on CIRM investments are not fully realized in the CIRM until the third year's revenue requirement calculation (Exh. DPU-18-8). Therefore, property taxes recoverable in the CIRM are not actual incurred expenses on the new CIRM investment in the vintage year.[34]

Further, based on a CIRM with an investment cap of $285 million (i.e., the Company's proposal), National Grid would not collect property taxes for the first year of the investment, and in the second and third years of the CIRM, it would collect approximately $3 million and $6 million, respectively, associated with only the first year of capital investment (Exh. DPU-18-8, Att. at 1). In addition, to the extent that the Company's annual capital investment exceeds the investment cap, the Company will not recover property taxes associated with these investments until its next base rate case. Therefore, the Company's CIRM retains a measure of regulatory lag. For all of the foregoing reasons, the Department allows the Company's proposal to include property taxes in the calculation of the CIRM revenue requirement.

5. Attorney General's Modifications

The Department declines to adopt the Attorney General's recommendations to limit the scope of the CIRM and to implement an O&M offset. The Attorney General did not provide persuasive evidence on how or what to limit the scope of the CIRM or provide sufficient quantification of any O&M offset (see Exhs. AG-DO-CF-1, at 11-12, 18-19;

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34 Moreover, the property tax expense associated with CIRM investments is not based on actual property tax bills. Thus, annual incremental property taxes associated with CIRM investments are not recovered on a dollar-for-dollar basis.

AG-DO-CF-Rebuttal-1, at 7-9).[35] Finally, we find that the Attorney General did not substantiate with appropriate analysis her recommendation for a lower rate of return applicable to the CIRM. Therefore, we decline to adopt her recommendation. The Department discusses the Company's overall rate of return, and whether the approved CIRM reduces risk, in Section XII.E below.

Regarding benefits, the Attorney General recommends that the Department require the Company to re-engage with stakeholders to establish metrics, goals, and reporting requirements to ensure that the investments made in the CIRM deliver benefits to customers at a reasonable cost (Attorney General Brief at 91, citing Exh. AG-DO-CF-1, at 16-17; Attorney General Reply Brief at 52, n.20). See D.P.U. 09-39, at 84. After the Department's directive in D.P.U. 09-39, the Company coordinated three meetings to develop capital spending metrics for future years (Exh. DPU-18-6). National Grid was unable to reach an agreement on the purpose or iteration of the metrics as of April 4, 2012 (Exh. DPU-18-6). The Company stated that because the annual CapEx mechanism proceedings were suspended, it did not re-engage stakeholders to reach an agreement (Exh. DPU-18-6).

With this Order, the previous CapEx mechanism proceedings will be resolved (see Section VII.B.6). However, the Company will continue to make future CIRM filings. Thus, the Department directs the Company to continue to work toward the development of a capital plan that includes goals and metrics by which to measure and quantify its success. Accordingly, within 120 days of the date of this Order, National Grid shall provide the Department with a report detailing the Company's efforts to develop such goals and metrics. In conjunction with this report, the Company shall update and file the Proposed Capital Plan Metrics Capital Plan

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35 Despite making this recommendation, the Attorney General could not point to any such category or external factor to limit the scope of the CIRM (Exh. AG-DO-CF-1, at 11-12).

labeled as Exhibits AG-4-9-A and AG-4-9-B in docket D.P.U. 11-60. Upon review of the Company's filing, the Department will determine the appropriate next steps.

6. Conclusion

The Department allows the Company's proposal to operate the CIRM outside of the RDM. The Department also approves a modified investment cap of $249 million, a one-percent rate cap, and the Company's proposal to include property taxes in the CIRM revenue requirement. In compliance with this Order, the Department directs the Company to modify its CIRM tariff according to the foregoing directives. Further, the Company shall make all future CIRM filings in compliance with the directives set forth in Section VII.B.5.b.viii below.

VI. STORM COST RECOVERY MECHANISM

A. Introduction

1. Background of the Storm Fund

Pursuant to a rate plan settlement in D.T.E. 99-47 ("D.T.E. 99-47 Settlement"), the Department approved the collection by the Company of $4.3 million annually in base rates for contribution to a storm fund. In accordance with the terms of the D.T.E. 99-47 Settlement, the Company was permitted to access the storm fund when the cost of responding to an individual storm exceeded $1.25 million. D.T.E. 99-47 Settlement, Att. 5. The D.T.E. 99-47 Settlement also established a cap on the storm fund balance of $20 million, adjusted for inflation, applicable to the storm fund. 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. Finally, the D.T.E. 99-47 Settlement provided for

interest to be applied on the storm fund balance (or deficit) at the customer deposit rate. D.T.E. 99-47 Settlement, Att. 5.

In the Company's last base rate case, D.P.U. 09-39, the Department approved the Company's proposal to continue the storm fund, but also determined that several modifications to the storm fund were necessary. D.P.U. 09-39, at 205-213. The Department maintained the annual storm fund collection of $4.3 million in base rates. D.P.U. 09-39, at 207. However, the Department rejected the Company's request to recover through the storm fund all expenses associated with an individual storm that exceeds $1.25 million in restoration costs, and instead permitted the Company to recover only the costs in excess of $1.25 million. D.P.U. 09-39, at 207. Further, the Department rejected the Company's proposal 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 ("WACC"). D.P.U. 09-39, at 207. Instead, the Department found it appropriate for the storm fund balance (whether credit or deficit) to accrue interest at the Company's WACC determined in that proceeding. D.P.U. 09-39, at 208.

In addition, National Grid proposed to remove the cap on the fund balance on the credit side and, if the storm fund had a deficit balance in excess of $8.6 million, include on an annual basis the amount in excess of $8.6 million as a distribution adjustment with carrying costs at the Company's WACC. D.P.U. 09-39, at 208. The Department rejected this proposal and instead continued the symmetrical cap of $20 million. D.P.U. 09-39, at 208. The Department found that in the event the cap was exceeded as the result of a surplus, then the amount over the cap collected from ratepayers in that year would be returned in the following year. D.P.U. 09-39,

at 208.[36] In the event the cap was 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. D.P.U. 09-39, at 208-209.

Finally, the Department found that in order to recover any costs from the storm fund, National Grid must obtain approval from the Department by demonstrating that the costs the Company seeks to recover from the fund are storm related, incremental, exceed the $1.25 million threshold, and were prudently incurred. D.P.U. 09-39, at 209. National Grid was directed to submit as part of its filing a report that outlines the total number and costs of all storms that occurred in the past year. D.P.U. 09-39, at 209.

2. Storm Cost Recovery Filings

Pursuant to the directives set forth in D.P.U. 09-39, the Company petitioned the Department in March 2013 for recovery of the $212 million storm fund deficit balance related to 14 storms that took place between February 2010 and February 2013. Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 13-59, at 1-2, 4 & n.2 (2013). The Department approved a Storm Fund Replenishment Adjustment Factor ("SFRF")[37] designed to replenish the storm fund by $40 million annually for three years, beginning on May 4, 2013.

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[36] The Department found that consistent with the treatment of the recovery and reconciliation of pension costs and gas costs (220 C.M.R. § 6.08(2) for gas costs), the amount of storm costs to be reconciled would be returned through a kWh delivery surcharge with carrying costs on the reconciliation of forecast to actual recovery at the prime rate. D.P.U. 09-39, at 208, citing NSTAR Pension, D.T.E. 03-47-A at 46 (2003).

[37] Also referred to in other cases as the Storm Fund Replenishment Adjustment.

D.P.U. 13-59, at 14.[38] The Department also directed National Grid to file for a prudency review, no later than May 31, 2013, to include all supporting invoices for storm events that occurred between 2010-2011, and to file no later than December 31, 2013, for storm events occurring through February 2013. D.P.U. 13-59, at 2, 15.

Pursuant to the Department's directives in D.P.U. 13-59, the Company filed for recovery of the deficit balance in the storm fund associated with the incremental costs for eight storms that occurred between February 2010 and October 2011, and for eight storms that occurred between January 2012 and March 2013. Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 13-85, at 1 (2016).[39] In D.P.U. 13-85, the Department approved the recovery of costs associated with these storms. D.P.U. 13-85, at 101, 106.[40] The Department also extended the SFRF through June 2018, because it will eliminate the storm fund deficiency associated with these 16 storms and will avoid approximately $7.6 million in carrying changes, to the benefit of ratepayers. D.P.U. 13-85, at 105.

According to the Company, between November 2013 and February 2015, there have been nine additional storms that qualify for recovery under the storm fund (Exh. NG-RRP-1,

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38 In a separate proceeding, the Department approved the transfer to the SFRF of recovery of outstanding costs related to a 2008 ice storm. Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 14-85, at 7 (2014).

39 The 16 storms for which the Company sought cost recovery included the 14 aforementioned storms and two additional storms that occurred in 2013.

40 The final amount of approved costs is subject to confirmation by the Department following the Company's compliance filing in that proceeding. D.P.U. 13-85, at 101, 106.

at 67-68).[41] Thus, since 2010, there have been 25 storms that qualified for recovery through the storm fund (Exh. NG-RRP-1, at 68, 75). The net amount of incremental O&M expense eligible for reimbursement from the storm fund for these 25 events in total is $243 million (Exh. NG-RRP-2, at 26 (Rev. 3)).

B. Company Proposal

The Company proposes to continue its storm fund and to maintain the current $1.25 million cost-per-storm threshold for accessing the storm fund (Exhs. NG-RRP-1, at 68-69; DPU-21-17). However, the Company proposes four modifications to the current storm fund. First, the Company proposes to extend the SFRF to August 2019 in order to continue the more rapid replenishment of the existing storm fund to account for the nine additional qualifying storm event costs that took place after the Company's filing in D.P.U. 13-85, and to minimize the carrying costs associated with those storms (projected to be $32 million at the start of the rate year) (Exhs.NG-RRP-1, at 68-69, 78, 82; NG-RRP-6c, at 2). In this regard, the Company also proposes to transfer the deficit balance to be collected through the SFRF to a separate regulatory asset, and reset the storm fund balance to zero (Exh. NG-RRP-1, at 78). Further, the Company proposes that any residual balance (either positive or negative) remaining in the regulatory asset at the end of the extended recovery period (i.e., August 2019) then would be transferred to the Company's storm fund (Exh. NG-RRP-1, at 78-79).

Second, the Company proposes to increase from $4.3 million to $14 million, the amount collected annually through base rates and designated to the storm fund (Exhs. NG-RRP-1, at 69, 85-86; NG-RRP-2, at 4, 26 (Rev. 3)). The Company states that based on its history of storm

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41 The Company has not yet filed for a prudency review of these nine storms (Exh. NG-RRP-1, at 82).

events since its last rate case this proposal provides a more appropriate amount for the base-rate contribution, balances customer rate impact, and normalizes cost recovery for extraordinary storm events (Exh. NG-RRP-1, at 69, 86). In calculating the proposed base rate amount, the Company first eliminated from consideration $150 million in costs related to the three costliest storms that occurred between 2009 and June 30, 2015 (Exhs. NG-RRP-1, at 86; NG-RRP-2, at 26).[42] The Company then took an average of the remaining $93 million in storms costs ($243 million in net incremental storm costs minus $150 million) over the number of months between the end of the test year in D.P.U. 09-39 and the end of the test year in the instant proceeding, or 78 months, to arrive at an annualized amount of $14.0 million (Exhs. NG-RRP-1, at 86; NG-RRP-2, at 26 (Rev. 3)).

Third, the Company proposes to increase the storm fund's symmetrical cap on the balance in the fund from $20 million to $30 million to coincide with its proposed increase in the annual base rate contribution for storm costs (Exhs. NG-RRP-1, at 88-89). The Company states that it is necessary to raise the cap to $30 million in order to minimize the potential for frequent rate changes, either positive or negative (Exh. NG-RRP-1, at 89).

Fourth, the Company proposes to modify the current method by which carrying costs are applied to storm costs that are recovered through the storm fund, so that interest will accrue on incremental storm costs when such costs are filed for recovery with the Department (as opposed to when these costs are incurred) (Exh. NG-RRP-1, at 87). In this regard, the Company proposes that interest will accrue on the combination of the storm fund reserve and the costs related to the

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42 These three storms were: (1) Tropical Storm Irene in August 2011; (2) the October snowstorm in October 2011; and (3) Nor'easter Nemo in February 2013 (Exh. NG-RRP-1, at 86).

storms filed for storm fund cost recovery (Exh. NG-RRP-1, at 88). If the storm fund balance is in a surplus, then the Company proposes that interest will accrue at a carrying charge rate equivalent to the Company's pre-tax WACC, as determined by the Department (Exh. NG-RRP-1, at 87). Conversely, if the combined storm fund balance is in a deficit, then the amount in deficit (up to the $30 million cap) would accrue interest at the Company's customer deposit rate (Exh. NG-RRP-1, at 88). Further, any storm fund deficit in excess of the proposed $30 million storm cap would accrue interest at a carrying charge rate equivalent to the pre-tax WACC (Exh. NG-RRP-1, at 88).

C. Positions of the Parties

1. Attorney General

The Attorney General argues that National Grid's storm fund should be eliminated because the Company failed to demonstrate that: (1) storm costs represent "extraordinary circumstances"; and (2) the storm fund is in the best interest of ratepayers (Attorney General Brief at 94-97, citing D.P.U. 13-90, at 14; Attorney General Reply Brief at 53, 57-58). Instead, the Attorney General asserts that the Company should recover storm costs through base distribution rates at a representative historical level (Attorney General Brief at 95). According to the Attorney General, if a storm results in extraordinary costs, National Grid could: (1) request from the Department deferral of these costs for consideration of recovery in its next base rate case; or (2) file for storm cost recovery through a base rate case proceeding, thereby allowing the storm costs to be weighed along with other factors affecting the Company's financial stability (Attorney General Brief at 95). On this last point, the Attorney General notes that annual rate cases should not be the norm if the storm fund is discontinued, and that the Company has a

fiduciary obligation to act in the best interest of ratepayers and provide safe, reliable, and least-cost service (Attorney General Reply Brief at 57-58, citing D.P.U. 10-70, at 229 n.123; Incentive Regulation, D.P.U. 94-158, at 3 (1995); Integrated Resource Planning, D.P.U. 94-164, at 51-52 (1995)).

Alternatively, the Attorney General argues that if the Department continues the Company's storm fund, three revisions should be made. First, she contends that the cost-per-storm threshold to access the storm fund should be increased from $1.25 million to $2.4 million (Attorney General Brief at 98; Attorney General Reply Brief at 56-57). According to the Attorney General, storm costs have increased over time and this proposed threshold more accurately reflects the increase in costs (Attorney General Brief at 98, citing Exh. DPU-AG-1-9; Attorney General Reply Brief at 55-56). She also contends that under the current threshold of $1.25 million, the Company accesses the storm fund on average 4.5 times per year (i.e., 25 storms over a five and one half year period) (Attorney General Brief at 98, citing Exh. DPU-AG-1-19; Attorney General Reply Brief at 56).[43] Thus, she claims that many storms considered by the Company to be "major" are actually more likely to be "routine" (Attorney General Brief at 98, citing Exh. AG-DO-CF-Rebuttal-1, at 3-4; Attorney General Reply Brief at 56). The Attorney General asserts that increasing the threshold to $2.4 million likely would reduce storm fund access to, on average, 2.7 times per year and ensure that only those events that clearly fall outside of normal risk built into rates would be eligible for storm fund recovery (Attorney General Brief at 98, citing Exh. AG-1-19; Attorney General Reply Brief at 56-57).

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[43] The Attorney General's five and one half year period appears to be 2010 to the end of the test year in this case (Exh. DPU-AG-1-19 & Att.)

Second, the Attorney General argues that the amount collected annually through base rates and designated to the storm fund should increase from $4.3 million to $4.8 million (Attorney General Brief at 99, citing Exh. AG-DO-CF-1, at 29; RR-DPU-50; Attorney General Reply Brief at 53 n.21). In this regard, she contends that if the storm fund threshold had been $2.4 million rather than $1.25 million, and if the five costliest storms of the 25 storms at issue were excluded from consideration,[44] only 15 storms would have qualified for storm fund cost recovery (Attorney General Brief at 99, citing Exh. AG-DO-CF-1, at 29). According to the Attorney General, the annualized amount of the net incremental O&M expense associated with these 15 storms was $4,766,284, thereby justifying the recommended representative level of $4.8 million (Attorney General Brief at 99, citing Exh. AG-DO-CF-1, at 29; RR-DPU-50).

Third, the Attorney General argues that the carrying charge applied to any unrecovered balance in the storm fund should be set at the customer deposit rate and not the WACC (Attorney General Brief at 98; Attorney General Reply Brief at 53).[45] According to the Attorney General, the application of the WACC to deferred storm fund-eligible costs has permitted the Company to recover $81 million in interest between 2010 and 2015 (Attorney General Brief at 98, citing Exhs. NG-RRP-6b, at 2; AG-DO-CF-1, at 27-28; Attorney General Reply Brief at 54). Further, the Attorney General contends that the application of the WACC to deferred storm

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44 These five storms are: (1) Tropical Storm Irene in August 2011; (2) the October snowstorm in October 2011; (3) Nor'easter Nemo in February 2013; (4) Hurricane Sandy in October 2012; and (5) Blizzard Juno in January 2015 (Attorney General Brief at 99, citing Exh. AG-DO-CF-1, at 29).

45 The Company's current pre-tax WACC is 11.48 percent (Exh. NG-RRP-6a). The Company's customer deposit rate is 0.69 percent, which is equivalent to the average rate paid on two-year United States Treasury notes for the twelve months ended December 31, 2015, as stated in the Federal Reserve Statistical Release.

fund-eligible costs has led to considerable risk and cost inappropriately being transferred to ratepayers (Attorney General Brief at 98; Attorney General Reply Brief at 54). Thus, she asserts that to avoid this risk transfer, and because she argues that the deferral of storm costs is short-term, the Department should adopt the customer deposit rate as the appropriate carrying charge (Attorney General Brief at 98-99; Attorney General Reply Brief at 54-55).[46]

2. PowerOptions

PowerOptions argues that the Company's storm fund must be carefully examined and that preparing for storms, and properly repairing the distribution system after storms, are part of "doing business" in New England (PowerOptions Reply Brief at 11). Further, PowerOptions contends that if the Company's storm fund is continued, the Department should adopt the Attorney General's recommendations to raise the cost-per-storm threshold to access the storm fund from $1.25 million to $2.4 million (PowerOptions Reply Brief at 11). PowerOptions agrees with the Attorney General that increasing the threshold likely will reduce the number of storms that qualify for storm fund recovery and ensure that only those larger-scale storm events that clearly fall outside of normal risk built into rates would be eligible for such recovery (PowerOptions Reply Brief at 11).

3. Company

National Grid asserts that the storm fund should continue, and the Company rejects the various arguments raised by the Attorney General in support of terminating the fund (Company Brief at 183-189). In particular, the Company argues that the storm fund provides a necessary

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[46] The Attorney General states that if the Department raises the cost-per-storm threshold to $2.4 million and if the customer deposit rate is used to accrue carrying charges on the deficit, the $20 million cap on the fund balance "will likely suffice" (Exh. AG-DO-CF-1, at 29).

means of cost recovery that appropriately correlates to the strict requirements imposed on electric companies for immediate and unqualified response to storms (Company Brief at 183-184). In this regard, the Company contends that there is no feasible manner by which the magnitude of storm costs now incurred simply could be deferred for later recovery in a future rate case, and that annual rate cases would be necessary to achieve a level of recovery that would satisfy the Company's rating agencies (Company Brief at 184, 187). National Grid asserts that such an outcome would be detrimental to ratepayers and the financial integrity of the Company (Company Brief at 184).

