues that under the Company's currently effective low-income rates, a low-income customer with monthly usage of 500 kWh receives a 25.7 percent discount, while a low-income customer with monthly usage of 200 kWh receives a 33.7 percent discount (Company Brief at 118, citing Exh. DPU-NG 7-105). The Company states that it is sympathetic to the arguments raised by The Network, but adds that the 16 percent increase referenced by The Network amounts to a modest increase of between $1.98 and $2.59 per month (Company Brief at 119).

The Company recommends that the Department adopt National Grid's proposed rate design for the R-2 rate class because it achieves the intent of the Department's Orders in both Expanding Low-Income Consumer Protections and Assistance, D.P.U. 08-4 (2008) and D.P.U. 08-35 (Company Brief at 119). The Company argues that the proposed rate design will give low-income customers the full 25-percent discount regardless of how rates change in the future while also sending pricing signals to customers to conserve through inclining block rates (Company Brief at 119).

c. Analysis and Findings

Pursuant to G.L. c. 164, § 1F, the Department requires distribution companies to provide discounted rates for low-income customers comparable to the low-income discount rate received off the total bill for rates in effect prior to March 1, 1998. See D.P.U. 08-4, at 36.

In that Order, the Department stated that, to achieve the 1998 discount level, companies were to reduce the distribution portion of the bill only to the rate that the 1998 discount level was achieved or the distribution charges were zero, whichever came first. See D.P.U. 08-4, at 36. In order to achieve the 24.7-percent discount that the Company was providing to low-income customers prior to March 1, 1998, National Grid reduced the distribution charges (the customer charge and the volumetric charge) for Rate R-2 to zero. The Company stated that, as a result of such rate redesign, discount amounts varied by usage within the R-2 rate class (Exh. DPU-NG 7-105). For example, an R-2 customer whose monthly usage was 200 kWh per month received a 33.7 percent discount, while an R-2 customer whose monthly usage was 800 kWh per month received a discount of 23.3 percent (Exh. DPU-NG 7-105).

In this proceeding, the Company has proposed an alternative method for providing the low-income discount to R-2 customers (Exh. NG-HSG-P at 24; Tr. 5, at 961-962). The Company proposes to provide a flat 25 percent discount off of the entire bill for all R-2 customers, no matter what their usage level is (Tr. 5, at 961-962). The Company's proposal includes restoring the R-2 distribution rates so that they are the same as the R-1 rate class (Exh. NG-HSG-P at 25-26). A consequence of this proposal is that the customer charge for the R-2 rate class would be increased from zero to $7.25 (Exh. NG-HSG-P-9, at 4).[224] Pursuant to National Grid's proposal, all R-2 customers will receive a 25-percent discount no matter what distribution and commodity rates are in the future.

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[224] Because the 25-percent discount will also be applied to the customer charge, the actual amount billed is $5.44.

Network claims that the Company's proposal will result in severe bill impacts for low-use, low-income customers (Network Brief at 1). Since the Department approved the Company's rates in D.P.U. 08-4, low-use, low-income customers have been receiving a discount that is approximately 36 percent higher than mandated by G.L. c. 164, § 1F.[225] While any bill increase for low-income customers should not be taken lightly, the Department finds that National Grid's proposed R-2 rate design will have long-term benefits for all R-2 customers. As commodity prices and distribution rates change over time, there will be no need to adjust the R-2 rates to account for these changes because these customers will be guaranteed a fixed discount regardless of how the underlying rates change. This rate design eliminates the need for frequent adjustments to the R-2 rates to ensure that R-2 customers continue to receive the required discount. This proposal is also appropriate because the discount level will no longer depend on the level of usage for each R-2 customer so that every low-income customer will receive a uniform discount. Consequently, the Department approves the Company's proposed R-2 rate design. The Department is concerned, however, about the magnitude of the bill impacts that would result from the Company's proposal for the low-use, low-income customers. In addition, when following the rate design directives stated above, if the customer charge is kept at its current level of $6.35 per month, the volumetric charge for the tail block would be lower than the rate for the head block, which is not consistent with our goal to lower customers' bills through increased end-use efficiency. In order to partially mitigate these bill

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[225] R-2 customers using 200 kWh per month were receiving a 33.7 percent discount versus an average discount for the R-2 rate class of 24.7 percent (33.7/24.7 = 1.36) (Exh. DPU-NG 7-105).

impacts and in order to maintain the inclining block rates for the R-1 and R-2 rate classes, the Department rejects the proposed increase to the monthly customer charge for the R-1 and R-2 rate classes from $6.35 to $7.25. The Department directs the Company to design rates for the R-1 and R-2 rate classes based on a monthly customer charge of $4.00. Lowering the customer charge to $4.00 mitigates the percentage increase to the bill for low-use, low-income customers, which satisfies our continuity goal.

The Department's acceptance of National Grid's low-income rate design proposal should be viewed by all distribution companies in the Commonwealth (electric and gas) as an endorsement of a new method for designing low-income rates. The Department expects that all distribution companies (electric and gas) will file revised rate design proposals for low-income customers that comply with the standard set by National Grid's proposal. Specifically, the distribution charges for each low-income class shall be set at the applicable non-discounted rate. In addition, the tariff shall state that the total bill amount will be discounted at the level received off the total bill for rates in effect prior to March 1, 1998, pursuant to G.L. c. 164, § 1F.

3. Rate G-1

a. Introduction

Rate G-1 is available to C&I customers who have average usage that does not exceed 10,000 kWh per month or 200 kW of demand (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1151). The Company proposed to increase the customer charge for Rate G-1 customers from $9.03 to $10.00 per month (Exhs. NG-HSG-P at 28, NG-HSG-P12, Proposed

M.D.P.U. No. 1151). In addition, the Company proposed to increase the customer charge for allowed unmetered G-1 service from $7.02 to $7.50 per month (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1151). The Company also proposed to increase the minimum charge for G-1 service for all kilovolt-amperes ("KVA") over 25 KVA from $1.88 per KVA to $2.08 per KVA (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1151).

