STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

The Narragansett Electric Company
d/b/a National Grid
R.I.P.U.C. Docket No. 4473 Docket No. 4473
RE: FY 2015 Electric Infrastructure,
Safety, and Reliability Plan :

PREFILED DIRECT TESTIMONY OF

Gregory L. Booth, PE
President, PowerServices, Inc.
On Behalf of Rhode Island Division of Public Utilities and Carriers

February 21, 2014

Prepared by:
Gregory L. Booth, PE

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Prefiled Direct Testimony of

Gregory L. Booth, PE, President
PowerServices, Inc.

On Behalf of Rhode Island Division of Public Utilities and Carriers
Docket No. 4473

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DIRECT TESTIMONY OF GREGORY L. BOOTH, PE

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND THE BUSINESS ADDRESS OF YOUR EMPLOYER.

A. My name is Gregory L. Booth. I am employed by PowerServices, Inc. ("PowerServices"), located at 1616 E. Millbrook Road, Suite 210, Raleigh, North Carolina 27609.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS MATTER?

A. I am testifying on behalf of the Rhode Island Division of Public Utilities and Carriers ("Division").

Q. WHAT DOES YOUR POSITION WITH POWERSERVICES, INC., ENTAIL?

A. As President of PowerServices, Inc., an engineering and management services firm, I am responsible for the direction, supervision, and preparation of engineering projects and management services for our clients, including the corporate involvement in engineering, planning, design, construction management, and testimony.

Q. WOULD YOU PLEASE OUTLINE YOUR EDUCATIONAL BACKGROUND?

A. I graduated from North Carolina State University in Raleigh, North Carolina in 1969 with a Bachelor of Science Degree in Electrical Engineering. I am a registered professional engineer in twenty-two (22) states, including Rhode Island, as well as the District of Columbia. I am also a registered land surveyor in North Carolina. I am also registered under the National Council of Examiners for Engineering and Surveying.

Q. ARE YOU A MEMBER OF ANY PROFESSIONAL SOCIETIES?

A. I am an active member of the National Society of Professional Engineers ("NSPE"), the Professional Engineers of North Carolina ("PENC"), The Institute of Electrical and Electronics Engineers ("IEEE"), American Public Power Association ("APPA"), American Standards and Testing Materials Association ("ASTM"), the National Fire Protection Association ("NFPA"), and Professional Engineers in Private Practice ("PEPP"). I have also served as a member of the IEEE Distribution Subcommittee on Reliability and as an advisory member of the National Rural Electric Cooperative Association ("NRECA)"-Cooperative Research Network, which is an organization similar to EPRI.

Q. PLEASE BRIEFLY DESCRIBE YOUR EXPERIENCE WITH ELECTRIC UTILITIES.

A. I have worked in the area of electric utility and telecommunication engineering and management services since 1963. I have been actively involved in all aspects of electric utility planning, design and construction, including generation and transmission systems, and North American Electric Reliability Corporation ("NERC") compliance.

Q. HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT BEFORE THE RHODE ISLAND PUBLIC UTILITIES COMMISSION?

A. Yes. I have testified before the Rhode Island Public Utilities Commission on numerous matters, including Docket Nos. 2489, 2509, 2930, 3564, 3732, 4029, 4218, 4237, 4307, 4360, and D-11-94. My testimony in Rhode Island has included filed and live testimony on previous Electric Infrastructure, Safety and Reliability Plan Fiscal Year Proposal filings by National Grid in Docket Nos. 4218, 4307 and 4382.

Q. HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT IN OTHER JURISDICTIONS?

A. I have testified before the FERC and numerous state commissions, including in Delaware, Florida, Maryland, Massachusetts, North Carolina, Pennsylvania, and Virginia.

Q DOES ANY OF YOUR TESTIMONY AND DO ANY OF THE ORDERS ISSUED IN THESE OTHER JURISDICTIONS RELATE TO YOUR RCOMMENDATIONS BEING PRESENTED ON BEHALF OF THE DIVISION?

A. As it relates to my recommendations to this Commission, I have filed testimony and provided live testimony in Massachusetts and Virginia on multiple occasions which addressed pole attachment by communication companies and reimbursement for cost incurred by the electric utility. My testimony and the Orders from these proceedings to which I refer were regarding telecommunication companies providing just and reasonable compensation to electric utilities for certain benefits the communication company receives from joint ownership, or joint use, of electric poles and rights-of-way. Specifically applicable to this Docket, one of my recommendations was that the Company recovery for vegetation management costs from Verizon be at an appropriate level consistent with the existing Joint Ownership Agreement. The Massachusetts Department of Public Utilities has taken a comparable position in storm reimbursement dockets, including National Grid Docket No. DPU 11-56. I will discuss my recommendations concerning vegetation management in further detail under Section III of my Pre-Filed Direct Testimony and in *Exhibit GLB-1*.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

A. The purpose of my testimony is to introduce *Exhibit GLB-1*, Report of Gregory L. Booth, PE on the review of the National Grid Electric Infrastructure, Safety and Reliability Plan FY 2015 dated December 20, 2013 ("ISR Plan"). My testimony will briefly summarize the collaborative process between the Division and National Grid, which resulted in the ISR Plan filed December 20, 2013, together with summarizing the details of *Exhibit GLB-1* and my recommendations. My testimony and *Exhibit GLB-1* will also address the one area, vegetation management, in which a consensus could not be achieved.

III. ISR PLAN EVALUATION PROCESS

Q. WOULD YOU BRIEFLY OUTLINE THE PROCESS WHICH LEADS TO THE DIVISION'S SUPPORT OF THE NATIONAL GRID ISR PLAN FILED ON DECEMBER 20, 2013 IN THIS DOCKET?

A. Yes.

- First, in August 2013, during a conference National Grid provided a preliminary discussion of its entire planning process and the reports required of National Grid in advance of the FY 2105 filing. There were also additional telephone discussions related to the contact voltage program and the volt/var optimization process and plan which are included in a portion of the FY 2015 ISR Plan.
- Second, National Grid submitted an initial FY 2015 ISR Plan Proposal on October 4, 2013 to the Division. On November 4, 2013, National Grid submitted a revision to page 21 of the ISR Plan to correct the Substation Metalclad Switchgear Replacement budget amount. In collaboration with the Division, I performed an extensive review of this ISR Plan in the context of prior plans, historical spending, and new programs.
- Third, I prepared a detailed set of discussion items which were used during a November 14, 2013 conference with National Grid. During this conference, all issues and expenditures were discussed and National Grid developed a data request which was consistent with the discussions and questions addressed during the conference. National Grid subsequently submitted a portion of its responses to the data request as Responses to the Division's First Set of Requests on November 22, 2013.
- Fourth, PowerServices and National Grid developed a budget template to include current and 4-year projections for major ISR Plan categories along with sub-components of the System Capacity & Performance and Asset Condition ISR Plan

categories. National Grid provided the completed budget template and the remaining responses to the Division's First Set of Requests on December 2, 2013.

- Fifth, PowerServices submitted a set of proposed adjustments to each category and line item to the December 6, 2013 National Grid ISR Plan Proposal.
- Sixth, the Division, PowerServices, and National Grid held a second conference on December 11, 2013 to finalize the adjustments and attempt to reach a consensus position.
- Lastly, throughout the process, National Grid was open to the Division's recommended adjustments with the exception of vegetation management.

The following chart summarizes the adjustments by category and the agreement reached between the Division and National Grid which is represented in National Grid's December 20, 2013 filing:

SPENDING RATIONALE	INITIAL FY2015 PROPOSED BUDGET (10-4-13)	POWERSERVICES ADJUSTMENTS	FILED FY2015 PROPOSED BUDGET (12-20-13)
Statutory/Regulatory	$ 14,637,000	$ (100,000)	$ 14,537,000
Damage/Failure Total	$ 9,816,000	$ -	$ 9,816,000
Subtotal	$ 24,453,000	$ (100,000)	$ 24,353,000
Asset Condition	$ 23,511,000	$ (4,000,000)	$ 19,511,000
Non-Infrastructure	$ 277,000	$ -	$ 277,000
System Capacity and Performance	$ 21,759,000	$ -	$ 21,759,000
Subtotal	$ 45,547,000	$ (4,000,000)	$ 41,547,000
Grand Total	**$ 70,000,000**	**$ (4,100,000)**	**$ 65,900,000**

IV. COMMENTS ON WITNESS TESTIMONY

Q. HAVE YOU REVIEWED THE PRE-FILED TESTIMONY OF JENNIFER L. GRIMSLEY AND RYAN MOE?

A. Yes.

Q. WOULD YOU PROVIDE ANY COMMENTS YOU HAVE IN REGARD TO THE FILED TESTIMONY OF THESE TWO WITNESSES?

A. Yes. The testimony of Ms. Grimsley and Mr. Moe accurately reflects the FY 2015 ISR Plan which the Division and PowerServices concurred would be an appropriate balance between system reliability and cost to enable National Grid to maintain a safe and reliable electric distribution system for its Rhode Island customers. However, the pre-filed testimony does not address my ultimate recommendation regarding vegetation management expenditures. After extensive discussions with National Grid, I agreed that the level of proposed expenditures for the FY 2015 vegetation management plan were reasonable, however, I recommended an expected downward adjustment to account for Verizon's responsibility under the Joint Ownership Agreement. This downward adjustment applies to the level of cost recovery from the electric ratepayer and not to the ultimate amount of vegetation management activity necessary. Since the testimony and its Exhibit 1 do not detail the adjustment process and issues raised by the Division, I am including *Exhibit GLB-1* which provides details concerning the entire Division analysis and adjustment process and engineering justification.

V. REPORT SUMMARY

Q. PLEASE BRIEFLY SUMMARIZE YOUR REPORT ATTACHED AS *EXHIBIT GLB-1*.

A. The report contains an Introduction which describes the overall process and summarizes the adjustments which resulted in a consensus for the FY 2015 ISR Plan Proposed Budget of $65,900,000 for capital items. National Grid proposed a Vegetation Management Program expense budget of $7,726,000, which did not reflect an anticipated reduction in the recovery from the electric ratepayers of $2,003,736 to account for Verizon's responsibility. Also, an Inspections and Maintenance Program expense budget of $2,995,000 is included. The *Exhibit GLB-1* report section on Capital Investment Plan discusses in detail each major category: Statutory/Regulatory; Asset Condition; Non-Infrastructure; System Capacity and Performance; Vegetation Management; and Inspection and Maintenance, outlining the issues considered and the adjustments proposed, and the reasoning for the adjustments as accepted by National Grid. A detailed summary chart contained in *Exhibit GLB-1* as Appendix-3 shows each Spending Rationale and Budget Class with the October 2013 initial proposed budget, our recommended adjustments, our recommended budget, and the December 20, 2013 Filed Proposed Budget which does not include the proposed vegetation management adjustment.

The report contains a conclusion which supports the FY 2015 ISR Plan Proposal Budget as filed by National Grid on December 20, 2013 with the exception of the level of vegetation management to be included in rates. The conclusion also recommends seven (7) additional action items.

VI. CONCLUSION

Q. DO YOU AND THE DIVISION SUPPORT THE NATIONAL GRID FY 2014 ELECTRIC ISR PLAN PROPOSAL FOR $65,900,000 IN BUDGETED CAPITAL EXPENDITURES, WITH $7,726,000 IN VEGETATION MANAGEMENT EXPENSES AND $2,995,000 IN INSPECTION AND MAINTENANCE EXPENSES?

A. We did not reach agreement on all cost components. We have recommended a downward adjustment in the vegetation management to account for cost recovery from electric ratepayers. Although the budget level is appropriate, we recommend that $2,003,736 come from Verizon and not be included in the electric rates.

Q. WHAT ARE THE ADDITIONAL RECOMMENDATIONS YOU HAVE MADE IN YOUR REPORT *EXHIBIT GLB-1*?

A. The seven (7) additional recommendations I have provided in my *Exhibit GLB-1* report are summarized in the following list, and are provided with additional discussion in my report Conclusion.

1. National Grid shall initiate a 10-year system capacity modeling plan ("Long Range Plan") in order to increase the level of support and transparency for the capital budget. The Company shall submit a report with updates on modeling activities in addition to the proposed Long Range Plan (completed portions) at least 120 days prior to filing its FY 2016 ISR Plan Proposal, but in any event no later than August 31, 2014.
2. National Grid shall complete a detailed budget for System Capacity & Performance and Asset Condition, at least 120 days prior to filing its FY 2016 ISR Plan Proposal, but in any event no later than August 31, 2014.

