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September 23, 2008

**VIA OVERNIGHT DELIVERY**

Ms. Debra A. Howland  
Executive Director and Secretary  
New Hampshire Public Utilities Commission  
21 S. Fruit St., Suite 10  
Concord, NH 03301

ORIGINAL	
N.H.P.U.C. Case No.	DG 08-115
Exhibit No.	3
Witness	Panel 1
DO NOT REMOVE FROM FILE	

Re: Northern Utilities, Inc., Unaccounted for Gas Inquiry and Resolution Spectra Meter Pulse Factor Error at Newington Meter Station, Newington, New Hampshire

Dear Ms. Howland:

On October 31, 2007, the New Hampshire Public Utilities Commission ("Commission") issued Order No. 24,798 approving Northern Utilities, Inc.'s ("Northern's" or the "Company's") 2007/2008 Winter Period Cost of Gas ("COG") rates. Northern Utilities, Inc., Docket No. DG 07-102 ("Order"). Order at p. 10. The Commission directed Northern to file a Report by December 31, 2007, to, among other things, assess the actual unaccounted for gas ("UAFG") figures for the period reported in its 2006-2007 Winter COG reconciliation filing. Order at pp. 8-9, 12. Since that time, Northern has provided numerous subsequent updates through written filings with the Commission and oral discussions with Commission Staff.

**I. Northern's Multi-Year Investigation into UAFG**

In early 2006, Northern began noticing an increase in its UAFG levels. Shortly thereafter, Northern began closely reviewing certain operational conditions that could contribute to increasing UAFG levels, including gas leakage rates and distribution system metering accuracy levels. When no obvious cause was in the offing, Northern then elevated the investigation of UAFG by forming a multidisciplinary team consisting of representatives from various areas of the company: General Accounting, Regulatory Accounting, Regulatory Affairs, Operations (including engineering and customer metering) and Energy Supply Services. The team focused on several aspects of gas purchases (invoicing), metered gas receipts at Northern's city-gates, nominations by retail suppliers, metered customer sales, transportation throughput,

and the like. Based on its experience, the Company was also concerned that the UAFG levels may have also been linked to the data or processes used to calculate Schedule 26.<sup>1</sup>

Northern used Schedule 26 for years to track and report its UAFG levels as part of both its Annual Report filed with the Commission as well as its COG Annual Reconciliation. In Schedule 26, the UAFG levels are based on the difference between purchased gas volumes and the associated flow of gas into its distribution system at the pipeline interconnections, and the metered volumes sold or transported to its retail customers.

Northern's UAFG levels were a topic of discussion during a Commission Audit Staff review of Northern's 2006 Annual Report in May 2007. The 2006 Annual Report UAFG level, which was based on Schedule 26, showed a UAFG for the Northern – New Hampshire division of 5.9%. Nevertheless, Northern's own investigation continued by requesting an internal NiSource audit; by hiring an outside consultant to assist in the Northern investigation; and, by further reviewing UAFG data and reporting practices. By July 30, 2007, Northern filed with the Commission its 2006-07 Winter COG Reconciliation and updated Schedule 26 for the twelve month period ending April 2007. The Northern - New Hampshire division UAFG had increased to 7.59%. *Northern Utilities*, Docket No. DG 07-102 (2007). Northern focused its attention to the data flow of metered or invoiced delivered gas volumes into Northern's distribution system versus customer metered sales volumes.

During its investigation, therefore, not knowing the source of the UAFG, Northern conducted an extensive review of a variety of processes and data related to measurement, billing and operations. For example, the Company examined a variety of meter reading statistics, billing for newly established accounts, and meter inventory. From an operational perspective, Northern also reviewed the gas volumes consumed at its own facilities. Northern also examined and analyzed leak rates per mile of main. Northern comprehensively reviewed all incidents of third-party damage resulting in loss of gas.

Finally, the cause was uncovered: incorrect metering by Spectra Energy ("Spectra") at the Maritimes & Northeast ("M&NE") / Portland Natural Gas Transmission System ("PNGTS") Newington Gate Station in Newington, New Hampshire ("Newington Gate Station"). As the Commission knows, Spectra owns M&NE Operating Company, the "Measuring Party" responsible for both operating and maintaining the Newington Gate Station and for updating the Newington Gate Station meter "pulse factor." The gate receives volumes delivered to Granite

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<sup>1</sup> Schedule 26, which was mechanized in the Fall of 2002, provides the Company with a monthly balancing of Northern's supply and throughput volumes, and it is used to calculate UAFG. The output from Schedule 26 is not used as a basis for calculating Northern's Cost of Gas Filings. The automated process pulls information from an Access database that includes data from the following systems: CIS – Customer Information System; EASy – Energy Access System; GRIPS – Gas Resource Information Processing System; and Lawson – Lawson General Ledger System.