The Company proposes to maintain the $1.25 million threshold that currently applies to determine eligibility for storm fund recovery (Company Brief at 179). The Company rejects the Attorney General's recommendation to increase the cost-per-storm threshold to access the storm fund from $1.25 million to $2.4 million (Company Brief at 189). According to the Company, the Attorney General's recommended threshold is not based on any analysis whatsoever, but is simply a "mathematical computation to back into a recommendation concluding that only two storms a year should qualify" (Company Brief at 190-191). Conversely, the Company contends that the $1.25 million is set at a point that draws a distinct line between events that require a response using resources that are contemplated in base rates and those events that involve costs that are not included in base rates, which are largely related to the costs of external crew complements called into pre-stage for relatively larger impact events (Company Brief at 191). Further, the Company notes that between 2010 and 2015, there were 240 discrete storm events that caused the Company to incur incremental repair and restoration costs, but only 25 of these events (or approximately ten percent) qualified for storm fund

recovery (Company Brief at 190, 192, citing Exh. NG-RRP-1, at 66-68). Thus, the Company asserts that the $1.25 million threshold is appropriate (Company Brief at 192). However, the Company notes that in the event the Department does raise the threshold, a corresponding increase in base rates is necessary to fund storm costs for those storms that would not meet the threshold (Company Brief at 191-192; Company Reply Brief at 74).[47]

With respect to National Grid's proposal to increase the annual base rate contribution to the storm fund to $14.0 million, the Company argues that the current annual contribution of $4.3 million is not sufficient because the number of qualifying events is increasing due to prevailing weather patterns and the strict emergency response requirements placed on the Company by Massachusetts law and the Department's regulations (Company Brief at 179-180, citing Exh. DPU-32-10). Further, the Company argues that if the Department does not increase the current amount of $4.3 million collected annually through base rates and contributed to the storm fund, there will continue to be a relatively greater need to defer and delay storm-cost recovery (Company Reply Brief at 74).

Next, National Grid argues that its proposal with respect to carrying costs is designed to more equitably share with ratepayers the risk related to major storms (Company Brief at 180, citing Exh. NG-RRP-1, at 87-88). National Grid contends that it cannot defer hundreds of millions of dollars for multiple years, with another five years or more needed for recovery,

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47 The Company maintains that large storm costs are not appropriate for the "ebb and flow" of base ratemaking treatment because: (1) it is not possible to reasonably identify a "representative" level of major storm events; and (2) as the threshold increases, there is an increase in the "win or loss" that occurs for the ratepayers and Company (Company Brief at 192). However, the Company argues that if the threshold is set at $2.4 million, as recommended by the Attorney General, the Department should increase base rates by $5.2 million (Company Reply Brief at 74, citing Exh. NG-RRP-Rebuttal-1, at 12; RR-DPU-46).

without recovery of adequate carrying costs (Company Reply Brief at 74). Thus, the Company asserts that any changes to the storm fund that build in delay and deferral must be accompanied by adequate carrying costs (Company Reply Brief at 74).

Finally, the Company argues that its symmetrical cap proposal is designed to protect against substantial accumulation of fund balances creating an oversized surplus or potentially harmful deficit (Company Brief at 181, citing Exh. DPU-21-18). The Company contends that given recent qualifying storm events, an increase in the symmetrical cap on the fund balance from $20 million to $30 million is a necessary change to minimize the potential for frequent rate changes, to accommodate the greater level of annual customer contribution proposed in this case, and to provide for more stable rates for customers (Company Brief at 181, citing Exhs. NG-RRP-1, at 89; DPU-21-18). Thus, according to the Company, the proposed symmetrical cap and the base distribution rate contribution are intended to work in conjunction with one another to establish rate stability for customers (Company Brief at 181).

D. Analysis and Findings

1. Introduction

The Department's primary objective for allowing a storm fund is to levelize storm restoration costs of major storms on ratepayers. D.P.U. 13-90, at 13, citing D.P.U. 10-70, at 201-202; D.P.U. 09-39, at 206. However, the Department has recognized that recent experience, both with National Grid and other electric utilities, has demonstrated that the use of storm funds may shift the burden of cost recovery disproportionately to ratepayers without providing commensurate benefits. D.P.U. 13-90, at 13. As such, the Department has put all electric distribution companies on notice that if they seek continuation of a storm fund in their

next base distribution rate case, they must demonstrate why the continuation of a storm fund is in the best interest of ratepayers. D.P.U. 13-90, at 14-15.

2. Continuation of the Storm Fund

Since the Company's last rate case, the Department has devoted significant time and resources to the improvement of each electric utility's storm response. As a result, storm response requirements are now more formalized, more comprehensive, and more rigorous. See, e.g., G.L. c. 164, § 1J; 220 C.M.R. § 19.03 (setting forth standards for the acceptable performance for emergency preparation and restoration of service for electric and gas companies); Investigation by the Department of Public Utilities into the Storm Preparation and Response of Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 11-85-A/11-119-A at 153 (2012) (imposing penalties for Company's failure to restore service to its customers in a safe and reasonably prompt manner). In order to meet these requirements, electric distribution companies are expected to properly prepare for and implement storm response measures that restore power safely and expeditiously. These obligations require the Company to devote substantial resources to achieving the desired results. Further, as recent history indicates, the frequency and severity of major storm events has increased (see, e.g., Exh. DPU-32-4, Att. (25 major storms since 2009)). Not surprisingly, the costs of responding to those events to restore power for customers in an expeditious fashion have increased as well.

We acknowledge that National Grid's current storm fund mechanism has not provided the desired balance between cost recovery and rate stability. In particular, the overall number of major storms in the past six and a half years contributed to a large storm fund deficit that

expanded even further due to the accumulation of a significant amount in carrying charges. The number of these storms themselves could not have been anticipated when the storm fund mechanism was developed for the Company, although we have certainly seen a trending to more severe storms over the past several years than previously experienced. As a result, without a storm fund mechanism it is unlikely that during this time frame the Company could have absorbed these costs without filing a base rate case, or even multiple rate cases, which could have resulted in an increase in rates to ratepayers for other costs.

Therefore, we find that if properly structured, the Company's storm fund can provide for adequate recovery of storm costs from customers in a manner that is designed to create rate stability. On that basis we conclude that the storm fund shall continue, but with several important modifications, as discussed below.[48]

3. Modifications to the Storm Fund

a. Cost-Per-Storm Threshold

Currently, for any storm for which National Grid incurs more than $1.25 million in costs, the Company is permitted to access the storm fund for reimbursement of only that portion of the costs that exceed $1.25 million. D.P.U. 09-39, at 207. The Company's current threshold of $1.25 million per storm was first established in the D.T.E. 99-47 Settlement and was maintained following the Department's adjudication of the proposed modifications to the storm fund in D.P.U. 09-39. It stands to reason that per-storm restoration costs have increased since 2009. Thus, we find that it is appropriate to increase the cost-per-storm threshold to reflect the general

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48 Further, we note that pursuant to § 94, the Company must file its next base rate case within five years. At that time, the Department will have another opportunity to review the modified storm fund and determine whether it should continue even further.

increase in costs and to prevent the inclusion in the storm fund of future storm events of a more routine nature.

The Attorney General recommends that the cost-per-storm threshold should be increased to $2.4 million to better reflect the frequency of "truly" major storms (Attorney General Brief at 98, citing Exh. DPU-AG-1-19; Attorney General Reply Brief at 56-57). The Company did not propose an increase to the cost-per-storm threshold, but argues that any such increase must come with a corresponding increase to the amount collected through base rates to address smaller storms that do not qualify for storm fund recovery (Exh. NG-RRP-Rebuttal-1, at 12; RR-DPU-46).[49]

The Department has considered the arguments and has reviewed the record concerning the cost-per-storm threshold (Exhs. NG-RRP-Rebuttal-1, at 9-10; NG-DEB-Rebuttal-1, at 3-7; AG-DO-CF-1, at 28; AG-DO-CF-Rebuttal-1, at 4-5; DPU-21-18; DPU-32-2; AG-6-1; DPU-AG-1-19 & Att.; Tr. 15, at 1633-1649, 1670-1676, 1680-1681; RR-DPU-46; RR-DPU-51). The Department finds that it is appropriate to increase the threshold to account for the effect of inflation on costs during this period. Absent an inflation adjustment to the current threshold to bring incremental O&M service restoration costs to present value terms, the cost of a storm in 2009 (in present value dollars) would be less than the cost of that same storm in 2015. Therefore, the Department finds that the threshold should be increased by inflation based on the gross domestic product price index ("GDP-PI") from the U.S. Bureau of Economic Analysis for the period between 2009 and June 30, 2015, which would increase the current $1.25 million

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[49] The Company collects through base rates (1) an annual amount for contribution to the storm fund reserve, and (2) an annual amount to cover costs up to the cost-per-storm threshold and for smaller storm events that do not qualify for the storm fund.

threshold by approximately ten percent to approximately $1.5 million.[50] We find that this increased cost-per-storm threshold provides an appropriate balance between providing the Company with necessary access to the storm fund to recover costs associated with major storms and ensuring that the routine storms are not contributing to a storm fund deficit balance.

Further, we find that the increase in the cost-per-storm threshold applicable to the storm fund also necessitates changes in the amount the Company collects through base rates to (1) contribute to the storm fund, and (2) recover O&M costs up to the $1.5 million threshold for storms that qualify for the storm fund, as well as costs associated with smaller storm events that no longer qualify for storm fund recovery. These issues are discussed in the next section.

b. Amounts Collected through Base Rates

i. Annual Contribution to the Storm Fund

National Grid's current $4.3 million annual base rate contribution to the storm fund was established in the Company's last rate case. D.P.U 09-39, at 207. The Company proposes to increase the annual base rate contribution to the storm fund by $9.7 million to $14.0 million (Exhs. NG-RRP-1, at 69, 85-86; NG-RRP-2, at 4, 26 (Rev. 3)). The Company argues that the current annual contribution of $4.3 million is not sufficient because the number of qualifying events is increasing due to prevailing weather patterns and increased costs associated with the strict emergency response requirements placed on the Company by Massachusetts law and the Department's regulations (Company Brief at 179-180, citing Exh. DPU-32-10). Conversely, the Attorney General argues that a $500,000 increase of the annual contribution to $4.8 million is

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50 GDP-PI sourced from U.S. Bureau of Economic Analysis http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=3&isuri=1&904=2015&903=4&906=q&905=2016&910=x&911=0 (see also Exh. WP-NG-RRP-16).

more appropriate (Attorney General Brief at 99, citing Exh. AG-DO-CF-1, at 29; RR-DPU-50; Attorney General Reply Brief at 53 n.21).

A storm fund is intended to provide a level of rate stability for customers, but only if it actually allows for recovery of storm costs over time without requiring a change to customer rates. As evidenced by the number of major storms since the Company's last rate case and the resulting significant deficit balance in the storm fund, the annual base rate contribution amount of $4.3 million has proven to be insufficient to maintain rate stability. See, e.g., D.P.U. 13-85, at 101, 106 (approving the recovery of costs associated with 16 major storms); D.P.U. 13-59 (approving the recovery of $120 million in storm costs over a three-year period). Thus, we conclude that an increase to the annual base rate contribution to the storm fund is warranted.

In this regard, the Department strives to set a new annual contribution amount that would permit the Company to recover storm costs over time without generating a surplus or deficit balance in the storm fund that would exceed the symmetrical cap.[51] We recognize the uncertainty in achieving this result given the unpredictable nature of the weather in general, and storm events in particular. The Department is in no better position to predict the frequency of future storm events than is the Company or the Attorney General. Further, we acknowledge that while data associated with past major storm events provides a historical perspective regarding the frequency, severity, and costs of major storms, such information is not necessarily predictive of future events. However, notwithstanding these considerations, we conclude that the Company's storm fund history is instructive in the context of setting the parameters for the fund's continuation.

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[51] The symmetrical cap is discussed in further detail below.

The Department has reviewed the record supporting the positions advanced by the Company and the Attorney General (e.g., Exhs. NG-RRP-1, at 69, 85-86; NG-RRP-2, at 26 (Rev. 3); NG-RRP-Rebuttal-1, at 10-11; AG-DO-CF-1, at 29; DPU-21-18; DPU-23-2; DPU-32-1; DPU-32-4, Att.; DPU-32-10; DPU-32-16; DPU-AG-1-19, Att.). Further, the Department has considered the number of major storms that have occurred between the Company's last rate case and the end of the test year; the incremental costs of these storms; the number of storms with incremental costs so high that they should be deemed statistical outliers; and the number of storms that would not have been eligible for storm fund recovery if the cost-per-storm threshold was $1.5 million (Exhs. NG-RRP-2, at 26 (Rev. 3); DPU-32-4, Att.). Based on these considerations and our review of the record, we find that setting the annual base rate funding at $10.5 million provides sufficient funds to levelize the rate impact for major storms that are eligible for recovery through the fund while also decreasing the likelihood that the fund will have a large deficiency balance. We find that neither the Company's proposal nor the Attorney General's recommendation achieves an appropriate balance. Therefore, we decline to adopt the Company's proposal or the Attorney General's recommendation.

As noted above, the Company proposes to increase the $4.3 million annual base rate contribution to the storm fund by $9.7 million for a total of $14.0 million (Exhs. NG-RRP-1, at 69, 85 86; NG-RRP-2, at 4, 26 (Rev. 3)). The Department finds that the appropriate level of O&M expense is $10.5 million, which represents an increase of $6.2 million over the test year amount. Accordingly, the Department will reduce the Company's proposed cost of service by $3.5 million ($9.7 million less $6.2 million).

ii. Annual O&M Expense

As noted above, the Company argues that if the Department increases the cost-per-storm threshold to access the storm fund, an increase in the test year amount collected through base rates is warranted (Company Reply Brief at 6 n.4, 74, citing Exh. NG-RRP-Rebuttal-1, at 12; RR-DPU-46; see also Tr. 8, at 1318-1319). During the test year, the Company experienced six major storms that would qualify for storm fund recovery (Exh. DPU-32-4, Att.; Tr. 8, at 1318-1319; RR-DPU-46, Att.). Thus, built into test year O&M is $7.5 million, representing the threshold amount for each storm (i.e., $1.25 million x six major storms) (Tr. 8, at 1318-1319). The Attorney General does not specifically address this issue.

Given that the frequency of storms events varies significantly each year, the test year level of O&M costs associated with storms events may not be representative of the Company's future costs. Therefore, we find that it is appropriate to normalize the level of base rate recovery to derive a more representative amount of O&M expense associated with storm events. This evaluation results in approximately three storms per year qualifying for storm fund recovery (18 storms/6.5 years).[52] Applying a $1.5 million cost-per-storm threshold to each of the three storms yields $4.5 million in O&M costs to be recovered in base rates. This amount is $3.0 million less than the $7.5 million the Company recovered in the test year at the $1.25 million threshold. Further, the Department finds that it is appropriate to include in O&M expense the costs associated with one test year storm (a wind/rain storm in July 2014) that would

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[52] Between 2009 and the end of the test year, the four costliest storms were: (1) Tropical Storm Irene in August 2011; (2) the October snowstorm in October 2011; (3) Hurricane Sandy in October 2012; and (4) Nor'easter Nemo in February 2013 (Exh. DPU-32-4, Att.). The additional three storms excluded from consideration were: (1) Hurricane Earl in September 2010; (2) a wind/snow storm in November 2013; and (3) a wind/rain storm in July 2014 (Exhs. NG-RRP-2, at 26 (Rev. 3); DPU-32-4, Att.).

not have qualified for storm fund recovery under the $1.5 million threshold and, therefore, would be subject to base rate recovery (see Exhs. NG-RRP-2, at 26 (Rev. 3); DPU-32-4, Att.; see also n.52 above). The cost associated with this one storm (net of Verizon New England, Inc. ("Verizon") billings)[53] is $1,396,743 (RR-DPU-46 & Att.).

As noted, the Company's test year level of O&M expense includes $7.5 million associated with six major storms. The Department has determined that the appropriate level of O&M expense is $5,896,743 ($4,500,000 + $1,396,743). Accordingly, the Department will reduce the Company's proposed cost of service by $1,603,257 ($7,500,000 less $5,896,743).

c. Storm Fund Cap

In the Company's last rate case, the Department determined that to limit the balance in the storm fund that may be used to recover incremental costs from major storms and to prevent the fund from having a deficit balance that is excessive, it was appropriate for the storm fund to have a symmetrical cap (positive and negative) of $20 million. D.P.U. 09-39, at 208. We find that it remains appropriate for the storm fund to continue to have a symmetrical cap on the storm fund balance.

The Company proposes to increase the storm fund's symmetrical cap from $20 million to $30 million to coincide with its proposed increase in the annual base rate contribution for storm costs (Exhs. NG-RRP-1, at 88-89). The Company contends that given recent qualifying storm events, an increase in the symmetrical cap from $20 million to $30 million is a necessary change in order to minimize the potential for frequent rate changes, accommodate the greater level of

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53 Because of joint ownership of certain facilities, Verizon and the Company share in the cost of storm restoration work. See Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid, D.P.U. 11-56, at 6 n.9 (2013); D.P.U. 09-39, at 212-213 & n.122.

annual customer contribution proposed in this case, and provide more stable rates for customers (Company Brief at 181, citing Exh. NG-RRP-1, at 89; DPU-21-18). The Attorney General states that if the Department raises the cost-per-storm threshold to $2.4 million and if the customer deposit rate is used to accrue carrying charges on the deficit, the $20 million cap "will likely suffice" (Exh. AG-DO-CF-1, at 29).

In an effort to minimize the potential for frequent rate changes (either positive or negative) and to realign the risks associated with storm cost recovery to protect ratepayers' interests, the Department finds that a symmetrical cap of $30 million on the storm fund balance is appropriate. Further, in order to prevent the storm fund from falling into a significant deficit as the result of a single major storm event, we find that it is necessary to exclude from storm fund eligibility any single storm event that exceeds $30 million in incremental costs (exclusive of Verizon costs). The Company may seek to defer these costs for recovery in its next base rate case. We recognize that given the recent history of storm events, this change to the storm fund mechanism could trigger the filing of a base rate case if multiple storms of a significant magnitude occur during the period in between base rate case filings. However, we find that excluding storms that exceed $30 million in incremental costs, in conjunction with the other modifications approved in this Order, will provide necessary rate stability for customers and help ensure that the storm fund works as intended.

d. Carrying Costs on the Storm Fund Balance

The Company's current storm fund balance accrues interest at the pre-tax WACC, which is 11.48 percent (Exh. NG-RRP-6a at 1). See also D.P.U. 09-39, at 207-208; D.P.U. 09-39-A, at 38. As noted above, the objective of a storm fund is to levelize the cost recovery for major

storms on distribution rates. The use of a storm fund is not intended to shift the financial risk of paying for major storms from electric distribution companies to ratepayers. D.P.U. 09-39, at 205; D.P.U. 10-70, at 200. Rather, it is the Company's allowed ROE that is designed, in part, to recognize these business risks. D.P.U. 09-39, at 205; D.P.U. 10-70, at 200; D.P.U. 1720, at 88-89. Since 2009, the Company has accrued approximately $81 million in interest associated with the costs of the 25 major storms that have qualified for the storm fund (Exh. NG-RRP-6b at 2). We find that a continuation of this result would inappropriately overcompensate the Company for its costs of carrying the storm fund costs. Therefore, the interest rate must be modified.

As noted above, the Company proposes that interest will accrue on incremental storm costs when such costs are filed for recovery with the Department (as opposed to when these costs are incurred) (Exh. NG-RRP-1, at 87). The Company proposes that interest accrue on the combination of the storm fund reserve and the costs related to the storms beginning when filed for storm fund cost recovery (Exh. NG-RRP-1, at 88). If the storm fund balance is in a surplus, then the Company proposes that interest will accrue at a carrying charge rate equivalent to the Company's pre-tax WACC, as determined by the Department (Exh. NG-RRP-1, at 87). Conversely, if the combined storm fund balance is in a deficit, then the amount in deficit (up to the $30 million cap) would accrue interest at the Company's customer deposit rate (Exh. NG-RRP-1, at 88). Further, any storm fund deficit in excess of the proposed $30 million storm cap would accrue interest at a carrying charge rate equivalent to the pre-tax WACC (Exh. NG-RRP-1, at 88).