3. National Grid shall submit an evaluation of future proposed Asset Condition projects as compared to the Company's Long Range Plan at least 120 days prior to filing its FY 2016 ISR Plan Proposal, but in any event no later than August 31, 2014.
4. National Grid shall continue to submit its detailed substation capacity expansion plans and load projections, including an evaluation of future proposed projects against the Company's Long Range Plan, at least 120 days prior to filing its FY2015 ISR Plan Proposal, but in any event no later than August 31, 2014.
5. National Grid shall continue to submit a cost-benefit analysis on the Vegetation Management Cycle Clearing Program and a separate cost-benefit analysis on the Enhanced Hazard Tree Management program for the Division's review prior to submitting the Company's FY2016 ISR Plan Proposal, but in any event no later than August 31, 2014.
6. National Grid shall continue to submit its Metal-Clad Switchgear replacement program cost-benefit analysis to the Division prior to submitting the Company's FY2016 ISR Plan Proposal, but in any event no later than August 31, 2014.
7. National Grid should more aggressively pursue payment from Verizon for its portion of the vegetation management obligation per the Joint Ownership Agreement. The vegetation management budget included in the electric rates will be reduced by the recommended $2,003,736, which is the portion that should be reimbursed by Verizon based on National Grid's prior fiscal year expenditures.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

AFFIDAVIT OF GREGORY L. BOOTH, PE

Gregory L. Booth, does hereby depose and say as follows:

I, Gregory L. Booth, on behalf of the Rhode Island Division of Public Utilities and Carriers, certify that testimony, including information responses, which bear my name was prepared by me or under my supervision and is true and accurate to the best of my knowledge and belief.

Signed under the penalties of perjury this the 21st day of February, 2014.

Gregory L. Booth

I hereby certify this document was prepared by me or under my direct supervision. I also certify I am a duly registered professional engineer under the laws of the State of Rhode Island, Registration No. 8078.

GREGORY L. BOOTH
No. 8078
REGISTERED
PROFESSIONAL ENGINEER
(ELECTRICAL)

Gregory L. Booth, PE

EXHIBIT GLB-1

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

REPORT OF

Gregory L. Booth, PE, President
PowerServices, Inc. d/b/a PowerServices and Consulting, Inc.
On Behalf of Rhode Island Division of Public Utilities and Carriers
Concerning
The Narragansett Electric Company d/b/a National Grid's Proposed
FY 2015 Electric Infrastructure, Safety, and Reliability Plan
Docket No. 4473

February 21, 2014

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PREFACE

PowerServices, Inc. was engaged by the State of Rhode Island Division of Public Utilities and Carriers ("RIDPUC") to evaluate the Electric Infrastructure, Safety and Reliability ("ISR Plan" or "Plan") Plan FY 2015 Proposal submitted by National Grid. As part of the review of the plan, numerous data requests were submitted and responses provided by National Grid. Additionally, conferences were held with National Grid and their key personnel involved in the development of the Plan. The Legislative Act amending Chapter 39-1 "Revenue decoupling", 39-1-27.7.1, provided National Grid the right to file an ISR Plan and receive considerations for the Plan. The statute provides for evaluation by the Division, and for National Grid and the Division to reach an agreement on a proposed plan and submit a mutually agreed upon Plan. The following report describes the process and consensus position reached between the Division and National Grid.

REPORT OF

Gregory L. Booth, PE, President
PowerServices, Inc. d/b/a PowerServices and Consulting, Inc.
On Behalf of Rhode Island Division of Public Utilities and Carriers
Concerning
The Narragansett Electric Company d/b/a National Grid's Proposed
FY 2015 Electric Infrastructure, Safety, and Reliability Plan
Docket No. 4473

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I. INTRODUCTION

PowerServices was engaged by the Rhode Island Division of Public Utilities and Carriers ("Division") to assist in the evaluation of the initial National Grid Electric Infrastructure, Safety, and Reliability Plan FY 2015 Proposal (the "ISR Plan" or "Plan") dated October 4, 2013 as amended on November 4, 2013, and the final Electric Infrastructure, Safety, and Reliability Plan FY 2015 Proposal dated December 20, 2013 as filed in Docket 4473. The evaluation followed the same process of analysis completed for the FY 2012, FY 2013, and FY 2014 ISR Plans. This Report will include an explanation of the process for the initial ISR Plan proposal evaluations and collaborative efforts, resulting in a reduction of FY 2015 capital spending on infrastructure projects, operation and maintenance ("O&M") expenses for Vegetation Management ("VM"), and O&M expenses for an Inspection and Maintenance ("I&M") program from the Company's FY 2015 ISR Plan Proposal submitted to the Division October 4, 2013. This process, as provided for in Chapter 39-1-27.7.1 of the General Laws entitled "Revenue Decoupling", is for the Company, prior to the start of each fiscal year, to submit its ISR spending plan and consult with the Division regarding said Plan. The Division is also bound by statute to "cooperate in good faith to reach an agreement on a proposed plan." This process ultimately resulted in the Division and the Company reaching agreement on an appropriate level of the capital spending and O&M expenses for FY 2015 to be included in what is now the Company's filing of an Electric ISR Plan in Docket No. 4473. The Division and the Company did not agree on an adjustment, accounting for Verizon's responsibility for vegetation management, to be netted against the Company's proposed FY 2015 budget.

The Company provided its initial proposed FY 2015 plan to the Division in an October 4, 2013 submittal. The initial ISR Plan followed very closely the format and principals agreed to in the FY 2012 ISR Plan, FY 2013 ISR Plan, and FY 2014 ISR Plan, as approved. Most of the Company's budget line items were structurally similar to the previous Plans with modifications in the cost structure and the Company generally met the guidelines used to reach agreement for the cost during the last evaluation process.

An in-depth analysis of each line item and component included in the FY 2015 ISR Plan was undertaken. The evaluation and analysis process was performed utilizing the following procedure: (1.) the preliminary Plan filed with the Division was closely evaluated, (2.) an August 23, 2013 conference call (Appendix-1 contains the Agenda for this call) was held between the Division, PowerServices, and the Company to discuss the planning process and the reports required of National Grid in advance of the FY 2105 ISR Plan filing, (3.) a November 14, 2013 conference call was held between the Division, PowerServices, and the Company, in which each component of the FY 2015 ISR Plan was discussed in detail. During the conference call, a series of questions were posed to the Company on the Statutory/Regulatory, Damage/Failure, Asset Condition, System Capacity and Performance, and Vegetation Management budget categories. To the extent possible, the Company answered or clarified open ended questions during the conference call and developed a data request to consolidate inquiries. The Company agreed to document answers to the data request resulting from the call, and a portion of these responses were provided back to the Division and PowerServices on November 22, 2013 as part of Data Request No. 1 Responses, (4.) The Company, at the request of PowerServices, developed a detailed budget

for System Capacity & Performance and Asset Condition spending categories as part of Data Request No. 1. The Company completed the budget and provided remaining responses to Data Request No. 1 on December 6, 2013, (5.) On December 6, 2013, PowerServices submitted through the Division to the Company, a spreadsheet which proposed a series of adjustments to the various components of the FY 2015 ISR Plan, (6.) a final conference call was held between PowerServices, the Company, and the Division on December 11, 2013 to further discuss the data requests and the adjustments we believed were appropriate to the various components of the FY 2015 ISR Plan, (7.) during the conference call on December 11, 2013, PowerServices, the Division, and the Company reached consensus on the appropriate adjustments to the initial FY 2015 ISR Plan Proposal, and agreement was reached on the final cost to be incorporated for each of the components of the FY 2015 ISR Plan excluding vegetation management, and (8.) the overall analysis was an iterative process, which included detailed discussions of each ISR Plan spending rationale category, including Capital Expenditures, the VM Plan, and the I&M Plan, and the Company included each of its area experts in the discussions as we worked toward a final plan for FY 2015 which would have the support of the Division. This series of telephone conferences and data requests were utilized in discussions with various individuals in the Company to provide full assessment and gain clarification in each area. The data request and responses referred to above were made part of the record through a filing of same by National Grid on January 2, 2014.

The structure of the FY 2015 ISR Plan filing closely followed the FY 2014 ISR Plan to the extent that the Company has included several of its historic annual programs. The Company continued to incorporate key changes noted in the FY 2014 Plan filing including migration of substation flood mitigation programs to an overall substation capacity enhancement and reliability

program and incorporation of an Inspection & Maintenance Program to replace the phased out Feeder Hardening Program. The most significant variance between the FY 2014 and FY 2015 ISR Plans occurs within the System Capacity and Performance budget where the Company has identified major construction projects requiring significant discretionary spending levels. As a result of the transition of certain programs and the magnitude of planned capital expenditures, discussions concerning the substation capacity program should start earlier than has occurred historically between the Company and the Division.

Through the analysis and assessment process, including multiple discussions with Company representatives, consensus on the rationale for adjustments and the final dollar levels was reached between the Division and the Company in all categories except vegetation management. Among the items utilized by the Company, the Division, and PowerServices in reaching a consensus were the quarterly reports comparing the historical ISR Plan budgets to actual expenditures to the proposed budget, together with the historical budgets and spending by category as reflected on Appendix-2. Additionally, there was substantial discussion concerning System Capacity load relief projects and separately, Verizon's responsibility for a portion of vegetation management costs. The FY 2015 ISR Plan, as adjusted during the evaluation process, is reflected in the Company's December 20, 2013 filing with the Rhode Island Public Utilities Commission. Appendix-3 lists a Summary of the Capital Outlays by key driver category and budget classification, as originally proposed by the Company on October 4, 2013, with PowerServices' recommended adjustments listed. Appendix 3 further identifies PowerServices' proposed budget as compared to the Company's filed budget under Docket No. 4473 dated December 20, 2013.

PowerServices and the Company agreed on all adjustments except vegetation management. The following is a detailed discussion of the categories and adjustments.

II. CAPITAL INVESTMENT PLAN

Overview

I have evaluated the $65,900,000 FY 2015 Capital Spending Plan proposed by the Company, along with its supporting testimony and exhibits as contained in its filing dated December 20, 2013. I first reviewed the initial proposed ISR Plan submitted to the Division dated October 4, 2013, as amended on November 4, 2013, in the amount of $70.0 million. Over a period of approximately sixteen (16) weeks, there was an iterative process in which modifications to the Company's original proposed Capital Spending Plan were discussed. A consensus was reached concerning each of the Spending Rationales and the five (5) major categories. The following is a comparison of the Company's initial filed request in October 2013, our adjustments to the initial request, and the Company's proposed budget as shown in Chart 5 of the FY 2015 ISR Plan as filed in Docket No. 4473. The $65.9 million is the consensus level reached through the evaluation process.

Proposed FY 2015 Capital Outlays by Key Driver Category

SPENDING RATIONALE	INITIAL FY2015 PROPOSED BUDGET (10-4-13)	POWERSERVICES ADJUSTMENTS	FILED FY2015 PROPOSED BUDGET (12-20-13)
Statutory/Regulatory	$ 14,637,000	$ (100,000)	$ 14,537,000
Damage/Failure Total	$ 9,816,000	$ -	$ 9,816,000
Subtotal	$ 24,453,000	$ (100,000)	$ 24,353,000
Asset Condition	$ 23,511,000	$ (4,000,000)	$ 19,511,000
Non-Infrastructure	$ 277,000	$ -	$ 277,000
System Capacity and Performance	$ 21,759,000	$ -	$ 21,759,000
Subtotal	$ 45,547,000	$ (4,000,000)	$ 41,547,000
Grand Total	**$ 70,000,000**	**$ (4,100,000)**	**$ 65,900,000**

The Company projects the need for $14,537,000 in Statutory/Regulatory spending, and $9,816,000 million in Damage/Failure spending. This is approximately thirty-seven percent (37%)

of the ISR Plan Capital requirements and is over 10% lower than the FY 2014 budget. These budgeted levels are supported by non-discretionary historical spending and reflect a downward trend due to the completion of the Shun Pike Substation in FY 2014, which is a substation required for a direct retail customer service. The majority of projects in these categories are not precisely defined because specific customer requests have not been made and damage or failure is yet to occur. For that reason, historical spending serves as the primary method to develop a budget. In some cases, such as Shun Pike, a customer request or infrastructure need is known in advance and the Company may note that specific project in the ISR Plan. For FY 2015, the Company budgeted for work associated with the Block Island Transmission System ("BITS").

Additionally, the economic conditions are a factor considered in adjusting historical costs. There are both upward and downward trends in new construction costs combined with the effects of inflation on construction cost. The housing and commercial construction industry remains depressed, while the cost of raw materials and construction cost continue to escalate, particularly petroleum based products such as underground cable and all associated transportation. The overall budget for non-discretionary spending is consistent with historical spending levels although the Company agreed to lower the FY 2015 budget for Statutory/Regulatory from $14,637,000 to $14,537,000 based on review of the BITS project. I will discuss the BITS review and adjustment in Section A below.

Since the budgets for the majority of these categories are not project specific, but rather based on the Company's best estimate using historical cost trends combined with most recent trend data, a mechanism for reconciliation of the actual expenditures to the budget projections was

agreed upon in the FY 2012 filing, and will continue. This mechanism will reconcile the annual differences between the projected budget and the actual expenditures for the non-discretionary capital spending.