State Gas Transmission (“Granite”) for Northern on the Joint Facilities co-owned by Spectra and PNGTS.

This letter identifies a number of important steps taken to date to address the identification and source of UAFG, to resolve the specific cause of the 2005-2007 UAFG anomaly without costly litigation and to establish a credit to Northern of in-kind volumes of gas, at no cost, consistent with existing federally-approved tariffs.

## **II. Northern’s Redesigned and Updated Schedule 26**

As part of Northern’s investigation into its UAFG, Northern closely reviewed the (1) purpose for, (2) design of, and (3) inputs to its primary UAFG reporting tool – Schedule 26. In reviewing both the purpose for and design of Schedule 26, the Company concluded that this tool should track Northern’s total purchases and throughput volumes, including Company-use gas, and derive the UAFG. Schedule 26 should not allocate end-use gas costs recovered through Northern’s gas cost recovery mechanisms. Northern now uses a separate streamlined schedule to serve as a tool to capture firm sendout into each division to derive the monthly allocation factors.

As a result of both the redesign and input changes to Schedule 26, Northern recast the following:

- (1) 12 months ended December 2005, resulting in an amendment to Northern’s New Hampshire Division 2005 Annual Report (Attachment A),
- (2) 12 months ended December 2006, resulting in an amendment to Northern’s New Hampshire Division 2006 Annual Report (Attachment B),
- (3) 12 months ending April 2007, which illustrates both the corrections to the most recently filed Schedule 26 that was the basis for the Audit Staff’s original inquiry as well as the positive result Northern has made in reducing its high reported UAFG levels (Attachment C),
- (4) 12 months ending October 2007, resulting in an amendment to Northern’s New Hampshire Division Summer 2007 CGA reconciliation filing made on January 31, 2008 (Attachment D), and
- (5) 12 months ending December 2007 (Attachment E).

**III. Amendments to Schedule 26 to Derive Monthly Allocation Factors to Allocate Total Portfolio Commodity Costs and Gas Cost Credit between Northern's Service Divisions**

Northern uses - and the Commission has approved - the use of gas flows metered into each division to allocate monthly commodity costs between the Northern - New Hampshire division and the Northern - Maine division. In practice, if the relationship of the gas flows between the two divisions, based on business judgment, appeared questionable, the Company substituted firm sales (plus Company-use and forecast of UAFG based on historical levels before any metering problem) as the basis. The use of firm sales is reasonable and appropriate because it assures that the allocation of commodity costs are proportional to the gas consumed by customers in each of the Company's operating and service Divisions, and not solely dependent on the purchased volumes billed by delivering pipelines.

Northern tracks and reports the gas flows into each division as recorded through Granite meters, less interruptible sales and Company-use attributable to each division. As a result of its investigation and its amendment to Schedule 26, Northern now derives the percentage of Northern's total firm sendout between the Northern - New Hampshire division and the Northern - Maine division, and therefore establishes the monthly commodity cost allocation factors. Attachment E provides the recent 12-months ending December 2007, and shows the monthly metered volumes into the respective divisions ("Throughput In") and each division's end-use volumes recorded through Company meters and consistent with those volumes reported in the Company's financial statements ("Throughput Out"). Northern will begin using this schedule for the month of November 2008 to identify the monthly firm sendout allocation factors to be applied to total Northern's commodity gas costs each month.

**IV. Erroneous Billing Volumes**

As a result of Northern's investigation, Northern, Granite and Spectra determined that volumes of gas were erroneously recorded as having been actually consumed downstream of the Newington Gate Station, as a result of Spectra modifying the Newington Gate Station meter "pulse factor" in May 2005. The erroneous pulse factor set by Spectra affected the second meter run at the Newington Gate Station ("Run 2"). The meter pulse error caused Granite to be billed for an additional 758,702 dekatherms ("Dth") of natural gas commodity between June 2005 and December 2007, with Granite then billing Northern for an equivalent amount. See Attachment F.