The Company proposed inclining block volumetric charges for Rate G-1 with the volumetric block break set at 2,000 kWh per month (Exh. NG-HSG-P at 29). National Grid states that this block break is higher than the average for the G-1 rate class but that it is necessary to set the block break at 2,000 kWh in order to maintain the tail block rate very close to the current G-1 volumetric charge while maintaining a reasonable incline between the head and tail blocks (Exh. NG-HSG-P at 29). The current G-1 volumetric rate is a flat charge of $0.04179 per kWh for every kWh consumed (Exh. NG-HSG-P-6, at 4). The Company proposed a volumetric rate of $0.03020 per kWh for the first 2,000 kWh consumed and $0.03879 per kWh for each additional kWh consumed (Exhs. NG-HSG-P-6, at 4; NG-HSG-P-12, Proposed M.D.P.U. No. 1151).

b. Analysis and Findings

According to National Grid, the unitized revenue requirement for customer-related costs for the G-1 rate class is $12.41 per month (Exh. NG-HSG-P at 28). The Company is also proposing modest increases to the customer charges for unmetered G-1 customers and for the minimum charge for G-1 service (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1151). Based on a review of the embedded costs and the bill impacts on customers, the Department

finds that the G-1 rate, including the proposed increases to the customer charges for metered and unmetered service and the increase to the minimum charge, satisfies continuity goals and produces bill impacts that are moderate and reasonable.

Regarding the distribution volumetric rate for the G-1 rate, the Company's proposal results in a decrease to the distribution volumetric rate for both the head block and the tail block (Exh. NG-HSG-P at 29). National Grid, however, attempted to keep the rate for the tail block as close as it could to the current distribution charge for G-1 customers (Exh. NG-HSG-P at 29). The Company has proposed a rate for the tail block that is 28.4 percent higher than the rate for the first block (Exh. NG-HSG-P at 29). The Department finds that the Company's proposed method for establishing the volumetric charges for Rate G-1 complies with Department precedent and is reasonable. In addition, the Department finds that the Company's proposal to set the block break at 2,000 kWh is reasonable. While this value is higher than the average monthly consumption for G-1 customers, the Department finds that the Company has set an appropriate balance between the difference in the head and tail block rates and where the block break is set. Therefore, the Company is directed to set the head block volumetric charge at $0.03020 per kWh and to set the tail block volumetric charge to collect the remaining class revenue requirement.

4. Rate G-2

a. Introduction

Rate G-2 is available to C&I and institutional customers who have average usage greater than 10,000 kWh, but do not exceed 200 kW of demand (Exh. NG-HSG-P-12,

Proposed M.D.P.U. No. 1152). National Grid has proposed to increase the customer charge for Rate G-2 customers from $16.56 to $25.00 per month (Exhs. NG-HSG-P at 30; NG-HSG-P-12, Proposed M.D.P.U. No. 1152).

The Company stated that designing inclining block volumetric rates for the G-2 rate class would result in a substantial reduction to the demand-based charge, which would send the wrong price signal and be counterproductive to the objective of encouraging conservation at peak times (Exh. NG-HSG-P at 31). As a result, the Company proposed to keep the demand charge unchanged for Rate G-2, while decreasing the volumetric charge from the current charge of $0.00148 per kWh to $0.00057 per kWh (Exh. NG-HSG-P-6, at 5; NG-HSG-P-12, Proposed M.D.P.U. No. 1152).

b. Analysis and Findings

Following the rate design directives stated above, while maintaining the customer charge and demand charge proposed by the Company for the G-2 rate class results in a negative volumetric charge for this rate class. This result is not desirable given the Department's goal of promoting conservation. Consequently, the Department directs the Company to keep the monthly customer charge at its current charge of $16.56 and lower the demand charge to $6.00 per kW for the G-2 rate class. The remaining revenues shall be recovered through the volumetric charge. Should the volumetric charge fall below zero, the demand charge shall be adjusted accordingly to bring the volumetric charge at or above zero. In addition, the Department accepts the Company's rationale for not including inclining block volumetric charges for the G-2 rate class.

5. Rate G-3

a. Introduction

Rate G-3 is available to C&I and institutional customers who have average usage that exceeds 200 kW of demand (Exh. NG-HSG-P-12, Proposed M.D.P.U. No. 1153). The Company has proposed to increase the customer charge for Rate G-3 customers from $73.16 to $200.00 per month (Exhs. NG-HSG-P at 32; NG-HSG-P-12, Proposed M.D.P.U. No. 1153).

The Company stated that designing inclining block volumetric charges for the Rate G-3 class would have resulted in a substantial reduction to the demand-based charge, which would send the wrong price signal and would be counterproductive to the objective of encouraging conservation at peak times (Exh. NG-HSG-P at 32). As a result, the Company proposed to keep the demand charge unchanged for Rate G-3, while decreasing the on-peak volumetric charge from the current charge of $0.01285 per kWh to $0.00816 per kWh (Exhs. NG-HSG-P-6, at 6; NG-HSG-P-12, Proposed M.D.P.U. No. 1153).

b. Analysis and Findings

According to the Company, the unitized revenue requirement for customer-related costs for the G-3 rate class is $310.19 per month (Exhs. NG-HSG-P at 32; NG-HSG-P-1, at 47). Based on a review of the bill impacts on customers, the Department finds that the G-3 rate, designed with an increase in the monthly customer charge from $73.16 to $200.00, satisfies continuity goals and produces bill impacts that are moderate and reasonable. The Department accepts the Company's rationale for not including inclining block volumetric charges for the G-3 rate class. That is, any decrease to the demand charge would send the wrong price signal

to Rate G-3 customers. Consequently, the Department finds that the Company's proposed method for establishing the volumetric charges and demand charges for the G-3 rate satisfies continuity goals and produces bill impacts that are moderate and reasonable. Therefore, the Company is directed to set the demand charge at $3.92 per kW, the off-peak volumetric charge at zero, and the peak volumetric charge to collect the remaining class revenue requirement.