The remaining three (3) major categories of spending rationale for the FY 2015 budget are Asset Condition, Non-Infrastructure, and System Capacity and Performance. These categories, which are discretionary in the sense they are based on engineering, safety, reliability and economic analyses, are budgeted at $41,537,000 for the remaining sixty-three percent (63%) of the proposed capital budget. Asset Condition and System Capacity and Performance categories comprise ninety-nine percent (99%) of the discretionary budget. System Capacity and Performance continues to be an area of focus since the engineering rationale and alternative solutions for load relief projects is not apparent, nor is the ability to distinguish between capacity needs and flood mitigation programs. In the FY 2014 proceedings, I recommended, and the Company agreed, to provide substation capacity expansion plans in advance of the FY 2015 ISR Plan filing. During the course of the FY 2015 ISR Plan filing evaluation, I requested that the Company provide a detailed budget summary for each component of System Capacity and Performance and Asset Condition spending categories. Based on the review of this information, I continue to observe the need for of a long term strategy addressing the sequence, timing and budgeting of asset replacements and major substation capacity projects. Later in this Report, I will discuss recommendations related to this specific area in order for the Company to adopt a Long Range Plan ("LRP") as a guide for developing the system capacity level beyond the customary 5-year planning horizon. Ideally, the LRP should extend 10+ years and serve as the basis for budget and construction work plans associated with substation and distribution feeder capacity projects. This

plan should be developed in part from the system model in CYME and its resulting load flow, line capacity, and voltage profiles. This LRP will align asset replacements identified in the I&M program with the LRP process to avoid duplication and potential early obsolescence of system improvement expenditures.

For the three categories (Asset Condition, Non-Infrastructure and System Capacity and Performance), the initial proposed budget was $45,547,000, which has been adjusted down in the final FY 2015 ISR Plan filing, based on the consensus between the Division, PowerServices, and the Company, to $41,547,000. I will discuss each of these categories separately, explaining the $4,000,000 reduction. The following is discussion of each category.

A. Statutory/Regulatory Category

The initial proposed FY 2015 ISR Plan included $14,637,000 of Statutory/Regulatory Cost. After reviewing the historical plans, together with FY 2014 Actual Spending vs. Budgeted Spending, the Company and Division reached the consensus that this category should be adjusted downward to $14,537,000. The Damage/Failure category was budgeted at $9,816,000, and was not adjusted since it reflected historical spending. The FY 2015 budget for both Statutory/Regulatory and Damage/Failure is $24,353,000 as compared to $26,559,000 in FY 2014.

The first two quarters of actual FY 2014 spend for Statutory/Regulatory were approximately $1,286,000 lower than budget but forecast to be $1,400,000 over budget by year-end due to Shun Pike substation work and projects which were delayed from FY13 to

FY14. These drivers are not expected to impact the FY 2015 budget. The FY 2015 plan reasonably incorporates a standard 3% commodity increase which is consistent with the labor and material cost increases being seen in the electric utility industry. The costs included for the budget in Statutory/Regulatory continue to reflect the continued weak economy and substantially lower residential and commercial growth in construction. Accordingly, the Company has appropriately reduced the budget for new business by over 30% since FY 2012.

The Company included statutory infrastructure work associated with the Block Island Transmission System ("BITS") in the FY 2015 ISR Plan. This work includes reconfiguration of the 34.5kV Wakefield substation in order to interconnect Deepwater Wind's proposed wind farm located off the coast of Block Island. The total project is estimated at $1,000,000 with a $100,000 spend budgeted in FY 2015. This project raises concerns for two reasons. First, the cost to interconnect a generator to an electric system is the responsibility of the requesting generator, and is comprised of the cost for facilities to interconnect along with any charges for system upgrades as a result of the additional generation. This practice has been consistently applied by utilities and accepted under both state and federal interconnection operating procedures. Since the Wakefield Substation work is necessary to accept a new distribution (deemed "transmission") line, installed as a result of the wind farm generation from Block Island to the main land of Rhode Island, the cost of this system work would be borne by the generator. Second, the timing of the initial work is premature based on the status of wind farm construction. Within the data request, the Company provided Deepwater Wind's most recent progress report which confirmed

that complete permits and regulatory approvals have not been obtained and that financial closing has not occurred. The actual construction schedule is not clear, although Deepwater Wind proposes commercial operation by the end of 2017. Given my two concerns, cost responsibility and lack of a definitive construction schedule, I recommend, and the Company has agreed, to remove the $100,000 expenditure for FY 2015. I further recommend that at the time that permitting, regulatory approvals, and financing have been approved, the Company may consider including the BITS project in the ISR Plan, subject to further evaluation of cost responsibility.

The Damage/Failure actual expenditures for the first six months of the FY 2014 budget are over $2M higher due to capital charges from prior years major storms. However, the year-end FY 2014 expenditures are anticipated to be $639,000 higher than budgeted. The impacts to the FY 2014 budget are not expected to continue. Given historical levels of expenditures, the Damage/Failure category was left unchanged from the original proposal of $9,816,000.

This brings the non-discretionary categories of Statutory/Regulatory and Damage/Failure to $24,353,000, which is 37% of the total Capital Investment Budget by Key Driver Category.

B. <u>Asset Condition Category</u>

The Asset Condition category represents a combination of strategies and programs targeting equipment replacement to maintain reliability performance. This spending

rationale is further divided into Asset Replacement and Inspection & Maintenance (I&M) components. The I&M Program is a result of successful transition of previous Feeder Hardening, Feeder Health, and associated Operation & Maintenance activities. The Asset Replacement and I&M programs are budgeted at $11,957,000 and $11,040,000 respectively. An additional budget of $514,000 is earmarked for Safety, bringing the total Asset Condition budget to $23,511,000. After reviewing the historical plans, together with FY 2014 Actual Spending vs. Budgeted Spending, the Company and Division reached the consensus that this category should be adjusted downward by $4,000,000 to $19,511,000, or a 17% reduction.

The Asset Replacement category contains multi-year programs that have been included and reviewed in prior ISR Plan filings. Approximately forty percent (40%), or $4.6M, of the Asset Replacement budget is driven by the underground rehabilitation program, the distribution substation battery replacement program, and the network arc flash hazard mitigation program for 480 volt network system facilities. These programs along with those previously evaluated, continue to be considered reasonable expenses in terms of spending rationale and budget level.

An additional capital intensive component, the substation metalclad switchgear replacement program, was introduced in the FY 2014 ISR Plan and prompted my request for additional cost-benefit analysis. The Public Utilities Commission Order in Docket No. 4382 supported the request for additional information, and the Company complied by filing a cost-benefit analysis on September 4, 2013. The Company's filing details the purpose,

benefits, and alternatives in addressing the condition of 46 metalclad switchgear units operating between 4kV and 23kV. Of the 46 units, 36 were installed prior to 1979.

The cost-benefit analysis describes condition issues and equipment obsolescence as support for metalclad switchgear work. Older units are prone to failure due to moisture infiltration, inferior ventilation allowing temperature degradation, and insufficient insulation. Properly operating breakers support reliable system performance, and most importantly, ensure the safety of customers and Company personnel. The need to evaluate the condition of each unit, determine a mitigation strategy, and take action is essential and prudent. To do so, the Company analyzes each location, assigns a criticality ranking, and determines an appropriate mitigation method. The following alternatives are considered in determining the best economical solution: maintain (no condition or safety issues identified), rebuild, refurbish, retire or replace.

Applying this methodology, the Company has identified four key metalclad substation projects in the FY 2015 ISR Plan; Hyde Avenue, Dagget Avenue, Front Street, and Southeast. The Company's evaluation determined unit retirement to be the most economical solution due to the conversion of 15kV infrastructure. Given the system conversion project, direct replacement is not a prudent option, particularly since it is estimated to cost over three times that of retirement. Therefore, the metalclad switchgear budget of $2,680,000, the majority of which is directed to engineering and construction for the four projects, is reasonable. I recommend that the Company continue to provide the

cost-benefit analysis for future scheduled metalclad switchgear projects at least 120 days in advance of future proposed ISR Plan filings.

Additionally, to create transparency and improve the tracking of individual projects under the Asset Condition category, I have requested that the Company complete a detailed budget for the current fiscal and future 4-year period. The Company has complied and produced the expanded budget as part of the Company's Response to the Division's First Set of Data Requests. The worksheet identifies the individual programs under Asset Replacement with a separate line item for the I&M program. This detail provides multi-year project tracking with the ability to view budget trends and cumulative spending, among other items, for the project duration. It is recommended that the Company complete the detailed budget for Asset Condition and System Capacity & Performance (discussed below) as part of each future proposed ISR Plan filing.

Lastly, I have had extensive conversations with the Company regarding the need to harmonize asset replacement with a comprehensive, long range system strategy. The Company has successfully transitioned from a series of isolated and often reactive maintenance activities to segmented programs or strategies. The next step is to make certain that activities amongst the programs support a unified system capacity strategy. For instance, programs such as substation transformer, breaker or recloser replacement include equipment that may be replaced due to asset condition or may be a part of work driven by capacity (load relief) requirements. In either case, the type of equipment installed along with the timing and sequence of replacement should align with an overall System Capacity

Plan ("Long Range Plan"). Going forward, asset replacements scheduled within the Asset Condition category should be evaluated against the results of a System Capacity Study and resulting Long Range Plan before inclusion in the ISR Plan. I discuss my Long Range Plan proposal and applicability in more detail in Section D.

The I&M Program addresses deteriorated assets to ensure that the distribution and sub-transmission system is safe, reliable, and environmentally sound. It is performed on a five-year cycle and to date, the Company has inspected 50 percent of its overhead system. The I&M Program also includes mobile elevated voltage testing. The program has matured to one that has consistent components and work methods, and should achieve levelized expenditures. The proposed FY 2015 budget is $11,040,000, or thirty percent (30%) above the FY 2014 budget of $8,515,000. However, due to lower capital work projects, the Company forecasts that the I&M Program expenditures will be $3M under budget in FY 2014. Based on the lowered spending levels projected in FY 2014, I recommend, and the Company agrees, to reduce the FY 2015 I&M Program budget by $4,000,000 for a total of $7,040,000.

In summary, I concur with the proposed $11,957,000 for Asset Replacement programs and recommend a $4,000,000 reduction to the $11,040,000 I&M budget based on reduced capital needs. Upon agreement with the Company, the proposed Asset Condition budget is $23,511,000 which includes $514,000 for Safety. Going forward, the Company should provide a detailed budget for Asset Condition components at least 120 days in advance of future proposed ISR Plan filings. Lastly, beginning with the FY 2016 ISR Plan, individual

assets scheduled for replacement under the Asset Condition category must also be evaluated against the Company's Long Range Plan, where applicable, to ensure that a cohesive system capacity strategy is achieved.

C. Non-Infrastructure Category

This category is for telecommunications and other capital expenditures needed for operation, which are neither related to condition nor system capacity. I consider this $277,000 of capital expenditures prudent and necessary, while consistent with prior costs adjusted for construction cost escalation.

D. System Capacity and Performance Category

The System Capacity and Performance Category is comprised of both Load Relief and Reliability Projects. A significant portion of this discretionary budget is dedicated to substation capacity expansion projects which also encompass flood mitigation work in select locations. The Company proposed to expend $21,759,000 in the System Capacity and Performance Category, or thirty-three percent (33%) of the total FY 2015 ISR Plan budget. Of this, $19,002,000 or eighty-seven percent (87%) is designated for capacity related projects. The overall budget is significantly higher than the FY 2014 budget of $12,544,000 but is consistent with the Company's FY 2014 actual forecast of $22,586,000. The main driver for the $10M variance in the Company's FY 2014 budget is primarily due to a reclassification of budget items from Transmission to Distribution for the Highland Drive project, contributing $4.6M to the $10M total variance. This is expected to be a one-time occurrence. Additionally, individual projects either experienced delayed or

accelerated project schedules, contributing to additional budget variances. These schedule adjustments, influenced by factors such as material and workforce availability or permitting schedules, are expected in the normal course of major project work. The budget variances are likely to continue as the Company increases its capital spending, and as such, the Company is expected to improve their budget process to address uncertainties and mitigate mistakes. My recommendation for a detailed Substation Capacity and Load Relief budget, coupled with a Long Range Plan (discussed in Section D.3) and the Division's increased oversight of this budget category is expected to improve the Company's budgeting process and ultimately minimize variances. Separately, my evaluation of the FY 2015 budget is based on the magnitude of investment required for major substation work along with forecasted spending trends, and as such, the System Capacity & Performance Category was not adjusted.

Load Relief projects within the System Capacity and Performance category include increased substation capacity, distribution conductor replacement, and the addition of capacitors and sectionalizing equipment to meet the capacity and voltage delivery requirements of the system predicted for the existing and future projected load additions. The Company identifies projects as part of an annual capacity planning process using a combination of metrics including historical load data, future load projections, and system flexibility in response to contingencies. These are typically multi-year projects with significant budget requirements for design/engineering, permitting, and construction. The Company's FY 2015 ISR Plan prioritized eight Load Relief projects, seven of which were included in the FY 2014 ISR Plan. As part of my FY 2014 ISR Plan comments, I

recognized the significance of projected expenses in this category and requested that the Company file its studies on substation capacity relief prior to the FY 2015 ISR Plan filing. This was discussed in detail during the August 23, 2013 conference call (Appendix 1 includes the agenda for this call). The Company responded to this request by filing a detailed substation capacity plan for near-term projects on September 4, 2013. Upon evaluation of the system capacity expansion plan in conjunction with information that the Company provided during conference calls, I have the following observations and recommendations:

1. Load Relief comprises over twenty-five percent (25%) of the total ISR Plan budget and is continuing to grow yet the Company's current filing lacks sufficient project details making it difficult to track progress and budgets. Most importantly, the filing does not represent projects in the context of a long term plan. It is impossible to discern the duration of any particular project or anticipate the magnitude of future expenditures. In order to provide transparency, improve tracking of individual projects, and anticipate future expenses, I have requested that the Company complete a detailed budget for the current fiscal and future 4-year period. The Company has complied and produced the expanded budget as part of the Company's December 2, 2013 Response to the Division's First Set of Data Requests. The worksheet includes individual programs under System Capacity & Performance in addition to Asset Condition (discussed in Section B). This detail provides multi-year project tracking with the ability to view budget trends and cumulative spending, among other items, for the project duration. It also identifies future proposed major load relief projects although associated budgets

are often in preliminary stages. It is recommended that the Company complete and submit the detailed budget for System Capacity & Performance and Asset Condition at least 120 days in advance of future proposed ISR Plan filings.