Run 2 is not the primary meter run at the Newington Gate, so complicating the UAFG investigation was the fact that volumes measured through Run 2 were capable of fluctuating substantially from time to time depending on demand and other operational factors. Once Spectra identified the pulse factor error, it issued its calculation of the volumes of gas that were erroneously billed Granite. In confirming Spectra's calculation of the metering discrepancy, Northern calculated the percentage error between the original and updated "Run 2" volumes, and

found that these percentages were reasonably consistent from May 2005 to the point when the error was corrected in December 2007. Granite and PNGTS also confirmed these calculations. Accordingly, Northern, Granite and PNGTS accepted Spectra's revised metered volumes as appropriate in light of the corrected meter "pulse factor" of Run 2. The differential between the revised metered volumes and the amount billed by PNGTS to Granite, and Granite to Northern, constitutes the amount of commodity to be returned to Northern's customers.

#### **V. Reimbursement of In-Kind Volumes**

With this letter, Northern is pleased to inform the Commission that a final resolution has been obtained with the counterparties relative to the UAFG levels caused by Spectra's metering error. Compensation is to be provided in the form of in-kind volumes under the Granite Federal Energy Regulatory Commission ("FERC") tariff and related agreements that are in place between Granite and Northern. This resolution is a result of extensive negotiations between Northern, Granite and PNGTS. Ultimately under the resolution, Northern's customers will receive in-kind volumes of natural gas, over approximately eighteen consecutive months, which will match the volumes that were incorrectly metered.

Since the onset of Northern's negotiations with Spectra, Northern understood and informed the Commission that the ultimate reimbursement (whether in cash or in-kind) would be made to Northern via Granite, and subsequently passed back to Northern's customers, and that this arrangement (in whatever form it ultimately took) required the assent and participation of PNGTS. As agent for PNGTS, Spectra is responsible for all operations associated with the Newington Gate Station and, up until June 1, 2006, was responsible for administering the Operational Balancing Agreement for the Newington Gate Station. PNGTS owns all meter capacity at the Newington meter and, since June 1, 2006, has held the OBA contract with Granite and therefore is ultimately responsible for the resolution of operational imbalances.

After analyzing all alternatives, the resolution of this issue under relevant tariffs, as insisted by PNGTS, could only be achieved through imbalance protocols under each participant's tariff. Accordingly, for this reason, as well as the inherent risks, costs and time delays associated with litigation, the best outcome for Northern's customers was the negotiated outcome between Granite and PNGTS.

After several different potential solutions were discussed to effectuate a refund in the context of settlement negotiations, PNGTS and Granite finally reached an agreement on August 28, 2008 that will provide in-kind compensation for Northern's customers as a result of the metering error. See Attachment G ("PNGTS-Granite Agreement"). PNGTS will deliver to Granite a total of 758,702 Dth of natural gas, in-kind and at no charge (including, but not limited to, fuel, shrinkage, and transportation), to the Newington Gate. The in-kind deliveries will be managed by, and subject to, the terms and conditions regarding Management Variance of Section 7.3 of the General Terms and Conditions of the PNGTS FERC-regulated tariff. The in-kind

deliveries to Granite are expected to commence no later than December 1, 2008. Granite will contact PNGTS to confirm daily nominations of the in-kind deliveries, or such other quantity mutually agreeable to PNGTS and Granite. Only under limited operational circumstances (identified in Attachment H) may PNGTS alter or curtail the scheduled deliveries. If deliveries are curtailed for any reason, PNGTS' in-kind deliveries will continue past the 18 months in order to ensure all in-kind reimbursement is made to Granite.

The in-kind deliveries constitute an imbalance repayment from PNGTS to Granite under the PNGTS tariff. Granite acknowledges that the imbalance repayment is for the benefit of Northern under the Operational Balancing Agreement ("OBA") between Granite and Northern dated November 1, 1993. Accordingly, Granite will deliver to Northern a total of 758,702 Dth of natural gas, in-kind and at no charge under the same terms and conditions contained in the PNGTS-Granite Agreement and Granite's existing OBA with Northern. See Attachment H ("Granite Memorialization"). Granite has authorized Northern to be Granite's designee for the purpose of contacting PNGTS regarding Northern's daily nominations of the in-kind deliveries. Once the nominations are confirmed, consistent with the OBA, Granite will make those daily volumes available at the designated delivery points until the full 758,702 Dth of natural gas has been delivered to Northern's customers.