6. Street Lighting

a. Introduction

The Company currently has six street lighting rate classes: (1) Rate S-1 for luminaires and supports owned and maintained by the Company; (2) Rate S-2 for customer-owned luminaires mounted on Company-owned distribution poles and maintained by the Company; (3) Rate S-3 (Option A) for underground lighting installations with customer-owned foundations and Company-owned and -maintained luminaires and supports; (4) Rate S-3 (Option B) for underground lighting installations with customer-owned luminaires and supports with maintenance for certain portions of the equipment provided by the Company; (5) Rate S-5 for luminaires and supports owned and maintained by customers; and (6) Rate S-20, which is available to any customer on the S-1 rate that agrees to convert all existing incandescent and mercury vapor source lights to sodium-vapor source lights (Exh. NG-HSG-P at 33-34).

The proposed streetlight rates were established by first computing the levelized annual cost for each sodium-vapor fixture it currently offers and for the related supports (Exh. NG-HSG-P at 34). The levelized annual cost included the cost of owning and maintaining the asset over its life (Exh. NG-HSG-P at 34). For incandescent and

mercury-vapor lamps in the S-1 and S-20 classes, the Company assigned the replacement cost of the appropriate sodium vapor lamp because these lamps will be replaced by sodium-vapor lamps as they burn out (Exh. NG-HSG-P at 34). Then the Company computed the annual revenue it would receive if it charged customers the levelized annual cost for each lamp and related support in the S-1 and S-20 classes (Exh. NG-HSG-P at 34).

Next, the Company increased the rates for each lamp and luminaire in the S-2 and S-3 classes and the distribution volumetric rate for S-5 by the increased assigned to the streetlight class in the revenue allocation process (Exh. NG-HSG-P at 34-35). The Company then increased all S-1 and S-20 luminaire and support charges that would receive a rate reduction to their current rate (Exh. NG-HSG-P at 35). Last, the Company set rates for the remaining S-1 and S-20 luminaire and supports such that each received the same percentage increase and the remaining class revenue requirement was collected (Exh. NG-HSG-P, at 34-35).

The Company proposed to discontinue the service offering for the S-2 and S-3 (Option B) rate classes as of January 1, 2011 (Exh. NG-JEW at 5). Both the S-2 and S-3 (Option B) service offerings have been closed to new customers since 1998 (Exh. NG-JEW at 5). The customers would be moved to the S-5 service offering, under which they would be supplied only with electric distribution and supply service (Exh. NG-JEW at 5). These customers would need to find an alternate service provider for equipment maintenance (Exh. NG-JEW at 5). The Company proposed to discontinue these service offerings because, according to National Grid, it is not an efficient use of its resources to maintain equipment that is not Company-owned (Exh. NG-JEW at 6). The Company stated that these services are

readily available through competitive service providers (Exh. NG-JEW at 6). The Company stated that it intends to notify all of the S-2 and S-3 (Option B) customers of this change in advance of the change taking place, subject to Department approval of this proposal (Exh. NG-JEW at 6).

The Company proposed to add a new decorative street and area lighting service option (Rate S-6) (Exh. NG-JEW at 7). This optional service would be available to municipal customers that are responsible for street lighting and/or public areas (Exh. NG-JEW at 7). Eligible customers would be able to replace existing street lights with decorative street lights or new decorative street lights could be installed where none are currently in use (Exh. NG-JEW at 7).

The Company also proposed to add a 400-watt metal halide floodlight rate (Exh. NG-JEW at 13). This rate would be available within the S-1, S-5 and S-20 rate classes (Exh. NG-JEW at 13-14). National Grid stated that it proposed this service because the metal halide lamp provides a white light, while sodium vapor lamps provide a yellow light (Exh. NG-JEW at 14). The Company stated that many customers, such as car dealerships, prefer white light to promote accurate color rendering at night (Exh. NG-JEW at 14). In addition, the Company proposed to add a new lighting service charge for service calls for street lighting facilities that end up being unrelated to Company-owned equipment (Exh. NG-JEW at 14). The lighting service charge will be incorporated into Section IV of Appendix A of the Company's Terms and Conditions for Distribution Service (Exh. NG-JEW

at 15). National Grid states that the proposed charge ($126.21) is cost-based and, therefore, is consistent with Department precedent (Company Brief at 123).

b. Analysis and Findings

National Grid has proposed a variety of changes to its street lighting service. No party commented on the Company's proposed changes. The Department has examined the proposed rate design for the street lighting classes. The Department finds that the proposed rate design for the street lighting rate classes satisfies continuity goals and produces bill impacts that are moderate and reasonable. Therefore, the Department directs the Company in the compliance filing to compute the street light charges using the method proposed by National Grid and the increase from the allocation process and revenue requirement for the street light class approved in this Order.

Regarding the Company's proposal to discontinue the S-2 and S-3 (Option B) service offerings effective January 1, 2011, the Department is concerned by the lack of notice received by those customers that would be affected by this proposal. The Company's witness testified that the Company had not contacted those customers concerning this proposal (Tr. 9, at 1582). The Company provided a draft notice it proposes to send to customers currently taking service under rates S-2 and S-3 (Option B), but there is no evidence that this notice has been sent to such customers (RR-DPU-25). Further, even customers that receive a notice might not give it due attention or fully appreciate the implications of being switched from S-2 and S-3 to S-5 service. While the Company's proposal is reasonable on its face, the fact that customers who would be subject to this proposal may not be fully aware of such a change or its implications is

troubling to the Department. In addition, the Company failed to provide any evidence that the maintenance of street lights is a truly competitive service. The Company merely stated that this is the case (Exh. NG-JEW at 6).