We find that the Company's proposal for carrying charges to accrue on incremental storm costs when such costs are filed for recovery with the Department will reduce the interest costs paid by ratepayers, and likely will encourage the Company to expedite its filing for cost recovery. Thus, we approve this aspect of the Company's proposal. However, we are not persuaded that the remaining proposed modifications are sufficient to ensure that the carrying costs associated with major storms are appropriately determined. Rather, in order to properly reflect the cost of this balance, the Department finds that the prime rate is a more reasonable carrying charge to be applied to storm fund balances, irrespective of whether the balance represents a surplus or deficit. Accordingly, the Department modifies the carrying charge component of the Company's storm fund. The Company's storm fund shall accrue interest on the combination of the storm fund balance and the costs related to the storms filed for storm fund cost recovery. The interest rate shall be the prime rate,[54] irrespective of whether the storm fund balance represents a surplus or a deficit.

e. Extension of the SFRF and Transfer of the Current Storm Fund Balance

As noted above, in a separate proceeding, the Department extended the SFRF to June 2018 in order to continue collection of the current storm fund balance. D.P.U. 13-85, at 105. National Grid proposes to extend the SFRF an additional 14 months to August 2019, in order to replenish the existing storm fund to account for the nine additional qualifying storm costs that took place after the Company's filing in D.P.U. 13-85, and to minimize the carrying cost associated with those storms (Exhs. NG-RRP-1, at 68-69, 78). Further, the Company proposes to transfer the deficit balance to be collected through the SFRF to a separate regulatory

[54] The prime rate calculated in accordance with 220 C.M.R. § 6.08(2).

asset, and to reset the storm fund balance to zero (Exh. NG-RRP-1, at 78). In addition, the Company proposes that any residual balance (either positive or negative) remaining in the regulatory asset at the end of the extended recovery period (i.e., August 2019) then would be transferred to the Company's storm fund (Exh. NG-RRP-1, at 78-79). Finally, the Company proposes that the regulatory asset continue to accrue interest at the pre-tax WACC (Exh. DPU-21-12, at 1). No parties addressed these matters on brief.

The storm fund mechanism, as modified in the instant case, will be applicable to storms occurring after the date of this Order. Therefore, we find that the Company's proposal to transfer the balance associated with the current storm fund balance to a separate regulatory asset and extend the SFRF an additional 14 months to continue to collecting that balance is reasonable and appropriate. Further, the record demonstrates that under the Company's proposal, customers would benefit from a reduction in carrying charges as a result of extending the SFRF through August 2019 (Exh. DPU-18-2). The Company estimates the reduction of interest at approximately $19.7 million (Exh. DPU-18-2). Additionally, we find it appropriate to transfer any residual balance to the storm fund at the end of the extended recovery period. Based on these considerations, we approve the Company's proposal.

4. Conclusion

Based on the above findings, the Department directs the Company to continue its storm fund with the modifications set forth herein. The modified storm fund shall apply to any qualifying storms that occur after the date of this Order.

The current storm balance shall be recovered through August 2019 consistent with the findings above. Further, consistent with the Department's findings in D.P.U. 13-85, at 105, the

Department directs the Company to file as part of its compliance filing in this case a revised Storm Fund Replenishment Provision tariff to replace M.D.P.U. 1292.

Finally, consistent with the findings above, the Department has reduced the Company's proposed cost of service by (1) $3.5 million relative to the annual base rate contribution to the storm fund, and (2) $1,603,257 relative to the annual amount in base rates to cover costs up to the cost-per-storm threshold and for smaller storm events that do not qualify for the storm fund. These reductions are shown as combined adjustments on the Department's Schedules.

VII. RATE BASE

A. Overview

The Company's test year rate base was $1,760,316,969, based on a total net utility plant in service of $4,084,097,215 (Exh. NG-RRP-2, at 30 (Rev. 3)). To this amount, the Company proposes to add $39,210,328 in rate base adjustments for a total proposed rate base of $1,799,527,297 (Exh. NG-RRP-2, at 30 (Rev. 3)). The Company's total proposed rate base consists of: $2,307,263,848 in net utility plant in service, $23,231,040 in net materials and supplies, and $68,019,916 in cash working capital; less, $569,147,565 in deferred income taxes and $29,839,942 in customer deposits (Exh. NG-RRP-2, at 30 (Rev. 3)).[55]

B. Plant Additions

1. Introduction

In D.P.U. 09-39, the Department approved the current CapEx mechanism, which allows recovery of the revenue requirement associated with the Company's annual capital expenditures, net of the amount recovered in base rates through depreciation expense. D.P.U. 09-39, at 79, 82.

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[55] Minor discrepancies in any of the amounts appearing in this section are due to rounding.

The Department capped the amount of capital spending the Company could recover through the CapEx mechanism based on an annual investment of $170 million. D.P.U. 09-39, at 82.[56] Pursuant to D.P.U. 09-39, the Company files a Capital Investment Report ("CapEx filing") by July 1st of each year containing information and project documentation relating to the capital placed in service during the prior calendar year ("CY"). D.P.U. 09-39, at 85. By November 1st of the filing year, the Company must file its CapEx factors that incorporate the costs associated with the capital placed in service, up to the allowed cap, into a rate adjustment effective March 1st of the following year. D.P.U. 09-39, at 85.

From 2010 through 2015, National Grid made annual CapEx filings and proposed annual CapEx factors to recover capital additions made in 2009 through 2014, up to the allowed cap. The Company's annual CapEx filings were docketed as D.P.U. 10-79 (2009 CY additions), D.P.U. 11-60 (CY 2010 additions), D.P.U. 12-48 (CY 2011 additions); D.P.U. 13-84 (CY 2012 additions), D.P.U. 14-95 (CY 2013 additions), and D.P.U. 15-84 (CY 2014 additions). The Company's CapEx mechanism is a component of the Company's RDM tariff and, therefore, the CapEx factors were filed as part of the Company's RDM filings.[57]

During the pendency of the first CapEx filing, D.P.U. 10-79, the Attorney General, pursuant to G.L. c. 25, § 5, requested an independent audit of the Company's record keeping,

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56 While the Department limited the Company's allowed recovery under CapEx mechanism to $170 million, we made no determination on how much capital investment the Company should make. D.P.U. 09-39, at 82-83. The Department found that if National Grid's capital expenditures exceeded the amount it could recover through its CapEx mechanism, the Company could seek to include such investment in rate base in its next base rate proceeding. D.P.U. 09-39, at 82-83.

57 The RDM filings were docketed as D.P.U. 10-152, D.P.U. 11-117, D.P.U. 12-115, D.P.U. 13-175, D.P.U. 14-136, and D.P.U. 15-154.

accounting practices, and process for developing the filing, which was docketed and commenced in D.P.U. 11-18. Audit of National Grid's Calendar Year 2009 Capital Investment Program, D.P.U. 11-18-F at 1 (2016). The Department allowed the Company to recover its proposed revenue requirement through the CapEx factors, subject to further investigation, and placed the prudency review in D.P.U. 10-79 on hold during the pendency of the audit. Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 10-152, at 5 (2011); Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 10-79, Interlocutory Order on Filing Requirements at 5-7 (June 14, 2011) ("D.P.U. 10-79 Interlocutory Order"). In light of the concerns giving rise to the Attorney General's audit request, the Department also issued filing guidelines for future CapEx filings to be made during the pendency of the audit. D.P.U. 10-79 Interlocutory Order at 5-7. The audit was completed in 2015 and the Department issued a final Order accepting the final audit report on February 26, 2016. D.P.U. 11-18-F.[58] Consistent with the process for D.P.U. 10-79, the Department allowed the Company to recover its proposed revenue requirement, subject to further investigation, through the CapEx factors[59] for each subsequent year that the audit was pending, but placed the prudency review of all capital

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58 The auditor found an adjustment of $1.2 million, which the Department directed the Company to correct in this proceeding. D.P.U. 11-18-F, at 15.

59 As noted above, the CapEx factors were filed as part of the following RDM filings: Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 11-117, at 2 (2012); Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 12-115, at 3 (2013); Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 13-175, at 4 (2014); Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 14-136, at 3 (2015); Massachusetts Electric Company and Nantucket Electric Company, D.P.U. 15-154, at 4 (2016).

investments on hold during the pendency of the audit.[60] In summary, the Department allowed the Company to recover its proposed revenue requirements associated with the capital additions made from 2009 through 2014 subject to further investigation, but did not fully adjudicate the CapEx filings, made no findings that the associated capital additions were prudent and used and useful, and did not issue any final Orders while the audit was pending. Thus, the Company, in this rate case, seeks a determination of the prudence and used and usefulness of the capital additions that were the subject of the annual CapEx filings for investment years 2009 through 2014, plus any capital additions during those years that exceeded the $170 million cap, as well as capital additions placed in service in the first six months of 2015 (the second-half of the test year in this proceeding), in order for those additions to be included in rate base (Exh. NG-JHP-1, at 13-14).[61]

2. Investment Activity

From January 1, 2009 through June 30, 2015, National Grid completed $1,189,550,456 in plant additions and incurred $93,778,658 in cost of removal, which resulted in an increase in utility plant of $1,283,329,114 (Exhs. DPU-10-6, Att.; AG-7-5, Att.; RR-DPU-12; RR-DPU-13, Att.).[62] National Grid identified 1418 capital projects that were completed during this period

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60 The following CapEx dockets were placed on hold: D.P.U. 11-60; D.P.U. 12-48; D.P.U. 13-84; D.P.U. 14-95; D.P.U. 15-84.

61 In the absence of the CapEx mechanism, the Company would have sought inclusion in rate base of all capital additions placed in service since its last rate case, which is effectively what the Company seeks now because the CapEx filings were not fully adjudicated.

62 The Company's investment activity is broken down as follows: (1) $463,986,528 for 62 blanket projects; (2) $217,111,440 for 100 program projects; (3) $509,652,488 for 1,253 specific projects; and (4) a $1,200,000 negative adjustment to reflect an error for a double

(Exhs. DPU-7-23, Att. (Rev.); DPU-7-23, Att. (Supp.); RR-DPU-12). National Grid groups its capital projects into three categories: (1) specific projects, (2) blanket projects, and (3) program (or other annual) projects (Exh. NG-JHP-4, at 1). As part of its initial filing in this case, the Company provided the filings made in each of the previous CapEx dockets as well as documentation relating to the first six months of 2015. For each project the Company seeks to include in rate base, the Company also provided a spreadsheet with the project number, a brief project description, the total amount authorized, the total amount expended, and the total amount closed to plant (Exh. DPU-7-23, Att. (Rev.)). As discussed below, the Attorney General challenges the sufficiency of the documentation provided for 20 specific projects, two storm program projects, 32 blanket projects, and 47 program projects (Attorney General Brief at 12-19).

3. Project Documentation

With exceptions noted below, the Company provided the following documentation for specific projects over $50,000 and for all blanket and program projects: (1) a project summary sheet that includes project number, project descriptions, approved amount, total to date project spending, project status, approval history, and in-service additions and cost of removal figures; (2) a project approval report showing approval amounts and dates and screen-prints from the PowerPlan system;[63] (3) documentation relating to the approved amounts (such as walk-in

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charge to the Company for the cost of materials associated with a limited subset of capital work that was subcontracted out to third parties in 2009 through 2012 (RR-DPU-12).

63 Screen-prints may also be from older systems including PowerPlant and Primavera Portfolio Management (Exh. NG-JHP-4, at 3).

documents, re-approval forms, distribution capital investment group papers,[64] United States Sanctioning Committee ("USSC")[65] sanction papers, and study documents); (4) a retirement report showing any retirements related to the project in the relevant year; (5) a direct/indirect summary report for in-service asset additions showing project-level costs for property placed in service during the relevant year; (6) a work order asset addition report showing closings to plant in-service; and (7) a project cost summary showing project spending for a given year (see, e.g., Exhs. NG-JHP-3; NG-JHP-4). For blanket and program projects the Company also provided a fiscal year variance analysis report and a fiscal year closure paper (Exh. NG-JHP-4, at 12, 13).[66]

4. Positions of the Parties

a. Attorney General

i. Introduction

The Attorney General argues that the Company failed to provide clear and reviewable documentation demonstrating the prudence of its capital additions for $56 million in variances

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64 This group is an executive management group that approves projects with projected scope and costs above established thresholds (Exh. NG-JHP-3(a) at 12 (prefiled testimony)).

65 The USSC is a group within National Grid USA that provides executive management review of proposed major capital funding projects and other proposed commitments deemed appropriate for such review, and to administer a consistent and comprehensive sanctioning process for such funding projects and commitments across the organization (RR-DPU-43, Att. 3, at 17).

66 As described more fully below, the Company did not initially provide blanket project closure papers for fiscal years 2013 and 2014. Further, the Company initially did not provide closure papers for six program projects over $1 million or reauthorization forms for 14 program projects over $100,000.

(Attorney General Brief at 11, Attorney General Reply Brief at 12).[67] Specifically, the Attorney General contends that the Company failed to provide: (1) adequate explanations for 20 specific projects that had cost variances totaling $6.5 million; (2) adequate variance explanations for two storm capital program projects,[68] with cost variances totaling $11.7 million; and (3) closing papers and documentation for 31 blanket and 47 program projects with unfavorable cost variances totaling $37.8 million (Attorney General Brief at 11, 14, 19; Attorney General Reply Brief at 12). Therefore, the Attorney General claims that the Department should exclude $56 million from the Company's rate base because it did not meet its burden of demonstrating the propriety of these additions to rate base (Attorney General Brief at 11; Attorney General Reply Brief at 6). The Attorney General asserts that the Company bears the burden of demonstrating the propriety of additions to rate base through clear and cohesive reviewable evidence and cannot simply provide a "cascade" of documents and point to the overall volume as evidence of prudence (Attorney General Reply Brief at 8, citing D.P.U. 14-150, at 42–43 (2015)).

Further, the Attorney General challenges the Company's claims that its capital budgeting and authorization processes is evidence of "reasonable mechanisms to control costs and manage

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67 In her initial brief, the Attorney General sought disallowance of $68.6 million that included $50.4 million in blanket and program costs. The $50.4 million amount included 27 program projects, or $18.2 million, and 32 blanket projects, or $32.2 million (Attorney General Brief at 11-19). On reply, the Attorney General reduced this amount by $12.6 million, the amount of one blanket project (CBS0004), due to an accounting error that the Company corrected (Attorney General Reply Brief at 6, citing Company Brief at 123).

68 On brief the Attorney General and the Company both refer to the storm projects as storm capital "blanket" projects, but these storm projects appear on the Company's list of program projects and in the program project variance analysis reports (see, e.g., Exhs. DPU-7-23, Att. (Supp.); NG-JHP-3(e), JLG-8, at PGRM-1190). Hereinafter, we refer to these storm projects as program, not blanket, projects.

projects within established budget parameters" with respect to blanket and program projects because the Company did not follow its own procedures for cost management and control (Attorney General Reply Brief at 7, citing Company Brief at 119). Specifically, with respect to blanket projects the Attorney General contends that the Company did not prepare closure papers at the end of the fiscal year ("FY"), upon the actual closure of those projects in FYs 2013 and 2014 (Attorney General Reply Brief at 8, citing Company Brief at 118). Instead, the Attorney General claims that the Company created the documentation years after the closure of the projects, on April 26, 2016, following multiple requests by the Department and the Attorney General for their production (Attorney General Reply Brief at 8, citing Exhs. DPU-20-1 through DPU-20-82; DPU-20-31 (Supp.); DPU-20-35 (Supp.); AG-21-1). Similarly, the Attorney General argues that the Company did not complete closure papers and/or final cost documentation for program projects in FYs 2013 and 2014, as well as for several projects in fiscal year 2015, until after the close of the evidentiary hearings in this proceeding (Attorney General Reply Brief at 8, citing Exh. NG-JHP-Rebuttal-1, at 20; Tr. 3, at 435–36). The Attorney General, therefore, asserts that the timing of the completion of this documentation calls into question the efficacy of the Company's process to control costs and, moreover, the prudency of the Company's capital expenditures related to these blanket and program projects (Attorney General Reply Brief at 8).

ii. Specific Projects

The Attorney General argues that the Department should exclude $6.5 million in variance amounts relating to 20 specific projects for which the Company did not provide variance

explanations (Attorney General Brief at 11-12).[69] The Attorney General contends that the Department specifically sought information relating to the cost over-runs, but that the Company did not provide any explanations (Attorney General Brief at 11-12). Instead, the Attorney General claims that the Company simply cited to its own internal policies to: (1) provide a variance explanation only when project costs differ by more than ten percent; and (2) consider only the combined variance of projects managed as part of the same effort, rather than to provide the variances associated with each project (Attorney General Brief at 13-14). The Attorney General asserts that the Company's reliance on its internal policies is insufficient because the Department has specifically held that "a company's internal project cost estimation policies cannot . . . override, the company's obligation to demonstrate to the Department the prudence of its capital project costs" (Attorney General Brief at 14, citing D.P.U. 14-150, at 87). The Attorney General, therefore, recommends that the Department exclude $6.5 million from rate base because the Company failed to carry its burden of production with respect to these cost variances (Attorney General Brief at 14, citing D.T.E. 03-40, at 52, n.31; D.T.E. 01-56-A at 16).

iii. Storm Capital Programs

The Attorney General argues that the Department should disallow $11.7 million in cost variances related to two storm programs because the Company failed to provide an explanation for the cost variances that occurred during FYs 2010 and 2012 (Attorney General Brief at 19, citing Exhs. DPU-19-1; DPU-19-2). The first program includes two FY 2010 projects, C014821

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[69] These projects include: C008666; C005339; C014549; C023591; C036385; C028886; C002364; C002388; C012018; C012502; C024120; C005342; CD01253; C001423; C028871; C029104; C031552; CD01174; C031324; C002504 (Attorney General Brief at 12).

and C014822, totaling a $2.4 million variance (Attorney General Brief at 19-20).[70] The second program includes one FY 2012 project, C014821, with a $9.3 million variance (Attorney General Brief at 20). The Attorney General claims that the Company's closure papers do not explain the reason for the cost overruns, and that the Company has evaded any adequate explanation as requested, and required, by the Department (Attorney General Brief at 20). Further, with respect to the FY 2012 variance, the Attorney General asserts that the Department conducted an investigation into the subject storms, found that the Company acted imprudently, and imposed substantial fines (Attorney General Brief at 20, citing D.P.U. 11-85-A/D.P.U. 11-119-A). Further, the Attorney General asserts that although the Company could not predict restoration costs, it should "honor the spirit of its own processes," which contemplate that variance analyses can contribute to "lessons learned" (Attorney General Reply Brief at 10-11, n.6, citing Company Brief at 118-119). The Attorney General, therefore, recommends that the Department exclude from rate base the $11.7 million variance for these storm program projects (Attorney General Brief at 20).

iv. Blanket & Program Projects

The Attorney General argues that the Department should exclude from rate base $37.8 million in cost variances, $18.2 million for 47 program projects,[71] and an additional $19.6

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70 These projects are titled "BSW Storm Cap Confirm Proj" and "N&G Storm Cap Confirm Proj," respectively.