#### **VI. Credit of In-Kind Volumes Against the 2008 – 2009 Winter COG**

Northern will reflect the receipt of in-kind volumes at no cost from Granite, resulting in a reduction or credit to the commodity cost of gas associated with satisfying firm demand no later than December 1, 2008. Because the metering problem at the Newington Gate Station and the resulting overstated volumes and associated commodity costs impacted Northern's New Hampshire Division and its Maine Division at the June 2005 through November 2007 historical monthly allocation factors, the Company has used these historical factors to determine the allocation of the in-kind volumes and associated no-cost benefit to each Division. See Attachment I, which shows the monthly example of the in-kind volumes flowing through to Northern's customers and the derivation of the allocation factors between the two divisions based on the 29 months at the cashout price.

#### **VII. Conclusion and Request for Approval**

Consistent with the terms of the OBA and Granite's tariff, Northern proposes to commence the daily nominations of the repayment quantities and in-kind deliveries no later than December 1, 2008. The repayment quantities will be credited to Northern's commodity cost of gas to both its Maine and New Hampshire Divisions in relation to how the metering error volumes were allocated to each Division. Northern will be pleased to file semi-annual reports with the Commission indicating the status of repayment of the in-kind quantities, and explaining issues that may arise during the 18-month repayment period. Northern hereby respectfully

request Commission approval of this proposed corrective action as a final resolution of this matter, prior to the commencement of the in-kind deliveries by PNGTS.

Thank you for your assistance. Please return one copy of this filing to me bearing the Commission receipt stamp in the envelope provided for your convenience.

Very truly yours,



Patricia M. French

Enclosures

cc: Edward Damon, Staff Attorney  
Steve Frink, NHPUC  
Bob Wyatt, NHPUC  
Meredith Hatfield, OCA  
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Gary Epler, Unitil  
Scott Mueller, Unitil  
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**Northern Utilities, Inc.**  
**Firm Sendout vs. End-Use Volumes**  
**12 Mos December 2005**