2. The currently proposed substation capacity expansion plans in the FY 2015 ISR Plan (Johnston, Kilvert, Chase Hill, New London, Newport, Clark, Highland and Kent) are reasonable and have adequately addressed alternatives. These projects should remain in the ISR planning process until completed. However, any newly identified Load Relief project such as Providence or East Bay should be evaluated against a comprehensive Long Range Plan as discussed below.

3. After multiple conversations with the Company regarding capacity expansion plans, I continue to observe the need for a comprehensive long term strategy. Currently, a Load Relief project is developed through a Company process that identifies system planning criteria violations, recommends a mitigation plan, and analyzes alternatives to ensure that the most economical solution is adopted. The project is submitted for inclusion in future capital work plans. From these, individual projects are designated for Load Relief within the ISR Plan. There are several concerns with this process. First, the Company does not provide insight into the prioritization of any one Load Relief project over another. Second, there is no transparency of future proposed projects or budgets (this is somewhat remedied by the Company's detailed budget as discussed in No. 1 above). Lastly, while the Company adequately performs a capacity study to analyze individual projects, the overall Load Relief category is not subject to a comprehensive System Capacity Load Study ("Study"). This Study and resulting report creates a

comprehensive Long Range Plan and budget that guides the orderly expansion of the electric utility system. As such, I recommend that the Company perform a System Capacity Load Study in FY 2015 and develop a 10-year Long Range Plan. The Long Range Plan will remedy each of my concerns stated above and provide a robust, engineering based tool to prioritize both expansion and reliability projects. The Company has agreed to commit internal resources combined with an outside consultant and initiate a System Capacity Load Study in FY 2015 with a budget of $250,000 (an additional line item to the I&M operational budget in the proposed FY 2105 ISR Plan). It was also determined that a complete system-wide study could not be accomplished in FY 2015 and that future expenditures will be required beyond the initial $250,000 budget. I agree that the Study may occur over multiple planning periods, but I recommend prioritizing and accelerating development of the Long Range Plan, to the extent possible, since the outcome drives many major budget decisions. During this transitional phase as the Long Range Plan is developed, the Company should continue work on existing Asset Replacement and System Capacity & Performance Projects as planned. New projects, unless compelled by imminent safety or reliability concerns, should be justified under the Long Range Plan before inclusion in the ISR Plan.

Therefore, based on my evaluation, I recommend that for FY 2015, the System Capacity & Performance proposed ISR Plan budget of $21,759,000 remain unchanged, the Company initiate a System Capacity Study and develop a Long Range Plan, and the Company budget $250,000 for this Study. The Company has agreed to these recommendations. Going forward, I recommend that future Asset Replacement and

System Capacity & Performance projects be justified under the Long Range Plan before inclusion in the ISR Plan, and that evaluation be provided as part of ISR Plan filings.

E. Vegetation Management Category

The Company's FY 2015 ISR Plan proposes expenditures of $7,726,000 for the Vegetation Management Program which includes the Enhanced Hazard Tree Mitigation (EHTM) program. This is seven percent (7%) below the FY 2014 budget of $8,476,000. The major spending component is Cycle Pruning, budgeted at $4,475,000, which is $705,000 lower than the projected FY 2014 expenses due to the reduced number of distribution circuits scheduled for pruning. The Company does not expect an overall variance between the budget and forecasted expenses in FY 2014 although there are slight shifts within spending categories. This is a reflection of a fully matured program in which the Company is able to project expenses based on the consistency of historical costs. For example, annual spending for cycle pruning will vary due to the volume of planned work, but the Company can now reasonably estimate the cost per circuit mile, as adjusted for inflation, to determine a budget. Remaining spending categories within vegetation management are budgeted consistently with historical spending patterns including unpredictable expenses such as Police Detail/Flagman or emergency response. Overall, I find that the Company has implemented a robust vegetation management program resulting in reliability indices that continue to meet or exceed the Commission's benchmarks.

I have evaluated the Vegetation Management Program in detail and on multiple levels in prior ISR Plan assessments. The Company has responded to my inquiries, sufficiently

supported activities within the program, and now produces a Cost Benefit Report. Given the maturity of the program and its contribution to meeting reliability metrics, my assessment of the FY 2015 ISR Plan will instead focus on the Company's obligation to request and recover Verizon's reimbursement for both routine and storm related vegetation management expenses.

I first raised this issue in the FY 2013 ISR Plan proceedings under Docket 4307. In PowerServices' evaluation of the FY 2013 Annual Report and Reconciliation dated August 1, 2013, I detailed the Joint Ownership Agreement ("JOA") between the Company and Verizon that establishes a geographical area of control that should realize an equal "50/50" sharing mechanism for pole ownership. Under Intercompany Operating Procedures ("IOP"), the respective company in a geographical area is responsible for pole maintenance and the companies pay each other a flat reciprocal rate of $500 for pole replacements. (Appendix 5 contains excerpts from the National Grid and Verizon Joint Ownership Agreement dated October 1,1980 and Amended September 25, 2001.) In addition, I provided the following key excerpts from IOP J, which addresses cost sharing of vegetation management work (IOP J, *Tree Trimming*, is attached in Appendix 5):

1. Preventive maintenance tree trimming shall be done a joint basis when both companies have a need. When it is agreed that both parties will benefit from such Joint Tree Trimming, the division of costs will be 75% Electric Company and 25% Telephone Company.

2. Topping of trees, if they present a hazard to both parties, shall be done jointly at a 50/50 division of cost.

3. Heavy storm work such as required for hurricanes, wet snow, tornadoes, and ice storms will be handled immediately without prior review. Agreement should be reached by field representatives of the two companies as soon as practicable after each major storm to determine for which lines and to what extent each party will participate, notwithstanding participation by another party. The parties agree to 50/50 basis for heavy storm work.

4. Miscellaneous costs associated with trimming, such as police protection, tree warden's payment, obtaining permission, and state highway inspector, will be shared by the joint owners on the same basis as the IOP provides for trimming costs.

I concluded that National Grid and Verizon are joint owners of poles, and that National Grid should seek relief from costs incurred for replacing poles and for vegetation management trimming through the JOA with Verizon. I requested the Company provide specific details on pole replacement and vegetation management expenses, and efforts to collect Verizon's contribution. The documentation provided by the Company in response to my inquiry lacked any indication of adjustments in the capital and expense categories, for dollars either collected from, or that are the responsibility of, Verizon. My resulting recommendation in the FY 2013 Annual Report and Reconciliation was:

> "Based on my observation of National Grid's practices in Massachusetts through my participation in a docket reviewing the prudency of National Grid's storm fund costs, I am concerned the Company has made no adjustments for funds which are due and collectible from Verizon for its Rhode Island operations, and funds that should not be allowed because they are components of normal business activity. Costs which should be collected from Verizon should not be the responsibility of the electric ratepayers."

The Company's FY 2014 ISR Plan budget continued to include 100% of vegetation management costs without an expected contribution from Verizon. The Company's FY 2014 ISR Plan filing dated December 28, 2012 stated that:

> "Verizon does not agree to contribute to the Company's tree trimming (vegetation management) cost on the basis that Verizon crews perform any required tree trimming for Verizon service work at the time such work is performed. This is not consistent with the Company's vegetation management practice given that the Company's tree trimming specification is designed and performed exclusively to address the safety and reliability needs of the electric system, without any consideration whatsoever of communication company needs. The Company's vegetation management program is implemented exactly the same across all overhead miles regardless of pole ownership. The Company's pruning and hazard tree specification, the work planning models and vegetation management work practices make no consideration for pole ownership, as the vegetation adjacent to a

> jointly owned pole, no matter which company's maintenance area, is pruned to the same specification as the vegetation adjacent to a solely owned pole."

At this juncture, National Grid had made Verizon aware of the reimbursement obligation and Verizon declined to pay. The companies' dialogue did not produce results to satisfy my requested budget adjustment. In my FY 2014 ISR Plan testimony and report dated February 28, 2012, under Docket 4382, I continued to emphasize the enforcement of the JOA with Verizon:

> "There continue to be negotiations taking place between the Company and Verizon as they relate to Verizon's compliance with the VM requirements of the Joint Ownership Agreement. This issue was addressed in the Hurricane Irene proceedings of Docket D-11-94. As a result of that Docket, the Division expects the Company to proceed aggressively and in a timely manner with negotiations with Verizon to bring Verizon in line with the expectations of the Joint Ownership Agreement. This would include Verizon performing certain ongoing vegetation management activities in the areas in which Verizon has a maintenance commitment. Additionally, Verizon would be reimbursing the Company for vegetation management expenses associated with major storm related activities. The Company has indicated that these negotiations are currently confidential, but are ongoing. This issue should be addressed and resolved within the next year, so that both from a major storm cost and from the perspective of ongoing vegetation management cost, Verizon offsets, either through payment or through its own work efforts, a portion of the Company's vegetation management cost such that the

> electric ratepayers are not paying for vegetation management benefits for the telecommunication customers. As an example, I have determined the Western Massachusetts Electric Company has billed and received payments from Verizon for storm related vegetation management. Although there has been no adjustment in this area in the FY 2014 ISR Plan, the Company should be on notice that such evaluations and appropriate adjustments are imminent in future ISR Plans, regardless of whether the Company brings its negotiations with Verizon to a successful conclusion. There are clearly certain costs that should be borne by the telecommunications customers of Verizon, and not the electric ratepayers of the Company. We recommend the Company have an adjustment for these costs in its FY 2015 Electric ISR Plan. That will give the Company adequate time to resolve the dispute with Verizon."

The Public Utilities Commission July 26, 2013 Report and Order regarding the FY 2014 ISR Plan referenced National Grid's attempt to recoup vegetation management expenses from Verizon, and Verizon's refusal to pay. For the time leading up to the proposed FY 2015 ISR Plan, the Company and Verizon continued to discuss the shared vegetation management costs under the IOP, and the Company reported in the proposed FY 2015 ISR Plan provided on October 4, 2013 that:

> "With respect to the issues with Verizon, after a number of discussions between National Grid and Verizon personnel on a variety of topics, in March of 2013, the Company submitted a written proposal to Verizon that established a new arrangement designed to specifically identify the responsibilities of both parties for

the payment of both routine and storm trimming costs. At this time, the parties have traded written proposals, but still remain far apart on a number of major issues."

Accordingly, the Company did not include adjustments to the proposed FY 2105 ISR Plan to account for Verizon's payments towards vegetation management expenses. In discussions with the Company, I continued to recommend specifying a line item in the budget to show the amount of reimbursement expected from Verizon based on the prior year forecasted expenditures. I had lengthy discussions with the Company and Division regarding the need to aggressively pursue reimbursement, and that the amount of expected adjustment should be included in the FY 2015 ISR Plan. I proposed forecasting Verizon's responsibility based on the Company's expected expenditures for FY 2014 vegetation management activities on joint owned circuits, which is then multiplied by the 25% allocation factor as specified in the IOP. The resulting adjustment is netted against the budgeted components. My recommended budget is as follows:

VEGETATION MANAGEMENT	INITIAL FY2015 PROPOSED BUDGET (10-4-13)	POWERSERVICES ADJUSTMENTS	POWERSERVICES PROPOSED BUDGET
Cycle Trimming	4,475,000	(1,272,085)	3,202,915
Hazard Tree	1,000,000	(182,421)	817,579
Sub-Transmission	316,000	(123,962)	192,038
Police/Flagman Detail	650,000	(125,996)	524,004
All Other Activities	1,285,000	(299,271)	985,729
Program Total	**7,726,000**	**(2,003,736)**	**5,722,264**

I discussed the calculation and adjustment with the Company, and it was agreed that the FY 2105 ISR Plan would include a credit from Verizon to the extent one was received, however, the Company declined to reduce the overall budget in anticipation that this would

occur. The Company did not agree that specific dollars were expected from Verizon since ongoing negotiations remain confidential. In their final proposed FY 2015 ISR Plan filing on December 20, 2013, the Company added that:

> "The Company is committed to continued negotiations and discussions with Verizon on the responsibilities of both parties for the payment of both routine and storm trimming costs, as well as other issues relative to the joint ownership of poles. While the Division and the Company are in agreement with the appropriate level of spending on the vegetation management budget in the FY 2015 ISR Plan, the issue of Verizon payments remains an open item. As the ISR process includes an annual reconciliation mechanism, to the extent the Company is able to reach a resolution of issues with Verizon, at that time, any revenues received for tree trimming from Verizon will be credited to customers in the next annual ISR reconciliation filing."