71 These projects include: C005490; C005500; C005432; C005543; C005563; C006642; C005439; C005441; C005444; C005449; C016492; C005469; C005475; C005480; C059664; C006138; C028147; C032015; C032016; C032018; C033822; C025810; C032270; C032272; CD00017; C025619; C014821; C021594; C022216; C022217; C016120; C016121; C018594; CD00259; C025326; C025813; C027898; C027927;

million for 31 blanket projects[72], because the Company failed to carry its burden to show that these cost variances were prudently incurred (Attorney General Brief at 15). As an initial matter, the Attorney General contends that the Company did not comply with the D.P.U. 10-79 Interlocutory Order, which required the Company to produce as part of its initial filing "project details for capital projects placed in service costing more than $50,000, including the project cover sheet, approved amount, actual cost, cost variance information, and other applicable documentation such as the appropriate number of units associated with the actual capital placed in service, project sanction, re-sanction, and closure papers" (Attorney General Brief at 14, citing D.P.U. 10-79 Interlocutory Order at 7 n.3). Despite this filing requirement, the Attorney General claims the Company failed to provide in its initial filing closure papers for all of the program and blanket projects in FYs 2013 and 2014, as well as several program projects for FY 2015 (Attorney General Brief at 15).

Further, the Attorney General challenges the Company's eventual production of the requisite documentation relating to blanket projects (filed on May 3, 2016) and program projects (filed on June 2, 2016) as untimely (Attorney General Brief at 16-18). With respect to the blanket projects, the Attorney General argues that National Grid failed to provide the aforementioned documentation during discovery and filed them on May 3, 2016, just twelve hours before the Company's plant additions witness was scheduled to testify (Attorney General

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C031398; C031774; C032024; C035584; C049352; C032572; C033764; C033765; CD01258.

72 These projects include: CBN0002; CBN0004; CBN0010; CBN0011; CBN0012; CBN0014; CBN0015; CBN0016; CBN0017; CBN0022; CBS0010; CBS0011; CBS0014; CBS0020; CBS0022; CBW0002; CBW0006; CBW0010; CBW0011; CBW0014; CBW0016; CBW0020; CN00420; CNM0002; CNM0004; CNM0010; CNM0011; CNM0014; CNM0017; CNM0020; CNM0022.

Brief at 18). According to the Attorney General, due to the volume and nature of the documents, she did not have any time to conduct discovery or review the material in order to effectively cross-examine the Company's witness (Attorney General Brief at 18, citing D.P.U. 14-150, at 49; D.P.U. 10-70, at 194 n. 98, 200). Accordingly, the Attorney General recommends that the Department exclude from rate base $19.6 million in blanket projects' variances for which the Company failed to timely file closure papers (Attorney General Brief at 18).

With respect to the program projects, the Attorney General asserts that the closure papers for the program projects in question, if filed at all, were filed late on June 2, 2016 (Attorney General Brief at 16). As discussed in the next section below, the Attorney General moved to strike this documentation from the record, and urged the Department not to consider them (Attorney General Brief at 16). Accordingly, the Attorney General recommends that the Department exclude from rate base $18.2 million in program projects' variances for which the Company failed to timely file closure papers (Attorney General Brief at 16).

The Attorney General rejects any notion that she seeks disallowance of the aforementioned costs because "a piece of paper is missing from the file . . . ." (Attorney General Reply Brief at 9, citing Company Brief at 123). She argues that this mischaracterization trivializes both the Company's management process and the prudency review process conducted by the Department in this rate case (Attorney General Reply Brief at 9, citing Company Brief at 123). The Attorney General contends that she did not target project costs for disallowance because one piece of paper was missing, but because variance amounts were not supported by the documentation that the Company itself claims is used to "note reasons for any overspending

during the fiscal year and [detail] the Company's actions to keep overall capital spending within budgeted amounts" (Attorney General Reply Brief at 9, citing Exh. AG-DO-CF-1, at 52–53).

Further, the Attorney General argues that the late filing of the closure papers is not inconsequential, as it relates to the Company's burden to provide, at a minimum, documentation that allows the Department to evaluate the prudence of each of the capital projects, and to make a determination that each project was placed in service during the test year and is used and useful (Attorney General Reply Brief at 9, citing Company Brief at 123; Bay State Gas Company, D.P.U. 13-75, at 105 (2014); Fitchburg Gas and Electric Light Company, D.T.E. 99-118, at 8 (2001)).[73]

b. Company

i. Introduction

National Grid argues that the record contains sufficient evidence for the Department to find that the capital additions submitted for approval in this proceeding were prudently incurred and are used and useful in providing service to customers (Company Brief at 113). The Company claims that it provided actual computations and thousands of pages of supporting documentation including: project cover sheets; approved amounts; actual costs; cost variance information' project sanction, re-sanction, and closure papers; and a detailed explanation of the processes that the Company uses to manage both the allocation and cost of capital expenditures

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[73] The Attorney General argues that in several instances the Company provided documentation in April, May, or June, after the discovery deadline had passed and testimony had been filed, and, therefore, too late for the Department, the Attorney General, or other intervenors to conduct a thorough and probative evaluation of the contents of the documentation for prudency purposes (Attorney General Reply Brief at 9-10, citing Exhs. NG-JHP-Rebuttal-2 (filed April 19, 2016); DPU-20-31 (Supp.), DPU-20-35 (Supp.) (filed May 3, 2016); NG-JHP-Rebuttal-2 (Supp.) (filed June 2, 2016)).

(Company Brief at 113, citing Exhs. NG-JHP-1, at 9, 21-23; NG-JHP-3; NG-JHP-4; NG-JHP-Rebuttal-2; NG-JHP-Rebuttal-2 (Supp.); DPU-20-31 through 20-53 (Supp.)).

The Company also argues that its capital budgeting and authorization process assures cost containment (Company Brief at 119). The Company contends that it conducts a detailed, multi-tiered capital-planning process to control costs and manage projects within the established budget parameters (Company Brief at 115, citing Exh. NG-JHP-1, at 21-23). Specifically, the Company points to its Delegation of Authority ("DOA") and Sanctioning/Re-sanctioning policies for projects with costs under $1 million and at or above $1 million as reasonable mechanisms to control costs and manage projects within the established budget parameters (Company Brief at 116-118, citing RR-DPU-43, Atts. 2, 3). Further, the Company argues that its Capital Funding Project Overrun Report is the primary vehicle employed for cost-control purposes (Company Brief at 119). According to the Company, this monthly report identifies the funding projects that have exceeded or are forecasted to exceed the authorized DOA amount, after which the responsible individual must complete a written plan to bring the affected funding project within DOA limits within ten days and seek management re-sanction of those funding projects that exceed the authorized spending limit no later than 60 days after notification (Company Brief at 115, 119, citing RR-DPU-43, Atts. 2, 3).

Further, the Company contends that the Attorney General's argument relating to the timing of filing certain documents amounts to form over substance, does not raise a challenge to the prudence or used and usefulness of any capital project, and is insufficient to justify disallowance of $56 million in capital investment costs (Company Brief at 123, 128; Company Reply Brief at 16). The Company contends that there is no requirement for a petitioner to

present every piece of paper associated with a project in the initial filing, and that no additional document can be provided during the case or the project is subject to disallowance (Company Brief at 123). Thus, the Company asserts that the Department should not disallow the costs of substantial work projects put in place for the benefit of the distribution system on the basis that a piece of paper is missing from the file, rather than on the basis of any inquiry into the nature, scope, conduct or completion of the project (Company Brief at 123-124).

ii. Specific Projects

The Company argues that it has provided detailed information for all specific projects as required under the standard for inclusion in rate base, which demonstrate that the capital additions were prudently made and are used and useful (Company Brief at 119, citing Exh. NG-JHP-1, at 9-11).[74] The Company contends that for specific projects costing more than $50,000, it provided: the project cover sheet; approved amount; actual cost; cost variance information; the appropriate number of units associated with the actual capital placed in service; and project sanction, re-sanction, and closure papers (Company Brief at 119, citing Exh. NG-JHP-1, at 9-11). Further, the Company claims that all 20 of the projects have variances of less than ten percent (Company Reply Brief at 17). In this regard, the Company notes that its policy is to evaluate and document project cost variances only if the aggregate costs of the suite of funding projects exceeds "tolerance," which for these projects was ten percent (Company Brief at 124; Company Reply Brief at 17). Further, the Company argues that it

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[74] Of the $6.5 million for which the Attorney General recommends exclusion, the Company argues that approximately $3.2 million is attributable to O&M expenditures, and another $1.2 million represents costs incurred on funding projects that are not yet placed in service, and, therefore, are not part of the Company's rate base request (Company Brief at 122).

submitted to the Department documentation including variance analyses with the Company's rebuttal testimony on April 19, 2016 (Company Reply Brief at 17, citing Exh. NG-JHP-Rebuttal-2). Therefore, the Company asserts that the Department should reject the Attorney General's recommended disallowance (Company Brief at 124; Company Reply Brief at 17-18).

iii. Storm Capital Programs

The Company argues that it provided sufficient variance explanations regarding these programs to warrant recovery of the $11.7 million in costs recommended for disallowance by the Attorney General (Company Brief at 127, Company Reply Brief at 19). In this regard, the Company contends that for storm programs it uses a budgetary method used to set aside a dedicated amount of money each year for mandatory work necessary to restore power after significant storm damage (Company Brief at 127). The Company contends that because storms are unpredictable, it is prepared to overspend the budgeted amounts to complete restoration efforts as necessary (Company Brief at 127). Thus, the Company asserts that any failure to explain why it was unable to accurately predict restoration costs is not a legitimate basis for disallowance (Company Brief at 127). Moreover, the Company notes that the Attorney General first challenged the variance explanations on brief, after having had substantial opportunity to inquire about an explanation provided nearly four years ago in the Company's CapEx filing in D.P.U. 12-48, and again in the Company's initial filing in this proceeding (Company Brief at 128, citing Attorney General Brief at 20).

iv. Blanket and Program Projects

The Company disagrees with the Attorney General's assertion that the late filing of documentation relating to blanket and program projects is a valid basis for disallowing $37.8 million in blanket and program projects (Company Brief at 125). The Company argues that its closure papers adequately support inclusion of the program and blanket projects in rate base (Company Brief at 125). Specifically, the Company contends that it is not required to anticipate and provide with the initial filing the entire evidentiary record in support of each component of its rate filing because it is the function of the adjudicatory process to establish an evidentiary record upon which the Department can base a decision on the matters at issue (Company Brief at 125). Further, the Company notes that it did include in its initial filing both summary and project-specific documentation for every project over $100,000, and that this documentation provided more than sufficient information to facilitate the efficient conduct of the proceeding (Company Brief at 125, citing Exhs. NG-JHP-3; NG-JHP-4).

In addition, the Company argues that it submitted the majority of the closure papers sought by the Attorney General on May 3, 2016, after providing notice in rebuttal testimony of its intent to make the supplemental filing (Company Brief at 126, citing Exhs. NG-JHP-Rebuttal-1, at 19; NG-JHP-Rebuttal-2). The Company notes that the Attorney General did not object to the Company's production plan (Company Brief at 126).

5. Analysis and Findings

a. Motion to Strike

i. Introduction

The Hearing Officer adjourned hearings on May 26, 2016 (Tr. 15, at 1695). On June 2, 2016, National Grid filed a supplemental response to information request DPU-7-23 and a supplemental attachment to the rebuttal testimony of one of its witnesses (Exhs. DPU-7-23 (Supp.); NG-JHP-Rebuttal-2 (Supp.)). On June 10, 2016, the Attorney General filed a motion to strike these documents as extra-record information. On June 17, 2016, National Grid filed a response to the Attorney General's motion to strike.

Exhibit DPU-7-23 (Supp.) contains an additional worksheet showing that certain of the Company's capital projects are part of a larger group of projects. Exhibit NG-JHP-Rebuttal-2 (Supp.) contains reauthorization documents and closure papers for certain program projects placed in service in FYs 2013, 2014, and 2015.

ii. Positions of the Parties

(A) Attorney General

The Attorney General argues that the documents filed on June 2, 2016,[75] constitute extra-record evidence for which the Company is required to file a motion to reopen the record and make a showing of good cause pursuant to 220 C.M.R. § 1.11(8) (Attorney General Motion at 1, 2). Further, she contends that the Department has made clear that, except for updates to routine information already provided in the record (e.g., property tax bills) a motion to reopen the record must be filed and granted before the testimony or exhibits are "thrust upon the trier of

[75] The Attorney General contends that the information provided was voluminous, provided additional final cost information for certain blanket and program costs, and contained substantial changes to previously filed record evidence (Attorney General Motion at 1).

fact," noting that "one cannot unring a bell" (Attorney General Motion at 2, quoting Boston Gas Company, D.P.U. 88-67 (Phase II) at 7 (1989)). Thus, the Attorney General asserts that if the Department allows the subject documents into the record, it will deny the Attorney General's and other intervenors' due process rights to conduct discovery and cross-examination,[76] and will result in rates that are not just and reasonable (Attorney General Motion at 1-4, citing G.L. c. 30A § 11(3); 220 C.M.R. §§ 1.11; D.P.U. 10-70, at 195-96; MediaOne/New England Telephone, D.T.E. 99-42/43, p. 17-18 (1999); Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 9 (1998); New England Telephone and Telegraph Company, D.P.U. 94-50, at 62 (1995); Boston Edison Company, D.P.U. 90-335, at 7-8 (1992); Payphone Inc., D.P.U. 90-171, at 4-5 (1991)).

Further, the Attorney General argues that even if the Company had filed a motion to reopen the record, it could not have made a showing of good cause because much of the supplemental material concerned activity that occurred several years ago and should have been filed with the Company's initial filing (Attorney General Motion at 3, citing D.P.U. 14-150, at 50). Additionally, she notes that the Company failed to timely provide the subject documentation in response to information requests issued during the proceedings (Attorney General Motion at 3, citing Exhs. DPU-7-23; AG-21-2). The Attorney General further asserts that "good cause" is an important safeguard to intervenors' procedural due process rights and that no good cause can exist for the late-filing of these materials because the Company had

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[76] The Attorney General also argues that because the Company filed the Supplemental Material so close to the briefing deadline, the Attorney General did not have adequate time for even a cursory review of the documents prior to filing briefs (Attorney General Motion at 1, citing D.P.U. 10-70, at 195-196).

ample time and multiple opportunities to supply the supplemental materials (Attorney General Motion at 3).

(B) Company

National Grid argues that the evidentiary record did not close on May 26, 2016, because the Department made provisions for the Company to provide the subject documentation after the conclusion of evidentiary hearings (Company Response at 3). Specifically, the Company argues that during the May 3, 2016, evidentiary hearing, the Hearing Officer recognized that the Company provided some of its closure papers with its rebuttal testimony, but that some had not been compiled (Company Response at 3, citing Tr. 3, at 435). The Company argues that the Hearing Officer then issued Record Request DPU-13 for the Company to update its blankets and programs plant additions with actual cost information once the remaining closure papers were completed (Company Response at 3, citing Tr. 3, at 438). Additionally, National Grid claims that the Hearing Officer accepted the Company's representation that the actual cost information for blanket and programs would not be known until June 1, 2016, and, therefore, extended the due date for the Company's response to Record Request DPU-13 from May 12 to June 1, 2016 (Company Response at 3, citing Tr. 3, at 435-336, 438). Thus, National Grid argues that the Hearing Officer explicitly left the evidentiary record open for the production of this documentation, and the Company provided the information in conjunction with the supplemental attachment to the rebuttal testimony and the response to Record Request DPU-13 (Company Response at 5). Accordingly, the Company argues that it was not required to file a motion to reopen the record (Company Response at 5).

Further, the Company argues that even if the Hearing Officer had not left the evidentiary record open to receive the subject documentation, the Attorney General fails to cite any Department decision, regulation or rule to support the notion that the evidentiary record is closed on the last day of evidentiary hearings, absent specific exceptions or requests to keep open the record (Company Response at 4). According to the Company, it is the Department's long-standing practice to keep the record open after the close of evidentiary hearings for admission of information relevant to its determinations, including specified updates to schedules and responses to record requests (Company Response at 4, citing Cambridge Electric Light Company, D.P.U. 92-250 (1993); The Berkshire Gas Company, D.P.U. 90-121 (1990)).

Moreover, the Company argues it has a continuing obligation to update the record if it obtains new information pertinent to the proceeding and is also under a continuing obligation to "seasonably amend its responses to discovery, direct examination, and cross-examination as soon as it obtains information that a response was incorrect or incomplete or that a response, though correct when made, is no longer true or complete" (Company Response at 5, quoting Bay State Gas Company, D.P.U. 12-25, at 106-107 (2012); citing 220 C.M.R. § 1.06(6)(c)(5); D.P.U. 09-30, at 174; D.T.E. 02-24/25, at 32-33; Riverside Steam and Electric Company, D.P.U. 88-123-B at 57-58 (1991); Aquarion Water Company of Massachusetts, D.P.U. 08-27-B at 22 (2010)). The Company contends that this obligation continues beyond evidentiary hearings and even after a base rate case proceeding has concluded (Company Response at 5, citing D.P.U. 12-25, at 106-107). In this regard, National Grid claims that capital project documentation, relevant to the Department's review of the Company's petition, should be

accepted into evidence even if filed after the close of evidentiary hearings and unaccompanied by a motion to reopen the record (Company Response at 6, citing D.P.U. 10-55, at 190).

Finally, the Company argues that accepting the subject documentation into the record would not prejudice the Attorney General (Company Response at 6). The Company contends that most of its closure papers supporting the blanket and program capital projects were filed in its rebuttal testimony (Company Response at 6, citing Exhs. NG-JHP-Rebuttal-1, at 19-20). Further, National Grid asserts that the Attorney General had adequate notice of the Company's intention to file supplemental closure papers after the conclusion of evidentiary hearings and should have raised any concerns at the May 3, 2016 evidentiary hearing when reasonable accommodations could have been made to the briefing schedule (Company Response at 7).

iii. Analysis and Findings

First, the Department will not strike Exhibit DPU-7-23 (Supp.) because we find that it simply was an alternative presentation of an earlier version of the response, modified to show which specific projects were part of larger groups (compare Exh. DPU-7-23, Att. (Rev.) with Exh. DPU-7-23, Att. (Supp.)). In addition, in the supplemental response to information request DPU 7-23, the Company replicated its response to Record Request DPU-12 and separated the total investment for specific projects into two amounts – one for standalone specific projects and one for specific projects that were part of a group (compare Exh. DPU-7-23, Att. (Supp.) with RR-DPU-12). The total number of projects, the cost information for the projects, and the associated revenue requirement did not change with the filing of the supplemental response to information request DPU 7-23 (Exhs. DPU-7-23, Att. (Rev.); DPU-7-23, Att. (Supp.); NG-RRP-2; NG-RRP-2 (Rev. 3); RR-DPU-12).

However, unlike the materials contained in Exhibit DPU-7-23 (Supp.), the documentation filed with Exhibit NG-JHP-Rebuttal-2 (Supp.) does contain an additional eighty pages of reauthorization documents and closure papers for certain program projects placed in service in FYs 2013, 2014, and 2015, that were not previously provided earlier in the docket (Exh. NG-JHP-Rebuttal-2 (Supp.)). Given that these documents were filed a full week after evidentiary hearings ended, and that there was no valid explanation offered as to why these documents were not produced prior to that time given multiple requests for the type of information included herein, neither the Department nor the intervening parties had the opportunity to inquire about them through discovery or cross examination.

Further, despite the Company's argument to the contrary, we find that the record was not left open, either expressly or implicitly, for the production of these documents. At the close of evidentiary hearings, the record was left open for the production of specific information that did not include the subject documentation (Tr. 15, at 1691-1693). Additionally, the Hearing Officer's inquiry earlier in the hearings regarding the status of documents did not constitute a ruling on the propriety of allowing the information into the evidentiary record (Tr. 3, at 435). Further, we find that the Hearing Officer's issuance of Record Request DPU-13 was in no way related to the production of the subject documents. This Record Request asked the Company to update information, which previously was provided in the response to Exhibit AG-7-5, regarding annual capital expenditures since 2009 (Tr. 3, at 436-438). The Hearing Officer did not include in this record request any specific project documentation for any capital additions, let alone the subject documents that ultimately were filed on June 2, 2016 (Tr. 3, at 436-438).

