



EnergyNorth Natural Gas, Inc.
d/b/a Liberty Utilities
Docket No. DG 13-____
Attachment A
May 15, 2013

FY 2013 CIBS REPORT

DG 13-____

May 15, 2013

Submitted to:

**New Hampshire
Public Utilities Commission**

Submitted by:

**EnergyNorth Natural Gas, Inc.
d/b/a Liberty Utilities**

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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 06-107¹ (“Settlement Agreement”) and the settlement agreement in DG 11-040 approved by Order 25,370, EnergyNorth Natural Gas, Inc. d/b/a Liberty Utilities (“Liberty” or the “Company”) now submits the results of the Cast Iron Bare Steel Replacement Program (“CIBS”) for fiscal year 2013 (April 1, 2012-March 31, 2013). 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 Mark G. Savoie (“Joint Testimony”): (1) A report detailing the actual amount of capital investments made in accordance with implementing the CIBS program during fiscal year 2013 (Attachment B to the Joint 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 C to the Joint 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 \$157,677 effective for usage on and after July 1, 2013. In addition, this report and the Joint 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.

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

Section 1: Actual Capital Expenditures

Actual capital expenditures incurred during implementation of the CIBS for fiscal year 2013 are detailed in Attachment B to the Joint 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 indirect² costs associated with: (i) replacement or abandonment³ of cast iron and bare steel mains, including replacement of existing pipe with replacement pipe of the same size⁴, with recovery for the costs of “upsizing” the pipe allowed only when specifically justified,⁵ (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

² 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.

³ 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.

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

⁵ See Order No. 25, at 6-7.

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 13, 2012, the Company made its proposed FY 2013 CIBS program filing with the Commission. On March 16, the filing was reviewed with Staff for project selection and scope. The CIBS projects were finalized in May of 2013. Line 29 column S of Attachment B shows the actual recoverable expenditures of the FY 2013 projects, totaling \$2,336,165. After 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 \$1,836,165. Appendix A to this report is the Condition Bare Steel Main Replacement Program – Sample Analysis Report for FY 2013. This report contains photographs and descriptions of various pipe segments removed and catalogued as part of the FY 2013 CIBS program.

Section 2: Calculation of Incremental Revenue Requirement

In this filing, Liberty is seeking recovery of the incremental revenue requirement associated with \$1,836,165 of CIBS capital investments in rates. As set forth in Attachment C to the Joint Testimony, the revenue requirement associated with fiscal year 2013 capital expenditures is \$1,213,587 with a corresponding revenue deficiency of \$157,677. Consistent with prior delivery rate increases for the CIBS program, the Company proposes to apply the increase pro rata across all customer classes. Attachment C to the Joint Testimony also indicates the annual bill impacts for a typical residential customer and commercial customers in rate classes G-41, G-42 and G-52. Attachment D to the Joint 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 2013 CIBS Plan provided for the replacement of 1.87 miles of cast iron and bare steel pipe at an estimated cost of \$3,328,836, inclusive of carry-over costs from fiscal year 2012 projects. As shown on Attachment B, the Company actually completed 1.65 miles of replacement at a cost of \$2,442,640,⁶ which includes \$589,794 of expenses incurred in fiscal year 2013 for final street restoration on eight projects that were part of the fiscal year 2012 program. The Company does not expect to incur any carry-over costs for FY 2013 projects into fiscal year 2014. Details of the variances between estimated and actual costs by project are shown in Attachment B column AD.

⁶ \$106,476 in non-recoverable service-related costs has been removed from this total amount for the purposes of calculating the annual revenue requirement. Thus, the total amount of FY 2013 expenses for which the Company seeks recovery in this filing is \$2,336,165.

Section 4: Status of the Pending Litigation Between Liberty and the Cities of Manchester and Concord

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 where the proceeding will continue. No schedule has been set for the Superior Court proceeding, and the Manchester litigation remains stayed.

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 those 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	<u>\$9,747</u>	<u>\$362,335</u>	<u>\$372,082</u>
Total	<u>\$67,563</u>	<u>\$677,255</u>	<u>\$744,818</u>

Upon the outcome of the litigation, the Company will refund the revenue previously collected on these amounts. Attachment E to the Joint Testimony shows the calculation of this amount. Currently, the Company would need to return to customers \$81,701 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 2014 revenue requirement. It is estimated that the degradation fees to be incurred during the FY 2014 construction season will be \$262,712. If the litigation is concluded prior to the filing for the FY 2014 revenue requirement, this additional amount will not be charged to the program.

Section 6: Tax Deduction for Repair Expenses

In 2009, the Internal Revenue Service (“IRS”) issued guidance, under Internal Revenue Code (“IRC”) 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 the Joint Testimony, projects included in the CIBS program qualify as repairs; thus, when computing the revenue requirement, the Company reflects a tax deductibility of 100 percent for all CIBS jobs.

2012 Condition Bare Steel Main Replacement Program – Sample Analysis

Over the course of the 2012 construction season, steel pipe and soil samples were collected from the CIBS main replacement program projects completed. 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) **5-19 LEMON ST. NASHUA – WO# 705346** – 2 inch, low pressure - installed in 1902/1925

- A soil sample was taken and analyzed. The pH was measured to be 6, 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 100 bacteria colonies per ML. The soil was observed to be a light brown color, odorless, and containing large and small stones.
- The pipe sample was observed to be in very poor condition. Multiple locations of large holes with 100% wall loss were observed on the exposed steel. The service tee on the sample was heavily corroded. Pit depths were not measured as 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:





(2) **2-13 GROVE ST. NASHUA – WO# 709969** – 2 inch, low pressure, installed in 1910

- A soil sample was taken and analyzed. The pH was measured to be approximately 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 10,000 bacteria colonies per ML. The soil was observed to be a dark brown color, with some odor, and without stone.
- The pipe sample was observed to be in poor condition with concentrated deep pitting on the pipe wall. Exposure of this main should result in a recommendation for priority replacement. Pit depths were not measured as the samples are available for continued visible review.
- The following pictures were taken:





Conclusions/Recommendations:

- (1) Samples should continue to be taken as close to the area of leak activity as possible.
- (2) Crews taking the samples should specify the 12 o'clock position of the pipe taken.
- (3) 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.
- (4) 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.
- (5) Special attention should be paid to locations where the pH is highly acidic or highly alkaline.
- (6) Special attention should be paid to locations where the presence of chlorides is observed.
- (7) Special attention should be paid to locations where high levels of bacteria are recorded.