The Company also clarified that major storm tree trimming and removal costs are not included in the ISR Plan, but as part of the storm fund cost recovery proceedings. This information does not change my calculation of Verizon's responsibility. I recognize the sensitivity of data exchange between the two companies, yet intend to highlight that, in my estimation, the Company is failing to recoup over $2,000,000 from Verizon each year. These expenses are a burden to Company's electric ratepayers and are a benefit and windfall to Verizon.

The urgency to recoup vegetation management expenses under the IOP has extended to the point that I recommend further action before the Commission. Historically, the Rhode Island Public Utilities Commission ("PUC") has had jurisdiction over both electric and telecommunications companies. Much of the telecommunications oversight has shifted to the Federal Communications Commission ("FCC") that regulates interstate and international communications. Similarly, oversight of many electric activities, including interstate transmission, is under the jurisdiction of the Federal Energy Regulatory Commission ("FERC"). Both FCC and FERC oversight are in addition to any local or state authority that has oversight of electric and communications related activities.

In the case of Rhode Island, it is my opinion that enforcement of agreements between National Grid and Verizon that manage joint ownership and related services for infrastructure located within the state remain under the purview of the PUC. The PUC is in a position to consider complaints and take action if either party fails to meet provisions in joint ownership agreements, including cost reimbursement. A recent example of state Commission jurisdiction over joint use agreements occurred in Massachusetts. As part of the proceedings related to cost recovery for a major winter storm, I provided testimony to the Department of Public Utilities ("DPU") recommending that the National Grid storm recovery be adjusted downward to reflect the recovery of vegetation management cost from Verizon as contained in the Joint Ownership Agreement ("JOA"), which I will point out is virtually identical to the agreement in force in Rhode Island between National Grid and Verizon. The Massachusetts DPU, in Docket No. DPU 11-56 Order, made a significant adjustment in the vegetation management cost recovery to reflect what National Grid

should be collecting from Verizon (see excerpts in Appendix-4). I recommend National Grid not be allowed to recover the entire vegetation management budget from the electric ratepayers, and that additional emphasis be placed on recovery from Verizon per the obligations of the JOA.

In summary, I find the $7,726,000 FY 2015 level and a 4 year clearing cycle based on the Company's enhanced Vegetation Management Program to be appropriate, considering the anticipated level of benefits. I expect that a credit of approximately $2,000,000 will be netted against these expenditures and submitted as part of the Company's reconciliation filing. Lastly, I urge the Company to engage the PUC in order to open a docket that addresses Verizon's obligation to reimburse of a portion of vegetation management costs under the JOA and its IOP provisions. Alternatively, the Company should initiate litigation to have the courts enforce the contract between the Company and Verizon. The electric ratepayers certainly deserve the improved reliability that comes with the National Grid Vegetation Management Program, however, those same ratepayers should not be expected to pay for $2,000,000 a year or more of the program cost that is the contractual obligation of Verizon and from which the Verizon customers benefit.

F. <u>Overall</u>

The previous Chart 5 under the Introduction compares the Company's October 4, 2013 proposed capital expenditure levels to those the Division and the Company ultimately agreed upon, as reflected in the Company's FY 2015 Electric ISR Plan filed December 20, 2013 and the Company's Chart 5. The consensus ISR Plan is a nearly nine percent (9%)

reduction of $4,000,000 in the discretionary capital spending budget from the October 4, 2013 proposed level. The overall capital spending reduction was six percent (6%) or $4,100,000.

The analysis indicated the Company made the reductions in the capital expenditure categories that were recommended. It was determined the Company did not make the recommended reduction in the Vegetation Management program expenses during our evaluation of its initial proposed ISR Plan. The Company also agreed to perform a System Capacity Load Study and increased the I&M operations budget to reflect this additional expenditure of $250,000. The Company made adjustments, as agreed upon with the Division, and incorporated additional discussion of each category to more fully explain the requirements for the FY 2015 Electric ISR Plan Proposed Budget in its Docket No. 4473 filing on December 20, 2013.

III. CONCLUSION

The collaborative process between the Company and the Division resulted in a FY 2015 Electric ISR Plan which sets forth a capital budget, VM Program and I&M Program, and associated O&M activities which balance the need for safety and reliability with the efficient benefit/cost considerations. Appendix-3, Summary of Chart of Capital Outlays by Key Driver Category and Budget Classification, summarizes, by spending rationale (category) and individual budget class within each category, differences between the Company's initially proposed ISR Plan of October 4, 2013 and the resulting December 20, 2013 filing of the FY 2015 ISR Plan Proposal. The Statutory/Regulatory portions of the FY 2015 Proposal were adjusted for reasons previously discussed. Additional adjustments were achieved in the other capital and O&M categories through a cooperative process of balancing cost with safety and reliability. Although conversations between PowerServices, the Division, and the Company failed to result in a downward adjustment that reflects Verizon's responsibility for Vegetation Management expenses, it is anticipated that this issue will move closer to resolution in FY 2015. Appendix-3 reflects the initial budget request in the October filing, as amended in the November filing, and the adjustments accepted by the Company, which resulted in the consensus with the Division and final Electric Infrastructure, Safety and Reliability Plan FY 2015 Proposal as filed on December 20, 2012.

There continue to be numerous challenges in the next five to ten years. While many of the same competing interests of safety, reliability, benefit to cost, and economic pressures will need to be considered going forward, the Division has established a number of important areas of consideration for the Company in establishment of future budgets. The substation flood related

mitigation projects and substation capacity projects will potentially account for more than twenty-five percent (25%) of the capital budget in near term future plans. This spending trend is expected to continue or possibly grow. The majority of proposed expenditures are related to Load Relief with the flood mitigation projects now being rolled up into the Load Relief projects. It will be critical to carefully evaluate the risk mitigation benefits and alternatives associated with the system capacity projects in future ISR Plans. Most importantly, the Company should adopt a Long Range Plan to ensure a methodical sequence of major work that addresses local capacity issues while complementing a broader system enhancement strategy. The FY 2015 ISR Plan now includes a budget to launch a system wide capacity study to develop a Long Range Plan. The Company must prioritize these efforts before adding additional work to the Load Relief category.

I support the FY 2015 Capital Budget as proposed at $65,900,000 with a value for the capital placed into service in FY 2015, plus cost of removal at $8,400,000. I also support the FY 2015 proposed VM Program at $7,726,000 to include a $2,003,736 downward adjustment that accounts for Verizon's cost responsibility, for a total of $5,722,264. Lastly, I support the I&M Program Operations and Maintenance Expenses at $2,995,000 which includes a System Capacity Study.

Furthermore, I am a proponent for an annual adjustment process for the categories of Statutory/Regulatory and Damage/Failure.

Additional Recommendations

1. National Grid shall initiate a System Capacity Load Study and develop a 10-year Long Range Plan in order to increase the level of support and transparency for the capital budget. This Long Range Plan is critical to the overall capital investment strategy for building and maintaining a robust and reliable electric system. The Company shall submit a report with updates on modeling activities in addition to the proposed Long Range Plan (completed portions) at least 120 days prior to filing its FY 2016 ISR Plan Proposal, but in any event no later than August 31, 2014. This should be continued with each subsequent ISR Plan process.

2. National Grid shall complete a detailed budget for System Capacity & Performance and Asset Condition in order to provide transparency on a project level basis for the current and future 4-year period. The budget shall be provided in advance of the FY 2016 ISR Plan Proposal filing, but in any event no later than August 31, 2014.

3. In order to align asset replacement projects with an overall asset strategy, National Grid shall submit an evaluation of future proposed Asset Condition projects as compared to the Company's Long Range Plan at least 120 days prior to filing its FY 2016 ISR Plan Proposal, but in any event no later than August 31, 2014.

4. Considering the capital intense nature of substation expansion and construction along with the need for individual projects to comply with a comprehensive asset strategy, National Grid shall continue to submit its detailed substation capacity expansion plans and load projections, and include an evaluation of proposed projects against the Company's Long Range Plan, at

least 120 days prior to filing its FY 2016 ISR Plan Proposal, but in any event no later than August 31, 2014.

5. National Grid shall continue to submit a cost-benefit analysis on the Vegetation Management Cycle Clearing Program and a separate cost-benefit analysis on the Enhanced Hazard Tree Management program for the Division's review prior to submitting the Company's FY2016 ISR Plan Proposal, but in any event no later than August 31, 2014. Additionally, the reliability impact of the budget adjustment reflecting Verizon contributions should be addressed.

6. National Grid shall continue to submit its Metal-Clad Switchgear replacement program cost-benefit analysis to the Division prior to submitting the Company's FY2016 ISR Plan Proposal, but in any event no later than August 31, 2014.

7. Lastly, the Company should more aggressively pursue payment from Verizon for its portion of the vegetation management obligation per the Joint Ownership Agreement. The vegetation management budget included in the electric rates will be reduced by the recommended $2,003,736, which is the portion that should be reimbursed by Verizon based on National Grid's prior fiscal year expenditures.

This concludes my Report on the Electric Infrastructure, Safety and Reliability Plan FY 2015 Proposal as filed by National Grid on December 20, 2013.

APPENDIX 1

Rhode Island Electric ISR
FY15 Plan – Meeting with Division and Greg Booth
August 23, 2013
1:00 p.m. to 4:00 p.m.

AGENDA

Topic	Time
Vegetation Management – • Review of Draft Report to be filed Aug 31 • Estimated Costs vs. Actual Costs • Vegetation Management Program Development • Vegetation Management Cost/Benefit • Vegetation Management Details	1:00 – 1:50
Detailed Substation Capacity Plans/Load projections • System Capacity and Performance Substation Capacity Plans – Projects in Progress List by National Grid • Feeders-Normal Configuration Summary – 2013 Annual Planning - Rhode Island Study Areas List by National Grid	1:50 – 2:40
Metal Clad Switchgear Replacements • Rhode Island Metalclad Replacement PowerPoint Presentation by National Grid	2:40 – 3:00
Volt/VAR Project • Volt Var Optimization Demonstration Study Report by Anthony J. Lasa from National Grid • Advanced Volt/Var Optimization Demonstration Project PowerPoint Presentation by National Grid	3:00 – 3:45
Contact Voltage Program	3:45 – 4:00

APPENDIX 2

EXHIBIT GLB-1
REPORT OF GREGORY L. BOOTH, PE

SPENDING RATIONALE	BUDGET CLASS	FY 2006 Budget	FY 2006 Actual	FY 2007 Budget	FY 2007 Actual
Statutory/ Regulatory	3rd Party Attachments	-	362,916	-	75,680
	Distributed Generation				
	Land and Land Rights - Dist	180,000	199,978	180,000	244,275
	Meters – Dist	1,976,000	1,609,398	1,900,000	1,748,581
	New Business - Commercial	6,192,000	6,178,305	4,425,000	7,782,725
	New Business - Residential	4,500,000	5,111,949	4,200,000	6,564,788
	Outdoor Lighting - Capital	400,000	523,859	400,000	573,758
	Outdoor Lighting - Capital MV	-	-	-	-
	Public Requirements	3,814,000	4,393,841	3,297,500	(790,093)
	Transformers & Related Equipment	3,240,000	4,504,947	3,500,000	4,812,334
Statutory/Regulatory Total		**20,302,000**	**22,885,193**	**17,902,500**	**21,012,048**
Damage/ Failure	Damage/ Failure	3,250,000	7,655,568	4,550,000	6,764,097
	Major Storms – Dist	-	609,088	-	678,175
Damage/Failure Total		**3,250,000**	**8,264,656**	**4,550,000**	**7,442,272**
Subtotal Statutory/Regulatory - Damage/Failure		**23,552,000**	**31,149,849**	**22,452,500**	**28,454,320**
Asset Condition	Woonsocket & Related	-	-	-	-
	Asset Replacement	9,323,000	5,828,465	8,241,000	8,314,885
	Asset Replacement - I&M (NE)	-	-	400,000	28,022
	Substation Capital - Dist	-	-	-	-
	Safety	-	-	-	-
	Flood Damage Avoidance Engineering Studies				
Asset Condition Total		**9,323,000**	**5,828,465**	**8,641,000**	**8,342,907**
Non-Infrastructure	Corporate/Admin/General	-	(3,136,053)	-	2,441,291
	Facilities	693,000	742,137	890,000	563,836
	General Equipment	100,000	54,233	100,000	12,601
	Telecommunications Capital - Dist	-	143,386	-	23,333
Non-Infrastructure Total		**793,000**	**(2,196,297)**	**990,000**	**3,041,061**
System Capacity and Performance	Coventry & Related	-	-	-	-
	Hopkinton & Related	-	-	-	-
	Newport & Related	-	394	1,155,000	4,139
	West Warwick & Related	-	-	-	-
	Load Relief	5,964,000	7,306,395	4,648,000	6,694,784
	Reliability	2,922,500	3,022,794	5,745,000	3,529,889
	Reliability - FEEDER HARDENING	1,390,000	650,810	1,413,500	1,316,796
System Capacity and Performance Total		**10,276,500**	**10,980,393**	**12,961,500**	**11,545,608**
Total Electric Distribution		**43,944,500**	**45,762,410**	**45,045,000**	**51,383,896**
	Less: Facilities(where reported)	693,000	742,137	890,000	563,836
Grand Total		**43,251,500**	**45,020,273**	**44,155,000**	**50,820,060**
Vegetation Management Program	Cycle Trimming				
	Post Irene EHTM				
	Hazard Tree				
	Sub-T				
	Police/Flagman Detail				
	All Other Activities				
Vegetation Management Program Total		**-**	**-**	**-**	**-**
Inspection and Maintenance Program	Operation and Maintenance Expenses:				
	Opex related to Capex				
	Repair - Related Costs				
	Inspections - Related Costs 2				
Inspection and Maintenance Program Total		**-**	**-**	**-**	**-**