Consequently, the Department rejects the Company's proposal to discontinue the S-2 and S-3 (Option B) street light tariffs effective January 1, 2011. In the event that the Company seeks to discontinue service offerings in a future rate case proceeding, the Company must demonstrate to the Department that all customers have been notified of the proposed change in service and that the service that the Company proposes to discontinue is, indeed, readily available in the marketplace.

Regarding the new decorative street light service offering, Rate S-6, the Department finds that this offering is reasonable and that the rate design proposed by National Grid is based on the cost to provide this service to those customers that request it. Therefore, the Department approves the new decorative street light S-6 rate.

The Company has also proposed a new 400-watt metal halide floodlight rate, which would be available to customers in the S-1, S-5 and S-20 rate classes. The Department finds that the proposed 400-watt metal halide rate is cost-based and reasonable for those customers who opt for this service.

Finally, the Company has proposed a new lighting service charge. The Department has reviewed National Grid's method of calculating the rate for the lighting service charge and finds that it is cost-based and, therefore, reasonable.

VIII. SEPARATE TARIFF FOR SUMMARY OF CHARGES

National Grid provided a schedule that summarizes the charges for all the Company's rates in the form of a separate tariff (RR-DPU-11). This separate tariff shows for each rate class: (1) the M.D.P.U. number; (2) the applicable blocks of kWh hours use; (3) customer and other distribution charges; (4) other charges including pension and PBOP adjustment factor, RAAF, default service adjustment, transition, transmission, renewable, and energy efficiency charges; and (5) the date of the last change of the rates (RR-DPU-11).

National Grid stated that this separate tariff, which shows a summary of charges for each rate class, could help customers more easily understand the rates (Tr. 5, at 982-984). The Company indicated that it would be amenable to making such a summary tariff filing (Tr. 5, at 982-984). No party commented on the separate tariff that summarizes the charges for each rate class of National Grid.

The Department finds the use of a summary tariff is administratively efficient, consumer-friendly, and consistent with Department precedent. See, e.g., D.P.U. 07-71, at 197-198; NSTAR Electric, D.T.E. 05-85, M.D.P.U. No. 190 (2005). Further, Department precedent demonstrates that MECo's use of separate tariff sheets in conjunction with its primary tariffs has been of long-standing practice since the 1970s. Accordingly, the Department directs the Company in its compliance filing to include a separate tariff that summarizes the approved charges for each rate class consistent with the schedule shown in its response to Record Request DPU-11. In addition, the Department directs National Grid to revise its tariffs for each rate class by removing all charges and, instead, placing notations,

where appropriate, referring to the tariff schedule showing the summary of charges by rate class.

IX. ECONOMIC DEVELOPMENT PILOT PROGRAM

A. Introduction

National Grid proposed an economic development pilot program (Exh. NG-CF at 8). This proposed economic development pilot program would consist of three sub-programs, all of which are based on grants: (1) targeted infrastructure improvement; (2) urban revitalization; and (3) strategic business development (Exh. NG-CF at 8). The combined budget for this pilot program is $2.5 million, which the Company proposed to include in base rates (Exh. DPU-NG 4-26). The Company proposed to undertake a 180-day collaborative effort with state, regional, and local economic development entities, businesses, and other interested parties to further refine the design of the pilot program (Exh. NG-CF at 8).

The Company states that the targeted infrastructure improvement program would advance the development of key industrial sites and buildings across the Company's service territory (Exh. NG-CF at 10). This program may provide energy infrastructure necessary to market sites for "fast track" development (Exh. NG-CF at 10). Funds from this program may also be used to offset customer costs associated with upgrading energy delivery infrastructure for major business expansion (Exh. NG-CF at 10). To the extent possible, the Company intends to focus the infrastructure improvements on redevelopment of existing brownfield sites and vacant industrial buildings (Exh. NG-CF at 10). The annual budget for the targeted

infrastructure improvement program, which consists solely of the grant money to be disbursed through this program, is $1 million (Exhs. NG-CF at 11; DPU-NG 4-28).

National Grid states that the urban revitalization program would promote smart growth investment in central business districts and aging commercial corridors (Exh. NH-CF at 11). Funds from this program would be used for redevelopment in urban areas that have both strong development potential and idle utility infrastructure (Exh. NG-CF at 11). This program would also encourage energy efficient building and system design and Leadership in Energy and Environmental Design, or LEED, certified projects wherever possible and appropriate (Exh. NG-CF at 11). The annual budget for the urban revitalization program, which consists solely of the grant money to be disbursed through this program, is $1 million (Exhs. NG-CF at 12; DPU-NG 4-29).

The Company states that the strategic business development program would provide support for businesses promoted by the Commonwealth (such as "green" businesses and the life sciences industries) (Exh. NG-CF at 12-13). This program would focus on business recruitment initiatives and foster technology transfer and commercialization efforts (Exh. NG-CF at 12-13). This program is intended to compliment ongoing regional economic development efforts (Exh. NG-CF at 13). The annual budget for the strategic business development program, which consists solely of the grant money to be disbursed through this program, is $500,000 (Exhs. NG-CF at 13; DPU-NG 4-30).

B. Positions of the Parties

1. Attorney General

While the Attorney General recognizes that mitigating the effects of the current recession on its customers is a laudable goal, she asserts that the record demonstrates that the economic development pilot program violates Department precedent, is poorly designed, and does not adequately guard against the double recovery of costs (Attorney General Brief at 142-143). In addition, the Attorney General states that the fact that National Grid has not finalized the design of the economic development pilot program strengthens the argument that the costs associated with this pilot program should not be allowed in base rates (Attorney General Reply Brief at 53). For these reasons, the Attorney General recommends that the Department eliminate the $2.5 million associated with the economic development pilot program from the Company's distribution service revenue requirement (Attorney General Brief at 143-144; Attorney General Reply Brief at 54).