Attachment A

	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Total
<b>New Hampshire</b>													
<b>Throughput IN</b>													
<i>BTU Factor</i>	1.036	1.037	1.037	1.03	1.032	1.035	1.049	1.049	1.048	1.045	1.051	1.053	
<i>Granite State Throughput (MCF)</i>	1,009,705	790,350	779,431	470,204	420,712	271,915	245,461	222,580	257,547	395,690	538,721	803,947	6,206,263
<i>Salem Meter (MCF)</i>	76,494	56,632	53,267	24,436	20,854	10,170	8,508	8,500	8,767	19,750	33,622	59,783	380,783
<i>Granite State Throughput (DTH)</i>	1,046,054	819,593	808,270	484,310	434,175	281,432	257,489	233,486	269,909	413,496	566,196	846,556	6,460,966
<i>Salem Meter (DTH)</i>	76,063	58,116	54,712	25,095	21,449	10,490	8,920	8,916	9,202	20,658	35,292	62,008	390,921
<i>LNG/Propane</i>													0
<i>Total Throughput</i>	1,122,117	877,709	862,982	509,405	455,624	291,922	266,409	242,402	279,111	434,154	601,488	908,564	6,851,887
<b>Throughput Out</b>													
<u>Residential Gas</u>													
Charged	283,450	315,569	257,021	196,988	113,052	85,868	43,988	34,414	36,262	42,104	107,473	194,622	1,710,811
Uncharged Current	234,944	-55,903	172,352	99,204	83,758	36,246	30,282	31,986	33,386	79,653	120,619	194,141	1,060,668
Uncharged Prior	-191,977	0	-179,041	-172,352	-99,204	-83,758	-36,246	-30,282	-31,986	-33,386	-79,653	-120,619	-1,058,504
<b>Total Residential Gas</b>	<b>326,417</b>	<b>259,666</b>	<b>250,332</b>	<b>123,840</b>	<b>97,606</b>	<b>38,356</b>	<b>38,024</b>	<b>36,118</b>	<b>37,662</b>	<b>88,371</b>	<b>148,439</b>	<b>268,144</b>	<b>1,712,975</b>
<b>Interruptible</b>	<b>14</b>	<b>5</b>	<b>0</b>	<b>225</b>	<b>2,372</b>	<b>674</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1,481</b>	<b>3,420</b>	<b>9,390</b>	<b>17,582</b>
<u>Commercial/Industrial Gas</u>													
Charged	444,076	467,441	418,888	274,381	166,119	118,160	78,680	71,484	75,294	93,320	194,672	303,692	2,706,207
Uncharged Current	266,972	-61,152	188,982	110,846	93,810	52,922	46,271	50,450	50,120	93,301	136,192	208,724	1,237,438
Uncharged Prior	-211,786	0	-205,820	-188,982	-110,846	-93,810	-52,922	-46,271	-50,450	-50,120	-93,301	-136,192	-1,240,500
<b>Total C/I Gas</b>	<b>499,262</b>	<b>406,289</b>	<b>402,050</b>	<b>196,245</b>	<b>149,083</b>	<b>77,272</b>	<b>72,029</b>	<b>75,663</b>	<b>74,964</b>	<b>136,501</b>	<b>237,563</b>	<b>376,224</b>	<b>2,703,145</b>
<u>Transportation</u>													
Charged	294,831	186,302	225,402	228,417	196,377	184,748	162,763	151,782	177,437	145,754	199,602	217,044	2,370,459
Uncharged Current	229,151	173,283	219,607	180,231	180,038	157,784	148,649	153,730	139,476	185,497	192,991	216,603	2,177,040
Uncharged Prior	-201,801	-199,492	-202,942	-219,607	-180,231	-180,038	-157,784	-148,649	-153,730	-139,476	-185,497	-192,991	-2,162,238
<b>Total Transportation</b>	<b>322,181</b>	<b>160,093</b>	<b>242,067</b>	<b>189,041</b>	<b>196,184</b>	<b>162,494</b>	<b>153,628</b>	<b>156,863</b>	<b>163,183</b>	<b>191,775</b>	<b>207,096</b>	<b>240,656</b>	<b>2,385,261</b>
<b>Company Use</b>	<b>3,336</b>	<b>3,608</b>	<b>2,976</b>	<b>2,259</b>	<b>1,103</b>	<b>743</b>	<b>987</b>	<b>1,333</b>	<b>1,649</b>	<b>1,135</b>	<b>1,134</b>	<b>2,350</b>	<b>22,613</b>
<b>Total Throughput OUT</b>	<b>1,151,210</b>	<b>829,661</b>	<b>897,425</b>	<b>511,610</b>	<b>446,348</b>	<b>279,539</b>	<b>264,669</b>	<b>269,977</b>	<b>277,458</b>	<b>419,263</b>	<b>597,652</b>	<b>896,764</b>	<b>6,841,576</b>
<b>Total Throughput IN</b>	<b>1,122,117</b>	<b>877,709</b>	<b>862,982</b>	<b>509,405</b>	<b>455,624</b>	<b>291,922</b>	<b>266,409</b>	<b>242,402</b>	<b>279,111</b>	<b>434,154</b>	<b>601,488</b>	<b>908,564</b>	<b>6,851,887</b>
<b>Diff IN/OUT</b>	<b>-29,093</b>	<b>48,048</b>	<b>-34,443</b>	<b>-2,205</b>	<b>9,276</b>	<b>12,383</b>	<b>1,740</b>	<b>-27,575</b>	<b>1,653</b>	<b>14,891</b>	<b>3,836</b>	<b>11,800</b>	<b>10,311</b>
<b>%</b>	<b>-2.59%</b>	<b>5.47%</b>	<b>-3.99%</b>	<b>-0.43%</b>	<b>2.04%</b>	<b>4.24%</b>	<b>0.65%</b>	<b>-11.38%</b>	<b>0.59%</b>	<b>3.43%</b>	<b>0.64%</b>	<b>1.30%</b>	<b>0.15%</b>