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Priority	WONUM	DESCRIPTION	Town Code	Int Street 1	Int Street 2	STATUS	Actual Completion Date	Comments	Actual Install Footage	Service Relay/Inserts	Service Reconnects	Main & Service Costs [Total Loaded Cost/ Excl. Degradation Fees]
1	791756	55-126 W HILLCREST AV, MNC, BROWN AV & BELAIR ST	MNC	WESTLAND AV	-	CASBUILT	10/10/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated.	1,230	13 BS	-	\$141,965
2	761480	345-401 LAUREL ST, MNC, & BEACON ST	MNC	LINCOLN ST	BEACON ST	CASBUILT	11/30/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated.	1,335	7BS, 13 PL/CS	-	\$214,144
3	761475	1580-1678 ELM ST, MNC	MNC	PENNAHOOK ST	SALMON ST	CASBUILT	10/25/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated.	262	1 PL/CS	-	\$48,821
4	586542	141-160 SILVER ST, MNC	MNC	WILLOW ST	PINE ST	CASBUILT	10/8/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated.	481	2 BS, 1 PL/CS	1	\$82,699
5	761468	365-434 CYPRESS ST, MNC, & 13-71 HOSPITAL AV	MNC	MASSABESIC ST	AUBURN ST	CASBUILT	11/30/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated.	1,533	7 BS, 2 PL/CS	7	\$329,122
6	791860	253-393 MYRTLE ST, MNC	MNC	OAK ST	BELMONT ST	CASBUILT	10/5/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated.	2,492	12 BS, 12 PL/CS	15	\$369,861
7	791915	2-10 PLEASANT ST, CCD	CCD	N MAIN ST	S MAIN ST	CASBUILT	10/24/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated.	193	-	-	\$101,888
8	705346	5-19 LEMON ST, NAS	NAS	LOWELL ST	WHITNEY ST	CASBUILT	12/26/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated. Estimated Carry Over charges removed, trenches complete and invoiced by RHW	337	3 BS, 1 PL/CS	1	\$102,938
9	709969	2-13 GROVE ST, NAS	NAS	HOLMAN ST	WHITNEY ST	CASBUILT	12/4/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated. Estimated Carry Over charges removed, trenches complete and invoiced by RHW	443	2 BS, 1 PL/CS	2	\$150,229
10	705337	1-34 DICKERMAN ST, NAS	NAS	MAIN ST	FIFIELD ST	INPRG	N/A	Due to permitting issues with Nashua, project deferred. Material charges removed.	0	-	-	\$0
11	791853	87-98 WALNUT ST, NAS	NAS	W HOLLIS ST	MULBERRY ST	PEND	N/A	Due to permitting issues with Nashua, project deferred. Material charges removed.	0	-	-	\$0
12	641991	1-10 WOOD AV, CCD	CCD	BROADWAY	-	CASBUILT	11/13/2012	Project started after June. No Contractor Overhead charged in 2012. Inhouse Labor overheads less than originally estimated.	432	3 BS, 4 PL/CS	-	\$53,073
Totals								TOTAL FOOTAGE	8,738	49 BS, 35 PL/CS	26	\$1,594,738
								TOTAL MILEAGE	1.65		Cost/Foot	\$183
Carry Over Costs of FY12 Program												
	761464	413-495 CALEF RD, MNC, & 23-22 WILMOT ST	MNC	MITCHELL ST	MYSTIC ST	CASBUILT	12/23/2011	Final Restoration completed and invoiced for degradation fee.				\$145,634
	747140	55-100 W NORTH ST, MNC	MNC	ELM ST	RIVER RD	CASBUILT	10/26/2011	Final Restoration completed and invoiced for degradation fee.				\$59,957
	642276	150-160 ORANGE ST, MNC, & BEECH ST	MNC	UNION ST	BEECH ST	CASBUILT	11/22/2012	Final Restoration completed and invoiced for degradation fee.				\$25,262
	761473	24-25 DEPOT ST, MNC	MNC	ELM ST	FRANKLIN ST	CASBUILT	11/9/2011	Final Restoration completed and invoiced for degradation fee.				\$25,602
	761467	753-807 CHESTNUT ST, MNC	MNC	NORTH ST	APPLETON ST	CASBUILT	11/22/2011	Final Restoration completed and invoiced for degradation fee.				\$13,726
	761503	19-71 TYLER AV, MNC	MNC	S BEECH ST	CAMERON ST	CASBUILT	12/1/2011	Final Restoration completed and invoiced for degradation fee.				\$32,128
	761169	93-134 SOUTH ST, CCD	CCD	HUMPHREY ST	PILLSBURY ST	CASBUILT	12/7/2011	Final Restoration completed and invoiced, degradation fee paid in 2012.				\$87,658
	770715	18-56 ASH ST, NAS	NAS	CENTRAL ST	W HOLLIS ST	CASBUILT	12/23/2011	Final Restoration completed.				\$65,852
Totals												\$455,819
Grand Totals												\$2,050,558

