



Liberty Utilities (EnergyNorth Natural Gas) Corp.  
d/b/a Liberty Utilities  
Docket No. DG 14-041  
Attachment GMC/RM-1  
May 15, 2014  
Page 1 of 8

N.H.P.U.C. Case No.	DG 14-041
Exhibit No.	# 1
Witness	Panel 1
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**Liberty Utilities (EnergyNorth Natural Gas) Corp.**

**FY 2014 CAST IRON BARE STEEL PROGRAM REPORT  
DG 14-041**

**May 15, 2014**

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## **INTRODUCTION**

Pursuant to the settlement agreement approved by the New Hampshire Public Utilities Commission (the “Commission”) as part of the National Grid plc/KeySpan Corporation merger proceeding in Docket DG 06-107 (“Settlement Agreement”) and the settlement agreement in DG 11-040 approved by Order 25,370, Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities (“Liberty” or the “Company”) now submits the results of the Cast Iron Bare Steel (“CIBS”) Replacement Program for fiscal year 2014 (April 1, 2013-March 31, 2014). As required by the Settlement Agreement, the Company submits the following information in connection with this report and the prefiled Joint Testimony of Gwyn M. Cassetty and Richard MacDonald and Testimony of Mark G. Savoie: (1) A report detailing the actual amount of capital investments made in accordance with implementing the CIBS program during fiscal year 2014 (Attachment GMC/RM-2 to Joint Cassetty-MacDonald Testimony); (2) A calculation of the incremental revenue requirement associated with placing the capital investments into rate base above a base spending level of \$500,000 (Attachment MGS-1 to Savoie Testimony); (3) A description of variances between actual results and the original plan, and (4) A request for a permanent increase in base distribution delivery rates in the amount of \$330,245 effective for usage on and after July 1, 2014. In addition, this report and Mr. Savoie’s Testimony provide an update on the status of pending road degradation fee litigation between Liberty and the cities of Concord and Manchester; a discussion of Liberty’s treatment of the Concord and Manchester road degradation fees in this filing; and a description of the repairs tax deduction for which CIBS projects are eligible.

## **SECTION 1: ACTUAL CAPITAL EXPENDITURES**

Actual capital expenditures incurred during implementation of the CIBS program for fiscal year 2014 are detailed in Attachment GMC/RM-2 to the Cassetty-MacDonald Testimony. Through a series of technical sessions that began in 2008, Commission Staff and the Company have agreed that the capital investments amounts to be included for recovery under CIBS may

include all prudently incurred direct and indirect<sup>1</sup> costs associated with: (i) replacement or abandonment<sup>2</sup> of cast iron and bare steel mains, including replacement of existing pipe with replacement pipe of the same size<sup>3</sup>, with recovery for the costs of “upsizing” the pipe allowed only when specifically justified,<sup>4</sup> (ii) replacement or abandonment of cast iron or bare steel service lines directly connected to bare steel or cast iron main replacement projects, and (iii) tie over of connected service lines not replaced or abandoned as part of a cast iron bare steel main replacement project.

Categories of costs that may not be included for recovery under CIBS include: (i) replacement or abandonment of plastic main, (ii) replacement or abandonment of coated steel main, regardless of vintage, unless approved by the Safety Division of the Commission, (iii) replacement or abandonment of plastic or coated steel services connected to cast iron or bare steel main replacement projects, (iv) the differential in cost to replace existing cast iron or bare steel mains with pipe of a diameter that is greater than the existing main and the cost to replace that main with a pipe that is larger than the existing main, unless specifically justified, (v) relocation of customer meters from inside to out and (vi) random cast iron or bare steel service replacements not connected to a cast iron or bare steel main replacement project.

On January 15, 2013, the Company made its proposed FY 2014 CIBS program filing with the Commission. On April 4, 2013, the filing was reviewed with Staff for project selection and scope. The Company responded to Staff Data requests Set 1 and Set 2 before the April 18<sup>th</sup>, 2014, CIBS Program Technical Session. Line 31 column V of Attachment GMC/RM-2 shows the actual recoverable expenditures of the FY 2014 projects, totaling \$3,151,795. After

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<sup>1</sup> Indirect costs mean overheads such as pension, OPEB's and other fringe benefits, payroll taxes, material handling costs and other general & administrative expenses that are loaded on all labor and material transactions. Categories of costs that may not be included for recovery under the plan include costs related to CIBS planning (other than normal engineering and project planning), reporting and filing.