**Northern Utilities, Inc. - New Hampshire Division  
Firm Sendout vs. End Use Volumes  
12 Mos December 2006**

Attachment B

	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Total
<b>New Hampshire Throughput IN</b>													
<i>BTU Factor</i>	1.045	1.044	1.04	1.041	1.045	1.041	1.054	1.051	1.045	1.047	1.051	1.037	
<i>Granite State Throughput (MCF)</i>	764,107	766,695	694,307	429,855	369,215	313,499	265,360	301,791	302,415	403,406	525,120	730,057	5,865,827
<i>Salem Meter (MCF)</i>	55,299	54,858	45,545	23,364	16,769	9,633	7,795	8,628	9,783	18,140	26,221	43,352	319,387
<i>Granite State Throughput (DTH)</i>	798,492	800,430	722,079	447,479	385,830	326,352	279,689	317,182	316,024	422,366	551,901	757,069	6,124,894
<i>Salem Meter (DTH)</i>	57,285	56,790	46,944	24,264	17,637	9,998	8,211	9,079	10,157	18,796	27,526	44,721	331,408
<i>LNG/Propane</i>													0
<i>Total Throughput</i>	855,777	857,220	769,023	471,743	403,467	336,350	287,900	326,261	326,181	441,162	579,427	801,790	6,456,302
<b>Throughput Out</b>													
<u><i>Residential Gas</i></u>													
Charged	275,698	231,635	260,752	176,939	93,486	69,224	39,080	32,295	38,071	49,404	105,133	151,294	1,523,011
Uncharged Current	159,743	183,016	142,318	87,857	54,895	29,550	27,764	34,179	39,088	75,408	93,584	143,355	1,070,757
Uncharged Prior	-194,141	-159,743	-183,016	-142,318	-87,857	-54,895	-29,550	-27,764	-34,179	-39,088	-75,408	-93,584	-1,121,543
<b>Total Residential Gas</b>	<b>241,300</b>	<b>254,908</b>	<b>220,054</b>	<b>122,478</b>	<b>60,524</b>	<b>43,879</b>	<b>37,294</b>	<b>38,710</b>	<b>42,980</b>	<b>85,724</b>	<b>123,309</b>	<b>201,065</b>	<b>1,472,225</b>
<b>Interruptible</b>	<b>-8,449</b>	<b>0</b>	<b>0</b>	<b>740</b>	<b>490</b>	<b>169</b>	<b>20</b>	<b>1</b>	<b>1</b>	<b>440</b>	<b>2,128</b>	<b>98</b>	<b>-4,362</b>
<u><i>Commercial/Industrial Gas</i></u>													
Charged	394,162	423,845	416,620	252,908	180,312	130,645	79,894	75,215	82,611	94,684	176,508	216,267	2,523,671
Uncharged Current	459,693	194,581	177,586	119,869	85,355	51,259	41,338	47,407	46,915	82,984	92,725	154,566	1,554,278
Uncharged Prior	-208,724	-459,693	-194,581	-177,586	-119,869	-85,355	-51,259	-41,338	-47,407	-46,915	-82,984	-92,725	-1,608,436
<b>Total C/I Gas</b>	<b>645,131</b>	<b>158,733</b>	<b>399,625</b>	<b>195,191</b>	<b>145,798</b>	<b>96,549</b>	<b>69,973</b>	<b>81,284</b>	<b>82,119</b>	<b>130,753</b>	<b>186,249</b>	<b>278,108</b>	<b>2,469,513</b>
<u><i>Transportation</i></u>													
Charged	242,574	188,575	197,045	200,939	154,518	113,435	217,477	167,122	213,724	206,320	209,904	253,771	2,365,404
Uncharged Current	164,556	171,418	91,576	145,008	143,081	171,869	162,090	200,162	196,811	190,202	223,563	264,586	2,124,922
Uncharged Prior	-216,603	-164,556	-171,418	-91,576	-145,008	-143,081	-171,869	-162,090	-200,162	-196,811	-190,202	-223,563	-2,076,939
<b>Total Transportation</b>	<b>190,527</b>	<b>195,437</b>	<b>117,203</b>	<b>254,371</b>	<b>152,591</b>	<b>142,223</b>	<b>207,698</b>	<b>205,194</b>	<b>210,373</b>	<b>199,711</b>	<b>243,265</b>	<b>294,794</b>	<b>2,413,387</b>
<b>Company Use</b>	<b>3,725</b>	<b>3,131</b>	<b>3,264</b>	<b>2,256</b>	<b>1,022</b>	<b>655</b>	<b>833</b>	<b>1,358</b>	<b>175</b>	<b>923</b>	<b>1,453</b>	<b>1,720</b>	<b>20,515</b>
<b>Total Throughput OUT</b>	<b>1,072,234</b>	<b>612,209</b>	<b>740,146</b>	<b>575,036</b>	<b>360,425</b>	<b>283,475</b>	<b>315,818</b>	<b>326,547</b>	<b>335,648</b>	<b>417,551</b>	<b>556,404</b>	<b>775,785</b>	<b>6,371,278</b>
<b>Total Throughput IN</b>	<b>855,777</b>	<b>857,220</b>	<b>769,023</b>	<b>471,743</b>	<b>403,467</b>	<b>336,350</b>	<b>287,900</b>	<b>326,261</b>	<b>326,181</b>	<b>441,162</b>	<b>579,427</b>	<b>801,790</b>	<b>6,456,302</b>
<b>Diff IN/OUT</b>	<b>-216,457</b>	<b>245,011</b>	<b>28,877</b>	<b>-103,293</b>	<b>43,042</b>	<b>52,875</b>	<b>-27,918</b>	<b>-286</b>	<b>-9,467</b>	<b>23,611</b>	<b>23,023</b>	<b>26,005</b>	<b>85,024</b>
<b>%</b>	<b>-25.29%</b>	<b>28.58%</b>	<b>3.76%</b>	<b>-21.90%</b>	<b>10.67%</b>	<b>15.72%</b>	<b>-9.70%</b>	<b>-0.09%</b>	<b>-2.90%</b>	<b>5.35%</b>	<b>3.97%</b>	<b>3.24%</b>	<b>1.32%</b>