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SVS Costs to be Removed (Unrecoverable)	Recoverable Main Cost	Recoverable Service Cost	Degradation Fee's	Total Recoverable Cost (Includes Degrad. Fees & Nerid Recoverable Costs)	Estimated Carry Over Costs	Ext Diameter	Ext Material	YOI	System Pressure	Estimated Install Footage	Estimated Abandon Footage	Estimated Total Footage	Estimated Non PI Services	Estimated Total Loaded Cost	Actual Total Loaded	Project Variance	Project Variance (%)
\$0	\$102,388	\$39,577	\$45,320	\$187,285	\$0	4 & 6	Cast Iron	1930	LP	1160	0	1160	13	\$297,609	\$187,285	(\$110,324)	-37%
\$30,661	\$162,173	\$21,311	\$47,060	\$230,543	\$0	4	Cast Iron	1898/1907/1927	LP to 60 psig	1105	0	1120	10	\$319,658	\$261,204	(\$58,454)	-18%
\$2,054	\$46,767	\$0	\$4,200	\$50,967	\$0	3 & 6	Cast Iron	1922/1894/1926	LP to 60 psig	245	735	980	1	\$179,511	\$53,021	(\$126,490)	-70%
\$3,891	\$72,719	\$6,089	\$15,910	\$94,718	\$0	4	Cast Iron	1926	LP	500	0	500	3	\$127,512	\$98,609	(\$28,903)	-23%
\$12,014	\$295,797	\$21,311	\$54,665	\$371,773	\$0	4 & 6	Cast Iron	1957/1958	LP	1480	0	1480	9	\$384,373	\$383,787	(\$586)	0%
\$49,229	\$284,099	\$36,532	\$81,205	\$401,837	\$0	4	Cast Iron	1909/1928	LP	2100	0	2100	28	\$595,971	\$451,066	(\$144,906)	-24%
\$0	\$101,888	\$0	\$6,114	\$108,002	\$0	4	Cast Iron	1911	LP	155	0	155	-	\$65,768	\$108,002	\$42,234	64%
\$3,891	\$89,914	\$9,133	\$0	\$99,047	\$0	2	Bare Steel	1902/1925	LP	315	0	315	4	\$105,473	\$102,938	(\$2,535)	-38%
\$4,737	\$139,403	\$6,089	\$0	\$145,492	\$0	2	Bare Steel	1910	LP	330	0	330	2	\$107,029	\$150,229	\$43,200	-3%
\$0	\$0	\$0	\$0	\$0	\$0	2	Bare Steel & Cast Iron	1925/1957/1958	LP to 60 psig	800	0	975	10	\$275,869	\$0	(\$275,869)	100%
\$0	\$0	\$0	\$0	\$0	\$0	2	Bare Steel	1913	LP	340	0	340	6	\$123,452	\$0	(\$123,452)	100%
\$0	\$31,763	\$21,311	\$3,633	\$56,706	\$0	4	CI	1931	LP	400	0	400	3	\$77,418	\$56,706	(\$20,712)	-27%
\$106,476	\$1,326,911	\$161,352	\$258,107	\$1,746,370	\$0				TOTAL FOOTAGE	8,930	735	9,855	89	\$2,659,643	\$1,852,845	(\$806,798)	-30%
			Cost/Foot	\$200					TOTAL MILEAGE	1.69	0.14	1.87	Cost/Foot	\$270			
\$0	\$145,634	\$0	\$53,045	\$198,679										\$147,687	\$198,679	\$50,992	35%
\$0	\$59,957	\$0	\$33,655	\$93,612										\$97,759	\$93,612	(\$4,147)	-4%
\$0	\$25,262	\$0	\$8,050	\$33,312										\$30,350	\$33,312	\$2,962	10%
\$0	\$25,602	\$0	\$12,025	\$37,627										\$33,630	\$37,627	\$3,997	12%
\$0	\$13,726	\$0	\$8,430	\$22,156										\$78,933	\$22,156	(\$56,777)	-72%
\$0	\$32,128	\$0	\$18,770	\$50,898										\$59,678	\$50,898	(\$8,780)	-15%
\$0	\$87,658	\$0	\$0	\$87,658										\$132,656	\$87,658	(\$44,998)	-34%
\$0	\$65,852	\$0	\$0	\$65,852										\$88,500	\$65,852	(\$22,648)	-26%
\$0	\$455,819	\$0	\$133,975	\$589,794										\$669,193	\$589,794	-\$79,398	-12%
\$106,476	\$1,782,731	\$161,352	\$392,082	\$2,336,164										\$3,328,836	\$2,442,640	-\$886,196	-27%

EnergyNorth Natural Gas, Inc.
d/b/a Liberty Utilities
Docket No. DG 13-___
Attachment C
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EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement
May 15, 2013

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Vintage Year Book Depreciation Schedule	2
Municipal Taxes as a Percentage of Net Plant	3
Bill Impacts due to Cast Iron and Bare Steel Replacement Program	4