<sup>2</sup> For purposes of ii and iii, abandonments such as mains that are not servicing a customer via a service will not be allowed. Other abandonments will be considered by Staff on a case by case basis.

<sup>3</sup> 3-inch pipes, which are no longer standard size, will be routinely replaced with 4-inch pipes.

<sup>4</sup> See Order No. 25, at 6-7.

removing the CIBS base amount of \$500,000 in accordance with the terms of the Settlement Agreement from the actual expenditures, the total incremental expenditures to be included in rate base amounts to \$2,651,795. Appendix A to this report is the Condition Bare Steel Main Replacement Program – Sample Analysis Report for FY 2014. This report contains photographs and descriptions of various pipe segments removed and catalogued as part of the FY 2014 CIBS program.

## **SECTION 2: CALCULATION OF INCREMENTAL REVENUE REQUIREMENT**

In this filing, Liberty is seeking recovery in rates of the incremental revenue requirement associated with an additional \$2,651,795 of CIBS recoverable capital investments. As set forth in Attachment MGS-1, page 1 to Mr. Savoie’s Testimony, the revenue requirement associated with the CIBS cumulative capital expenditures is \$1,543,832 (line 35(f)) with a corresponding revenue deficiency of \$330,245 (line 39 (f)). Consistent with prior delivery rate increases for the CIBS program, the Company proposes to apply the increase pro rata across all customer classes. Attachment MGS-1, page 4 to Mr. Savoie’s Testimony also indicates the annual bill impacts for an average residential customer and commercial customers in rate classes G-41, G-42 and G-52. Attachment MGS-2 to Mr. Savoie’s Testimony is a computation of the cumulative revenue requirement associated with the CIBS program since its inception in fiscal year 2009.

## **SECTION 3: DIFFERENCES BETWEEN INITIAL ESTIMATED EXPENDITURES AND FISCAL YEAR-END ESTIMATED EXPENDITURES**

The Company’s FY 2014 CIBS Plan provided for the replacement of 3.23 miles of cast iron and bare steel pipe at an estimated cost of \$3,425,249, (excluding the City of Manchester degradation fees). As shown on Attachment GMC/RM-2, the Company actually completed 3.51 miles of replacement at a cost of \$3,968,404 (excluding the City of Manchester degradation fees)<sup>5</sup> The Company expects to incur carry-over costs of \$336,793 for FY 2014 projects into

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<sup>5</sup> \$479,816 in non-recoverable service-related costs has been removed from this total amount for the purposes of

fiscal year 2015, which is included in the total mentioned above. Details of the variances between estimated and actual costs by project are shown in Attachment B column AJ, direct cost variances are shown in column AN.

#### **SECTION 4: STATUS OF THE PENDING LITIGATION BETWEEN LIBERTY AND THE CITIES OF CONCORD AND MANCHESTER**

On June 15, 2010, National Grid filed an action in Hillsborough County Superior Court against the City of Manchester seeking an injunction against enforcement of regulations concerning street opening permit fees (“degradation fees”), as well as a request for a declaratory judgment invalidating such fees. The matter was docketed as NO 216-2010-EQ 001722. Similarly, on June 29, 2010, National Grid filed an action in Merrimack County Superior Court against the City of Concord seeking an injunction against enforcement of its degradation fee regulations, as well as a request for a declaratory judgment invalidating such fees. The matter was docketed as NO 217-2010-CV-00402. On April 6, 2011 the Company filed a motion for summary judgment in the Concord matter, and filed a motion for summary judgment in the Manchester matter on May 6, 2011.

On August 25, 2011, the Merrimack County Superior Court granted summary judgment to National Grid on the basis that the degradation fees at issue are pre-empted by state law. The City of Concord subsequently appealed that decision to the New Hampshire Supreme Court, which held that the City ordinance is not preempted by State law. The Supreme Court concluded that there was a factual dispute between EnergyNorth and the City regarding whether patching an excavated paved road with new pavement diminishes or restores the road’s original life expectancy. The case has been remanded to Superior Court. In the summer of 2013, the Concord and Manchester cases were consolidated and a trial has been set for March 2015.