Additionally, we note that the documents filed with Exhibit NG-JHP-Rebuttal-2 (Supp.) should have been produced with the initial filing in this case, particularly those documents that pertain to investments that were placed in service in 2013 and 2014. At a minimum, these materials should have been made available in response to the discovery process that occurred prior to evidentiary hearings, or during the filing of rebuttal testimony, once it became known that these materials were still omitted from the case. Pursuant to the Company's own capital authorization policies, these documents should have been completed at the close of the fiscal years for 2013 and 2014, and available well in advance of their filed date (RR-DPU-43, Atts. 2-3). Further, these documents should have been provided as part of the Company's annual CapEx filings in July 2014 and July 2015.

Based on these considerations, we conclude that the reauthorization documents and closure papers for certain program projects placed in service in FY 2013, 2014, and 2015, produced on June 2, 2016, in Exhibit NG-JHP-Rebuttal-2 (Supp.), were not timely filed. Further, we find that the Attorney General was precluded from conducting a meaningful review of these documents and from inquiring about the specific program projects either through discovery or cross examination. Consequently, the Department allows the Attorney General's motion to strike and will not consider these documents in the determination of whether these projects qualify for inclusion in the Company's rate base.

b. Plant Additions

i. Standard of Review

For costs to be included in rate base the expenditures must be prudently incurred and the resulting plant must be used and useful to ratepayers. Western Massachusetts Electric Company,

D.P.U. 85-270, at 20 (1986). The prudence test determines whether cost recovery is allowed at all, while the used and useful analysis determines the portion of prudently incurred costs on which the utility is entitled to a return. D.P.U. 85-270, at 25-27.

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

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. Boston Gas Company/Colonial Gas Company/Essex Gas

Company, D.P.U. 10-55-B at 13-16 (2013); D.P.U. 09-30, at 144-145; Boston Gas Company, D.P.U. 96-50 (Phase I) at 21-24 (1996); Massachusetts Electric Company, D.P.U. 95-40, at 7-8 (1995); D.P.U. 93-60, at 25-26; The Berkshire Gas Company, D.P.U. 92-210, at 24 (1993). In addition, the Department has stated that:

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

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

ii. Introduction

The Company reported a total of $1,189,550,457 in rate base additions and $93,788,658 in cost of removal for a combined capital investment total of $1,283,329,114 from January 1, 2009 through June 30, 2015 (Exhs. NG-JHP-1, at 5; DPU-7-23, Att. (Supp.)). National Grid reported 1,257 specific projects for $509,652,488; 62 blanket projects for $463,986,528; and 99 program projects for $217,111,440 (Exh. DPU-7-23 Att. (Supp.); RR-DPU-12). The Company then reduced its total plant additions by $1,200,000 to correct an error found in the D.P.U. 11-18 audit to arrive at the total investment of $1,189,550,457 (Exhs. NG-JHP-1, at 12; DPU-7-23, Att. (Supp.); RR-DPU-12)). We find that this correction is appropriate.

iii. Capital Authorization Policies

As noted above, National Grid groups its capital projects into three categories: (1) specific projects; (2) blanket projects; and (3) program (or other annual) projects (Exh. NG-JHP-4, at 1). A specific project is approved for the total cost of a defined body of work and will be closed once the work is complete (Exh. NG-JHP-4, at 1; RR-DPU-43, Att. 2, at 9).

In other words, specific projects are set up to perform a specifically identified scope of work that can span multiple years and can contain one or many work orders at any given time (Exh. NG-JHP-4, at 1, 8, 12). A blanket project is set up to collect high volume, smaller dollar work orders within a certain budget classification (Exh. NG-JHP-4, at 8; RR-DPU-43, Att. 2, at 8). A program project contains work orders for similar types of construction following a specific strategy (e.g., recloser installations) (Exh. NG-JHP-4, at 12; RR-DPU-43, Att. 2, at 9). Blanket and program projects are budgeted and approved annually (Exh. NG-JHP-4, at 12). Other annually-approved projects, such as storm-related projects, are categorized as "program" projects in order to indicate that they are not blanket projects (Exh. NG-JHP-4, at 12).

The Company maintains a written DOA policy,[77] and written sanctioning procedures,[78] for specific, blanket, and program projects (RR-DPU-43 and Atts. 1-3). A DOA is an authorization to enter into contracts, other external commitments, or to take (or not) other actions that might result in an obligation by National Grid (RR-DPU-43, Att. 2, at 8). A DOA is obtained at the funding project level (RR-DPU-43, Att. 2, at 8). Re-sanctioning is the process of receiving authorization to revise the existing approved cost, scope, or schedule (RR-DPU-43, Att. 2, at 8). The Company's capital authorization policies and procedures differ for projects

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77 The Company has not made any material changes to its DOA policy since 2009 (RR-DPU-43).

78 Prior to May 2011, the Company's capital authorization process consisted of department-specific sanction committees, with separate processes and sanctioning templates (RR-DPU-43). On May 31, 2011, the Company began using the USSC for all utility services using a common template and single sanction procedure (RR-DPU-43). The USSC originally reviewed and approved all projects with estimated spending at or above $1 million (RR-DPU-43). In 2013, the Company's capital authorization policy was revised to focus the USSC's review and approval on projects greater than $8 million and to create a subcommittee responsible for reviewing and approving projects greater than $1 million, but at or less than $8 million (RR-DPU-43).

with expected costs of less than $1 million and for projects with expected costs at or above $1 million (RR-DPU-43 and Atts. 1-3).

(A) Projects Under $1 Million

The requested DOA specific projects with costs under $1 million constitute the gross expected expenditure (i.e., the Company does not subtract from the DOA amounts for anticipated contributions in aid of construction ("CIAC") or other contributions) (RR-DPU-43, Att. 2, at 4). The DOA for a specific funding project is revised prior to exceeding the approved DOA (RR-DPU-43, Att. 2, at 4).[79] Specific funding projects must be re-sanctioned as soon as the actual cost is, or is forecasted to be, ten percent above the authorized expenditure or $25,000, whichever is greater (RR-DPU-43, Att. 2, at 6).[80]

The responsible person must provide written justification for the re-sanctioning along with the new requested DOA amount for the funding project using a "Change in DOA Request Form" (RR-DPU-43, Att. 2, at 7). The higher the total cost of the funding project, the greater the level of detail is required in the documentation to properly justify the funding project re-sanction (RR-DPU-43, Att. 2, at 7). The justification must be clear, concise and accurate and should contain enough information to allow a full understanding of the reasons for the increase (RR-DPU-43, Att. 2, at 7). Once approval is obtained, the funding project DOA in the

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79 In the event a funding project is originally estimated to be under $1 million but the forecasted or actual costs exceed $1 million, the funding project must be re-sanctioned pursuant to the policies applicable to projects with costs over $1 million, as described below (RR-DPU-43, Att. 2, at 6).

80 For all three types of projects the responsible individual must obtain re-sanction of all funding projects that exceed their authorized spending limit on a timely basis, but in no case later than 60 days after being notified that the project has exceeded the authorized spending limit (RR-DPU-43, Att. 2, at 6).

Company's computer system will be updated (RR-DPU-43, Att. 2, at 7). Specific projects may be grouped with other related specific projects and the Company considers these groups of projects at the aggregate level when determining whether the project is over budget (Tr. 3, at 426).

Blanket and program funding projects under $1 million are sanctioned at the start of each fiscal year to reflect the upcoming budget and routed for DOA approval (RR-DPU-43, Att. 2, at 5). Blanket work orders are linked to blanket funding projects and must not exceed $100,000 (RR-DPU-43, Att. 2, at 5). The DOA requested for blanket and program funding projects constitutes the gross expected expenditure (i.e., the Company does not subtract amounts for anticipated CIAC or other contributions) (RR-DPU-43, Att. 2, at 5). Blanket and program projects under $1 million are monitored on a monthly basis and revised with explanations within 60 days of the end of the fiscal year (RR-DPU-43, Att. 2, at 6). Blanket projects require a USSC closure paper[81] (RR-DPU-43, Att. 2, at 6).[82] Programs of less than $1 million require change in DOA forms, but do not require closure papers (Exh. NG-JHP-4, at 13; Tr. 3, at 431-432). Additionally, program projects under $100,000 do not require change in DOA forms or closure papers (Tr. 3, at 430-432).

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81 A closure paper is prepared at the completion of a funding project that details the financial and objective outcomes of the funding project (RR-DPU-43, Att. 3, at 13).

82 We note that there appears to be an inconsistency in the Company's re-sanctioning procedures and other documentation with respect to whether closure papers are completed for program projects under $1 million (Compare RR-DPU-43, Att. 2, at 6 with Exh. NG-JHP-4, at 13). Based on other documentation in the record and the Company's testimony, it appears that the Company's policy is to not require a closure paper for program projects under $1 million (see, e.g., Exhs. NG-JHP-3(f), JHP-2, at 13; NG-JHP-4, at 13; Tr. 3, at 431-432). As noted below, the Department directs the Company to clarify the capital authorization policies on this point.

Additionally, capital funding project overrun reports are produced on a monthly basis (RR-DPU-43, Att. 2, at 7). These reports identify funding projects that have exceeded or are forecasted to exceed the authorized DOA basis (RR-DPU-43, Att. 2, at 7). Within ten business days, the responsible personnel must prepare a written plan to bring the affected funding project within DOA limits (RR-DPU-43, Att. 2, at 7).

For the Company's annual capital investment report filing, the Company prepares variance analysis reports for blanket and program funding projects on a fiscal-year basis (see, e.g., Exh. NG-JHP-4, at 18; Tr. 3, at 431-431). For purposes of providing variance explanations, the Company groups related blanket projects together and related program projects together (Tr. 3, at 431-431).

(B) Project Costs at or above $1 Million

For all types of projects at or above $1 million a sanction paper is used to approve the expenditure (RR-DPU-43, Att. 3, at 5). A sanction paper is the document submitted to the USSC for project approval and is considered the final approval to undertake the funding project (RR-DPU-43, Att. 3, at 16). A sanction, as opposed to a partial sanction, is generally prepared for the full scope and cost of the funding project (RR-DPU-43, Att. 3, at 16). Generally the costs are expected to have a variance tolerance of plus or minus ten percent (RR-DPU-43, Att. 3, at 16). The funding project amount to be sanctioned, and for which a DOA is requested, shall be the gross expected expenditure (i.e., the Company does not subtract amounts for anticipated CIAC or other contributions) (RR-DPU-43, Att. 3, at 5). Closure papers are required for all funding projects of $1 million or greater (RR-DPU-43, Att. 3, at 9).

A specific funding project of over $1 million must be re-sanctioned within 60 days of notification that the cost is forecasted to vary outside of the tolerance approved in the project sanction paper (RR-DPU-43, Att. 3, at 8). Re-sanction papers should not re-state the original need, but must include a detailed explanation of the new sanction requirements and why they have changed from those that were originally approved (RR-DPU-43, Att. 3, at 9). In addition, the re-sanction paper should include details of lessons learned including an explanation of any significant variances in cost (RR-DPU-43, Att. 3, at 9). If the lessons learned and explanations are not fully known at the time, they must be included in the closure paper (RR-DPU-43, Att. 3, at 9). Specific funding project closure papers shall be completed as soon as possible after all work orders and projects are closed (RR-DPU-43, Att. 3, at 9). Related specific funding projects shall be included in one investment document (RR-DPU-43, Att. 3, at 10). A funding project is related to another funding project if it cannot fully accomplish its intended purpose unless the other funding project is also carried out (RR-DPU-43, Att. 3, at 10). These related funding projects should be identified in a sanction paper (RR-DPU-43, Att. 3, at 11). The Company considers these groups of projects at the aggregate level when determining whether the project is over budget (Tr. 3, at 426).

Blanket and program funding projects at or above $1 million are approved for each fiscal year (RR-DPU-43, Att. 3, at 8). Blanket and program funding projects may not be segmented into smaller pieces in order to sanction the spending at a lower level of authority than would otherwise be required (RR-DPU-43, Att. 3, at 8). For blanket projects, a closure document is presented at the end of each fiscal year (Exh. NG-JHP-4, at 18, 2; RR-DPU-43, Att. 3, at 8). For program projects, a closure document is presented at the end of each fiscal year unless otherwise

specified in the strategy or sanction paper (Exh. NG-JHP-4, at 18, 2; RR-DPU-43, Att. 3, at 8). Program funding project closure papers shall be completed as soon as possible after all work orders and projects are closed (RR-DPU-43, Att. 3, at 9).

For the Company's annual CapEx filing, the Company prepares variance analysis reports for blanket and program funding projects on a fiscal-year basis (see, e.g., Exh. NG-JHP-4, at 18; Tr. 3 at 431-431). For purposes of providing variance explanations, the Company groups related blanket projects together and related program projects together (Tr. 3, at 431-431).

iv. Project Documentation

The Company provided project documentation at various points in this proceeding. As part of its initial filing, the Company provided the filings made in each of the previous CapEx filings, as well as documentation relating to capital investments made during the first six months of 2015 (Exhs. NG-JHP-3; NG-JHP-4). As noted above in Section VII.B.3, the Company provided, with its initial filing, various forms of documentation for specific projects over $50,000 and all blanket and program projects including: (1) a project summary sheet that includes project number, project descriptions, approved amount, total to date project spending, project status, approval history, and in-service additions and cost of removal figures; (2) a project approval report; (3) sanction papers; (4) a retirement report; (5) a direct/indirect summary report; (6) a work order asset addition report; (7) a project cost summary (see, e.g., Exhs. NG-JHP-3; NG-JHP-4). The Company also provided closure papers for some specific projects (see, e.g., Exhs. NG-JHP-3; NG-JHP-4). For blanket and program projects, the Company also

provided a fiscal year variance analysis report and a fiscal year closure paper (Exh. NG-JHP-4, at 12, 13).[83]

Over the course of the proceeding, the Company provided additional documentation including a variance explanation for a specific project, closure papers for 26 specific projects, closure papers for five specific projects and eight program projects (Exhs. DPU-17-23; AG-21-1, Atts. 1, 2; NG-JHP-Rebuttal-2, at 18-20). Additionally, on May 3, 2016, the Company provided closure papers for 22 blanket projects (Exhs. DPU-20-31 (Supp.); DPU-20-35 (Supp.)). Further, as noted above in Section VII.B.5.a.i, on June 2, 2016, the Company provided reauthorization documents and closure papers for certain program projects placed in service in FYs 2013, 2014, and 2015, which the Department has excluded from the evidentiary record as provided in Section VII.5.a.iii above (Exh. NG-JHP-Rebuttal-2 (Supp.)). On that date, the Company also provided a supplemental response to information request DPU-7-23, showing the Company's specific projects that are combined into a larger group of projects (Exh. DPU-7-23, Att. (Supp.)). As discussed below, the Attorney General challenges the sufficiency of the documentation provided for 20 specific projects, 32 blanket projects, 47 program projects, and two storm program projects (Attorney General Brief at 12-19).

The Department finds that a project cost document production threshold of $50,000 for specific projects is appropriate for a company the size of National Grid. See D.P.U. 14-150,

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83 The Company initially did not provide closure papers for 31 specific projects, but provided them through discovery. Nor did it initially provide blanket project closure papers for fiscal years 2013 and 2014, which were provided at the beginning of hearings. Also, the Company initially did not provide closure papers for seven program projects over $1 million and reauthorization forms for 14 program projects over $100,000, but they were provided after the close of hearings and have been excluded from the record above.

at 58; New England Gas Company, D.P.U. 11-42, at 3 n.4 (2013); D.P.U. 10-114, at 81, n.67. Nevertheless, document production thresholds used by the Department in the discovery process do not mean that projects of a lower value are exempt from scrutiny or the requirement that a company maintain adequate documentation to support the prudence of these capital additions. D.P.U. 14-150, at 58. Rather, the Department and intervenors may inquire into any project regardless of its final cost. D.P.U. 14-150, at 58; D.P.U. 12-25, at 77; D.P.U. 10-55, at 188.

v. Specific Projects

The Company seeks inclusion of $509,652,488 in investments for 1,253 specific projects, including the cost of removal (Exh. DPU-7-23, Att. (Supp.); RR-DPU-12). There were 772 specific projects with in-service additions greater than $50,000 between January 1, 2009 and June 30, 2015 (Exh. DPU-10-12 (Att.)). Of those specific projects, 360 had variances in excess of ten percent (Exh. DPU-10-12 (Att.)). The Attorney General recommends that the Department exclude 20 of these projects from rate base because the Company did not provide a variance explanation (Attorney General Brief at 11-12).

We first consider the 752 uncontested specific projects. The Department has reviewed the information supporting the Company's completed projects, including all supporting documents described above (see, e.g., Exhs. NG-JHP-3; NG-JHP-4; RR-DPU-43 and Atts. 1-3; DPU-17-23; AG-21-1, Atts. 1, 2). Based on our review of the documents, the Department finds that the costs for these projects were prudently incurred and that the capital investments are used and useful. Accordingly, the Department will include the cost of the Company's uncontested specific projects in rate base. We now turn to the 20 contested specific projects.

A company is required to provide a reasonable explanation for cost variances, based on the specifics of each project, sufficient for the Department to evaluate the reasonableness and prudence of any cost variance. D.P.U. 14-150, at 50; D.P.U. 13-75, at 95, 105; D.P.U. 12-25, at 79-80, 82; D.P.U. 10-114, at 85-87; D.P.U. 10-55, at 179-180. If a company adequately justifies the reasons for any cost variance, the Department will consider the costs of the project eligible for inclusion in rate base. D.P.U. 14-150, at 50. If, however, a company is unable to justify the reasons for a cost variance, the Department will exclude the excess costs to the extent that the Company has not met its burden of proof. D.P.U. 14-150, at 50-51; D.P.U. 13-75, at 114; D.T.E. 03-40, at 68; D.P.U. 95-118, at 49-55. The Department has directed companies to address the cost variances for capital expenditures between the amount approved for projects and the actual amount required to complete the projects. D.P.U. 10-79, at 7. The Department has approved a company's use of authorized amounts that are refined over time for purposes of conducting a variance analysis because they are more reflective of the costs to be incurred by the Company in undertaking the approved project. D.P.U. 15-80/D.P.U. 15-81, at 75.

The Department requested an explanation for the variance on 23 specific projects (Exhs. DPU-17-1 through DPU-17-23). For 20 of these projects, the Company responded that the projects were part of a larger group of related projects that in the aggregate did not exceed the ten percent tolerance and, therefore, the Company did not perform a variance investigation (see, e.g., Exh. DPU-17-3). Based on the Company's internal policies, it groups related projects and considers these groups at the aggregate level when applying the threshold required for a variance explanation (see, e.g., Exh. DPU-17-3; Tr. 3, at 426-427). The Department finds that the Company's grouping practice is a sufficient project management tool for reviewing cost

control for the ratemaking treatment of plant additions. Therefore, the Department will not require variance analyses for specific projects within the groupings. In future filings involving plant additions, i.e., base rate case, CIRM filing, the Department will continue to review the Company's project management tools to ensure that there adequate cost control measures.

In any event, the Company stated that reauthorization documents adequately explain the reasons for a reauthorization at the specific project level (Tr. 3, at 425-429). With the documentation provided in the instant case, the Department will review the capital project documentation and closing reports for all specific projects that are part of a group of related projects to determine whether the expenditures are prudently incurred.

The Department has reviewed the documentation the Company provided for these 20 specific projects,[84] including all supporting documents (see, e.g., Exhs. NG-JHP-3; NG-JHP-4; JHP-Rebuttal-2; DPU-17-23; AG-21-1, Atts. 1,2). For the 20 specific projects, the Company provided various forms of documentation including, but not limited to, project summary sheets, project approval reports, authorization documents, retirement reports, asset addition reports, project cost summary reports, and closure papers.[85] The closure papers or re-sanction papers contain reasons for the reauthorization requests during the lifecycle of the project.[86] To the

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84 The 20 specific projects are: C008666; C005339; C014549; C023591; C036385; C028886; C002364; C002388; C012018; C012502; C024120; C005342; CD01253; C001423; C028871; C029104; C031552; CD01174; C031324; and C002504.