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement

	(a)	(b)	(c)	(d)	(e)	(f)
		July 1, 2009 through March 31, 2010				
	Actual FY09	9 Months FY10	Actual FY11	Actual FY12	Actual FY13	Estimate FY14
Incremental Investment						
1 CIBS Program Actual Spend-Mains	1,736,153	4,049,995	3,391,069	1,570,208	2,174,813	-
2 CIBS Program Actual Spend-Service	729,463	798,555	668,631	352,005	161,352	-
3 CIBS Program Estimated Spend-Mains					-	3,514,583
4 CIBS Program Estimated Spend-Service					-	264,538
5 Base Spending Amount	500,000	482,110	500,000	500,000	500,000	500,000
6 Incremental Amount	1,965,616	4,366,440	3,559,700	1,422,213	1,836,165	3,279,121
7 Cumulative CIBS Program Spend Since July 1, 2009		4,366,440	7,926,140	9,348,353	11,184,518	14,463,639
8						
Deferred Tax Calculation						
10 Annual Tax Depreciation	1,031,948	4,366,440	3,559,700	1,422,213	1,836,165	3,279,121
11 Cumulative Tax Depreciation Since July 1, 2009		4,366,440	7,926,140	9,348,353	11,184,518	14,463,639
12						
13 Annual Book Depreciation	49,836	98,794	179,335	212,059	249,951	317,684
14 Cumulative Book Depreciation Since July 1, 2009		98,794	278,129	490,188	740,138	1,057,823
15						
16 Annual Book/Tax Timer	982,112	4,267,646	3,380,365	1,210,154	1,586,214	2,961,437
17 Cumulative Book/Tax Timer	982,112	4,267,646	7,648,011	8,858,165	10,444,379	13,405,816
18 Statutory Tax Rate	40.53%	40.53%	40.53%	40.53%	40.53%	40.53%
19						
20 Deferred Tax Reserve	398,001	1,729,677	3,099,739	3,590,214	4,233,107	5,433,377
21						
Rate Base Calculation						
23 Plant In Service	1,965,616	4,366,440	7,926,140	9,348,353	11,184,518	14,463,639
24 Accumulated Depreciation	(49,836)	(98,794)	(278,129)	(490,188)	(740,138)	(1,057,823)
25 Net Plant in Service	1,915,780	4,267,646	7,648,011	8,858,166	10,444,379	13,405,816
26 Deferred Tax Reserve	(398,001)	(1,729,677)	(3,099,739)	(3,590,214)	(4,233,107)	(5,433,377)
27 Year End Rate Base	1,517,779	2,537,969	4,548,272	5,267,951	6,211,273	7,972,439
28						
Revenue Requirement Calculation						
30 Year End Rate Base	1,517,779	2,537,969	4,548,272	5,267,951	6,211,273	7,972,439
31 Pre-Tax ROR	11.53%	11.53%	11.63%	11.63%	11.63%	11.63%
32 Return and Taxes	175,003	292,628	528,964	612,663	722,371	927,195
33 Book Depreciation	49,836	98,794	179,335	212,059	249,951	317,684
34 Property Taxes 2.31%	37,347	88,340	194,259	231,198	241,265	309,674
35 Annual Revenue Requirement	262,185	479,762	902,558	1,055,920	1,213,587	1,554,553
36						
37 Prior Year Annual Revenue Requirement	-	-	479,762	902,558	1,055,920	1,213,587
38						
39 Incremental Annual Rate Adjustment Since July 1, 2009	262,185	479,762	422,796	153,362	157,667	340,967
40						
46						
47						
48						
Imputed Capital Structure (see DG 10-017)						
50	Ratio	Rate	Weighted Rate	Pre Tax		
51 Long Term Debt	50.00%	6.99%	3.50%	3.50%		
52 Short Term Debt	0.00%	0.00%	0.00%	0.00%		
53 Common Equity	50.00%	9.67%	4.84%	8.13%		
54						
55	100.00%		8.33%	11.63%		

Line / Column Notes:

- 34 Property tax rate reflects actual calendar year 2012 ratio of municipal tax expense to average net plant in service per page 4.
- Col (b) In accordance with Exhibit EN-3 of the National Grid/KeySpan Merger Settlement Agreement (Docket No. DG 06-107), EnergyNorth is allowed to implement on July 1 of each year, a permanent increase in its base distribution delivery rates to recover the annual revenue requirement for those investments made in the preceding fiscal year ended March 31st in excess of the CIBS base amount. As shown on Attachment A of Exhibit EN-3, the revenue requirement in any year reflects deferred income tax reserves based on the cumulative book/tax timing difference of all prior year CIBS investments. However, on July 1, 2010, EnergyNorth implemented new temporary base distribution delivery rates as part of its rate case in Docket No. DG 10-017. These new rates were based on the historic test year ended June 30, 2009 which included the first three months of CIBS investment for the fiscal year ended March 31, 2010. As a consequence, the revenue requirement for the fiscal year ended March 31, 2010 reflected CIBS investment for only the last nine months of the fiscal year ended March 31, 2010. In addition, this revenue requirement did not reflect deferred income tax reserves based on cumulative book/tax timing differences on CIBS spending prior to June 30, 2009.

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Vintage Year Book Depreciation Schedule

		(a)	(b)	(c)	(d)	(e)	(f)
		Actual FY09	July 1, 2009 thru March 31, 2010 9 Months FY10	Actual FY11	Actual FY12	Actual FY13	Estimate FY14
Book Depreciation Schedule-Mains							
1	Actual CIBS spending	1,736,153	4,049,995	3,391,069	1,570,208	2,174,813	3,514,583
2	Base spending	(352,073)	(402,707)	(417,650)	(408,438)	(465,466)	(465,000)
3	Incremental CIBS spending	1,384,080	3,647,288	2,973,419	1,161,770	1,709,346	3,049,583
4							
5	Book Depreciation Rate:						
6	Year 1	2.54%	35,065				
7	Year 1 beginning in FY10	1.92%		70,028	57,090	22,306	58,552
8	Year 2	1.92%		70,028	57,090	22,306	32,819
9	Year 3	1.92%			70,028	57,090	22,306
10	Year 4	1.92%				70,028	57,090
11	Year 5	1.92%					70,028
12							
13	Book Depreciation Expense-Mains	35,065	70,028	127,118	149,424	182,243	240,795
14							
15	Accumulated Depreciation Mains-Beginning of Year	-	-	70,028	197,146	346,570	528,813
16	Accumulated Depreciation Mains-End of Year	35,065	70,028	197,146	346,570	528,813	769,608
17							
18							
19	Book Depreciation Schedule-Services						
20							
21	Actual CIBS spending	729,463	798,555	668,631	352,005	161,352	264,538
22	Base spending	(147,927)	(79,403)	(82,350)	(91,562)	(34,534)	(35,000)
23	Incremental CIBS spending	581,536	719,152	586,281	260,443	126,818	229,538
24							
25	Book Depreciation Rate:						
26	Year 1	2.54%	14,771				
27	Year 1 beginning in FY10	4.00%		28,766	23,451	5,073	9,182
28	Year 2	4.00%		28,766	23,451	10,418	5,073
29	Year 3	4.00%			28,766	23,451	10,418
30	Year 4	4.00%				28,766	23,451
31	Year 5	4.00%					28,766
32							
33	Book Depreciation Expense-Services	14,771	28,766	52,217	62,635	67,708	76,889
34							
35	Accumulated Depreciation Services-Beginning of Year	-	-	28,766	80,983	143,618	211,326
36	Accumulated Depreciation Services-End of Year	14,771	28,766	80,983	143,618	211,326	288,215
37							
38							
39							
40	Total Mains & Services Depreciation Expense	49,836	98,794	179,335	212,059	249,951	317,684
41							
42	Total Mains & Services Accumulated Depreciation	49,836	98,794	278,129	490,188	740,138	1,057,823

2(f) & 22(f) FY 2014 estimate split 93% Mains / 7% Services based upon FY 2013 results.