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calculating the annual revenue requirement. Thus, the total amount of FY 2013 expenses for which the Company seeks recovery in this filing is \$3,151,795.

**SECTION 5: TREATMENT OF CONCORD AND MANCHESTER DEGRADATION FEES**

Liberty agreed to pay degradation fees to the City of Concord under protest while the litigation and appeal are pending. The City of Manchester agreed to allow Liberty to refrain from paying the fees, subject to the issuance of bonds in sufficient amount to pay any outstanding fees. Though Liberty has not been paying the Manchester degradation fees, it has been accruing the costs in its books and records. The FY2014 CIBS program recoverable costs are exclusive of the Manchester degradation fees. For the FY2015 program, Manchester degradation fees will also be excluded from the recoverable estimated and actual costs.

A summary of degradation fees included for recovery as part of the CIBS program costs is as follows:

<u>Period</u>	<u>City of Concord</u>	<u>City of Manchester</u>	<u>Total</u>
Fiscal 2011	\$19,856	\$275,035	\$294,891
Fiscal 2012	37,960	39,885	77,845
Fiscal 2013	9,747	382,335	392,082
Fiscal 2014	48,350	-0- (1)	48,350
Total	<u>\$115,913</u>	<u>\$697,255</u>	<u>\$813,168</u>

(1) Excludes FY 2014 accrued Manchester degradation fees in the amount of \$246,449 from the calculation of the revenue requirement.

Upon a successful outcome of the litigation, the Company will refund the revenue previously collected in revenue requirement calculations. Attachment MGS-3 to Mr. Savoie’s Testimony shows an estimated calculation of this amount. Currently, the Company would need to return approximately \$89,000 to customers as shown on Page 1, Line 32(b). This is based on the assumption that the litigation will be conclusively resolved before the filing of the FY 2015

revenue requirement. It is estimated that the Concord and Manchester degradation fees to be incurred during the FY 2015 construction season will be \$109,500 and \$277,379, respectively.

## **SECTION 6: TAX DEDUCTION FOR REPAIR EXPENSES**

In 2009, the Internal Revenue Service issued guidance, under Internal Revenue Code Section 162, regarding the eligibility of certain repair and maintenance expenses for an immediate deduction for income tax purposes, but capitalized by the Company for book purposes. This tax deduction has the effect of increasing deferred taxes and lowering the revenue requirement that customers will pay under the CIBS program. Repairs resulting in the replacement of less than 20 percent of an original unit of property qualify for a repairs tax deduction. A gas company's gas subsystem is considered a "unit of property" for the purposes of the repairs tax deduction. As explained in Mr. Savoie's Testimony, projects included in the CIBS program are expected to qualify as repairs; thus, when computing the revenue requirement, the Company reflects a tax deductibility of 100 percent for all CIBS jobs.



## **APPENDIX A: FY2013-14 NEW HAMPSHIRE CONDITION BARE STEEL MAIN REPLACEMENT PROGRAM – SAMPLE ANALYSIS**

Over the course of the 2013 construction season, steel pipe and soil samples were collected from the CIBS main replacement program projects completed in New Hampshire. These samples were taken with the intention of using the analysis conclusions as a tool to assist in the selection of candidates for future CIBS replacement programs. Each sample was wire brushed to clean the exposed pipe down to the bare metal. Soil samples were taken as close to the pipe samples as possible in an effort to retrieve ‘native’ soil.

Samples were taken at the following locations:

- (1) **1-34 DICKERMAN ST, NAS – WO# 705337** – 2 inch bare steel (1902/1925), low pressure (LP) – 0.154” wall.
  - A soil sample was taken and analyzed. The pH was measured to be 7.5, slightly alkali or neutral. Testing for chlorides was negative. Testing for microbiological acid producing (APB) and sulfate reducing bacteria (SRB) were performed. The APB testing produced a reading of 100,000 bacteria colonies per ML. The testing for SRB produced a reading of 1,000 bacteria colonies per ML. The soil was observed to be a dark brown color, odorless, and containing small stones.
  - The pipe sample was observed to be in very poor condition. Multiple locations of large holes with 90% wall loss were observed on the exposed steel. The deepest pit depth was measured at 0.140” and the samples are available for continued visible review. Exposure of this main should result in an immediate replacement/repair work order.
  - The following pictures were taken:



(2) **1-44 REVERE ST, NAS, & FERNWOOD ST – WO# 864755** – 2 inch bare steel (1902/1925), LP – 0.188” wall.

