

Direct Testimony
of
Catherine T. McDonough
Robert D. Sheridan
and
Sara M. Sankowich

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I. INTRODUCTION AND QUALIFICATIONS

Dr. Catherine T. McDonough

Q. Dr. McDonough, please state your full name and business address?

A. My name is Catherine T. McDonough, and my business address is 40 Sylvan Road,
Waltham, MA 02451.

Q. By whom are you employed and in what position?

A. I am employed as the Director of Regulatory Strategy for Electric Distribution
Operations by National Grid USA Service Company, Inc (the “Service Company”). In
my capacity as Director, I am responsible for Granite State Electric Company’s d/b/a
National Grid (“Granite State” or “Company”) regulatory filings and regulatory
compliance related to electric distribution operations in New Hampshire and for other
National Grid retail distribution companies in Massachusetts, Rhode Island, and New
York.

Q. Please describe your educational background.

A. I graduated from the University of Massachusetts, Amherst in 1979. I received a Masters
in Economics from New York University in 1987 and a doctorate in Economics from
New York University in 1995.

Q. Please describe your professional experience.

1 A. I joined National Grid (formerly Niagara Mohawk Power Corporation (“Niagara
2 Mohawk”)) eleven years ago. Before being named to my current position in April 2008,
3 I was a project manager directing research to support a variety of strategic decisions
4 related to electric distribution operations, customer satisfaction and electric pricing. Prior
5 to joining Niagara Mohawk, I served as a Finance Professor at SUNY Binghamton and
6 Babson College following several years as a Vice President, Senior Economist with
7 Merrill Lynch Capital Markets in New York City.

8
9 **Q. Have you previously testified before the Commission?**

10 A. Yes. I testified in the docket involving the Company’s May 15, 2008 and 2009
11 REP/VMP Reconciliation filings.

12
13 **Robert D. Sheridan**

14 **Q. Mr. Sheridan, please state your full name and business address.**

15 A. My name is Robert D. Sheridan and my business address is 40 Sylvan Road, Waltham,
16 MA, 02451.

17
18 **Q. By whom are you employed and in what position?**

19 A. I am the Director of Distribution Planning for the Service Company. In that capacity, I
20 am responsible for conducting distribution system and asset reviews each year for
21 National Grid’s electric distribution companies in Massachusetts, Rhode Island, New

1 Hampshire and upstate New York. This includes developing recommended system
2 improvement projects in support of National Grid's objectives concerning capacity,
3 reliability and sustainability of the distribution network.
4

5 **Q. Please describe your educational background.**

6 A. I graduated from the University of South Florida in 1986, earning a bachelor's degree in
7 electrical engineering, and from Bentley College in 1995, earning a master's degree in
8 business administration.
9

10 **Q. Please describe your professional experience.**

11 A. In 1987, I began my engineering career as an associate engineer at General Dynamics,
12 Electric Boat Division in Groton, Connecticut, working with the power systems on
13 nuclear submarines. In 1988, I took a position with Massachusetts Electric Company,
14 now National Grid, in North Andover, Massachusetts. Since that time I have held
15 various engineering and management positions within the company, all focusing on the
16 electric distribution system. In 1995, I was promoted to district engineering manager. I
17 then became district engineering manager for the Narragansett Electric Company, also
18 part of National Grid, in 1998. In 2002, I was promoted to vice-president of distribution
19 planning and engineering for New England; in 2005, vice-president of distribution
20 engineering and asset management for both New England and upstate New York. In

1 2008, I assumed my current position as director of network asset planning, and I am a
2 registered professional engineer in the Commonwealth of Massachusetts.

3
4 **Q. Have you previously testified before the Commission?**

5 A. No, although I have testified before the Massachusetts Department of Public Utilities.

6
7 **Sara M. Sankowich**

8 **Q. Ms. Sankowich, would you please state your full name and business address?**

9 A. My name is Sara M. Sankowich, and my business address is 40 Sylvan Road, Waltham,
10 MA, 02451.

11
12 **Q. By whom are you employed and in what position?**

13 A. I am employed as the Manager of Vegetation Management Strategy for Electric
14 Distribution Operations by the Service Company. In my capacity as Manager, I am
15 responsible for distribution Vegetation Management Strategy and Policy in Granite State
16 Electric Company's d/b/a National Grid ("National Grid" or "Company") territory in
17 New Hampshire and for other National Grid retail distribution company affiliates in
18 Massachusetts, Rhode Island, and New York.