85 The Company did not provide a closure paper for Project C008666, stating that the current sanction process did not exist at the time the project was progressing (Company Reply Brief at 17).

86 Exhs. NG-JHP-Rebuttal-2 at 13, 28, 39 44, 50, 57; NG-JHP-3(b), JLG-6 at SPCFC-1275; NG-JHP-3(c), JLG-6 at SPFC-1231, 1369; NG-JHP-3(d), JLG-6, at SPFC-6, 1112-1116; NG-JHP-3(f), JHP-6, at SPFC 1270-71, 2328; NG-JHP-4, at SPFC-357.

extent that these projects had a variance between the final approved amount and the actual spent amount,[87] that variance was less than ten percent and, therefore, would not trigger a separate variance explanation under the Company's policies (see, e.g., Exh. DPU-17-3; Tr. 3, at 392, 398, 426-427).

The explanations provided for the variances and reauthorizations during the lifecycle of the projects include unforeseen environmental issues, increases in project scope, revisions to design, increase in materials and labor costs, low estimates, project initially only given a partial sanction for preliminary engineering, and various other project-specific issues.[88] While most of these explanations were provided at the group level, not the individual project level, we find them sufficient, under the Company's current policies, to allow a determination of prudence. Based on our review of the documents, the Department finds that the costs for these projects were prudently incurred and that the capital investments are used and useful. Accordingly, the Department will include the cost of these 20 projects in rate base.

vi. Storm Capital Programs

The Company reported storm capital programs using five project numbers: C014821, C014822 C21594, C02216, and C22217. The Attorney General specifically challenges the sufficiency of the variance explanations for two storm program projects for fiscal year 2010,

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87 We have approved a company's use of authorized amounts that are refined over time for purposes of conducting a variance analysis because they are more reflective of the costs to be incurred by the Company in undertaking the approved project. D.P.U. 15-80/D.P.U. 15-81, at 75.

88 See, e.g., Exhs. NG-JHP-Rebuttal-2 at 13, 28, 39 44, 50, 57; NG-JHP-3(a), JLG-6, at SPFC-1624; NG-JHP-3(c), JLG-6, at SPFC-1231, 1369; NG-JHP-3(d), JLG-6, at SPFC-6, 1112-1116; NG-JHP-3(e), JLG-6, at SPFC-3446; NG-JHP-3(f), JHP-6, at SPFC-1270-71; NG-JHP-4, at SPFC-357, 525.

projects C014821 and C014822, totaling a $ 2.4 million variance; and one fiscal year 2012 project, C014821, with a $9.3 million variance (Attorney General Brief at 20). Additionally, the Attorney General, as part of her challenge of program projects discussed below, contests the sufficiency of the documentation for storm programs C014821, C21594, C02216, and C22217, which span FYs 2013 through 2015.[89]

The Company provided closure papers and variance analysis reports with its initial filing for the two fiscal year 2010 projects and provided a closure paper containing a variance explanation for the fiscal year 2012 project (Exhs. NG-JHP-3(b), JLG-8, at PRGM-0329, 341; NG-JHP-3(d), JLG-8, at PRGM-163; DPU-19-1; DPU-19-2). The variance explanation for the fiscal year 2010 projects states that storm restoration programs are approved annually based on historic trends and that the cost of mandatory storm restoration activities are strictly dependent on size/scale of storms incurred during the year (Exh. NG-JHP-3(b), JLG-8, at PRGM-0329, 341). The variance explanation provided by the Company for the fiscal year 2012 project states that three major storms resulted in significant damage across the state's infrastructure (Exhs NG-JHP-3(d), JLG-8, at PRGM-163; DPU-19-40).[90] The Company also explained that in reporting the costs to the Department, the Company mistakenly used the budgeted amounts for the fiscal year and not the final authorized amount from the closure papers, and that if the correct amount had been used, the variance would be minimal (Exhs. DPU-19-1; DPU-19-2; DPU-19-40; see also Exh. DPU-7-23, Att. (Rev.)).

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89 We address the fiscal year 2013-2015 storm programs in the section below.

90 The storms were a tornado in June 2011; Tropical Storm Irene in August 2011; and a major snowstorm in October 2011 (Exh. DPU-32-4).

We find that the variance explanations provided are sufficient for purposes of storm program projects. The Company establishes budgets for storm program projects based on multi-year historic trends (Exh. NG-JHP-1, at 19). The work performed to restore service is inherently unplanned and not fully quantifiable until after the work has been performed (Exh. NG-JHP-1, at 19). Therefore, we will not exclude these projects from rate base on this basis.

Further, we note that the Department imposed substantial fines on National Grid after determining that restoration efforts related to two storms were inadequate, in part, because the Company mobilized insufficient resources. D.P.U. 11-85-A/D.P.U. 11-119-A at 39-41. However, in this instance, we find that the Department's imposition of those fines does not automatically warrant a disallowance of the costs that the Company incurred in responding to these storms. D.P.U. 11-85-A/D.P.U. 11-119-A at 39-41. The Department did not make a finding that any of the costs the Company incurred in responding to the storm were imprudent under the standard of review for plant additions. D.P.U. 11-85-A/D.P.U. 11-119-A at 39-41. Instead, we stated that if the Company seeks recovery of storm costs in a future Department proceeding, the Department will determine whether the Company's storm expenses were prudently incurred in that proceeding and whether or not to deny any of the Company's storm related expenses. D.P.U. 11-85-A/D.P.U. 11-119-A at 39-41, citing Fitchburg Gas and Electric Light Company, D.P.U. 09-01-A at 195 (2009); D.P.U. 93-60, at 24. Based on our findings above, we conclude that the costs for these storm capital programs projects were prudently incurred and that the capital investments are used and useful.

vii. Blanket & Program Projects

The Company seeks inclusion of $217,111,440 in investment for 99 program projects and $463,986,528 for 62 blanket projects (Exh. DPU-7-23, Att. (Supp.); RR-DPU-12).[91] As noted above, for blanket projects, the Company provided project documentation consisting of: (1) fiscal year blanket project summary sheets; (2) project cost summaries; (3) fiscal year approval documents; (4) fiscal year summary project variance analyses[92] and closure papers;[93] (5) calendar year work order asset detail reports; (6) calendar year retirement reports; and (7) direct/indirect summary reports (see, e.g., Exhs. NG-JHP-3; NG-JHP-4, at 10-13). In its initial filing, the Company did not provide closure papers for 31 blanket projects for FYs 2013 and 2014;[94] the Company filed them on May 3, 2016 (Exhs. DPU-20-31 (Supp.); DPU-20-35 (Supp.)).

For program projects, the Company provided project documentation consisting of: (1) fiscal year program project summary sheets; (2) project cost summaries; (3) fiscal year

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91 The Company's programs and blanket projects are often reauthorized for the next fiscal year using the same project number. There are 99 unique program project numbers and 62 unique blanket project numbers, many of which repeat from year to year (Exh. DPU-7-23, Att. (Rev.)).

92 See, e.g., Exhs. NG-JHP-3(b), JLG-7, at BLNK-122-125; NG-JHP-3(c), JLG-7, at BLNK-119-122; NG-JHP-3(e), JLG-7, at BLNK-3156-3161; NG-JHP-3(f), JHP-7, at BLNK-2799-2803.

93 See, e.g., Exhs. NG-JHP-3(b), JLG-7, at BLNK-126-149; NG-JHP-3(c), JLG-7, at LNK-123-129; NG-JHP-3(f), JHP-7, at BLNK-101-110; NG-JHP-4, at 92).

94 These projects include: CBN0002; CBN0004; CBN0010; CBN0011; CBN0012; CBN0014; CBN0015; CBN0016; CBN0017; CBN0022; CBS0010; CBS0011; CBS0014; CBS0020; CBS0022; CBW0002; CBW0006; CBW0010; CBW0011; CBW0014; CBW0016; CBW0020; CN00420; CNM0002; CNM0004; CNM0010; CNM0011; CNM0014; CNM0017; CNM0020; and CNM0022.

approval documents; (4) fiscal year summary project variance analyses[95] and closure papers;[96] (5) calendar year work order asset detail reports; (6) calendar year retirement reports; and (7) direct/indirect summary reports (Exhs. NG-JHP-3; NG-JHP-4, at 10-13). The Company initially did not file closure papers for seven program projects of over $1 million;[97] it filed six of them on June 2, 2016 (Exh. NG-JHP-Rebuttal-2 (Supp.)). The Company did not initially file reauthorization paperwork for 14 program projects over $100,000 and less than $1 million, but filed them on June 2, 2016 (Exh. NG-JHP-Rebuttal-2 (Supp.)).[98]

As noted above, the Attorney General argues that the Company's submission of closure papers on May 3, 2016, for 31 blanket projects was untimely and recommends disallowance of $19.6 million dollars associated with these projects. The Attorney General challenges 47 program projects arguing that closure papers,[99] if any, were filed on June 2, 2016, and

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95 Exhs. NG-JHP-3(b), JLG-8, at PRGM-323-330; NG-JHP-3(c), JLG-8, at PGRM-270-274; NG-JHP-3(d), JLG-8, at PGRM-160-168; NG-JHP-3(e), JLG-8, at PGRM-1184-1191; NG-JHP-3(f), JHP-8, at PGRM-1149-1157.

96 Exhs. NG-JHP-3(b), JLG-8, at PRGM-331-343; NG-JHP-3(c), JLG-8, at PGRM-262-269; NG-JHP-3(d), JLG-8, at PGRM-156-168). Under the Company's capital authorization policies, program projects of less than $1 million do not require closure papers (Exh. NG-JHP-4, at 13).

97 On June 2, 2016, the Company filed closure papers for the following projects: C005490; C005500; C014821; C021594; C022216; and C022217. The Company did not file a closure paper for C006138.

98 On June 2, 2016, the Company filed Change in DOA forms for the following projects: C005543; C005469; C028147; C025810; C032270; CD00017; C025619; C025813; C027898; C031398; C031774; C035584; C049352; and CD01258.

99 The Attorney General argues that 47 program projects should be disallowed because, if closure papers were filed at all, they were filed after the close of the evidentiary hearings (Attorney General Brief at 16). We note that for 21 of the Attorney General's challenged projects, the Company filed closure papers (or other documentation) on June 2, 2016.

recommends disallowance of $18.2 million associated with these projects. The Attorney General, therefore, recommends disallowance of $ 37.8 million in blanket and program costs based on the lack of timeliness of filing the Company's closure papers.

(A) Blanket Projects

The Attorney General contests 31 of the Company's 62 blanket projects. We first consider the 31 uncontested blanket projects.[100] The Department has reviewed the information supporting the Company's 31 uncontested blanket projects including all supporting documents described above, with specific attention to the variance analyses (see, e.g., Exhs. NG-JHP-3; NG-JHP-4; RR-DPU-43 & Atts.). The Company provided reasons for variances including, but not limited to, increased residential applications for new business, increased applications for new attachments, increased levels of work relating to damage failures, increased equipment purchases, and various other project-specific reasons (see, e.g., Exhs. NG-JHP-3(b), JLG-7, at BLNK-122-125; NG-JHP-3(c), JLG-7, at BLNK-119-122; NG-JHP-3(e), JLG-7, at BLNK-3156-3161; NG-JHP-3(f), JHP-7, at BLNK-2799-2803). While these explanations were provided for a group of similar blanket projects, not the individual blanket projects, we find them sufficient, under the Company's current policies, to allow a determination of prudence. Based on our review of the documents, the Department finds that the costs for these projects were prudently incurred and that the capital investments are used and useful.

For the remaining 26 projects, the Company did not file any closure papers or documentation on June 2, 2016 (Company Brief at Appendix 1, Table 2).

100 The uncontested blanket projects are: CBN0009; CBN0013; CBS0002; CBS0004; CBS0006; CBS0009; CBS0012; CBS0013; CBS0015; CBS0016; CBS0017; CBS0025; CBW0004; CBW0009; CBW0012; CBW0013; CBW0015; CBW0017; CBW0022; CBW0070; CN00404; CN00504; CN00520; CNM0006; CNM0009; CNM0012; CNM0013; CNM0015; CNM0016; CNM0070; and CBW0025.

We now turn to the 31 contested blanket projects. The Company did not provide the FYs 2013 and 2014 blanket closing reports with its initial filing or during the discovery period. The Company did, however, provide closure papers for all of these projects on May 3, 2016 as a supplement to information requests propounded by the Department (Exhs. DPU-20-31 (Supp.); DPU-20-35 (Supp.)). We share the Attorney General's concern that the Company was unable to provide these closure papers with its initial filing. Pursuant to the Company's capital authorization policies, these closure papers should have been completed at the close of FYs 2013 and 2014 and available at the time the Company filed its petition in this case (see RR-DPU-43 & Atts. 1-3). We find, however, that the filing of these closure papers was not so late as to prevent the Department and the parties enough time to conduct an adequate review of their contents. In a base rate proceeding, it is not unusual for a petitioner to provide documents and information during the course of hearings that it has not previously provided in the initial filing. Indeed, parties are under a continuing obligation to supplement discovery responses throughout the course of a proceeding. D.P.U. 12-25, at 106-107, citing 220 C.M.R. § 1.06(6)(c)(5); D.P.U. 09-30, at 174; D.P.U. 08-27-B at 22; D.T.E. 02-24/25, at 32-33; D.P.U. 88-123-B at 57-58.

The Department is not persuaded that the Attorney General was prejudiced by the production of these documents on May 3, 2016, which was the second day of hearings and before the record closed. Further, although the documents were produced the day before the Company's witness was to testify, the witness appeared on two consecutive days. Additionally, the Department reserved several days at the end of the evidentiary hearings for additional cross examination, so the Attorney General could have recalled the witness at that time. Moreover, the

Company's production constituted two ten-page documents, one for each fiscal year. The documents were not so voluminous as to prevent the Attorney General from reviewing them during the course of the evidentiary hearings to at least determine if she needed the Company's witness to appear again. Instead, the Attorney General concluded her questioning of the witness on May 5, 2016, two days after the documents were filed, and never asked that the witness be made available for further questioning on this or any other subject (Tr. 3, at 457).

More importantly, the closure papers provided by the Company on May 3, 2016, were largely duplicative of the project documentation already provided as part of the Company's initial filing (Exhs. NG-JHP-3(d), NG-JHP-3(e), JLG-7; NG-JHP-3(f), JHP-7). Specifically, the cost information contained in the closure papers is the same as the cost information in the project summaries and project cost summaries (Exhs. NG-JHP-3(d), NG-JHP-3(e), JLG-7; NG-JHP-3(f), JHP-7). Similarly, the variance analyses contained in the closure papers are the same as the variance analyses in the 2013 and 2014 blanket variance analysis reports (Exhs. NG-JHP-3(e), JLG-7, at BLNK-3156-3161; NG-JHP-3(f), JHP-7, at BLNK-2799-2803).

Based on these considerations, we find that a reasonable examination of the documents produced on May 3, 2016, was feasible given the number, length and nature of the documents, and the timing of their production vis-à-vis the evidentiary hearing schedule. Therefore, the Department will not exclude these projects from rate base due to the timing of the project documentation. We do, however, expect that National Grid will abide by its own capital authorization policies (i.e., preparing closure papers at the close of the fiscal year) as a reasonable means of maintaining adequate cost controls. Specifically, we note that the closure paper is the opportunity for the Company to reflect upon and document the lessons learned and

to ensure that the Company has performed all close out activities (Exhs. DPU-20-31, at 3 (Supp.); DPU-20-35, at 3 (Supp.)). Given that the Company ultimately did provide sufficient cost information and variance analyses for the projects at issue, we find that the Company's failure to timely compile the closure papers (including documentation of lessons learned) is insufficient to support a finding that the Company failed to maintain adequate cost controls.

The Department has reviewed the information supporting the 31 contested blanket projects including all supporting documents described above, with specific attention to the variance analyses (see, e.g., Exhs. NG-JHP-3; DPU-20-1 through DPU-20-53; DPU-20-31 (Supp.); DPU-20-35 (Supp.); RR-DPU-43 & Atts.). The Company provided reasons for variances including, but not limited to, increased residential applications for new business, increased applications for new attachments, increased levels of work relating to damage failures, increased equipment purchases, and various other project-specific reasons (see, e.g., Exhs. NG-JHP-3(b), JLG-7, at BLNK-122-125; NG-JHP-3(c), JLG-7, at BLNK-119-122; NG-JHP-3(e), JLG-7, at 3156-3161; NG-JHP-3(f), JHP-7, at BLNK-2799-2803). While these explanations were provided for a group of similar blanket projects and not the individual blanket projects, we nevertheless find them sufficient under the Company's current policies to allow a determination of prudence. Based on our review of the documents, the Department finds that the costs for these projects were prudently incurred and that the capital investments are used and useful. Accordingly, the Department will include the cost of the Company's blanket projects in rate base.

(B) Programs

As noted above, the Attorney General challenges 47 total program projects arguing that closure papers, if filed at all, were filed after the close of evidentiary hearings. We first consider the 51 uncontested program projects.[101] The Department has reviewed the information supporting the Company's 51 uncontested program projects including all supporting documents described above, with specific attention to the variance explanations[102] and closing reports[103] (see, e.g., Exhs. NG-JHP-3; NG-JHP-4; RR-DPU-43 & Atts.). The Company provided reasons for variances including, but not limited to: increase in cost of transformers, carryover work from prior years due to weather or outages, incompatibility of parts purchased from different vendors, change in scope or strategy after initial budget was set, and other project-specific reasons (see, e.g., Exhs. NG-JHP-3(b), JLG-8, at PRGM-0323-0330; NG-JHP-3(c), JLG-8, at PGRM-270-274; NG-JHP-3(d), JLG-8, at PGRM-160-168; NG-JHP-3(e), JLG-8, at PGRM-1184-1191; NG-JHP-3(f), JHP-8, at PGRM-1149-1157). While these explanations were provided for a group of similar program projects, not the individual program projects, we

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101 The uncontested program projects are: C004494; C005495; C005499; C007266; C005543; C005442; C005446; C005447; C005451; C005453; C030604; C026264; C026279; C026280; C005509; C005514; C005519; C024499; C005558; C005826; C006629; C014322; C014323; C014324; C025239; C025899; C027002; C008407; C008414; C008511; C016123; C017453; C023512; C036906; C001379; C025320; C025683; C026056; C031397; C031778; C031831; C023491; C032027; C032570; C026761; C026836; C039984; C017892; C029780; C037962; and CAP0004.

102 The Company provided variance explanations for fiscal years 2010 through 2015 (Exhs. NG-JHP-3(b), JLG-8, at PRGM-323-330; NG-JHP-3(c), JLG-8, at PGRM-270-274; NG-JHP-3(d), JLG-8, at PGRM-160-168; NG-JHP-3(e), JLG-8, at PGRM-1184-1191; NG-JHP-3(f), JHP-8, at PGRM-1149-1157).

103 The Company provided closing reports with its initial filing for fiscal years 2010, 2011, and 2012 (Exhs. NG-JHP-3(b), JLG-8, at PRGM-331-343; NG-JHP-3(c), JLG-8, at PGRM-262-269; NG-JHP-3(d), JLG-8, at PGRM-156-168).

find them sufficient, under the Company's current policies, to allow a determination of prudence. Based on our review of the documents, the Department finds that the costs for these projects were prudently incurred and that the capital investments are used and useful.