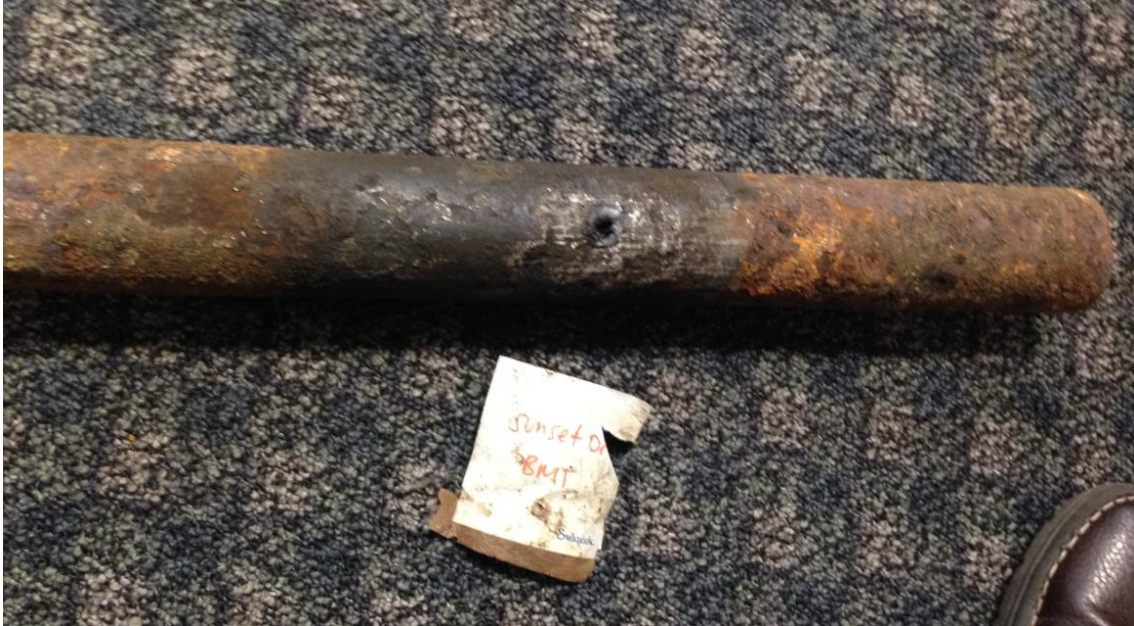
- A soil sample was taken and analyzed. The pH was measured to be 7, or neutral. Testing for chlorides was negative. Testing for microbiological acid producing (APB) and sulfate reducing bacteria (SRB) were performed. The APB testing produced a reading of 100,000 bacteria colonies per ML. The testing for SRB produced a reading of 100 bacteria colonies per ML. The soil was observed to be a dark brown color with some odor and containing small stones.
- The pipe sample was observed to be in moderate condition with medium pitting. The deepest pit depth was measured at 0.070” or 37% wall loss. The samples are available for continued visible review. Exposure of this particular segment of main would not require immediate replacement.
- The following pictures were taken:





(3) **17-28 SUNSET DR, BMT- WO# 864759** – 2 inch bare steel (YOI unknown), 60 psig – 0.188” wall.