EXHIBIT GLB-1
REPORT OF GREGORY L. BOOTH, PE

SPENDING RATIONALE	BUDGET CLASS	FY 2008 Budget	FY 2008 Actual	FY 2009 Budget	FY 2009 Actual
Statutory/ Regulatory	3rd Party Attachments	280,000	(123,199)	208,000	873,018
	Distributed Generation				
	Land and Land Rights - Dist	230,000	313,141	291,200	310,128
	Meters – Dist	1,950,000	2,194,959	2,101,000	2,135,191
	New Business - Commercial	7,210,000	7,602,534	5,691,500	6,993,422
	New Business - Residential	5,900,000	4,951,161	5,512,000	2,856,774
	Outdoor Lighting - Capital	1,000,000	712,535	1,001,200	1,236,779
	Outdoor Lighting - Capital MV	-	-	350,000	-
	Public Requirements	3,010,000	1,640,703	3,906,968	1,465,029
	Transformers & Related Equipment	5,050,000	6,595,658	4,960,800	5,301,415
Statutory/Regulatory Total		**24,630,000**	**23,887,492**	**24,022,668**	**21,171,756**
Damage/ Failure	Damage/ Failure	5,650,000	7,266,897	6,496,000	7,488,952
	Major Storms – Dist	10,000	375,380	100,000	856,490
Damage/Failure Total		**5,660,000**	**7,642,277**	**6,596,000**	**8,345,442**
Subtotal Statutory/Regulatory - Damage/Failure		**30,290,000**	**31,529,769**	**30,618,668**	**29,517,198**
Asset Condition	Woonsocket & Related	1,014,000	80,639	2,650,000	57,883
	Asset Replacement	8,631,000	12,381,390	7,050,732	10,793,745
	Asset Replacement - I&M (NE)	300,000	20,727	325,000	112,553
	Substation Capital - Dist	-	-	-	-
	Safety	75,000	76,680	65,000	(22,943)
	Flood Damage Avoidance Engineering Studies				
Asset Condition Total		**10,020,000**	**12,559,436**	**10,090,732**	**10,941,238**
Non-Infrastructure	Corporate/Admin/General	-	(60,904)	-	(3,464)
	Facilities	-	121,166	-	134,036
	General Equipment	75,000	324,847	67,600	154,236
	Telecommunications Capital - Dist	-	-	175,000	-
Non-Infrastructure Total		**75,000**	**385,109**	**242,600**	**284,808**
System Capacity and Performance	Coventry & Related	-	4,345	950,000	89,324
	Hopkinton & Related	-	372	150,000	96,615
	Newport & Related	1,215,000	305,411	950,000	715,163
	West Warwick & Related	-	-	-	-
	Load Relief	5,030,000	3,486,228	4,335,500	5,988,143
	Reliability	5,104,000	5,446,383	5,667,500	3,878,186
	Reliability - FEEDER HARDENING	1,085,000	4,315,685	4,654,000	3,828,491
System Capacity and Performance Total		**12,434,000**	**13,558,424**	**16,707,000**	**14,595,922**
Total Electric Distribution		**52,819,000**	**58,032,738**	**57,659,000**	**55,339,166**
	Less: Facilities(where reported)		121,166		134,036
Grand Total		**52,819,000**	**57,911,572**	**57,659,000**	**55,205,130**
Vegetation Management Program	Cycle Trimming		4,141,000		5,574,000
	Post Irene EHTM				
	Hazard Tree		721,000		757,000
	Sub-T		294,000		436,000
	Police/Flagman Detail		340,000		187,000
	All Other Activities		1,134,000		903,000
Vegetation Management Program Total		**-**	**6,630,000**	**-**	**7,857,000**
Inspection and Maintenance Program	Operation and Maintenance Expenses:				
	Opex related to Capex				
	Repair - Related Costs				
	Inspections - Related Costs 2				
Inspection and Maintenance Program Total		**-**	**-**	**-**	**-**

EXHIBIT GLB-1
REPORT OF GREGORY L. BOOTH, PE

SPENDING RATIONALE	BUDGET CLASS	FY 2010 Budget	FY 2010 Actual	FY 2011 Budget	FY 2011 Actual
Statutory/ Regulatory	3rd Party Attachments	306,000	780,847	620,000	(909,712)
	Distributed Generation				
	Land and Land Rights - Dist	326,000	274,560	309,000	281,215
	Meters – Dist	2,690,000	2,042,048	2,040,000	2,214,951
	New Business - Commercial	5,801,000	4,705,078	5,550,000	4,286,660
	New Business - Residential	2,699,000	3,256,239	3,750,000	3,529,650
	Outdoor Lighting - Capital	945,000	941,164	680,000	411,364
	Outdoor Lighting - Capital MV	300,000	61,933	-	
	Public Requirements	4,126,000	3,121,260	3,810,000	1,539,416
	Transformers & Related Equipment	6,533,000	4,128,756	4,255,000	3,277,796
Statutory/Regulatory Total		**23,726,000**	**19,311,885**	**21,014,000**	**14,631,340**
Damage/ Failure	Damage/ Failure	7,419,000	9,143,559	8,925,000	8,330,840
	Major Storms – Dist	500,000	(112,426)	440,000	4,863,261
Damage/Failure Total		**7,919,000**	**9,031,133**	**9,365,000**	**13,194,101**
Subtotal Statutory/Regulatory - Damage/Failure		**31,645,000**	**28,343,018**	**30,379,000**	**27,825,441**
	Woonsocket & Related	2,108,000	1,043,789	6,080,000	
Asset Condition	Asset Replacement	10,847,000	11,530,572	721,000	5,604,107
	Asset Replacement - I&M (NE)	1,298,000	490,942	400,000	226,693
	Substation Capital - Dist	-	-	-	-
	Safety	-	-	-	-
	Flood Damage Avoidance				
	Engineering Studies				
Asset Condition Total		**14,253,000**	**13,065,303**	**7,201,000**	**5,830,800**
Non-Infrastructure	Corporate/Admin/General	-	(1,238,810)	-	645,055
	Facilities	-	256,800	-	
	General Equipment	161,000	391,872	200,000	60,548
	Telecommunications Capital - Dist	7,000	-	485,000	
Non-Infrastructure Total		**168,000**	**(590,138)**	**685,000**	**705,603**
System Capacity and Performance	Coventry & Related	1,128,000	558,222	300,000	80,307
	Hopkinton & Related	645,000	547,535	200,000	185,856
	Newport & Related	5,731,000	2,926,839	1,500,000	2,333,100
	West Warwick & Related	195,000	114,900	450,000	15,829
	Load Relief	6,780,000	4,650,580	1,958,000	3,396,843
	Reliability	3,641,000	5,768,069	2,214,000	2,798,644
	Reliability - FEEDER HARDENING	4,314,000	2,888,145	2,013,000	1,948,135
System Capacity and Performance Total		**22,434,000**	**17,454,290**	**8,635,000**	**10,758,714**
Total Electric Distribution		**68,500,000**	**58,272,473**	**46,900,000**	**45,120,558**
	Less: Facilities(where reported)		256,800		
Grand Total		**68,500,000**	**58,015,673**	**46,900,000**	**45,120,558**
Vegetation Management Program	Cycle Trimming		4,552,000		2,881,000
	Post Irene EHTM				
	Hazard Tree		709,000		283,000
	Sub-T		302,000		475,000
	Police/Flagman Detail		241,000		105,000
	All Other Activities		1,078,000		1,085,000
Vegetation Management Program Total		**-**	**6,882,000**	**-**	**4,829,000**
Inspection and Maintenance Program	Operation and Maintenance Expenses:				
	Opex related to Capex				
	Repair - Related Costs				
	Inspections - Related Costs 2				
Inspection and Maintenance Program Total		**-**	**-**	**-**	**-**

EXHIBIT GLB-1
REPORT OF GREGORY L. BOOTH, PE

SPENDING RATIONALE	BUDGET CLASS	FY 2012 Budget	FY 2012 Actual	FY 2013 Budget	FY 2013 Actual
Statutory/ Regulatory	3rd Party Attachments	641,000	463,848	705,000	223,335
	Distributed Generation				(675,256)
	Land and Land Rights - Dist	321,000	185,520	297,000	127,922
	Meters – Dist	1,803,000	1,496,949	1,815,000	1,454,793
	New Business - Commercial	6,157,500	3,390,872	5,950,000	3,721,667
	New Business - Residential	3,917,000	2,833,259	3,304,000	2,885,908
	Outdoor Lighting - Capital	718,000	495,328	571,000	487,545
	Outdoor Lighting - Capital MV	300,000		-	
	Public Requirements	3,968,000	1,134,582	3,709,000	(1,230,546)
	Transformers & Related Equipment	3,811,000	3,074,796	3,655,000	3,414,855
Statutory/Regulatory Total		**21,636,500**	**13,075,154**	**20,006,000**	**10,410,223**
Damage/ Failure	Damage/ Failure	9,245,000	9,573,923	9,772,000	7,795,002
	Major Storms – Dist	460,000	3,418,936	650,000	9,720,450
Damage/Failure Total		**9,705,000**	**12,992,859**	**10,422,000**	**17,515,452**
Subtotal Statutory/Regulatory - Damage/Failure		**31,341,500**	**26,068,013**	**30,428,000**	**27,925,675**
Asset Condition	Woonsocket & Related	5,005,000		825,000	188,356
	Asset Replacement	4,732,050	9,766,995	8,583,000	6,611,918
	Asset Replacement - I&M (NE)	1,381,000	553,104	1,250,000	1,086,377
	Substation Capital - Dist	-	-	-	
	Safety	-	-	-	
	Flood Damage Avoidance Engineering Studies	1,200,000	1,200,000	1,205,000	184,181
Asset Condition Total		**12,318,050**	**11,520,099**	**11,863,000**	**8,070,832**
Non-Infrastructure	Corporate/Admin/General	-	117,838	-	889,752
	Facilities	-	-	-	
	General Equipment	278,000	148,707	186,000	191,193
	Telecommunications Capital - Dist	-	-	150,000	1,188,120
Non-Infrastructure Total		**278,000**	**266,545**	**336,000**	**2,269,065**
System Capacity and Performance	Coventry & Related	1,000,000		975,000	1,006,010
	Hopkinton & Related	800,000		800,000	37,468
	Newport & Related	720,000		450,000	226,213
	West Warwick & Related	520,000		325,000	50,970
	Load Relief	6,492,920	8,836,739	5,576,000	5,297,879
	Reliability	5,199,430	2,554,262	4,287,000	3,723,651
	Reliability - FEEDER HARDENING	3,230,100	2,564,239	1,500,000	907,019
System Capacity and Performance Total		**17,962,450**	**13,955,240**	**13,913,000**	**11,249,210**
Total Electric Distribution		**61,900,000**	**51,809,897**	**56,540,000**	**49,514,782**
	Less: Facilities(where reported)				
Grand Total		**61,900,000**	**51,809,897**	**56,540,000**	**49,514,782**
Vegetation Management Program	Cycle Trimming	5,902,000	5,451,000	5,150,000	4,764,244
	Post Irene EHTM			367,000	
	Hazard Tree	1,811,000	806,000	750,000	1,198,336
	Sub-T	267,000	392,000	290,000	243,307
	Police/Flagman Detail	585,000	461,000	488,000	766,382
	All Other Activities	1,261,000	1,066,000	1,211,000	1,276,480
Vegetation Management Program Total		**9,826,000**	**8,176,000**	**8,256,000**	**8,248,749**
Inspection and Maintenance Program	Operation and Maintenance Expenses:	-	-	-	-
	Opex related to Capex	1,725,285	1,316,275	1,476,500	837,482
	Repair - Related Costs	609,000	-	609,000	442,865
	Inspections - Related Costs 2	144,945	149,609	185,400	199,858
Inspection and Maintenance Program Total		**2,479,230**	**1,465,884**	**2,270,900**	**1,480,205**