The Attorney General argues that the costs of this pilot program are not necessary for the provision of distribution service and that National Grid has not demonstrated that being a significant contributor to economic development is a proper function of an electric distribution utility (Attorney General Brief at 143, citing Exh. AG-60, at 11-12). In addition, the Attorney General states that the fact that the Company is seeking to recover the costs of this pilot program only from C&I customers violates Department precedent (Attorney General Brief at 143). The Attorney General argues that the Department has previously stated that a discount to one customer is not recoverable from remaining ratepayers (Attorney General Brief at 143,

citing Massachusetts Electric Company, EC 96-4, Letter Order (January 30, 1996); D.P.U. 95-40, at 142-143; Attorney General Reply Brief at 54). Finally, the Attorney General contends that shareholders, not ratepayers, should bear the $2.5 million in economic development pilot program costs (Attorney General Brief at 144).

2. Company

The Company states that the economic development pilot program was submitted in a conceptual format, rather than as a fully-developed detailed proposal, because National Grid believed that the pilot program should reflect the input of stakeholders before being finalized and implemented (Company Brief at 123). The Company argues that the Department's precedent requiring shareholders to fund economic development expenses was appropriate prior to decoupling because any increased sales could be used to cover the associated costs between rate cases (Company Brief at 124). National Grid argues that decoupling removes the possibility of recovering these costs unless they are included in a company's revenue requirement (Company Brief at 124).

National Grid recognizes that the economic development pilot program as proposed will require further development before it can be presented to the Department in final form (Company Brief at 124). Thus, the Company seeks guidance from the Department as to whether National Grid should be pursuing programs such as the economic development pilot program, or if the Department has any concerns about any particular aspect of the Company's proposal (Company Brief at 124-125). The Company indicates that if the Department expresses support for such programs, the Company will work to develop a more detailed

economic development proposal for consideration by the Department, including the rate impact of the costs associated with such a program (Company Brief at 125).

C. Analysis and Findings

National Grid requested that the Department approve a $2.5 million pilot program that it contends is designed to encourage and enhance economic development in the Company's service territory. The Company, however, has provided the Department with insufficient evidence with which to evaluate its proposed economic development pilot program. Specifically, the Company's proposal is lacking important details. For example, the Company proposed an economic development pilot program that is not fully-formed and does not have any concrete evaluation plan. The proposed budget is based on an estimate by the Company regarding the number of grants that will be provided (Exh. NG-CF at 9). While the Company states that it intends to provide grants that would be targeted towards economic development, it has not provided any details as to how the Company will be spending this money, how much money will be spent, how the costs of administering the program will be recovered, or how the program will benefit National Grid ratepayers. Further, the Company stated that it will be at least six months from the date of the Department's Order until the program will be operational (Exhs. DPU-NG 4-24; DPU-NG 7-99).[226] While the Company's proposal is conceptual, it sought to include the $2.5 million budget in base rates immediately (Exh. DPU-NG 4-26).

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[226] The Company stated that the earliest the grants would begin to be disbursed would be July 1, 2010 (Exh. DPU-NG 7-99).

Because the Company has not presented the Department with an adequately-developed program for review, the Department rejects the Company's proposed economic development program.[227] As a result, the Company's proposed cost of service will be reduced by $2.5 million.

X. SEPARATE PROCEEDING TO INVESTIGATE THE COMPANY'S SALES FORECASTS

A. Introduction

The Company has proposed a number of reconciling mechanisms in this proceeding. Those reconciling mechanisms that produce a per kWh charge will base the resulting charges on a forecast of the Company's sales over some future time period, usually one year. The Attorney General has proposed that the Department open a separate investigation to review National Grid's forecasting method that will be used to set rates (Attorney General Brief at 226-227). The Attorney General claims that National Grid provided data that demonstrate that there has been some variation between the Company's sales forecasts and the actual sales

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[227] The Department has long supported economic development rates. Massachusetts Electric Company, EC 96-4, Letter Order (January 30, 1996); Boston Edison Company, Letter Order (February 28, 1995); Commonwealth Electric Company, D.P.U. 93-41, at 8-10 (1993). National Grid proposes to include the cost of the economic development program in base rates (Exh. DPU-NG 4-26). Department precedent requires that a discount provided to one customer is not recoverable from remaining ratepayers. Massachusetts Electric Company, EC 96-4, Letter Order (January 30, 1996); Boston Edison Company, Letter Order (February 28, 1995); Commonwealth Electric Company, D.P.U. 93-41, at 8-9 (1993). The Department recognizes the potential benefits of an economic development program. Should the Company seek approval of an economic development pilot program in the future, it should address how such program is consistent with Department precedent or demonstrate why such precedent is no longer appropriate.

data (Attorney General Brief at 227, citing Exh. AG 26-1, Att. 1). The Attorney General is concerned that the Company may be consistently over-estimating future sales and, thus, she recommends that the Department investigate the impact that this may have on rates (Attorney General Brief at 227).

B. Analysis and Findings

Sales forecasts have been used by all utilities in the Commonwealth for a variety of reconciling rates for decades. They have been used for such rates as the fuel charge, cost of gas adjustment factor, transition charge, and transmission charge, among other charges. See, e.g., Massachusetts Electric Company, D.P.U. 08-74 (Feb. 27, 2009). All of these charges are reconciling. That is, the forecasted values are eventually trued-up to the actual sales data.

While the evidence demonstrates that there has been variation among the Company's kWh forecasts over the last ten years, such variation is to be expected (Exh. AG 26-1, Att. 1). That variation is one of the primary reasons why these charges are reconciling. If the Company could forecast exactly what its sales would be in the future, there would be no need to reconcile the charge the following year. The Department will not open a separate investigation into the Company's sales forecast method at this time. This finding, however, does not preclude any party from examining the Company's sales forecast method in future reconciliation proceedings.