Northern Utilities, Inc. - New Hampshire Division  
Firm Sendout vs. End-Use Volumes

Attachment C

	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	<u>Total</u>
<i>New Hampshire</i>														
<b>Throughput IN</b>														
<i>BTU Factor</i>	1,041	1,045	1,041	1,054	1,051	1,045	1,047	1,051	1,037	1,027	1,044	1,051	1,062	
<i>GST Meter Throughput (MCF)</i>	429,855	369,215	313,499	265,360	301,791	302,415	403,406	525,120	730,057	959,240	972,142	811,645	584,700	6,538,590
<i>Salem Meter (MCF)</i>	23,364	16,769	9,633	7,795	8,628	9,783	18,140	26,221	43,352	58,383	62,184	47,019	29,813	337,720
<i>GST Meter Throughput (DTH)</i>	447,479	385,830	326,352	279,689	317,182	316,024	422,366	551,901	757,069	985,139	1,014,916	853,039	620,951	6,830,460
<i>Salem Meter (DTH)</i>	24,264	17,637	9,998	8,211	9,079	10,157	18,796	27,526	44,721	59,914	64,741	49,196	31,539	351,515
<i>LNG/Propane</i>														0
<b>Total Throughput</b>	471,743	403,467	336,350	287,900	326,261	326,181	441,162	579,427	801,790	1,045,053	1,079,657	902,235	652,490	7,181,975
<b>Throughput OUT</b>														
<i>Residential Gas</i>														
Charged	176,939	93,486	69,224	39,080	32,295	38,071	49,404	105,133	151,294	212,574	317,926	291,086	197,032	1,596,605
Uncharged Current	87,857	54,895	29,550	27,764	34,179	39,088	75,408	93,584	143,355	200,289	191,553	148,163	104,309	1,142,137
Uncharged Prior	-142,318	-87,857	-54,895	-29,550	-27,764	-34,179	-39,088	-75,408	-93,584	-143,355	-200,289	-191,553	-148,163	-1,125,685
<b>Total Residential Gas</b>	122,478	60,524	43,879	37,294	38,710	42,980	85,724	123,309	201,065	269,508	309,190	247,696	153,178	1,613,057
<b>Interruptible</b>	740	490	169	20	1	1	440	2,128	98	14	3	0	2	3,366
<i>Commercial/Industrial Gas</i>														
Charged	252,908	180,312	130,645	79,894	75,215	82,611	94,684	176,508	216,267	319,615	450,004	396,073	259,283	2,461,111
Uncharged Current	119,869	85,355	51,259	41,338	47,407	46,915	82,984	92,725	154,566	197,626	183,412	145,287	93,299	1,222,173
Uncharged Prior	-177,586	-119,869	-85,355	-51,259	-41,338	-47,407	-46,915	-82,984	-92,725	-154,566	-197,626	-183,412	-145,287	-1,248,743
<b>Total C/I Gas</b>	195,191	145,798	96,549	69,973	81,284	82,119	130,753	186,249	278,108	362,675	435,790	357,948	207,295	2,434,541
<i>Transportation</i>														
Charged	200,939	154,518	113,435	217,477	167,122	213,724	206,320	209,904	253,771	298,805	354,840	329,934	327,862	2,847,712
Uncharged Current	145,008	143,081	171,869	162,090	200,162	196,811	190,202	223,563	264,586	324,283	286,663	283,897	251,544	2,698,751
Uncharged Prior	-91,576	-145,008	-143,081	-171,869	-162,090	-200,162	-196,811	-190,202	-223,563	-264,586	-324,283	-286,663	-283,897	-2,592,215
<b>Total Transportation</b>	254,371	152,591	142,223	207,698	205,194	210,373	199,711	243,265	294,794	358,502	317,220	327,168	295,509	2,954,248
<b>Company Use</b>	2256	1,022	655	833	1,358	175	923	1,453	1,720	2,249	3,489	3,011	2,129	19,017
<b>Total Throughput OUT</b>	575,036	360,425	283,475	315,818	326,547	335,648	417,551	556,404	775,785	992,948	1,065,692	935,823	658,113	7,024,229
<b>Total Throughput IN</b>	471,743	403,467	336,350	287,900	326,261	326,181	441,162	579,427	801,790	1,045,053	1,079,657	902,235	652,490	7,181,975
<b>Difference IN/OUT</b>	-103,293	43,042	52,875	-27,918	-286	-9,467	23,611	23,023	26,005	52,105	13,965	-33,588	-5,623	157,746
<b>%</b>	-21.90%	10.67%	15.72%	-9.70%	-0.09%	-2.90%	5.35%	3.97%	3.24%	4.99%	1.29%	-3.72%	-0.86%	2.20%