- A soil sample was taken and analyzed. The pH was measured to be 6, slightly acidic. Testing for chlorides was negative. Testing for microbiological acid producing (APB) and sulfate reducing bacteria (SRB) were performed. The APB testing produced a reading of 10,000 bacteria colonies per ML. The testing for SRB produced a reading of 10,000 bacteria colonies per ML. The soil was observed to be a brown color with some odor and a consistency of sand.
- The pipe sample was observed to be in very poor condition. One location with 100% wall loss and other locations with deep pitting observed on the exposed steel. The deepest pit depth was measured at 0.145” or 77% wall loss. The samples are available for continued visible review. Exposure of this main should result in an immediate replacement work order.
- The following pictures were taken:



- (4) **8-18 MAPLE ST, NAS – WO# 864709** – 2 inch bare steel (1957), LP – 0.154” wall.
- A soil sample was taken and analyzed. The pH was measured to be 6.5, slightly acidic to

neutral. Testing for chlorides was negative. Testing for microbiological acid producing (APB) and sulfate reducing bacteria (SRB) were performed. The APB testing produced a reading of 1,000 bacteria colonies per ML. The testing for SRB produced a reading of 1,000 bacteria colonies per ML. The soil was observed to be a dark brown color with some odor and has the consistency of sand.

- The pipe sample was observed to be in moderate condition with medium pitting. The deepest pit depth was measured at 0.060" or 39% wall loss. The samples are available for continued visible review. Exposure of this particular segment of main would not require immediate replacement.
- The following pictures were taken:





- (5) **3-25 PRATT ST, NAS & ZELLWOOD ST – WO# 807276** – 2 inch bare steel (1894/1914), 60 psig – 0.188” wall.
- A soil sample was taken and analyzed. The pH was measured to be 7, or neutral. Testing for chlorides was negative. Testing for microbiological acid producing (APB) and sulfate reducing bacteria (SRB) were performed. The APB testing produced a reading of 1,000 bacteria colonies per ML. The testing for SRB produced a reading of 100 bacteria colonies per ML. The soil was observed to be a dark brown color, odorless, and containing small stones.
  - The pipe sample was observed to be in very poor condition. One location with 100% wall loss and other locations with deep pitting observed on the exposed steel. The deepest pit depth was measured at 0.120” or 64% wall loss. The samples are available for continued visible review. Exposure of this main should result in an immediate replacement/repair work order.
  - The following pictures were taken:



- (6) **5-21 RIDGE ST, NAS – WO# 864581** – 2 inch bare steel (YOI unknown), LP – 0.154” wall.



- A soil sample was taken and analyzed. The pH was measured to be 6.5, slightly acidic to neutral. Testing for chlorides was negative. Testing for microbiological acid producing (APB) and sulfate reducing bacteria (SRB) were performed. The APB testing produced a reading of 10,000 bacteria colonies per ML. The testing for SRB produced a reading of 1,000 bacteria colonies per ML. The soil was observed to be a dark brown color, odorless, and containing small stones.
- The pipe sample was observed to be in moderate condition with medium pitting. The deepest pit depth was measured at 0.060" or 39% wall loss. The samples are available for continued visible review. Exposure of this particular segment of main would not require immediate replacement.
- The following pictures were taken:





(7) **1-6 JEWELL LN, NAS – WO# 931053**– 2 inch bare steel (1947), LP – 0.154” wall.

- A soil sample was taken and analyzed. The pH was measured to be 7, or neutral. Testing for chlorides was negative. Testing for microbiological acid producing (APB) and sulfate reducing bacteria (SRB) were performed. The APB testing produced a reading of 10,000 bacteria colonies per ML. The testing for SRB produced a reading of <10 bacteria colonies per ML. The soil was observed to be a dark brown/black color, odorless, damp and containing small stones.
- The pipe sample was observed to be in moderate condition with medium pitting. The deepest pit depth was measured at 0.050” or 32% wall loss. The samples are available for continued visible review. Exposure of this particular segment of main would not require immediate replacement.
- The following pictures were taken:



**Conclusions/Recommendations:**

- 1) Samples should continue to be taken as close to the area of leak activity as possible. The designs will have these locations with WO#'s and drawings showing dimensions to the

leak repairs.

- 2) Main and Service Replacement should continue to be contacted prior to each removal of the sample pipe. A representative should be on site to verify that the pipe sample is acceptable and that the soil taken is valid for analysis.
- 3) The criteria used for the segment selection process should continue to include exposed main reports that include references to deep pitting and/or poor condition. This data has proven to be useful and indicative of pipe that is in need of replacement.
- 4) Special attention should be paid to locations where the pH is highly acidic or highly alkaline.
- 5) Special attention should be paid to locations where high levels of bacteria are recorded.