19
20 **Q. Please describe your educational background.**

1 A. I graduated from The State University of New York, College of Environmental Science
2 and Forestry in 2000. I received a Bachelor of Science in Resource Management
3 (Forestry).

4
5 **Q. Please describe your professional experience.**

6 A. I joined the Service Company in 2004. Before being named to my current position in
7 August 2008, I was the New England South Lead Arborist for Construction Delivery
8 Forestry. I oversaw New England South Arborists responsible for delivering distribution
9 Forestry strategy and work plan. Prior to being named to the lead position in May 2007,
10 I was the Rhode Island Coastal District Arborist. Prior to joining the Service Company, I
11 was employed with Orange and Rockland Utilities, in Monroe, NY as an Associate
12 Arborist. I was hired at Orange and Rockland Utilities after being a Contract Arborist
13 through Environmental Consultants Inc., where I contracted for Northern Indiana Public
14 Service Company and then Orange and Rockland Utilities.

15
16 **Q. Have you previously testified before the Commission?**

17 A. Yes. I testified in the Company's last reconciliation proceeding regarding its Reliability
18 Enhancement Plan/Vegetation Management Program, DE 09-094.

19
20 **II. PURPOSE OF TESTIMONY**

21 **Q. What is the purpose of this testimony?**

1 A. This testimony serves two purposes. First, this testimony will provide the Commission
2 with background information regarding the Reliability Enhancement Program (REP) and
3 Vegetation Management Program (“VMP”) that Granite State implemented during fiscal
4 year 2010 (April 1, 2009-March 31, 2010) and is described in the Company’s May 17,
5 2010 Fiscal Year Reliability Enhancement Plan and Vegetation Management Plan Report
6 (the “2010 REP/VMP Report”) submitted to the Commission as part of this filing.
7 Second, this testimony supports the Company’s request for recovery of the incremental
8 operating and maintenance (“O&M”) expense of \$1,047,770 above the base O&M
9 amount of \$1,360,000 through the REP/VMP Adjustment Provision as set forth in
10 Exhibit GSE-8 of the Granite State Rate Plan approved as part of the comprehensive
11 merger settlement agreement in Docket No. DG 06-107 (the “Settlement Agreement”),¹
12 as well as a revenue requirement of \$163,663 associated REP Capital Investment of
13 \$876,243. Information regarding the calculation of the REP/VMP Adjustment Provision
14 and the REP Capital Investment Allowance, and the associated rate impacts, is set forth
15 in the Testimony of David E. Tufts which is a part of this filing.

16
17 **III. OVERVIEW OF REP AND VMP**

18 **Q. Please explain the purpose of the REP and VMP.**

19 A. As part of the Settlement Agreement, Granite State committed to implement a REP and
20 VMP to bring the Company back to the historical reliability performance levels that
21 existed prior to 2005, with the goal of meeting those historical performance levels by

¹ See Order No. 24,777 (July 12, 2007).

1 2013. In general, the REP and VMP include categories of both capital and O&M
2 spending targeted to improve reliability performance. The REP and VMP are premised
3 on the idea that a certain amount of annual spending on both capital and O&M activities
4 is necessary to maintain the safety and reliability of the Company's electric distribution
5 system. The Settlement Agreement assumes that a base amount of \$1,360,000 will be
6 spent on O&M activities associated with the REP and VMP during each fiscal year of the
7 Company's five year rate plan established in the Settlement Agreement, and that the
8 Company will establish a proposed budget for REP capital investments for each fiscal
9 year following discussions with Staff. To the extent the Company spends less than the
10 agreed upon base O&M budget on REP and VMP O&M activities for the given fiscal
11 year, the difference would be credited to customers either through a refund commencing
12 on July 1 or credited to the following year's REP and VMP O&M budget, at the
13 Commission's discretion. Notwithstanding the base O&M amount of \$1,360,000, the
14 Company has the flexibility to propose, implement and collect the revenue requirement
15 associated with alternative plans that exceed the base O&M amount assuming that the
16 associated spending is reasonable and prudent.²

17
18 **Q. What kinds of activities are included in the REP and VMP?**

² Settlement Agreement, Exhibit GSE-8 at 4-5 provides for cost recovery for any deviations from the plan reviewed by Staff, providing that the deviations were either due to circumstances out of the Company's reasonable control or, if within its control, were reasonable and prudent. Exhibit GSE-8 at 8-9.