6(a) & 26(a) FY 2009 filing used the composite depreciation rate for both mains and services.

col. (b) See footnote regarding column (b) on page 1 of 5.

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Municipal Taxes as a Percentage of Net Plant

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	12/31/2005	12/31/2006	12/31/2007	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
1 Plant in Service (page 100 table 10)	258,573	272,678	289,379	305,221	319,737	332,049	344,966	356,165
2 Depreciation and Amortization Reserve (a)	(82,363)	(88,564)	(94,562)	(102,587)	(108,270)	(114,294)	(119,973)	(121,047)
3 Net Plant	176,209	184,114	194,817	202,634	211,467	217,756	224,993	235,118
4								
5 Average Net Plant								
6 Plant in Service		265,625	281,028	297,300	312,479	325,893	338,508	350,565
7 Depreciation Reserve		(85,463)	(91,563)	(98,575)	(105,429)	(111,282)	(117,133)	(120,510)
8 Net Plant		180,162	189,465	198,726	207,051	214,611	221,375	230,056
9								
10 Municipal Taxes (page 112 table 33)		3,534	3,641	3,771	4,294	5,459	5,776	5,321
11								
12 % Municipal Taxes to Net Plant		1.96%	1.92%	1.90%	2.07%	2.54%	2.61%	2.31%

Note: Source of above data is the December 31 PUC Annual Report to be consistent with data previously provided to the Commission.

(a) From page 101 table 10 of the Annual Report to the New Hampshire Public Utilities, as adjusted by a reclassification of \$28,170,082 related to a reserve for cost of removal that has been reclassified as a liability (see Annual Report page 111. table 29)

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Bill Impacts due to Cast Iron and Bare Steel Replacement Program

	(a)	(b)	(c)	(d)	(e)	(f)
	FY2009	FY2010	FY2011	FY2012	FY2013	Estimate FY2014
1 Annual Increase due to Cast Iron Bare Steel program	262,185	479,762	521,590	(44,226)	157,667	340,967
2						
3 Annual Throughput (based on Nov 2012 COG/LDAC filing)	154,702,063	150,828,182	154,648,622	163,588,592	158,062,349	158,062,349
4						
5 Increase Factor	\$0.0017	\$0.0032	\$0.0034	(\$0.0003)	\$0.0010	\$0.0022
6						
7 Annual Actual Calendar Year Gross Revenues (Annual Report - table 40 - line 1)	\$176,520,000	\$151,224,178	\$132,475,941	\$146,365,316	\$119,363,340	\$119,363,340
8						
9 Annual Percent Increase	0.15%	0.32%	0.39%	-0.03%	0.13%	0.29%
10						
11 Miles of Main Replaced Annually	2.96	3.98	2.79	1.56	1.65	2.90
12 Cumulative Miles of Main Replaced	2.96	3.98	6.77	8.33	9.98	12.88
13 Miles of Cast Iron/Bare Steel Main Remaining ¹	149.8	142.0	137.4	132.1	126.30	123.40
14						
15 Services Replaced Annually	101	127	282	81	84	125
16 Cumulative Number of Services Replaced	101	127	409	490	574	699
17						
18 Typical Residential bill (per summer 2013 COG - sch 8)	\$1,757	\$1,591	\$1,555	\$1,451	\$1,477	\$1,477
19						
20 Typical Usage	1,250	1,250	1,250	1,250	1,250	1,250
21						
22 Annual Increase for Residential Heating customer	\$2.12	\$3.98	\$4.22	(\$0.34)	\$1.25	\$2.70
23						
24 Percent Bill Increase	0.12%	0.25%	0.27%	-0.02%	0.08%	0.18%
25						
26						
27 Typical G-41 (per summer 2013 COG - sch 8)	\$2,944	\$2,662	\$2,628	\$2,427	\$2,489	\$2,489
28						
29 Typical Usage	2,000	2,000	2,000	2,000	2,000	2,000
30						
31 Annual Increase for G-41 customer	\$3.39	\$6.36	\$6.75	(\$0.54)	\$1.99	\$4.31
32						
33 Percent Bill Increase	0.12%	0.24%	0.26%	-0.02%	0.08%	0.17%
34						
35						
36 Typical G-42 (per summer 2013 COG - sch 8)	\$28,260	\$25,188	\$23,828	\$22,015	\$22,742	\$22,742
37						
38 Typical Usage	21,023	21,023	21,023	21,023	21,023	21,023
39						
40 Annual Increase for G-42 customer	\$35.63	\$66.87	\$70.91	(\$5.68)	\$20.97	\$45.35
41						
42 Percent Bill Increase	0.13%	0.27%	0.30%	-0.03%	0.09%	0.20%
43						
44						
45 Typical G-52 (per summer 2013 COG - sch 8)	\$23,840	\$21,185	\$20,620	\$18,305	\$19,215	\$19,215
46						
47 Typical Usage	20,489	20,489	20,489	20,489	20,489	20,489
48						
49 Annual Increase for G-52 customer	\$34.72	\$65.17	\$69.10	(\$5.54)	\$20.44	\$44.20
50						
51 Percent Bill Increase	0.15%	0.31%	0.34%	-0.03%	0.11%	0.23%

Line / Column Notes:

1(b)-16(b) Amounts are cumulative from July 1, 2009

¹These figures are as of the end of the prior calendar year (i.e. FY 2013 data is as of 12/31/2012)

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EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement Since Program Inception - Informational Only
May 15, 2013

Computation of Revenue Requirement From Inception	1
Vintage Year Book Depreciation Schedule From Inception	2
Municipal Taxes as a Percentage of Net Plant From Inception	3
Bill Impacts due to Cast Iron and Bare Steel Replacement Program From Inception	4

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement From Inception

RESTATED AS IF RATE CASE WAS NOT FILED. FOR INFORMATIONAL PURPOSES ONLY.