With respect to the 47 contested projects, the Attorney General argues that closure papers, if filed at all, were filed late on June 2, 2016, after the close of evidentiary hearings. First, we find that for 26 of the program projects the Company did not provide any documentation on June 2, 2016,[104] but did provide documentation with the initial filing as described above. The Department has reviewed the information supporting these 26 program projects including all supporting documents with specific attention to the variance explanations (see, e.g., Exhs. NG-JHP-3; NG-JHP-4; RR-DPU-43, Atts. 1-3).[105] The Department notes that the program projects are less than $100,000, and under the Company's capital authorization policies do not require variance analyses or closure papers (Tr. 3, at 430-432). Thus, we will not exclude these projects from rate base based on the fact that the Company did not submit closure papers. We further note, however, that the Company did provide some variance analyses, which include cost overruns due to carryover work from prior years caused by severe weather events or outages, additional work written to train workers, and changes in project scope (Exhs. NG-JHP-3(b), JLG-8, at PRGM-323-330; NG-JHP-3(c), JLG-8, at PGRM-270-274;

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104 These consist of projects: C005432; C005563; C006642; C005439; C005441; C005444; C005449; C016492; C005475; C005480; C059664; C032015; C032016; C032018; C033822; C032272; C016120; C016121; C018594; CD00259; C025326; C027927; C032024; C032572; C033764; and C033765.

105 The Company provided variance explanations for fiscal years 2010 through 2015 (Exhs. NG-JHP-3(b), JLG-8, at PRGM-323-330; NG-JHP-3(c), JLG-8, at PGRM-270-274; NG-JHP-3(d), JLG-8, at PGRM-160-168; NG-JHP-3(e), JLG-8, at PGRM-1184-1191; NG-JHP-3(f), JHP-8, at PGRM-1149-1157).

NG-JHP-3(d), JLG-8, at PGRM-160-168; NG-JHP-3(e), JLG-8, at PGRM-1184-1191; NG-JHP-3(f), JHP-8, at PGRM-1149-1157). While these explanations were provided for a group of similar program projects, not the individual program projects, we find them sufficient, under the Company's current policies, to allow a determination of prudence. Based on our review of the documents, the Department finds that the costs for these projects were prudently incurred and that the capital investments are used and useful.

We now turn to the 21 program projects for which the Company filed documentation on June 2, 2016.[106] As discussed above in Section VII.5.a.iii, the Department has granted the Attorney General's motion to strike these documents from the record. Therefore, we will evaluate each of these program projects based on information regarding these projects that was in the record prior to the close of hearings (Exhs. NG-JHP-3; NG-JHP-4).

The Department has reviewed the information supporting the Company's 21 program projects, as described above, with specific attention to the variance explanations (see, e.g., Exhs. NG-JHP-3; NG-JHP-4; RR-DPU-43 & Atts.). The reasons for the variances include carryover work from prior years due to severe weather events or outages, additional work written to train workers, and changes in project scope (Exhs. NG-JHP-3(b), JLG-8, at PRGM-323-330; NG-JHP-3(c), JLG-8, at PGRM-270-274; NG-JHP-3(d), JLG-8, at PGRM-160-168; NG-JHP-3(e), JLG-8, at PGRM-1184-1191; NG-JHP-3(f), JHP-8,

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106 These consists of projects: C005490; C005500; C014821; C021594; C022216; C022217; C005543; C005469; C028147; C025810; C032270; CD00017; C025619; C025813; C027898; C031398; C031774; C035584; C049352; and CD01258. Included in this number is one program project, C006138, for which the Company indicated it would be submitting a closure paper, but did not submit one with the June 2, 2016, filing. As explained below, however, we find that there is sufficient information in the record to evaluate the prudency of this project despite the absence of the closure paper.

at PGRM-1149-1157). The variance explanations for the 2013, 2014, and 2015 storm programs state that storm restoration programs are approved annually based on historic trends, that storm restoration work is mandatory, and that charges and adjustments from FY 2013 events such as Hurricane Sandy and the February Nemo storm were paid in FY 2014 (Exhs. NG-JHP-3(e), JLG-8, at PGRM-1190; NG-JHP-3(f), JHP-8, at PGRM-1155).

While these explanations were provided for a group of similar program projects, not the individual program projects, we find them sufficient, under the Company's current policies, to allow a determination of prudence. Based on our review of the documents, the Department finds that the costs for these projects were prudently incurred and that the capital investments are used and useful.

Additionally, as we stated above, we expect that National Grid will abide by its own capital authorization policies (i.e. preparing closure papers and reauthorization forms) as a reasonable means of maintaining adequate cost controls. Specifically, we note that the closure paper is the opportunity for the Company to reflect upon and document the lessons learned and ensure all close out activities have been performed (Exh. NG-JHP-1, at 17). However, given that National Grid did provide sufficient cost information and variance analyses for the projects at issue, we find that the Company's failure to timely compile and timely produce the closure papers is insufficient to support a finding that the Company failed to maintain adequate cost controls.

viii. Filing Requirements

The Company shall provide, as part of its next CIRM filing the following: (1) prefiled testimony; (2) for capital projects placed in service costing more than $50,000, project details

including: project summary sheet, project cost summary, approval documents such as sanction/authorization papers and re-sanction/reauthorization documents, as required by the Company's capital authorization policies, work order asset detail reports, retirement reports, and direct/indirect reports; (3) closure papers, as required by the Company's capital authorization policies; (4) variance analyses for all projects over $50,000 consistent with the Company's capital authorization policies; (5) fiscal year variance analysis reports for its blanket and program projects; (6) a list of cancelled projects and a description of the disposition of the associated charges; and (7) new policies or updates to policies since the previous CIRM filing, affecting the Company's methods of: (i) approving delegations of authority, sanctioning and re-sanctioning funding projects, (ii) charging capital versus expense, (iii) determining when a capital asset is in danger of failure and should be replaced as part of a damage/failure blanket capital authorization, and (iv) instituting any other changes in accounting, allocation, and/or operational matters.

In its next CIRM filing, the Company also shall explain the cost variances between the final amount approved and the actual amount required to complete the project. For blanket and program projects that are not reauthorized throughout the year, the Company shall explain cost variances between the initial budgeted amount and the actual amount required to complete the project. Further, the Company shall provide fiscal year-end variance reports for blanket and program projects for the fiscal year ending in the calendar year under review and the fiscal year following the calendar year under review. The Company shall also describe any cost control efforts it has undertaken in response to the variances.

Additionally, the Department notes some inconsistencies with respect to when the Company requires reauthorization documentation, closure papers, and variance analyses. In

order to review capital project documentation and understand the Company's complex capital project authorization process and blanket authorization policy, a significant amount of time during evidentiary hearings was devoted to exploring when closure papers and variance explanations are required (see Tr. 3, generally). Going forward, the Department directs the Company to provide all of its capital project documents in text searchable format with its CIRM filings. Moreover, the Department directs the Company to use consistent terminology, to the extent possible, and to ensure that policies are described consistently across documents (e.g., when closure papers are required for program projects). With the additional requirements for variance analyses directed above, the Company also shall document policies for performing variance analyses.

6. Conclusion

Based on all of the above findings, the Department approves the Company's proposed plant additions for inclusion in rate base. As a result of this decision, it no longer is necessary to review the prudency of the Company's capital additions in the following CapEx dockets: D.P.U. 10-79 (2009 CY additions), D.P.U. 11-60 (CY 2010 additions), D.P.U. 12-48 (CY 2011 additions); D.P.U. 13-84 (CY 2012 additions), D.P.U. 14-95 (CY 2013 additions), and D.P.U. 15-84 (CY 2014 additions). Accordingly, upon issuance of this Order, these dockets shall be closed.

C. Cash Working Capital Allowance

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 or for the interest expense incurred on borrowing. D.P.U. 96-50 (Phase I) at 26, citing Western Massachusetts Electric Company, D.P.U. 87-260, at 22-23 (1988). This reimbursement is accomplished by adding a cash working capital component to the rate base calculation.

Cash working capital costs have been determined through either the use of a lead-lag study or a conventional 45-day O&M expense allowance. D.T.E. 03-40, at 92. In the absence of a lead-lag study, the Department has previously relied on a 45-day convention as reasonably representative of O&M working capital requirements. D.T.E. 05-27, at 98; Boston Gas Company, D.P.U. 88-67 (Phase I) at 35 (1988).[107] The Department has expressed concern that the 45-day convention, first developed in the early part of the 20th century, may no longer provide a reliable measure of a utility's working capital requirements. D.T.E. 03-40, at 92, citing D.T.E. 98-51, at 15; D.P.U. 96-50 (Phase I) at 27. In recent years, lead-lag studies have resulted in savings for ratepayers by reducing the cash working capital requirement below the 45-day convention. D.P.U. 11-01/D.P.U. 11-02, at 163, citing D.P.U. 10-114, at 108; D.P.U. 10-70, at 78; D.P.U. 10-55, at 204-205; D.P.U. 09-39, at 114; D.P.U. 09-30, at 151-152; New England Gas Company, D.P.U. 08-35, at 38 (2009); D.T.E. 05-27, at 99-100. For these reasons, the Department requires all electric and gas companies serving more than 10,000

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107 When a fully developed and reliable lead-lag study is not available, FERC applies a 45-day convention to determine the cash working capital allowance. Carolina Power and Light Company, 6 FERC ¶ 61,154, at 61,296 (1979). As a result, companies occasionally refer to the 45-day convention as the "FERC convention." D.P.U. 11-01/D.P.U. 11-02, at 150 n.81.

customers to conduct a fully developed and reliable O&M lead-lag study.

D.P.U. 11-01/D.P.U. 11-02, at 164.

National Grid conducted a lead-lag study to determine its cash working capital requirements (Exh. NG-RRP-5). The Company proposed a cash working capital allowance of $68,019,916 using a net lead-lag factor of 5.70 percent, or 20.82 days (Exhs. NG-RRP-2, at 34 (Rev. 3); NG-RRP-8, at 6 (Rev. 3)).[108]

To determine its proposed cash working capital allowance, the Company first identified the following expense categories: (1) purchased power expense; (2) contract termination charges ("CTC");[109] (3) O&M expense; (4) transmission expense; (5) municipal taxes; (6) federal unemployment taxes; (7) state unemployment taxes; (8) FICA expense (both weekly and monthly);[110] (9) FICA and federal withholding (weekly and monthly); (10) state income tax withholding (weekly and monthly); and (11) incentive thrift (weekly and monthly) (Exh. NG-RRP-5, at 1 (Rev. 3)). The Company then determined a dollar-weighted period of time

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108 The Company reported a total distribution working capital requirement of $68,019,916 from a total dollar amount of $1,192,500,103, resulting in a CWC factor of 5.70 percent, which equates to 20.82 days (Exh. NG-RRP-2, at 34 (Rev. 3)).

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

110 FICA refers to the Federal Insurance Contributions Act. Under FICA, an employer withholds three separate taxes from employees' wages: (1) Social Security tax; (2) Medicare tax; and (3) Medicare surtax. 26 U.S.C. §§ 3110(a) and (b). Also, FICA requires that the employer pay a matching employer share of (1) the Social Security tax and (2) the Medicare tax. 26 U.S.C. §§ 3111(a) and (b).

between the end date for the receipt of service from supplier and the payment date, producing expense lag factors as a percentage of total days in a calendar year ranging between a negative 1.59 percent for monthly state income tax withholding and 24.43 percent for state unemployment taxes (Exh. NG-RRP-5, at 8-24 (Rev. 3)).

Next, the Company developed separate revenue lags for both MECo and Nantucket Electric representing the time delay between the mailing of customers' bills and the receipt of the billed revenues from customers (Exh. NG-RRP-5, at 3 (Rev. 3)). The revenue lags were obtained by first averaging the twelve-month balances of accounts receivable and then dividing the result by the average monthly electric revenues, producing collection lag components of 38.88 days associated with MECo's O&M expenses, 39.07 days associated with MECo's property and payroll taxes, and 23.16 days for Nantucket Electric's overall expenses (Exh. NG-RRP-5, at 3, 9, 26 (Rev. 3)). National Grid then added a billing lag of 1.41 days, representing the average lag from the date a meter is read to the date the bill is sent to the customer (Exh. NG-RRP-5, at 3 (Rev. 3)). The sums of the collection lags and service lags, represented as a percentage of the number of days in a calendar year, are 11.04 percent for MECo's O&M expenses, 11.09 percent for MECo's property and payroll taxes, and 6.73 percent for Nantucket Electric's overall expenses (Exh. NG-RRP-5, at 3, 9 (Rev. 3)).

The Company then subtracted the respective expense lag factors determined above from their respective revenue lag factors and then blended the results for both MECo and Nantucket, producing consolidated cash working capital factors for each expense category ranging between a negative 17.25 percent for federal unemployment taxes and 16.49 percent for municipal taxes (Exh. NG-RRP-5, at 2 (Rev. 3)). These cash working capital factors were then multiplied 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 and CTC of $44,540,304 (Exh. NG-RRP-5, at 26, 30 (Rev. 3)).

As part of this analysis, National Grid computed a separate cash working capital factor associated with purchased power and CTC (Exh. NG-RRP-5, at 30 (Rev. 3)). To determine the cash working capital associated with purchased power, the Company determined a 19.78-day lag for purchased power and 3.05-day lag for CTC, representing 5.42 percent and 0.84 percent of a calendar year, respectively (Exh. NG-RRP-5, at 30 (Rev. 3)). Subtracting these percentages from MECo's revenue lag of 11.09 percent and Nantucket Electric's revenue lag of 6.73 percent as determined above produced purchased power cash working capital factors of 5.39 percent and 5.89 percent for MECo and Nantucket Electric, respectively, along with CTC cash working capital factors of 1.90 percent and 1.31 percent for MECo and Nantucket Electric, respectively (Exh. NG-RRP-5, at 30 (Rev. 3)). The Company then weighted the results for the two companies, producing an overall purchased power cash working capital factor of 5.34 percent and a CTC cash working capital factor of 1.88 percent (Exh. NG-RRP-5, at 1-2 (Rev. 3)). These cash working capital factors were then multiplied by the pro forma expense associated with these expense categories, producing cash working capital allowances of $56,248,188 associated with purchased power and a negative $54,067 for CTC (Exh. NG-RRP-5, at 1 (Rev. 3)).

2. Positions of the Parties

a. Attorney General

The Attorney General does not challenge the Company's cash working capital calculations. However, she argues that if the Department allows National Grid to amortize its

outstanding hardship protected account balances, it also must adjust the Company's cash working capital allowance to recognize the fact that those accounts receivable will no longer affect the cash working capital requirement because removing those accounts will change the revenue lag (Attorney General Brief at 56-57; Attorney General Reply Brief at 33).

According to the Attorney General, the Company seeks to recover $40,982,476 in hardship protected accounts,[111] representing an annualized $491,789,712 in monthly accounts receivable balances that the Company uses as an input in the revenue lag calculation (Attorney General Brief at 57). The Attorney General argues that this balance represents 15.65 percent of the $3,142,435,793 in total revenues used to compute the revenue lag calculation (Attorney General Brief at 57). The Attorney General notes that the Company concedes that the recovery of the hardship protected accounts will have an effect on the cash working capital allowance (Attorney General Reply Brief at 33). Thus, the Attorney General asserts that if the Department accepts the Company's proposal to amortize its hardship accounts receivable balance, the accounts receivable balance used in the lead-lag study should be reduced by 15.65 percent ($491,789,712 / $3,142,435,793) to recognize the elimination of these accounts receivable from the overall balance of accounts receivable (Attorney General Brief at 57; Attorney General Reply Brief at 33). The Attorney General estimates that this elimination will reduce the average revenue lag by 15.65 percent, or 6.11 days (39.07 days x 0.1565 = 6.11 days) (Attorney General Brief at 57).

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111 The $40,982,476 is based on National Grid's second revision to its revenue requirement calculation, the most recent available schedule at the time initial briefs were being prepared (Exh. NG-RRP-2, at 24 (Rev. 2). As noted in Section VIII.J.1 below, based on the Company's most recent revenue requirement calculations, the Company claims a total hardship protected account balance of $52,027,414 (Exh. NG-RRP-2, at 24 (Rev. 3)).

b. Company

National Grid argues that the Department should adopt the Company's lead-lag results and the Company's proposed cash working capital allowance (Company Brief at 21). Further, National Grid contends that the Attorney General's recommendation to reduce the Company's revenue lag for hardship protected accounts is baseless (Company Brief at 58; Company Reply Brief at 45-46). According to the Company, future recovery of these accounts receivable will be appropriately reflected in a future cash working capital study, and that attempting to recognize a pre-funding of these recoveries in the cash working capital study in this case is unwarranted and will understate the Company's true cash working capital requirement (Company Brief at 59; Company Reply Brief at 46). Therefore, National Grid asserts that the Department should reject the Attorney General's recommendation (Company Brief at 59; Company Reply Brief at 46).

3. Analysis and Findings

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

to minimize all factors affecting cash working capital requirements within its control, such as the collections lag. D.P.U. 11-01/D.P.U. 11-02, at 164.

The Attorney General argues that the Department should adjust the Company's cash working capital allowance to account for any recovery of hardship protected account receivable balance over 360 days (Attorney General Brief at 56-57; Attorney General Reply Brief at 33). As discussed further in Section VIII.J.3 below, the Department has allowed the Company to recover $40,607,637, representing the test year balances of these hardship accounts. Further, we find that the Company incurred the costs to provide the services that the hardship protected account receivables represent and will recover those costs prospectively over the five-year amortization period. To the extent that this recovery affects the revenue lag component of National Grid's cash working capital allowances, the change in the revenue lag component will be incorporated in future cash working capital studies. Therefore, the Department finds no need to recalculate the Company's revenue lag.

The Company has included in its lead-lag study cash working capital of $264,963,146 associated with energy efficiency activities (Exhs. NG-RRP-8, at 6 (Rev. 3); NG-RRP-5, at 8 (Rev. 3)). The Green Communities Act[112] specifies that energy efficiency-related costs must be collected through a fully reconciling funding mechanism, and the Department has approved the Energy Efficiency Surcharge ("EES") for this purpose. G.L. c. 25, §§ 19(a), 21(b)(2)(vii); Guidelines, §§ 2.9, 3.2.1. Therefore, the Department finds that these costs should be recovered through the EES and not through base rates. Accordingly, the Department has excluded $264,963,146 in energy efficiency-related expenses from the calculation of the Company's cash

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112 St. 2008, c. 169. An Act Relative to Green Communities.

working capital allowance. The exclusion of these expenses results in a composite lead-lag factor of 5.67 percent (see Schedule 6 below). The Department has reviewed the evidence in support of the Company's lead-lag study and, apart from the inclusion of energy efficiency-related cash working capital, we conclude that the Company properly calculated the revenue lags and expense leads (Exhs. NG-RRP-2, at 4, 34 (Rev.3); NG-RRP-5 (Rev 3); DPU-24-6; DPU-24-7, DPU-24-8, DPU-24-9; DPU-24-10; DPU-24-11; AG-24-14 & Att.; AG-24-15; AG-24-17; Tr. 6, at 872-873). The recalculated lead-lag factor of 5.67 percent is equivalent to 20.7 days, and thus lower than the results under the 45-day convention (Exh. NG-RRP-2, at 34 (Rev. 3); see also NG-RRP-5, at 1 (Rev. 3)).

Application of the cash working capital factor of 5.67 percent to the level of O&M and taxes other than income tax expense authorized by this Order produces a cash working capital allowance of $52,324,086 for the Company. The derivation of this cash working capital allowance is provided in Schedule 6 of this Order.

D. Materials and Supplies

1. Introduction

The Department typically allows a company to include a representative level of its materials and supplies balance in rate base, which is determined using a 13-month average balance. Boston Edison Company, D.P.U. 19991, at 16 (1979); Housatonic Water Works Company, D.P.U. 86-235, at 3-4 (1987); High Wood Water Company, D.P.U. 1360, at 7-8 (1983); Western Massachusetts Electric Company, D.P.U. 1300, at 29 (1983). In its initial filing, National Grid reported a balance of $24,453,573 for its materials and supplies based on a test

year-end balance (Exh. NG-RRP-2, at 30; Tr. 6, at 943-944). The Company later reduced the balance to $23,231,040 based on a 13-month average (Exh. NG-RRP-2, at 30 (Rev. 3)).