1 A. As described in detail in Exhibit GSE-8 to the Settlement Agreement, the REP and VMP
2 include the following categories of activities: feeder hardening, augmented tree-trimming
3 and clearing, asset replacement, and inspection and maintenance.

4
5 **Q. How does the Company decide how to allocate funds towards vegetation**
6 **management and reliability activities within a given year's budget and how does the**
7 **Company determine which REP/VMP projects to undertake in any given year?**

8 A. Each year the Company develops an Annual Work Plan that is designed to achieve the
9 overriding performance objectives of the business (safety, reliability, efficiency,
10 customer satisfaction and environmental). At the outset, a draft work plan consists of a
11 compilation of proposed spending for Asset Strategies, individual capital projects and
12 statutory and regulatory mandatory work activities. Each potential project specified
13 within the plan contains justification and estimated costs. The Company uses a
14 prioritization model based on relative risk of each project proposal to facilitate the
15 selection of appropriate projects to be included in the Annual Work Plan. The ranking
16 and selection of projects is reviewed in challenge sessions and further prioritized to
17 achieve an optimized portfolio of projects considering the most up to date reliability
18 performance information compared to the reliability improvements targeted by the
19 various programs and the deliverability of the various programs within the fiscal year.
20 The Company's objective is to arrive at a budget that is the optimal balance in terms of
21 making investments necessary to maintain and improve the performance of the system,

1 while also ensuring a cost-effective use of the Company's available resources. At the
2 same time the Company must maintain a level of flexibility with regard to the budget and
3 spending process to deal with circumstances that inevitably arise during the year. The
4 allocation of funds for vegetation management and reliability improvement activities is
5 part of the budget vetting process.

6
7 **Q. Are the capital improvements in the REP/VMP Plan the only capital investments**
8 **made by the Company to its system?**

9 A. No. The Company has a five year capital plan which includes investments in the
10 following key categories: (a) expenditures required to ensure that the Company meets its
11 legal, regulatory and contractual obligations; (b) capital expenditures required to replace
12 failed or damaged equipment and to restore the Company's system to its normal
13 operating configuration and capability following storm or other events; (c) non-
14 infrastructure improvements that are required to run the Company's power system such
15 as tools and other general plant; (d) expenditures undertaken to maintain and/or upgrade
16 the capability of the Company's system to provide adequate or improved thermal loading,
17 voltage, stability, reliability or availability performance, and; (e) capital expenditures
18 required to reduce the risk and consequences of potential failures of transmission and
19 distribution assets

20
21 **Q. Please explain the purpose of the 2010 REP/VMP Filing.**

1 A. By May 15 of each fiscal year associated with the five-year rate plan period (January 1,
2 2008 through December 31, 2012), the Company is required to make a reconciliation
3 filing with the Commission for both its REP and VMP detailing the actual amounts
4 associated with REP and VMP activities during the prior fiscal year as compared with
5 budgeted amounts. Following the Company's submission of a proposed budget for fiscal
6 year 2010 REP and VMP activities to Staff on February 15, 2009, the Company met with
7 Staff on August 13, 2009 and October 29, 2009 to discuss the Company's fiscal year
8 2010 plan. The Staff and Company agreed on a budget for the Company's fiscal year
9 2010 plan, which was filed with the Commission on December 23, 2009 in DE 09-031.
10 This budget reflected an incremental increase of \$488,966 over the threshold amount of
11 \$1,360,000 in O&M expense set forth in the Settlement Agreement due to a significant
12 increase in the costs associated with hazard tree removals. As set forth in the 2010
13 REP/VMP Report and the Pre-filed Testimony of David E. Tufts, the Company's actual
14 O&M expense and capital investment associated with REP/VMP activities deviated from
15 the December 23, 2009 budget. Specifically, the Company is seeking recovery of
16 \$1,047,770 in incremental O&M expense above the threshold amount of \$1,360,000 and
17 \$163,663 for the REP Capital Investment Allowance which is the revenue requirement
18 associated with \$876,243 of capital investment in fiscal year 2010. If approved, the
19 Company is requesting that these rate adjustments become effective for usage on and
20 after July 1, 2010, as set forth in the Settlement Agreement.