	(a)	(b)	(c)	(d)	(e)	(f)
	Actual FY09	12 Months FY10	Actual FY11	Actual FY12	Actual FY13	Estimate FY14
<u>Incremental Investment</u>						
1 CIBS Program Actual Spend-Mains	1,736,153	4,206,295	3,391,069	1,570,208	2,174,813	-
2 CIBS Program Actual Spend-Service	729,463	822,173	668,631	352,005	161,352	-
3 CIBS Program Estimated Spend-Mains					-	3,514,583
4 CIBS Program Estimated Spend-Service					-	264,538
5 Base Spending Amount	500,000	500,000	500,000	500,000	500,000	500,000
6 Incremental Amount	1,965,616	4,528,468	3,559,700	1,422,213	1,836,165	3,279,121
7 Cumulative CIBS Program Spend	1,965,616	6,494,084	10,053,784	11,475,997	13,312,162	16,591,283
8						
9 <u>Deferred Tax Calculation</u>						
10 Annual Tax Depreciation	1,031,948	5,462,136	3,559,700	1,422,213	1,836,165	3,279,121
11 Cumulative Tax Depreciation	1,031,948	6,494,084	10,053,784	11,475,997	13,312,162	16,591,283
12						
13 Annual Book Depreciation	49,836	152,184	232,725	265,448	303,340	371,073
14 Cumulative Book Depreciation	49,836	202,019	434,744	700,192	1,003,532	1,374,605
15						
16 Annual Book/Tax Timer	982,112	5,309,953	3,326,975	1,156,765	1,532,825	2,908,048
17 Cumulative Book/Tax Timer	982,112	6,292,065	9,619,040	10,775,805	12,308,630	15,216,678
18 Effective Tax Rate	40.53%	40.53%	40.53%	40.53%	40.53%	40.53%
19						
20 Deferred Tax Reserve	398,001	2,550,174	3,898,597	4,367,434	4,988,688	6,167,320
21						
22 <u>Rate Base Calculation</u>						
23 Plant In Service	1,965,616	6,494,084	10,053,784	11,475,997	13,312,162	16,591,283
24 Accumulated Depreciation	(49,836)	(202,019)	(434,744)	(700,192)	(1,003,532)	(1,374,605)
25 Net Plant in Service	1,915,780	6,292,065	9,619,040	10,775,805	12,308,630	15,216,678
26 Deferred Tax Reserve	(398,001)	(2,550,174)	(3,898,597)	(4,367,434)	(4,988,688)	(6,167,320)
27 Year End Rate Base	1,517,779	3,741,891	5,720,443	6,408,371	7,319,942	9,049,358
28						
29 <u>Revenue Requirement Calculation</u>						
30 Year End Rate Base	1,517,779	3,741,891	5,720,443	6,408,371	7,319,942	9,049,358
31 Pre-Tax ROR	11.53%	11.53%	11.63%	11.63%	11.63%	11.63%
32 Return and Taxes	175,003	431,440	665,288	745,294	851,309	1,052,440
33 Book Depreciation	49,836	152,184	232,725	265,448	303,340	371,073
34 Property Taxes	37,347	130,246	244,324	281,249	284,329	351,505
35 Annual Revenue Requirement	262,185	713,870	1,142,337	1,291,991	1,438,978	1,775,018
36						
37 Prior Year Annual Revenue Requirement	-	262,185	713,870	1,142,337	1,291,991	1,438,978
38						
39 Incremental Annual Rate Adjustment	262,185	451,684	428,467	149,654	146,987	336,041
40						
41						
42 <u>Imputed Capital Structure (see DG 10-017)</u>						
43						
44 Long Term Debt	50.00%	6.99%	3.50%	3.50%		
45 Short Term Debt	0.00%	0.00%	0.00%	0.00%		
46 Common Equity	50.00%	9.67%	4.84%	8.13%		
47						
48	100.00%		8.33%	11.63%		

Line / Column Notes:

- 34 Property tax rate reflects actual calendar year 2012 ratio of municipal tax expense to net plant in service.
Col (b) Amounts are as if rate case was never filed in 2009; informational only.
11 (b) Includes repairs tax catch up for FY 2009.

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement Since Program Inception - Informational Only

Vintage Year Book Depreciation Schedule From Inception

RESTATED AS IF RATE CASE WAS NOT FILED. FOR INFORMATIONAL PURPOSES ONLY.

		(a) Actual FY09	(b) 12 Months FY10	(c) Actual FY11	(d) Actual FY12	(e) Actual FY13	(f) Estimate FY14
Book Depreciation Schedule-Mains							
1	Actual CIBS spending	1,736,153	4,206,295	3,391,069	1,570,208	2,174,813	3,514,583
2	Base spending	(352,073)	(418,248)	(417,650)	(408,438)	(465,466)	(465,000)
3	Incremental CIBS spending	1,384,080	3,788,047	2,973,419	1,161,770	1,709,347	3,049,583
4							
5	Book Depreciation Rate:						
6	Year 1	2.54%	35,065	35,065	35,065	35,065	35,065
7	Year 1 beginning in FY10	1.92%	72,731	57,090	22,306	32,819	58,552
8	Year 2	1.92%		72,731	57,090	22,306	32,819
9	Year 3	1.92%			72,731	57,090	22,306
10	Year 4	1.92%				72,731	57,090
11	Year 5	1.92%					72,731
12							
13	Book Depreciation Expense-Mains	35,065	107,796	164,886	187,191	220,010	278,562
14							
15	Accumulated Depreciation Mains-Beginning of Year	-	35,065	142,860	307,746	494,937	714,947
16	Accumulated Depreciation Mains-End of Year	35,065	142,860	307,746	494,937	714,947	993,509
17							
18							
19	Book Depreciation Schedule-Services						
20							
21	Actual CIBS spending	729,463	822,173	668,631	352,005	161,352	264,538
22	Base spending	(147,927)	(81,752)	(82,350)	(91,562)	(34,534)	(35,000)
23	Incremental CIBS spending	581,536	740,421	586,281	260,443	126,818	229,538
24							
25	Book Depreciation Rate:						
26	Year 1	2.54%	14,771	14,771	14,771	14,771	14,771
27	Year 1 beginning in FY10	4.00%	29,617	23,451	10,418	5,073	9,182
28	Year 2	4.00%		29,617	23,451	10,418	5,073
29	Year 3	4.00%			29,617	23,451	10,418
30	Year 4	4.00%				29,617	23,451
31	Year 5	4.00%					29,617
32							
33	Book Depreciation Expense-Services	14,771	44,388	67,839	78,257	83,330	92,511
34							
35	Accumulated Depreciation-Beginning of Year	-	14,771	59,159	126,998	205,255	288,584
36	Accumulated Depreciation-End of Year	14,771	59,159	126,998	205,255	288,584	381,095
37							
38							
39							
40	Total Mains & Services Depreciation Expense	49,836	152,184	232,725	265,448	303,340	371,073
41							
42	Total Mains & Services Accumulated Depreciation	49,836	202,019	434,744	700,192	1,003,531	1,374,605