XI. SCHEDULES

A. Schedule 1

REVENUE REQUIREMENTS AND CALCULATION OF REVENUE INCREASE

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
COST OF SERVICE				
Total O&M Expense	323,842,304	(863,753)	(7,846,305)	315,132,246
Depreciation & Amortization Expense	96,404,401	(5,671)	(525,599)	95,873,131
Taxes Other Than Income Taxes	43,553,213	(100,786)	(92,790)	43,359,637
Income Taxes	52,178,266	34,772	(12,247,370)	39,965,668
Interest on Customer Deposits	343,981	0	(190,684)	153,297
Gain on the Sale of Land	0	0	(1,378,433)	(1,378,433)
Return on Rate Base	136,680,849	318,917	(17,600,631)	119,399,135
Additional Uncollectibles (Revenue Deficiency)	193,005	(5,193)	(478,256)	(290,444)
Total Cost of Service	653,196,019	(621,714)	(40,360,068)	612,214,237
OPERATING REVENUES				
Operating Revenues	614,680,246	(122,193)	0	614,558,053
Forfeit Discounts	4,322,199	0	0	4,322,199
Other Revenue	17,521,662	0	822,267	18,343,929
Total Operating Revenues	636,524,107	(122,193)	822,267	637,224,181
Total Base Revenue Deficiency	**16,671,912**	**(499,521)**	**(41,182,335)**	**(25,009,944)**
	Operating Revenues removed and collected separately from Distribution Services			
Adjustment Mechanisms:				
Pension / OPEB costs	33,687,829	(53,507)	0	33,634,322
Commodity-related costs	28,954,372	272,318	0	29,226,690
Storm Fund	30,144,843	0	(24,115,874)	6,028,969
Inspection and Maintenance Program	1,830,748	0	(1,830,748)	0
Total Adjustment Mechanisms	**94,617,792**	**218,811**	**(25,946,622)**	**68,889,981**
Total	111,289,704	(280,710)	(67,128,957)	43,880,037

B. Schedule 2

OPERATIONS AND MAINTENANCE EXPENSES

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
O&M Expense Per Books	322,037,041	(49,621)	0	321,987,420
Add: Borderline Sales Purchased Power	65,526	0	0	65,526
Energy Efficiency O&M	52,952,564	0	0	52,952,564
Uncollectible Accounts	39,509,580	0	0	39,509,580
Sub-Total	414,564,711	(49,621)	0	414,515,090
ADJUSTMENTS TO O&M EXPENSE:				
Eliminations:				
Energy Efficiency	(52,952,564)	0	0	(52,952,564)
Pension / OPEB	(33,687,829)	53,507	0	(33,634,322)
Commodity Bad Debt & Administrative Costs	(29,328,370)	(272,318)	0	(29,600,688)
Storm (Reversal of 11-7-07 Storm booked in 08)	1,619,554	0	0	1,619,554
Merger Costs to Achieve	(10,164,514)	1,117,112	0	(9,047,402)
Advertising	(658,274)	0	0	(658,274)
Production O&M	(21,274)	0	0	(21,274)
Sub-Total	(125,193,271)	898,301	0	(124,294,970)
Integrate Facilities Agreement for 2008	0	(73,991)	0	(73,991)
Healthcare Expense	0	0	0	0
Group Insurance Expense	0	0	124,158	124,158
Employee Thrift	0	0	0	0
Relocation and Home Buyout Expense	0	0	(325,592)	(325,592)
2008 Load Response Credit (Company Portion)	0	(829,295)	0	(829,295)
Salaries and Wages	7,741,927	(1,159,366)	0	6,582,561
Pension and Benefits	14,661,972	(149,371)	(2,162,863)	12,349,738
Contracted Hiring Requirements	2,273,295	(1,973)	(2,271,322)	0
Additional Labor and Other Costs	1,829,941	(36,396)	0	1,793,545
Facilities Consolidation	(52,941)	(42,176)	(80,592)	(175,709)
Postage	182,130	0	0	182,130
Uninsured Claims	831,951	0	0	831,951
Rate Case Expense Amortization	587,500	405,237	(665,227)	327,510
Inflation Adjustment	1,943,259	(134,844)	315,194	2,123,609
Economic Development Program	2,500,000	0	(2,500,000)	0
Uncollectible Accounts	1,971,830	309,742	(280,061)	2,001,511
Adjustment to O&M Expense	34,470,864	(1,712,433)	(7,846,305)	24,912,126
Total O&M Expense	**323,842,304**	**(863,753)**	**(7,846,305)**	**315,132,246**

C. Schedule 3

DEPRECIATION AND AMORTIZATION EXPENSES

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Depreciation & Amortization Expense	96,404,401	(5,671)	(525,599)	95,873,131
Total Depreciation & Amortization Expense	**96,404,401**	**(5,671)**	**(525,599)**	95,873,131

D. Schedule 4

RATE BASE AND RETURN ON RATE BASE

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Utility Plant in Service	2,974,249,302	(1,000)	(17,872,000)	2,956,376,302
LESS:				
Reserve for Depreciation and amortlization	1,230,404,512	0	4,037	1,230,408,549
Net Utility Plant in Service	1,743,844,790	(1,000)	(17,876,037)	1,725,967,753
ADDITIONS TO PLANT:				
Cash Working Capital	39,336,447	3,350,762	(450,459)	42,236,749
Materials and Supplies	17,492,276	488	0	17,492,764
Total Additions to Plant	56,828,723	3,351,250	(450,459)	59,729,513
DEDUCTIONS FROM PLANT:				
Reserve for Deferred Income Tax	298,541,077	0	(50,206,696)	248,334,381
Customer Contribution	8,728,070	(116,235)	0	8,611,835
Customer Deposits	7,742,964	0	0	7,742,964
Total Deductions from Plant	315,012,111	(116,235)	(50,206,696)	264,689,180
RATE BASE	1,485,661,402	3,466,485	31,880,200	1,521,008,086
COST OF CAPITAL	9.20%	9.20%	-1.35%	7.85%
RETURN ON RATE BASE	**136,680,849**	**318,917**	**(17,600,631)**	**119,399,135**