1 **IV. FISCAL YEAR 2010 REP AND VMP IMPLEMENTATION**

2 **Q. Why did the Company's capital investment during the fiscal year vary from the**
3 **December 23, 2009 capital budget agreed to with Staff?**

4 A. As described in the 2010 REP/VMP Report, this increase was due in large part to an
5 increased number of feeder hardening projects conducted by the Company. As shown on
6 Table 3, the Company initially planned to conduct 25 miles of feeder hardening projects,
7 but actually completed 64 miles by the end of the fiscal year. The Company conducted
8 these additional projects in order to further improve system reliability and because
9 additional feeder hardening work had been designed and crews were available to
10 complete this work in fiscal year 2010. The Company believes the REP projects are
11 having a positive impact on reliability. As shown in Figure 1, deteriorated equipment,
12 lightning and animals have been found to account for 20-to-30% of the interruptions
13 experienced by customers and the feeder hardening programs was designed to address
14 these problems. Table 3 also indicated that the Company replaced 310 cutouts –more
15 than the 220 cutouts shown in the REP budget. The Company replaced more cutouts
16 because it has an objective to remove all potted porcelain cutouts from its system and
17 crews were available to perform this work. These cutouts have been prone to failure,
18 resulting in customer outages, and they also pose a safety risk for operating personnel
19 who have to operate them.

20

1 It is important to note that the work described in the REP and VMP Plan each year is a
2 subset of the work performed each year to maintain reliability. The incremental spending
3 included in the REP is required to restore reliability performance to the level experienced
4 prior to 2005.

5
6 **Q. Why did the Company's O&M spending vary from the Company's original budget?**

7 A. The increase in O&M spending above the Company's original budget is attributable to
8 several factors. First, a portion of the increased costs arise from cycle pruning as a result
9 of a change in scope of work, including an unanticipated increase in mileage from the
10 original bid as a result of circuit reconfiguration as well as a unforeseen price adjustment
11 due to a change associated with feeder reconfiguration. The Company also incurred
12 increased expenses with the removal of hazard trees due to its adoption of specific risk
13 tolerances, resulting from a more rigorous biological and structural inspection of trees
14 instead of relying on a tree's outward appearance. The change in risk tolerances made it
15 difficult to predict the number of hazard trees that would be targeted for removal and
16 therefore reflected in the Company's budget. O&M costs also varied from the original
17 budget with respect to the police detail costs. With more experience in budgeting for
18 hazard tree removal under the new risk tolerances, the Company believes it will be able
19 to better identify the number of hazard trees anticipated to be removed for budget
20 purposes.

1 The Company incurred an additional \$106,084 in O&M expense as a result of increased
2 volumes of REP work. Although the majority of REP expenditures are capital, there is
3 associated O&M spending for each program. The ratio of O&M to capital varies
4 depending upon the specific construction tasks required. For the REP projects, the O&M
5 associated with reclosers is estimated to be small, on the order of 2% of capital costs.
6 However, for the Feeder Hardening program, the associated O&M tends to be between
7 20%-30% because inspections may identify issues that require a maintenance response
8 rather than the replacement of a unit of plant. The increase in the feeder hardening
9 mileage from 25 miles to 64 miles is the primary driver of the increase in O&M costs
10 related to the REP.

11
12 **Q. Has the Company seen any improvements in the reliability of its system as a result**
13 **of its REP/VMP expenditures?**

14 A. Yes. As reflected on Figure 1 of the 2010 REP/VmP Report, the Company's SAIFI
15 metric is down about 60% since 2006 and its SAIDI performance has declined steadily
16 over the same time period. But some of the improvement in 2009 was due to good
17 weather. The Company will need to continue its REP and VMP activities to sustain the
18 recent improvements to reach the 2013 targeted reliability goals in the Settlement
19 Agreement.

20

1 **Q. Were the REP/VMP expenditures for which the Company is seeking recovery**
2 **reasonable and prudent?**

3 A. Yes. As described in this filing, the expenditures were reasonable and prudent because
4 these expenditures were made for programs that are specifically referenced in the
5 Settlement Agreement as necessary to achieve continued improvement in the Company's
6 system reliability in order to achieve pre-2005 reliability levels. The expanded scope of
7 work taken on this year in terms of vegetation management, feeder hardening and cutout
8 replacements was necessary to enable the Company to deliver on its commitment to
9 restore reliability performance to the goals set in the Agreement. It is reasonable to grant
10 the Company recovery of those costs because they were incurred for the explicit purpose
11 of improving system reliability, consistent with the intent of the Settlement Agreement,
12 and generated real customer benefits in the form of improved reliability performance.
13 Moreover, these expenditures were the result of a budgeting process which as described
14 above, prioritizes capital projects based on a number of criteria.

15
16 **V. CONCLUSION**

17 **Q. Does that conclude your testimony?**

18 A. Yes it does.