Line / Column Notes:

- 2(d) & 22(d) FY 2014 estimate split 93% Mains / 7% Services based upon FY 2013 results.
6(a) & 26(a) FY 2009 filing used the composite depreciation rate for both mains and services.
Col (b) See footnote regarding column (b) on page 1 of 4.

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement Since Program Inception - Informational Only

Municipal Taxes as a Percentage of Net Plant From Inception

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	12/31/2005	12/31/2006	12/31/2007	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
1 Plant in Service (page 100 table 10)	258,573	272,678	289,379	305,221	319,737	332,049	344,966	356,165
2 Depreciation and Amortization Reserve (page 101 table 10)	(82,363)	(88,564)	(94,562)	(102,587)	(108,270)	(114,294)	(119,973)	(121,047)
3 Net Plant	176,209	184,114	194,817	202,634	211,467	217,756	224,993	235,118
4								
5 Average Net Plant								
6 Plant in Service		265,625	281,028	297,300	312,479	325,893	338,508	350,565
7 Depreciation Reserve		(85,463)	(91,563)	(98,575)	(105,429)	(111,282)	(117,133)	(120,510)
8 Net Plant		180,162	189,465	198,726	207,051	214,611	221,375	230,056
9								
10 Municipal Taxes (page 112 table 33)		3,534	3,641	3,771	4,294	5,459	5,776	5,321
11								
12 % Municipal Taxes to Net Plant		1.96%	1.92%	1.90%	2.07%	2.54%	2.61%	2.31%

Note: Source of above data is the December 31 PUC Annual Report to be consistent with data previously provided to the Commission.

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement Since Program Inception - Informational Only

Bill Impacts due to Cast Iron and Bare Steel Replacement Program From Inception

RESTATED AS IF RATE CASE WAS NOT FILED. FOR INFORMATIONAL PURPOSES ONLY.

	(a)	(b)	(c)	(d)	(e)	(f)
	FY2009	FY2010	FY2011	FY2012	FY2013	Estimate FY2014
1 Cumulative Increase due to Cast Iron Bare Steel program	262,185	713,870	1,142,337	1,291,991	1,438,978	1,775,018
2						
3 Annual Throughput (based on Nov 11 COG/LDAF filing)	154,702,063	150,828,182	154,828,182	163,588,592	158,062,349	158,062,349
4						
5 Cumulative Increase Factor	\$0.0017	\$0.0047	\$0.0074	\$0.0079	\$0.0091	\$0.0112
6						
7 Annual Actual Calendar Year Revenues	\$176,520,000	\$151,224,178	\$132,475,941	\$146,365,316	\$119,363,340	\$119,363,340
8						
9 Cumulative Percent Increase	0.15%	0.47%	0.86%	0.88%	1.21%	1.49%
10						
11 Miles of Main Replaced Annually	2.96	3.98	2.79	1.56	1.65	2.90
12 Cumulative Miles of Main Replaced	2.96	6.94	9.73	11.29	12.94	15.84
13 Miles of Cast Iron/Bare Steel Main Remaining ¹	149.8	142.0	137.4	132.1	126.3	123.4
14						
15 Services Replaced Annually	101	127	282	81	84	125
16 Cumulative Number of Services Replaced	101	228	510	591	675	800
17						
18 Typical Residential bill (Based on Pk 11-12 and OffPeak 12 COG)	\$1,757	\$1,591	\$1,555	\$1,451	\$1,477	\$1,477
19						
20 Typical Usage	1,250	1,250	1,250	1,250	1,250	1,250
21						
22 Cumulative Increase for Residential Heating customer	\$2.12	\$5.92	\$9.22	\$9.87	\$11.38	\$14.04
23						
24 Percent Bill Increase	0.12%	0.37%	0.59%	0.68%	0.77%	0.95%
25						
26						
27 Typical G-41 (Based on Pk 11-12 and OffPeak 12 COG)	\$2,944	\$2,662	\$2,628	\$2,427	\$2,489	\$2,489
28						
29 Typical Usage	2,000	2,000	2,000	2,000	2,000	2,000
30						
31 Cumulative Increase for G-41 customer	\$3.39	\$9.47	\$14.76	\$15.80	\$18.21	\$22.46
32						
33 Percent Bill Increase	0.12%	0.36%	0.56%	0.65%	0.73%	0.90%
34						
35						
36 Typical G-42 (Based on Pk 11-12 and OffPeak 12 COG)	\$28,260	\$25,188	\$23,828	\$22,015	\$22,742	\$22,742
37						
38 Typical Usage	21,023	21,023	21,023	21,023	21,023	21,023
39						
40 Cumulative Increase for G-42 customer	\$35.63	\$99.50	\$155.11	\$166.04	\$191.39	\$236.09
41						
42 Percent Bill Increase	0.13%	0.40%	0.65%	0.75%	0.84%	1.04%
43						
44						
45 Typical G-52 (Based on Pk 11-12 and OffPeak 12 COG)	\$23,840	\$21,185	\$20,620	\$18,305	\$19,215	\$19,215
46						
47 Typical Usage	20,489	20,489	20,489	20,489	20,489	20,489
48						
49 Cumulative Increase for G-52 customer	\$34.72	\$96.97	\$151.17	\$161.82	\$186.53	\$230.09
50						
51 Percent Bill Increase	0.15%	0.46%	0.73%	0.88%	0.97%	1.20%