E. Schedule 5

COST OF CAPITAL

PER COMPANY

	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$796,965,000	49.50%	6.78%	3.35%
Preferred Stock	$2,259,000	0.14%	4.44%	0.01%
Common Equity	$810,875,000	50.36%	11.60%	5.84%
Total Capital	$1,610,099,000	100.00%		9.20%
Weighted Cost of				
Debt				3.35%
Equity				5.85%
Cost of Capital				9.20%

PER COMPANY - ADJUSTED

	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$796,965,000	49.54%	6.78%	3.36%
Preferred Stock	$2,259,000	0.10%	4.44%	0.00%
Common Equity	$810,875,000	50.36%	11.60%	5.84%
Total Capital	$1,610,099,000	100.00%		9.20%
Weighted Cost of				
Debt				3.36%
Equity				5.84%
Cost of Capital				9.20%

PER ORDER

	PRINCIPAL	PERCENTAGE	COST	RATE OF RETURN
Long-Term Debt	$821,965,000	56.70%	5.96%	3.38%
Preferred Stock	$2,259,000	0.15%	4.44%	0.00%
Common Equity	$625,516,000	43.15%	10.35%	4.47%
Total Capital	$1,449,740,000	100.00%		7.85%
Weighted Cost of				
Debt				3.38%
Equity				4.47%
Cost of Capital				**7.85%**

F. Schedule 6

CASH WORKING CAPITAL

		PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
CTC Expense		51,698,065	0	0	51,698,065
	3.56%	1,840,451	0	0	1,840,451
Transmission O&M Expense		273,948,696	0	0	273,948,696
	5.13%	14,053,568	(14,053,568)		
	4.63%		12,683,825	0	12,683,825
Operations & Maintenance Expense subject to CWC		308,749,741	854,821	(7,846,305)	301,758,257
	5.13%	15,838,862	(15,838,862)		
	7.20%		22,291,528	(564,934)	21,726,595
Federal Income Tax		41,489,062	(41,489,062)	0	0
	3.86%	1,601,478	(1,601,478)	0	0
Municipal Taxes		33,192,914	0	(92,790)	33,100,123
	16.50%	5,476,831	0	(15,310)	5,461,520
Federal Unemployment Taxes		87,809	(157)	0	87,652
	-17.25%	(15,147)	27	0	(15,120)
State Unemployment Taxes		281,150	(502)	0	280,648
	-13.23%	(37,196)	66		(37,130)
FICA Expense - Weekly		7,569,300	(13,234)	0	7,556,066
	9.59%	725,896	(1,269)	(0)	724,627
FICA Expense - Monthly		2,523,100	(4,411)	0	2,518,689
	9.48%	239,190	(418)		238,772
FICA and Federal Withholding Weekly		22,664,908	(40,671)	0	22,624,237
	-0.42%	(95,193)	171	(0)	(95,022)
FICA and Federal Withholding - Monthly		7,069,009	(12,685)	0	7,056,324
	-0.50%	(35,345)	63	0	(35,282)
State Income Tax Withholding - Weekly		4,576,275	(8,192)	0	4,568,083
	-2.05%	(93,814)	168	0	(93,646)
State Income Tax Withholding - Monthly		1,465,388	(2,630)	0	1,462,758
	-1.70%	(24,912)	45	(0)	(24,867)
Incentive Thrift - Weekly		8,742,102	(15,688)	0	8,726,414
	-1.08%	(94,415)	169	(0)	(94,245)
Incentive Thrift - Monthly		2,607,599	(4,679)	0	2,602,920
	-1.68%	(43,808)	79	(0)	(43,729)
Reconciling Revised CWC with Final CWC		0	(129,785)	129,785	0
Total Cash Working Capital - Distribution		39,336,447	3,350,762	(450,459)	42,236,749
Total Cash Working Capital - Commodity					
		1,393,042,142	35,287,906		1,428,330,048
	2.64%	36,750,981	(36,750,981)		0
	2.72%		38,850,577		38,850,577

G. Schedule 7

TAXES OTHER THAN INCOME TAXES

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Test Year Property Taxes	26,256,958	0	0	26,256,958
Add: Municipal Tax Adjustment	6,935,955	0	(92,790)	6,843,165
Total Property Taxes	33,192,913	0	(92,790)	33,100,123
Payroll Taxes				
FICA Taxes	9,449,849	0	0	9,449,849
Other Taxes	267,900	0	0	267,900
State Unemployment Taxes	642,551	(100,786)	0	541,765
Total Payroll Taxes	10,360,300	(100,786)	0	10,259,514
Total Taxes Other Than Income	43,553,213	(100,786)	(92,790)	43,359,637

H. Schedule 8

INCOME TAXES

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
Rate Base	1,485,661,402	3,466,485	31,880,200	1,521,008,086
Return on Rate Base	136,680,849	318,917	(17,600,631)	119,399,135
LESS:				
Interest Expense	49,769,657	116,474	1,523,942	51,410,073
Rounding	0	148,566	(148,566)	0
Amort. Of Investment Credit	1,133,911	0	0	1,133,911
Eliminate Medicare Act Reimbursement	3,175,687	0	0	3,175,687
Total Deductions	54,079,255	265,040	1,375,376	55,719,671
Taxable Income Base	82,601,594	53,877	(18,976,007)	63,679,463
Taxable Income	135,913,770	88,649	(31,223,377)	104,779,043
Mass Franchise Tax 6.50%	8,834,395	5,762	(2,029,520)	6,810,638
Federal Taxable Income	127,079,375	82,887	(29,193,857)	97,968,405
Federal Income Tax Calculated	44,477,782	29,010	(10,217,850)	34,288,942
Total Income Taxes Calculated	53,312,177	34,772	(12,247,370)	41,099,580
Amortization of Investment Tax Credit	(1,133,911)	0	0	(1,133,911)
Distribution Income Taxes	52,178,266	34,772	(12,247,370)	39,965,668
Total Income Taxes	**52,178,266**	**34,772**	**(12,247,370)**	**39,965,668**