2. Positions of the Parties

a. Attorney General

The Attorney General argues that Department precedent requires a utility to use the 13-month average of materials and supplies inventories when calculating its rate base (Attorney General Brief at 22). The Attorney General claims that the Company's 13-month average balance of materials and supplies inventories is $22,852,218, and she urges the Department to use this balance in determining the Company's rate base (Attorney General Brief at 22, citing Exh. AG-2-3, Att.).

b. Company

The Company agrees that its materials and supplies balance should be based on a 13-month average (Company Brief at 20; Company Reply Brief at 16). However, the Company contends that the Attorney General erred in her calculation, and that the correct 13-month average balance is $23,231,039 (Company Brief at 20; Company Reply Brief at 16).[113]

3. Analysis and Findings

Utilities keep on hand various materials and supplies for use in the course of normal operations. The Department's long-standing practice has been to include a representative level of a company's materials and supplies balance in rate base. D.P.U. 19991, at 16. The

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[113] In its initial brief, the Company claimed that the 13-month average balance amounted to $22,473,396 (Company Brief at 20). The Company revised the amount to $23,231,039 in its reply brief (Company Reply Brief at 16). The Company's schedules show the amount at $23,231,040, a minor discrepancy likely due to rounding (Exh. NG-RRP-2, at 30 (Rev. 3)).

Department allows this adjustment to compensate a utility for the carrying cost associated with its inventory. Because of the month-to-month fluctuations in this account, a 13-month average balance is used. D.P.U. 86-235, at 3-4; D.P.U. 1360, at 7-8; D.P.U. 1300, at 29.

The Department has reviewed the Company's schedules and the monthly balances provided in the record (Exhs. NG-RRP-2, at 30 (Rev. 3); AG-2-3, Att.). Based on our review, we find that the Attorney General's calculation is based on the 13-month period from June 2014 through June 2015, whereas the Company's calculation is based on the 13-month period beginning July 2014 through July 2015 (see Exhs. NG-RRP-2, at 30 (Rev. 3); AG-2-3, Att.). In other words, the Attorney General's 13-month period includes the twelve months of the test year (July 2014 through June 2015) and the month preceding the test year, whereas the Company's 13-month period includes the twelve months of the test year and the month following the test year.[114]

The Department's 13-month convention requires the use of monthly balances for the twelve months of the test year, plus the month preceding the first month of the test year in order to calculate the 13-month average balance. See D.P.U 10-114, at 101-102 (approving the company's 13-month average that included the month preceding the test year); D.P.U. 86-235, at 3-4 (requiring the company to include the balance from the month preceding the test year in calculating the 13-month average balance). The Department, therefore, calculates the 13-month average balance of materials and supplies using the Company's monthly balances from June 2014 to June 2015, and we arrive at a total of $22,852,218 (see Exh. AG-2-3, Att.).

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[114] Despite the representation provided by the Company regarding its calculations for the requested average in this matter, the Department notes that the Company's cost of service witness, when asked at the evidentiary hearings, calculated an average balance of $22,852,218 (Tr. 9, at 1438-1439).

Accordingly, the Department will further reduce the Company's proposed materials and supplies balance by $378,821.

E. Asset Retirement Obligations

1. Introduction

As part of its plant in service, the Company has included $332,000 in asset retirement obligations ("ARO") associated with general plant (Exh. NG-RRP-2, at 27, 30 (Rev. 3)).[115] 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. D.P.U. 09-39, at 102. No party commented on brief about the Company's inclusion of AROs in its plant investment.

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 general plant are to be booked to Account 399 (18 CFR Pt. 101, Balance Sheet Chart of Accounts, Electric Plant Instructions, Sec. 10(B)(2)).[116] Accounting requirements, however, do not necessarily dictate ratemaking treatment. D.P.U./D.T.E. 97-95, at 77; Massachusetts Electric Company, D.P.U. 92-78, at 79-80 (1992); Cape Cod Gas Company, D.P.U. 20103, at 18-19 (1979). The accounting systems prescribed by the Department, including the USOA-Electric

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115 The Company reported no accumulated depreciation associated with its ARO as of the end of the test year (Exh. NG-RRP-2, at 27 (Rev. 3)).

116 The Department has adopted the USOA-Electric Companies prescribed by FERC, with several modifications. 220 C.M.R. § 51.01(1). The applicable FERC system of accounts, entitled Uniform System of Accounts Prescribed For Public Utilities and Licensees Subject to the Provisions of the Federal Power Act, are set forth at 18 CFR, Part 101.

Companies, represent systems whereby costs are categorized to provide the Department with information on utility operations and aid in the review of utility costs. 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 per se treatment 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 Company's AROs represent estimated future removal costs in the form of balance sheet entries that do not represent plant in service. D.P.U. 09-39, at 103-104; see also Western Massachusetts Electric Company, D.T.E. 05-9, at 13 (2005). National Grid's proposal, in effect, seeks not only recognition of its future retirement costs, but also recovery of carrying charges on those future costs. Regardless of the requirements of financial reporting, there is no basis to provide any regulated utility with a return on costs that have not yet been incurred. D.P.U. 09-39, at 103-104. Moreover, the Department is not persuaded that the net salvage factors used in the Company's depreciation study (see Section VIII.E below) 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 reduces National Grid's proposed rate base by $332,000.

VIII. OPERATIONS AND MAINTENANCE EXPENSES

A. Employee Compensation and Benefits

1. Introduction

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

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

National Grid's employee compensation program is known as the "Total Rewards Program" (Exh. NG-MPH-1, at 6). The Total Rewards Program encompasses fixed pay, variable pay, medical and dental insurances, life insurance, a 401(k) retirement savings plan, and pensions and post-retirement benefits (Exh. NG-MPH-1, at 6).

2. Non-Union Wages

a. Introduction

During the test year, National Grid booked $69,182,833 in payroll expense for non-union personnel, including base wages, variable pay, and overtime pay (Exh. NG-RRP-2, at 8-10). Of that amount, MECo and Nantucket Electric directly incurred $6,961,426 in payroll expense (Exh. NG-RRP-2, at 8). NGSC and other National Grid plc affiliates allocated, respectively, $61,428,586 and $792,821 to the Company's test year payroll expense (Exh. NG-RRP-2, at 9-10).[117]

The Company initially proposed an increase to non-union payroll expense of $3,710,260 based on: (1) a non-union wage increase of 3.5 percent effective July 1, 2016; and (2) the inclusion of 27 approved non-union NGSC positions vacated during the test year and unfilled as of June 30, 2015 (Exhs. NG-RRP-1, at 28-29; NG-RRP-2, at 8-10; NG-MPH-1, at 8-9; DPU-8-20, Att. at 1).[118] Based on revisions made during the proceeding, National Grid now proposes to increase non-union payroll expense by $1,965,104 (Exh. NG-RRP-2, at 8-10 (Rev. 3)). This change represents a reduction to the 2016 non-union wage increase from 3.5 percent to 3.2 percent, a reduction to the approved non-union NGSC positions from 27 to 25, and a correction to the allocation of NGSC salaries to the Company's payroll expense (Exhs. NG-RRP-2, at 8-10 (Rev. 3); NG-MPH-Rebuttal-1, at 8; NG-MPH-Rebuttal-3; NG-RRP-Rebuttal-1, at 15; DPU-8-20; AG-22-1, Att. at 1). The non-union wage increases were determined based on an industry compensation assessment performed by Towers Watson on

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[117] Minor discrepancies in any of the amounts appearing in this section are due to rounding.

[118] Proposed adjustments for all approved positions are addressed in Section VIII.A.4 below.

behalf of the Company, projected increases in non-union base salaries, and an historical comparison of non-union base wage increases to union base wage increases (Exhs. NG-MPH-1, at 8-13; NG-MPH-2; NG-MPH-7; NG-MPH-8).

b. Positions of the Parties

i. Attorney General

The Attorney General's comments regarding non-union wage adjustments are specific to those made to include vacant positions and are addressed in Section VIII.A.4.b.i below (Attorney General Brief at 24-25).

ii. Company

The Company argues that its non-union compensation is market competitive and that the cost of service includes known and measurable changes occurring before the mid-point of the rate year (Company Brief at 94). Specifically, National Grid claims that the Towers Watson analyses demonstrate that the salary range for each of its six employee bands is competitive with the median market rate (Company Brief at 96, citing Exh. NG-MPH-1, at 6-7, 9, 12). Further, the Company argues that the aggregate non-union increase of 3.2 percent scheduled to take effect on July 1, 2016, is based on market studies currently available to National Grid and closely aligned with the relevant markets (Company Brief at 97, citing Exhs. NG-MPH-1, at 9, 12-13; NG-MPH-7; DPU-8-26). The Company asserts that its non-union salary increase is reasonable and should be approved by the Department for inclusion in the Company's cost of service (Company Brief at 97).

c. Analysis and Findings

The Department's well-established standard for post-test year non-union payroll adjustments requires a company to demonstrate that: (1) non-union salary increases are scheduled to become effective no later than six months after the date of the Department's Order; (2) if the increase has not occurred, that there is an express commitment by management to grant the increase; (3) there is an historical correlation between union and non-union raises; and (4) the non-union increase is reasonable. D.P.U. 85-266-A/85-271-A at 107; D.P.U. 96-50 (Phase I) at 42; D.P.U. 95-40, at 21; Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 14 (1983).

The Company provided a management commitment letter stating that a 3.2 percent payroll increase for non-union Company employees would take place on July 1, 2016 (Exh. NG-MPH-Rebuttal-3). Additionally, the Company provided a ten-year history of union and non-union wage increases (Exh. NG-MPH-8). Between 2006 and 2015, annual union wage increases were between 2.5 percent and 3.25 percent, and non-union wage increases were between 0.43 percent and 3.9 percent (Exh. NG-MPH-8). Based on this information, the Department finds that a sufficient correlation exists between union and non-union wage increases. See Fitchburg Gas and Electric Light Company, D.P.U. 07-71, at 76 (2008); Essex County Gas Company, D.P.U. 85-59-A at 18 (1988).

Finally, with respect to the reasonableness of the non-union wage increase, the Company sets total cash compensation equal to the median of the marketplace (Exh. NG-MPH-1, at 9). Specifically, National Grid participates in an annual market study performed by an independent third-party vendor, Towers Watson, and, using that study, compares overall pay of certain

benchmark positions to the 50th percentile of overall pay for comparable jobs in similarly sized companies (Exh. NG-MPH-1, at 9). The Towers Watson study concluded that the Company's non-union compensation levels are competitive against similarly sized energy services companies (those with revenues greater than $6 billion) as well as total sample energy services companies (Exh. NG-MPH-2, at 5). The Department determines that National Grid's review of industry compensation data is sufficient to confirm the reasonableness of its non-union salary levels. See D.P.U. 10-55, at 245; D.T.E. 05-27, at 109; D.T.E. 02-24/25, at 94.

Based on the above, we find that National Grid has demonstrated that: (1) there is an express management commitment to grant a 3.2 percent non-union wage increase; (2) there is an historical correlation between union and non-union payroll increases; and (3) the non-union wage increases are reasonable. Accordingly, we allow the Company's adjusted non-union payroll expense, subject to our findings below on staffing levels.

3. Union Wages

a. Introduction

During the test year, National Grid booked $72,861,689 in payroll expense for union personnel, including base wages, variable pay, and overtime pay (Exh. NG-RRP-2, at 8-10). Of that amount, MECo and Nantucket Electric directly incurred $57,915,195 in payroll expense (Exh. NG-RRP-2, at 8). NGSC and other National Grid plc affiliates allocated $11,965,079 and $2,981,415, respectively, to the Company's test year payroll expense (Exh. NG-RRP-2, at 9-10).

The Company initially proposed an increase to test year union payroll expense of $7,285,812 based on: (1) Company and NGSC union wage increases of 2.5 percent effective May 12, 2016; (2) affiliated companies' union wage increases of 2.0 percent and 2.5 percent

effective April 1, 2016 and May 12, 2016, respectively; (3) the inclusion of five approved union Company positions vacated during the test year and unfilled as of June 30, 2015; and (4) nine approved union NGSC positions vacated during the test year and unfilled as of June 30, 2015[119] (Exhs. NG-RRP-1, at 27-29; NG-RRP-2, at 8-10; NG-MPH-1, at 14-15; DPU-8-19, Att.; DPU-8-20, Att. at 1). Based on revisions made during the proceeding, National Grid now proposes to increase union payroll expense by $7,001,070 (Exh. NG-RRP-2, at 8-10 (Rev. 3)). This change represents a reduction to the total approved union positions from 14 to twelve and a correction to the allocation of NGSC salaries to the Company's payroll expense (Exhs. NG-RRP-2, at 8-10 (Rev. 3); DPU-8-19, Att.; DPU-8-20; AG-22-1, Att. at 1). The union wage increases were determined by currently effective collective bargaining agreements (Exhs. NG-MPH-1, at 14-15; AG-1-42, Atts. 1-17).

b. Positions of the Parties

i. Attorney General

The Attorney General's comments regarding union wage adjustments are specific to those made to include vacant positions and are addressed in Section VIII.A.4.b.i, below (Attorney General Brief at 22-25).

ii. Company

The Company states that its union compensation is market competitive and that the cost of service includes known and measurable changes occurring before the mid-point of the rate year (Company Brief at 94). Specifically, National Grid argues that the analysis provided demonstrates that the hourly rates paid to its union employees are within the range of

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[119] Proposed adjustments for all approved positions are addressed in Section VIII.A.4 below.

surrounding utilities (Company Brief at 98, citing Exh. NG-MPH-9).[120] The Company also claims that it has illustrated the reasonableness of union wage levels (Company Brief at 98). Further, National Grid contends that the proposed union wage increases are based on currently effective collective bargaining contracts and, therefore, satisfy the Department's known and measurable requirement for post-test year union wage adjustments (Company Brief at 95, 97). Based on these considerations, the Company asserts that its union compensation costs are reasonable and should be approved by the Department for recovery (Company Brief at 97).

c. Analysis and Findings

The Department's standard for post-test year union payroll adjustments requires that three conditions be met: (1) the proposed increase must take effect before the midpoint of the first twelve months after the date of the rate increase; (2) the proposed increase must be known and measurable (i.e., based on signed contracts between the union and the company); and (3) the proposed increase must be reasonable. D.P.U. 11-01/D.P.U. 11-02, at 174; D.P.U. 96-50 (Phase I) at 43; D.P.U. 95-40, at 20; D.P.U. 92-250, at 35.

The Company's proposed union payroll adjustments appropriately include only those increases that have been granted before April 1, 2017, the midpoint of the first twelve months after the Department's Order in this proceeding (Exhs. NG-MPH-1, at 14-15; AG-1-42, Atts. 1-17). Further, because the union payroll increases are based on signed collective bargaining agreements, the Department finds that the proposed increases are known and measurable (Exh. AG-1-42, Atts. 1-17). Finally, with respect to the reasonableness of the union

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120 For seven positions, the Company compared its union wage pay levels with pay levels for nine other New England electric utilities (seven investor owned and two municipals), calculating median, average, and maximum pay rates for each position (Exh. NG-MPH-9).

wage increases, National Grid submitted a comparison of its union salaries to utilities throughout New England (Exhs. NG-MPH-1, at 15; NG-MPH-9). National Grid's hourly pay rates are comparable to those of other utility companies in the region for the selected union job titles (Exh. NG-MPH-9). Thus, we find that the Company has demonstrated the reasonableness of its union wage increases.

Based on the above, the Department finds that National Grid's union wage increases (1) take effect before the midpoint of the first twelve months after the rate increase; (2) are known and measurable; and (3) are reasonable. Accordingly, we allow the Company's proposed union payroll adjustments, subject to our findings below on staffing levels.

4. Employee Staffing Levels

a. Introduction

National Grid proposed adjustments for changes in staffing levels after the test year, calculating the wage expense based on the employee complement as of June 30, 2015 (Exh. NG-RRP-1, at 27). The Company initially proposed to include $362,627 in wages and salaries for five approved union Company positions that were vacated during the test year and remained unfilled as of June 30, 2015 (Exhs. NG-RRP-1, at 27; NG-RRP-2, at 8). Additionally, the Company initially proposed to include $3,060,864 in wages and salaries for nine approved union NGSC positions and 27 approved non-union NGSC positions that were vacated during the test year and remained unfilled as of June 30, 2015 (Exhs. NG-RRP-1, at 28-29; NG-RRP-2, at 9; DPU-8-20, Att.). Based on revisions made during the proceeding, National Grid now proposes to include $267,010 in wages and salaries for four approved union Company positions (Exhs. NG-RRP-2, at 8 (Rev. 3); NG-RRP-Rebuttal-1, at 36). The Company also proposes to

include $544,618 in wages and salaries for eight approved union NGSC positions and 25 approved non-union NGSC positions that were vacated during the test year and remained unfilled as of June 30, 2015 (Exhs. NG-RRP-2, at 9 (Rev. 3); NG-RRP-Rebuttal-1, at 15; AG-22-1, Att. at 1). These changing in staffing levels, and the corresponding decreases in expenses, were the result of position cancellations and a correction to the allocation of NGSC salaries to the Company's payroll expense (Exhs. NG-RRP-2, at 9 (Rev. 3); DPU-8-20; AG-22-1, Att. at 1).

b. Positions of the Parties

i. Attorney General

The Attorney General argues that the Department should reject the Company's proposal to include four Company and 33 NGSC vacant positions in its cost of service, including proposed increases to payroll expense, employee benefits costs, and payroll taxes (Attorney General Brief at 22-24). Specifically, the Attorney General claims that the Company has not established that the filling of the vacant positions is outside the normal ebb and flow of its workforce complement (Attorney General Brief at 23). Further, the Attorney General contends that the Company has provided no evidence that the employee level as of June 30, 2015, which does not include the vacant positions, is abnormal or unreflective of typical vacancy conditions (Attorney General Brief at 25). Thus, the Attorney General asserts that all four Company and 33 NGSC positions should be excluded from the cost of service in this case (Attorney General Brief at 23 and 25). The Attorney General recommends a pro forma wage and salary expense reduction of $145,272 to eliminate the four proposed Company positions, as well as reductions of $38,335 and $10,825 in associated employee benefits expenses and payroll taxes, respectively

(Attorney General Brief at 24, citing Exh. AG-DJE-Rebuttal-1, Sch. DJE-1). Additionally, the Attorney General recommends a pro forma wage and salary expense reduction of $374,509 to eliminate the 33 proposed NGSC positions, as well as reductions of $75,887 and $27,906 in associated employee benefits expenses and payroll taxes, respectively (Attorney General Brief at 25, citing Exhs. AG-DR-Rebuttal-1, at 4; NG-RRP-Rebuttal-2, column NG(c)).

ii. Company

The Company argues that its proposal to include four Company and 33 NGSC positions in the cost of service is narrower than the Attorney General suggests, is backed by Department precedent, and should be approved by the Department (Company Brief at 70-71). National Grid agrees with the Attorney General that is it reasonable to assume that the Company and NGSC will always have vacant positions (Company Brief at 70). However, the Company states that it does not seek to make adjustments for all Company and NGSC positions that were vacant as of June 30, 2015, but rather a narrow subset of those positions (Company Brief at 70). The Company maintains that its proposal covers only those Company and NGSC positions that were filled during the test year, were vacant as of June 30, 2015, and were filled prior to the filing of the instant case or prior to the expiration of this proceeding (Company Brief at 70). Additionally, National Grid contends that its request is similar to one previously approved by the Department for New England Gas Company (n/k/a Liberty Utilities (New England Natural Gas Company) Corp. d/b/a Liberty Utilities) (Company Brief at 71, citing D.P.U. 10-114, at 135). National Grid argues that New England Gas Company's proposal to include costs associated with a position filled during the 2009 test year, vacated as of 2010, and then filled by a temporary employee is analogous to the Company's proposal in this proceeding (Company Brief