¹These figures are as of the end of the prior calendar year (i.e. FY 2012 data is as of 12/31/2011)

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EnergyNorth Natural Gas, Inc.
d/b/a Liberty Utilities
Docket No. DG 13-XXX
Attachment E
May 15, 2013

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement Impact of Refund of Degradation Fees - Informational Only
May 15, 2013

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EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
Computation of Revenue Requirement Refund on Degradation Fees - Informational Only

	Refund Year
<u>Incremental Investment</u>	
1 CIBS Program Actual - Refund of Degradation Fees	(744,818)
2 Base Spending Amount	
3 Incremental Amount	(744,818)
4 Cumulative CIBS Program - Refund of Degradation Fees	(744,818)
5	
<u>Deferred Tax Calculation</u>	
7 Annual Tax Depreciation	(744,818)
8 Cumulative Tax Depreciation on Degradation Fees	(744,818)
9	
10 Annual Book Depreciation	(14,301)
11 Cumulative Book Depreciation on Degradation Fees	(14,301)
12	
13 Annual Book/Tax Timer	(730,517)
14 Cumulative Book/Tax Timer	(730,517)
15 Effective Tax Rate	40.53%
16	
17 Deferred Tax Reserve	(296,079)
18	
<u>Rate Base Calculation</u>	
20 Plant In Service	(744,818)
21 Accumulated Depreciation	14,301
22 Net Plant in Service	(730,517)
23 Deferred Tax Reserve	296,079
24 Year End Rate Base	(434,439)
25	
<u>Revenue Requirement Calculation</u>	
27 Year End Rate Base	(434,439)
28 Pre-Tax ROR	11.63%
29 Return and Taxes	(50,525)
30 Book Depreciation	(14,301)
31 Property Taxes	(16,875)
32 Revenue Requirement Reduction	(81,701)

<u>Imputed Capital Structure (see DG 10-017)</u>		Weighted		
	Ratio	Rate	Rate	Pre Tax
37 Long Term Debt	50.00%	6.99%	3.50%	3.50%
38 Short Term Debt	0.00%	0.00%	0.00%	0.00%
39 Common Equity	50.00%	9.67%	4.84%	8.13%
40				
41	<u>100.00%</u>		<u>8.33%</u>	<u>11.63%</u>

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Vintage Year Book Depreciation Schedule

Book Depreciation Schedule-Mains		Refund
		Year
1	Actual CIBS spending	(744,818)
2		
3	Incremental CIBS spending	(744,818)
4		
5	Book Depreciation Rate:	
6	Year 1	1.92% (14,301)
7	Year 2	1.92%
8	Year 3	1.92%
9	Year 4	1.92%
10		
11	Book Depreciation Expense-Mains	(14,301)
12		
13	Accumulated Depreciation-Beginning of Year	-
14	Accumulated Depreciation-End of Year	(14,301)

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Municipal Taxes as a Percentage of Net Plant

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	12/31/2005	12/31/2006	12/31/2007	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
1 Plant in Service (page 100 table 10)	258,573	272,678	289,379	305,221	319,737	332,049	344,966	356,165
2 Depreciation and Amortization Reserve (page 101 table 10)	(82,363)	(88,564)	(94,562)	(102,587)	(108,270)	(114,294)	(119,973)	(121,047)
3 Net Plant	176,209	184,114	194,817	202,634	211,467	217,756	224,993	235,118
4								
5 Average Net Plant								
6 Plant in Service		265,625	281,028	297,300	312,479	325,893	338,508	350,565
7 Depreciation Reserve		(85,463)	(91,563)	(98,575)	(105,429)	(111,282)	(117,133)	(120,510)
8 Net Plant		180,162	189,465	198,726	207,051	214,611	221,375	230,056
9								
10 Municipal Taxes (page 112 table 33)		3,534	3,641	3,771	4,294	5,459	5,776	5,321
11								
12 % Municipal Taxes to Net Plant		1.96%	1.92%	1.90%	2.07%	2.54%	2.61%	2.31%

Note: Source of above data is the December 31 PUC Annual Report to be consistent with data previously provided to the Commission.

EnergyNorth Natural Gas, Inc.
Fiscal Year 2013 Cast Iron/Bare Steel Replacement Program
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Bill Impacts due to Cast Iron and Bare Steel Replacement Program

	Refund Year
1 Decrease Related to Refund of Degradation Fees	(81,701)
2	
3 Annual Throughput (based on Nov 11 COG/LDAF filing)	158,062,349
4	
5 Decrease Factor	(\$0.0005)
6	
7 Annual Actual Calendar Year 2011 Revenues	\$119,363,340
8	
9 Annual Percent Decrease	-0.07%
10	
11	
12	
13 Typical Residential bill (Based on Pk 11-12 and OffPeak 12 COG)	\$1,477
14	
15 Typical Usage	1,250
16	
17 Annual Increase for Residential Heating customer	(\$0.65)
18	
19 Percent Bill Decrease	-0.04%
20	
21	
22 Typical G-41 (Based on Pk 11-12 and OffPeak 12 COG)	\$2,489
23	
24 Typical Usage	2,000
25	
26 Annual Increase for G-41 customer	(\$1.03)
27	
28 Percent Bill Decrease	-0.04%
29	
30	
31 Typical G-42 (Based on Pk 11-12 and OffPeak 12 COG)	\$22,742
32	
33 Typical Usage	21,023
34	
35 Annual Increase for G-42 customer	(\$10.87)
36	
37 Percent Bill Decrease	-0.05%
38	
39	
40 Typical G-52 (Based on Pk 11-12 and OffPeak 12 COG)	\$19,215
41	
42 Typical Usage	20,489
43	
44 Annual Increase for G-52 customer	(\$10.59)
45	
46 Percent Bill Decrease	-0.06%