I. Schedule 9

REVENUES

	PER COMPANY	COMPANY ADJUSTMENT	DPU ADJUSTMENT	PER ORDER
OPERATING REVENUES PER BOOKS	613,815,077	0	0	613,815,077
Operating Revenue Adjustments				
Annualized Revenue Adjustment	865,169	(122,193)	0	742,976
Total Operating Revenue Adjustments	865,169	(122,193)	0	742,976
Adjusted Total Operating Revenues	**614,680,246**	**(122,193)**	**0**	**614,558,053**
Other Revenue Adjustments				
Other Revenues per Company	17,521,662	0	0	17,521,662
Pole Attachment Annualization	0	0	822,267	822,267
Adjusted Total Other Revenues	17,521,662	0	822,267	18,343,929

	Operating Revenues removed and collected separately from Distribution Services			
Adjustment Mechanisms:				
Pension / OPEB costs	33,687,829	(53,507)	0	33,634,322
Commodity-related costs	28,954,372	272,318	0	29,226,690
Storm Fund	30,144,843	0	(24,115,874)	6,028,969
Inspection and Maintenance Program	1,830,748	0	(1,830,748)	0
Total	**94,617,792**	**218,811**	**(25,946,622)**	**68,889,981**

J. Schedule 10

REVENUE INCREASE PER ORDER **-$25,010** (numbers in (1,000))

Rate Class	PER COSS Proposed COSS Target Revenue (1)	PER COSS Current Revenue (2)	PER COSS Share of COSS Target Revenue (3)	Department Approved Revenue at EROR (4)	Department Approved Revenue Increase (5)	Increase Indicated for EROR (6)	200 Percent Cap on Max. Increase (7)	Target Before Subsidies (8)	Reductions Due to Caps (9)	Un-capped Targets (10)	Reallocation Without 10% Increase Cap (11)	10% Increase Cap (12)	Amount to Reallocate (13)	Uncapped Revenue (14)	Allocation of Subsidy (15)	Final Base Revenue Target (16)
Residential R-1/R-2	$347,055	$297,852	54.92%	$323,762	$25,910	8.7%	$273,609	$323,762	$0	$323,762	$285,675	0	0	$323,762	4,760	$290,435
Residential R-4	$393	$343	0.06%	$367	$24	6.9%	$315	$367	$0	$367	$323	0	0	$367	5	$329
Small C/I G-1	$75,962	$108,180	12.02%	$70,864	-$37,316	-34.5%	$99,375	$99,375	-$28,511	$0	$99,375	0	0	$70,864	1,042	$100,417
Medium C/I G-2	$64,153	$63,694	10.15%	$59,847	-$3,847	-6.0%	$58,510	$59,847	$0	$0	$59,847	0	0	$59,847	880	$60,727
Large C/I G-3	$109,319	$125,680	17.30%	$101,982	-$23,698	-18.9%	$115,451	$115,451	-$13,469	$0	$115,451	0	0	$101,982	1,499	$116,950
Streetlight	$35,079	$18,808	5.55%	$32,725	$13,917	74.0%	$17,277	$32,725	$0	$32,725	$28,875	20,689	8,186	$0		$20,689
Total Company	$631,961	$614,557	100%	$589,547	-$25,010	-4.1%	**$564,537**	$631,527	-$41,980	$356,854	$589,547	20,689	8,186	$556,822	8,186	**$589,547**

NOTES:

(1) Exh. NG-HSG-P-4 ® at 1, line 22;
(2) Exh. NG-HSG-P-4 ® at 1, line 4;
(3) Column (1) (per rate class)/Column (1) (Total Company);
(4) Column (4) (Total Company) * Column (3);
(5) Column (4) - Column (2);
(6) Column (4)/Column (2)-1;
(7) Column (2) * (1+ 2 * Column (6) (Total Company));
(8) If Column (4) is less than Column (7) then Column (7), otherwise Column (4);
(9) Column (4) - Column (8);
(10) If Column (1) - Column (2) > 0, then Column (4), otherwise 0 (unless rate class is receiving a rate decrease);
(11) If Column (10) > 0 then Column (8) + (Column (9) (Total Company) * (Column (10) (per rate class)/Column (10) (Total Company)), otherwise Column (8);
(12) If Column (2) * 1.1 < Column (11) then Column (2) * 1.1, otherwise 0;
(13) If Column (12) = 0, then 0, otherwise Column (11) - Column (12);
(14) If Column (13) = 0, then Column (4), otherwise 0;
(15) Amount to be reallocated in Column (13) * (Column (14) (per class)/Column (14) (Total Company));
(16) Column (11) + Column (15);

For illustrative purposes only

XII. ORDER

Accordingly, after due notice, hearing, and consideration, it is

ORDERED: That the tariffs M.D.P.U. No. 1148 through M.D.P.U. No. 1175 filed by Massachusetts Electric Company and Nantucket Electric Company on May 15, 2009, to become effective January 1, 2010, are DISALLOWED; and it is

FURTHER ORDERED: That Massachusetts Electric Company and Nantucket Electric Company shall file new schedules of rates and charges designed to reduce annual electric base rate revenues by $25,009,944; and it is

FURTHER ORDERED: That Massachusetts Electric Company and Nantucket Electric Company shall file all rates and charges required by this Order and shall design all rates in compliance with this Order; and it is

FURTHER ORDERED: That Massachusetts Electric Company and Nantucket Electric Company shall comply with all other directives contained in this Order; and it is

FURTHER ORDERED: That the new rates shall apply to electricity consumed on or after January 1, 2010, but unless otherwise ordered by the Department, shall not become effective earlier than seven days after the rates are filed with supporting data demonstrating that such rates comply with this Order.

By Order of the Department,

/s/
Paul J. Hibbard, Chairman

/s/
Tim Woolf, Commissioner

/s/
Jolette A. Westbrook, Commissioner

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.