EXHIBIT GLB-1
REPORT OF GREGORY L. BOOTH, PE

SPENDING RATIONALE	BUDGET CLASS	FY 2014 Proposed	FY 2014 Forecast	FY 2015 Proposed	FY 2016 Proposed
Statutory/ Regulatory	3rd Party Attachments	514,000		305,000	310,000
	Distributed Generation	162,000		100,000	340,000
	Land and Land Rights - Dist	190,000		179,000	183,000
	Meters – Dist	1,752,000		1,824,000	1,918,000
	New Business - Commercial	4,300,000		3,924,000	4,900,000
	New Business - Residential	3,025,000		2,870,000	2,942,000
	Outdoor Lighting - Capital	537,000		533,000	541,000
	Outdoor Lighting - Capital MV	-			
	Public Requirements	2,599,000		1,268,000	1,343,000
	Transformers & Related Equipment	3,430,000		3,634,000	3,854,000
Statutory/Regulatory Total		**16,509,000**	**17,909,000**	**14,637,000**	**16,331,000**
Damage/ Failure	Damage/ Failure	9,375,000		8,816,000	8,933,000
	Major Storms – Dist	675,000		1,000,000	1,100,000
Damage/Failure Total		**10,050,000**	**10,689,000**	**9,816,000**	**10,033,000**
Subtotal Statutory/Regulatory - Damage/Failure		**26,559,000**	**28,598,000**	**24,453,000**	**26,364,000**
Asset Condition	Woonsocket & Related	-			-
	Asset Replacement	11,377,000		11,957,000	11,646,000
	Asset Replacement - I&M (NE)	8,515,000		11,040,000	11,383,000
	Substation Capital - Dist	-			
	Safety	350,000		514,000	514,000
	Flood Damage Avoidance Engineering Studies	-			
Asset Condition Total		**20,242,000**	**16,780,000**	**23,511,000**	**23,543,000**
Non-Infrastructure	Corporate/Admin/General	-		-	-
	Facilities	-			-
	General Equipment	105,000		102,000	104,000
	Telecommunications Capital - Dist	150,000		175,000	175,000
Non-Infrastructure Total		**255,000**	**787,000**	**277,000**	**279,000**
System Capacity and Performance	Coventry & Related	-			-
	Hopkinton & Related	-			-
	Newport & Related	-			-
	West Warwick & Related	-			-
	Load Relief	10,396,500		19,052,000	19,134,000
	Reliability	1,947,500		2,707,000	2,680,000
	Reliability - FEEDER HARDENING	200,000		-	-
System Capacity and Performance Total		**12,544,000**	**22,586,000**	**21,759,000**	**21,814,000**
Total Electric Distribution		**59,600,000**	**68,751,000**	**70,000,000**	**72,000,000**
	Less: Facilities(where reported)				
Grand Total		**59,600,000**	**68,751,000**	**70,000,000**	**72,000,000**
Vegetation Management Program	Cycle Trimming	5,230,000	5,180,000	4,475,000	
	Post Irene EHTM				
	Hazard Tree	750,000	750,000	1,000,000	
	Sub-T	724,000	674,000	316,000	
	Police/Flagman Detail	525,000	625,000	650,000	
	All Other Activities	1,247,000	1,247,000	1,285,000	
Vegetation Management Program Total		**8,476,000**	**8,476,000**	**7,726,000**	**-**
Inspection and Maintenance Program	Operation and Maintenance Expenses:		-		
	Opex related to Capex	1,286,300		1,811,000	
	Repair - Related Costs	1,722,700			
	Inspections - Related Costs 2	770,000		934,000	
Inspection and Maintenance Program Total		**3,779,000**	**-**	**2,745,000**	**-**

SPENDING RATIONALE	BUDGET CLASS	FY 2017 Proposed	FY 2018 Proposed	FY 2019 Proposed
Statutory/ Regulatory	3rd Party Attachments	315,000	320,000	325,000
	Distributed Generation	340,000	-	-
	Land and Land Rights - Dist	188,000	193,000	198,000
	Meters – Dist	2,022,000	2,137,000	2,202,000
	New Business - Commercial	7,778,000	4,057,000	4,138,000
	New Business - Residential	3,016,000	3,091,000	3,168,000
	Outdoor Lighting - Capital	549,000	557,000	565,000
	Outdoor Lighting - Capital MV			
	Public Requirements	1,142,000	1,156,000	1,170,000
	Transformers & Related Equipment	4,056,000	4,210,000	4,300,000
Statutory/Regulatory Total		**19,406,000**	**15,721,000**	**16,066,000**
Damage/ Failure	Damage/ Failure	9,052,000	9,172,000	9,295,000
	Major Storms – Dist	1,200,000	1,300,000	1,400,000
Damage/Failure Total		**10,252,000**	**10,472,000**	**10,695,000**
Subtotal Statutory/Regulatory - Damage/Failure		**29,658,000**	**26,193,000**	**26,761,000**
Asset Condition	Woonsocket & Related	-	-	
	Asset Replacement	21,352,000	22,317,000	21,394,000
	Asset Replacement - I&M (NE)	11,734,000	12,093,000	12,465,000
	Substation Capital - Dist			-
	Safety	514,000	250,000	
	Flood Damage Avoidance Engineering Studies			
Asset Condition Total		**33,600,000**	**34,660,000**	**33,859,000**
Non-Infrastructure	Corporate/Admin/General	-	-	
	Facilities	-	-	
	General Equipment	106,000	108,000	110,000
	Telecommunications Capital - Dist	175,000	175,000	175,000
Non-Infrastructure Total		**281,000**	**283,000**	**285,000**
System Capacity and Performance	Coventry & Related	-	-	
	Hopkinton & Related	-	-	
	Newport & Related	-	-	
	West Warwick & Related	-	-	
	Load Relief	10,402,000	11,791,000	11,908,000
	Reliability	2,059,000	3,073,000	3,187,000
	Reliability - FEEDER HARDENING	-	-	
System Capacity and Performance Total		**12,461,000**	**14,864,000**	**15,095,000**
Total Electric Distribution		**76,000,000**	**76,000,000**	**76,000,000**
	Less: Facilities(where reported)			
Grand Total		**76,000,000**	**76,000,000**	**76,000,000**
Vegetation Management Program	Cycle Trimming			
	Post Irene EHTM			
	Hazard Tree			
	Sub-T			
	Police/Flagman Detail			
	All Other Activities			
Vegetation Management Program Total		**-**	**-**	
Inspection and Maintenance Program	Operation and Maintenance Expenses:			
	Opex related to Capex			
	Repair - Related Costs			
	Inspections - Related Costs 2			
Inspection and Maintenance Program Total		**-**	**-**	**-**

APPENDIX 3

Adjustment Summary Chart - FY 2015 ISR
Capital Outlays by Key Driver Category and Budget Classification

SPENDING RATIONALE	BUDGET CLASS	FY2015			
		Initial	PowerServices Adjustment	PowerServices Proposed	National Grid Proposed
Statutory/ Regulatory	3rd Party Attachments	305,000		305,000	305,000
	Distributed Generation	100,000		100,000	100,000
	Land and Land Rights - Dist	179,000		179,000	179,000
	Meters – Dist	1,824,000		1,824,000	1,824,000
	New Business - Commercial	3,924,000	(100,000)	3,824,000	3,824,000
	New Business - Residential	2,870,000		2,870,000	2,870,000
	Outdoor Lighting - Capital	533,000		533,000	533,000
	Outdoor Lighting - Capital MV	-		-	-
	Public Requirements	1,268,000		1,268,000	1,268,000
	Transformers & Related Equipment	3,634,000		3,634,000	3,634,000
Statutory/Regulatory Total		**14,637,000**	**(100,000)**	**14,537,000**	**14,537,000**
Damage/ Failure	Damage/ Failure	8,816,000		8,816,000	8,816,000
	Major Storms – Dist	1,000,000		1,000,000	1,000,000
Damage/Failure Total		**9,816,000**	**-**	**9,816,000**	**9,816,000**
Subtotal Statutory/Regulatory - Damage/Failure		**24,453,000**	**(100,000)**	**24,353,000**	**24,353,000**
Asset Condition	Woonsocket & Related	-		-	-
	Asset Replacement	11,957,000		11,957,000	11,957,000
	Asset Replacement - I&M (NE)	11,040,000	(4,000,000)	7,040,000	7,040,000
	Substation Capital - Dist	-		-	-
	Safety	514,000		514,000	514,000
	Flood Related Capital and Studies	-		-	-
Asset Condition Total		**23,511,000**	**(4,000,000)**	**19,511,000**	**19,511,000**
Non- Infrastructure	Corporate/Admin/General	-		-	-
	Facilities	-		-	-
	General Equipment	102,000		102,000	102,000
	Telecommunications Capital - Dist	175,000		175,000	175,000
Non-Infrastructure Total		**277,000**	**-**	**277,000**	**277,000**
System Capacity and Performance	Coventry & Related	-		-	-
	Hopkinton & Related	-		-	-
	Newport & Related	-		-	-
	West Warwick & Related	-		-	-
	Load Relief	19,052,000		19,052,000	19,052,000
	Reliability	2,707,000		2,707,000	2,707,000
	Reliability - FEEDER HARDENING	-		-	-
System Capacity and Performance Total		**21,759,000**	**-**	**21,759,000**	**21,759,000**
Total Electric Distribution		**70,000,000**	**(4,100,000)**	**65,900,000**	**65,900,000**
Vegetation Management Program	Cycle Trimming	4,475,000	**(2,003,736)**	2,471,264	4,475,000
	Hazard Tree	1,000,000		1,000,000	1,000,000
	Sub-T	316,000		316,000	316,000
	Police/Flagman Detail	650,000		650,000	650,000
	All Other Activities	1,285,000		1,285,000	1,285,000
Vegetation Management Program Total		**7,726,000**	**(2,003,736)**	**5,722,264**	**7,726,000**
	Add: Cycle Trimming- Recovery	-		-	-
	Add: Hazard Tree- Post Irene	-		-	-
Grand Total	Vegetation Management	**7,726,000**	**(2,003,736)**	**5,722,264**	**7,726,000**
Inspection and Maintenance Program	Operation and Maintenance Expenses:			-	-
	Opex related to Capex	1,811,000		1,811,000	1,811,000
	Repair - Related Costs	-		-	-
	Inspections and Repair- Related Costs 2	934,000		934,000	934,000
	System Planning & Protection Coordination Study	-	250,000	250,000	250,000
Inspection and Maintenance Program Total		**2,745,000**	**250,000**	**2,995,000**	**2,995,000**
Grand Total ISR- All Programs		**80,471,000**	**(5,853,736)**	**74,617,264**	**76,621,000**

FOOTNOTE (5) PowerServices recommended adjustment to account for Verizon responsibility for all vegetation management categories
The amount shown reflects a decrease in recovery from ratepayers. The proposed National Grid FY 2015 ISR Plan filed on 12/20/13 does not reflect this adjustment

APPENDIX 4

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 11-56 November 14, 2013

Petition of Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid for Recovery of December 2008 Storm Costs.

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FOR: WESTERN MASSACHUSETTS ELECTRIC COMPANY
Limited Participant

3. Analysis and Findings

Before National Grid may recover Storm costs from ratepayers, the Company has the burden to demonstrate that (1) those costs are reasonable and were prudently incurred; and (2) it is not seeking recovery from ratepayers of costs that should be borne by Verizon. D.P.U. 09-39, at 212-213; D.P.U. 11-56, Interlocutory Order at 5.

The JOA, which incorporates IOPs, is a contractual document that the Company has entered into with Verizon with respect to the joint ownership of poles (Exhs. AG-2, at 2 & Art. 3; AG-1, at IOP § J). IOP § J includes provisions with respect to vegetation management cost-sharing between the Company and Verizon, including but not limited to preventive maintenance trimming and Heavy Storm Work (Exh. AG-1, at IOP § J). Although Verizon was not a party in this proceeding, the parties offer opposing interpretations of IOP § J to support their positions on whether and to what extent Verizon is responsible for vegetation management, including Heavy Storm Work.

In the instant matter, we need not reach a determination on the interpretation of IOP § J as it pertains to cost-sharing responsibilities between National Grid and Verizon for Heavy Storm Work because the Company has not demonstrated that it prudently sought agreement with Verizon to share the Winter Storm 2008 Heavy Storm Work costs.[21] The Company has the

[21] In addition, the parties have failed to demonstrate that the Department is the appropriate forum for determining vegetation management cost-sharing responsibilities between National Grid and Verizon under IOP § J. Although the JOA is relevant to determination of an issue before us, the JOA is not a contract that has been submitted to the Department for review and approval. Moreover, the parties have not demonstrated how interpretation of a contract between National Grid and a non-party telecommunications utility is appropriate here, particularly given that Verizon is not a party to this proceeding. Although when interpreting a contract the Department gives effect to the agreement's plain language and gives terms their usual and ordinary meeting, we are left with little

burden to demonstrate that it prudently incurred all storm-related costs. D.P.U. 11-01/11-02, at 50, 56; D.P.U. 11-56, Interlocutory Order at 5; D.P.U. 09-39, at 212-213. In the instant case, there is no evidence that the Company approached Verizon with respect to Heavy Storm Work vegetation management cost-sharing responsibilities for Winter Storm 2008 (see Exhs. NG-Rebuttal-Revised at 25-26; AG1-8; DPU 1-5(d)). The Company concedes that it has no documentation with Verizon regarding negotiating Winter Storm 2008 vegetation management cost-sharing obligations (Tr. 1, at 130-131). Moreover, the Company has not billed Verizon for any Winter Storm 2008 Heavy Storm Work, nor is there evidence that the Company has taken any other action to try to recover any costs from Verizon (Exhs. DPU 1-5 (c); DPU 1-5(d)). Although National Grid acknowledges that IOP § J requires Company and Verizon field representatives to determine as soon as practicable what lines and to what extent each will participate in costs incurred from Heavy Storm Work, the Company has not demonstrated that it even attempted to reach agreement with Verizon with respect to these costs (see Exh. DPU 1-5(d)). Instead, the Company states that Verizon has a longstanding position that it is not responsible for these costs and routinely declines to participate in them (Exhs. NG-Rebuttal-Revised at 25-26; DPU 1-5(d)).

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recourse if the plain language is ambiguous, there is no evidence of the intent of the parties, and one party to the contract is not a party to the proceeding before us. See Southern Union Co. v. Department of Public Utilities, 458 Mass. 812, 820-821 (2011) (citations omitted). Here, the record is devoid of any evidence regarding the intent of the parties with respect to the agreement. Thus, in this instance, we conclude that the Department is not the appropriate forum in which to determine application of the JOA as it pertains to an electric distribution utility and a non-party, non-jurisdictional telecommunication utility. See G.L. c. 164, §§ 94, 94A, 94B. Rather, the Department concludes that the proper forum for interpreting issues with respect to the JOA and IOP § J is the courts.

We do not accept that Verizon's long-standing unwillingness to share in these costs absolves the Company of responsibility to, at a minimum, attempt to negotiate and seek agreement from Verizon for reimbursement of a portion of the Heavy Storm Work costs. Because the Company cannot demonstrate that it took any action following Winter Storm 2008 to reach agreement with Verizon with respect to Heavy Storm Work cost sharing, we conclude that the Company acted imprudently.

We note that other companies have billed and pursued Verizon in court for storm-related vegetation management costs pursuant to their respective JOAs. For example, WMECo previously billed Verizon $267,649 for Winter Storm 2008 vegetation management costs pursuant to WMECo's JOA with Verizon. Western Massachusetts Electric Company, D.P.U. 10-70, at 68-69 (2011).[22] Additionally, on August 14, 2013, Fitchburg Gas and Electric Light Company d/b/a Unitil ("Unitil") filed a complaint in Suffolk Superior Court alleging breach of contract, breach of implied covenant of good faith and fair dealing, and unjust enrichment in violation of G.L. c. 93A for Verizon's failure to pay Unitil for joint pole expenses incurred by Unitil, including vegetation management expenses. Fitchburg Gas and Electric Light Company, D.P.U. 13-90, Exh. AG 1-82 & Att.[23] We expect all electric distribution companies to take prudent steps to seek recovery from Verizon for vegetation management costs, including, if necessary, pursuing recovery of those costs in court, before seeking recovery of those costs from

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22 Verizon requested reimbursement of $80,417 from WMECo for similar expenses. D.P.U. 10-70, at 68-69.

23 The Department's investigation in D.P.U. 13-90 is ongoing.

electric ratepayers. If a company fails to collect vegetation management costs from Verizon following an adjudicated court proceeding, it may then file for recovery of those costs here.

The Company seeks recovery of $10,081,997 in costs associated with vegetation management efforts relating to the Winter Storm 2008 (Exh. DPU 1-1 (b)). Absent demonstration that the Company has taken prudent steps to seek agreement regarding Heavy Storm Work costs, bill Verizon for such work and, if necessary, pursue Verizon in court for storm-related vegetation management costs, we disallow 50 percent of the Winter Storm 2008 vegetation management costs[24] associated with the percentage of poles in National Grid's service territory that it jointly owns with Verizon.[25] We therefore direct the Company to submit within 30 days of this Order a compliance filing demonstrating that it has applied a 50 percent disallowance to vegetation management costs to the portion of poles National Grid jointly owns with Verizon. If National Grid pursues Verizon in court for collection of Winter Storm 2008 vegetation management costs, and if Verizon is adjudicated as not being responsible for all or any portion of the costs that we disallow here, National Grid may then submit a filing with the Department seeking recovery of those costs.

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24 We disallow 50 percent of these costs based upon what we conclude to be an amount potentially subject to recovery from Verizon in court under an interpretation of IOP § J.

25 The record is unclear whether National Grid and Verizon jointly own all or just some of the poles in National Grid's service territory (see Exhs. AG 1-92; AG 1-93; AG 1-94).

APPENDIX 5

JOINT OWNERSHIP AGREEMENT
BETWEEN
NARRAGANSETT ELECTRIC COMPANY
(PARENT COMPANY – NATIONAL GRID)
AND
VERIZON – NEW ENGLAND INC

OCTOBER 1, 1980
AMENDED SEPTEMBER 25, 2001

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Rights and Obligations: IOP's

Article 3: To carry out the purpose of this Agreement to facilitate the joint ownership of poles and anchors, the Agreement sets forth the rights and obligations of the Companies with respect to such ownership, including without limitation their rights and obligations with respect to the following matters:

A. Allocation of ownership and allocation of space
B. Division of costs and expenses
C. Acquisition of joint ownership
D. Construction standards
E. Performance of work
F. Payment and billing
G. Custody and maintenance areas
H. Changes in character of circuits
I. Termination of joint ownership
J. Administration of Agreement

Certain of the basic contractual provisions of this Agreement are not set forth in the body of the Agreement, but are set forth with operational or administrative procedures in Intercompany Operating Procedures (IOP's). IOP's in effect at any time shall be attached hereto and **shall** be a part of this Agreement. The IOP's in effect or taking effect upon the effective date of this Agreement are listed in Appendix A attached hereto.

The provisions of IOP's in effect at any time shall be subject to review upon the written request of either company given to the other. Amendments to IOP's including elimination of any effective IOP's or addition of new IOP's, shall be made effective by written instrument signed on behalf of each company by a duly authorized officer of such company or by some other duly authorized representative designated herein or by written notice to the other company.

Work Responsibility

Article 4: The placing of new Jointly Owned poles, guys, and anchors, and the replacing, relocating or removing of existing Jointly Owned poles, guys, and anchors shall be divided equitably between the companies. The work performed by each company shall be subject to mutal agreement, in writing, as set forth in attached Intercompany Operating Procedures (IOP's).

Term of Agreement	Article 18: This Agreement shall continue in force for two (2) years from the date of execution and thereafter until terminated by either company by not less than one (1) year's notice in writing to the other company, but provisions of this Agreement relating to poles Jointly Owned shall nevertheless continue in full force and effect as to such poles until Joint Ownership thereof is terminated.
Waiver of Portions of Agreement	Article 19: The failure of either company to enforce or insist upon compliance with any of the terms or conditions of this agreement, or its waiver of the same in any instance or instances, shall not be construed to be a general waiver or relinquishment of any of such terms or conditions, but the same shall be and remain at all times in full force and effect.
Sole Agreements	Article 22: This document and the Intercompany Operating Procedures constitute the entire Agreement between the parties respecting Joint Ownership of poles, guys, and anchors.

APPENDIX A
1-1-80

NEW ENGLAND ELECTRIC SYSTEM

AND

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY

INTERCOMPANY OPERATING PROCEDURES

I.O.P.	SUBJECT
A	ALLOCATION OF SPACE
B	ACQUIRING JOINT OWNERSHIP IN EXISTING POLES
C	ACQUIRING JOINT OWNERSHIP OF NEW POLES
D	GUYS AND ANCHORS
E	RIGHTS OF WAY
F	CUSTODY AND MAINTENANCE
G	JOINT TREE TRIMMING AGREEMENT
H	DIVISION OF COSTS
I	FLAT RATE BILLING SCHEDULES
J	PROCEDURE WHEN CHARACTER OF CIRCUITS IS CHANGED
K	MONTHLY BILLING PROCEDURE
L	REIMBURSEMENTS FOR UNAUTHORIZED POLE ATTACHMENTS
M	TERMINATION OF THE JOINT OWNERSHIP OF A POLE
N	USE OF BOTH SIDES OF J.O. POLES BY THE TELEPHONE COMPANY
O	BILLING FOR REPLACEMENT OF SERVICEABLE POLES DUE TO AN INCREASE IN THE VOLTAGE OF WIRES AND CABLES
P	ACTS OF PUBLIC AUTHORITY
Q	INTERCOMPANY CONTACTS
R	POLICY FOR POLE WORK
S	OVERHEAD LINE EXTENSIONS
T	PREPARATION OF ADDENDA

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AMENDMENT TO INTERCOMPANY OPERATING PROCEDURES

THIS AMENDMENT made this 25 day of September, 2001, by and between Granite State Electric Company, Massachusetts Electric Company, Nantucket Electric Company and Narragansett Electric Company and Verizon New England Inc.

WITNESSETH

WHEREAS, Granite State Electric Company, Massachusetts Electric Company and Narragansett Electric Company and New England Telephone and Telegraph Company d/b/a Bell Atlantic - New England entered into agreements titled "Intercompany Operating Procedures," dated August 1, 1993 ("IOPs") covering operating procedures for poles they jointly own; and

WHEREAS, In the IOPs, Granite State Electric Company, Massachusetts Electric Company and Narragansett Electric Company were incorrectly identified as "New England Electric"; and

WHEREAS, In the IOPs, New England Telephone and Telegraph Company d/b/a Bell Atlantic - New England was incorrectly identified as "New England Telephone"; and

WHEREAS, National Grid USA, the parent company of Granite State Electric Company, Massachusetts Electric Company and Narragansett Electric Company is now also the parent company of Nantucket Electric company; and

WHEREAS, National Grid USA has acquired Eastern Utility Associates, the parent company of Blackstone Valley Electric Company, Eastern Edison Company and Newport Electric Corporation; and

WHEREAS, On May 1,2000, Blackstone Valley Electric Company and Newport Electric Corporation were merged into Narragansett Electric Company and Eastern Edison Company was merged into Massachusetts Electric Company; and

WHEREAS, the name of New England Telephone and Telegraph Company has been changed to Verizon New England Inc.; and

NOW THEREFORE, in consideration of the premises and mutual covenants contained herein, effective as of the date of this amendment, the parties hereby covenant and agree as follows:

1. The words "New England Electric" shall be replaced with "Granite State Electric Company, Massachusetts Electric Company, Nantucket Electric Company and Narragansett Electric Company" at each place they appear in the IOPs.

2. The words "New England Telephone" shall be replaced with "Verizon New England Inc." at each place they appear in the IOPs.

3. The municipalities formerly served by Blackstone Valley Electric Company, Eastern Edison Company and Newport Electric Company shall be incorporated into the IOPs by amending IOP C,

titled "Custody and Maintenance," by replacing the list of municipalities attached thereto, with the list of municipalities attached hereto. This amended list of municipalities is hereby made a part of IOP C.

4. In all other respects, the IOPs shall continued unaltered.

IN **WITNESS** WHEREOF, the parties have hereunto caused these presents to be executed by their respective officers thereunto duly authorized, as of the day and year first above written.

VERIZON NEW ENGLAND INC.

By: [signature]
Title: DIRECTOR OPE WA
Date: 9/25/01

GRANITE STATE ELECTRIC COMPANY
MASSACHUSETTS ELECTRIC COMPANY
NANTUCKET ELECTRIC COMPANY
NARRAGANSETT ELECTRIC COMPANY

By: [signature]
Title: Sr VP & Treasurer
Date: 8/17/01

Page 2 of 2

INTERCOMPANY OPERATING PROCEDURES IOP J

J. TREE TRIMMING AND CLEARING

It has been agreed the New England Telephone Company and New England Electric System companies will participate in a Joint Tree Trimming arrangement as follows.

All trimming arrangements shall be agreed to on a signed Exchange of Notice Memorandum.

1. Preventive maintenance tree trimming shall be done on a joint basis when both companies have a need.

   When it is agreed that both parties will benefit from such Joint Tree Trimming the division of costs will be 75% Electric Company and 25% Telephone Company.

2. Trimming for line extension along existing roads shall be surveyed in the field and a determination made whether both parties have a need. The division of cost shall be 60% Electric Company and 40% Telephone Company.

3. Trimming for line extensions for off road/right-of-way shall be surveyed in the field and where both parties have a need, division of cost will be 50% Telephone Company and 50% Electric Company.

4. Topping of trees, if they present a hazard to both parties, shall be done jointly at a 50/50 division of cost. Whole trees to be removed with municipalities or private owners at 33 1/3% division of cost for each party or on a fair share basis when more than three parties are involved.

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

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6. Administration

The Electric Company will annually furnish the Telephone Company a list of areas to be trimmed. The Telephone Company will provide, within 60 days, a suitable list of pole lines or major portions thereof that they want to be trimmed jointly.

Contracts that will exceed $5,000 in cost to the Telephone Company will be awarded to the lowest of at least four qualified bidding contractors.

Each company will annually furnish the other company with a list of its approved Trimming Contractors. Each company will attempt to utilize contractors that are on both companies approved contractor list.

For work done by a Contractor not on both companies' list of approved contractors, the constructing company will pay the full cost of the Trimming Bill and then bill the other company its share of the total cost. Such bill shall be accompanied by a copy of the contractor's bill. The full cost of any unapproved trimming shall be done by the company that arranged for same.

Bills rendered by the Contractor will include percent and cost to Electric Company and percent and cost to Telephone Company and total cost of the job.

Miscellaneous costs associated with trimming such as police protection, tree wardens payment, obtaining permission, state highway inspector will be shared by the joint owners on the same basis as the IOP provides for trimming costs.

7. This arrangement shall continue for five years unless, after 3 years, both parties agree to modify it. This agreement will automatically renew itself each year unless either party notified the other in writing at least 30 days prior to the end of such yearly period that it wishes to modify or terminate the agreement.

Bruce W. Sweney
New England Telephone Company

Thomas H. Kerr
New England Electric System

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