Northern Utilities, Inc. - New Hampshire Division  
Firm Sendout vs. End-Use Volumes

Attachment D

	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	<u>Total</u>
<i>New Hampshire</i>														
<b>Throughput IN</b>														
<i>BTU Factor</i>	1.047	1.051	1.037	1.027	1.044	1.051	1.062	1.076	1.063	1.056	1.054	1.071	1.051	
<i>GST Meter Throughput (MCF)</i>	403,406	525,120	730,057	959,240	972,142	811,645	584,700	359,173	298,747	298,063	310,547	322,053	417,810	6,589,297
<i>Salem Meter (MCF)</i>	18,140	26,221	43,352	58,383	62,184	47,019	29,813	12,549	8,941	8,124	8,324	8,978	13,342	327,230
<i>GST Meter Throughput (DTH)</i>	422,366	551,901	757,069	985,139	1,014,916	853,039	620,951	386,470	317,568	314,755	327,317	344,919	439,118	6,913,163
<i>Salem Meter (DTH)</i>	18,796	27,526	44,721	59,914	64,741	49,196	31,539	13,515	9,521	8,581	8,483	9,626	14,022	341,385
<i>LNG/Propane</i>														0
<b>Total Throughput</b>	441,162	579,427	801,790	1,045,053	1,079,657	902,235	652,490	399,985	327,089	323,336	335,800	354,545	453,141	7,254,548
<b>Throughput OUT</b>														
<i>Residential Gas</i>														
Charged	49,404	105,133	151,294	212,574	317,926	291,086	197,032	121,593	58,951	39,998	34,757	38,744	39,808	1,608,896
Uncharged Current	75,408	93,584	143,355	200,289	191,553	148,163	104,309	52,541	31,249	28,952	30,996	35,772	55,750	1,116,513
Uncharged Prior	-39,088	-75,408	-93,584	-143,355	-200,289	-191,553	-148,163	-104,309	-52,541	-31,249	-28,952	-30,996	-35,772	-1,136,171
<b>Total Residential Gas</b>	85,724	123,309	201,065	269,508	309,190	247,696	153,178	69,825	37,659	37,701	36,801	43,520	59,786	1,589,238
<b>Interruptible</b>	440	2,128	98	14	3	0	2	43	4	17	3	2	184	2,498
<u><i>Commercial/Industrial Gas</i></u>														
Charged	94,684	176,508	216,267	319,615	450,004	396,073	259,283	148,536	85,352	73,934	64,670	72,582	77,881	2,340,705
Uncharged Current	82,984	92,725	154,566	197,626	183,412	145,287	93,299	56,373	41,288	38,453	40,940	42,612	57,123	1,143,704
Uncharged Prior	-46,915	-82,984	-92,725	-154,566	-197,626	-183,412	-145,287	-93,299	-56,373	-41,288	-38,453	-40,940	-42,612	-1,169,565
<b>Total C/I Gas</b>	130,753	186,249	278,108	362,675	435,790	357,948	207,295	111,610	70,267	71,099	67,157	74,254	92,392	2,314,844
<i>Transportation</i>														
Charged	206,320	209,904	253,771	298,805	354,840	329,934	327,862	266,780	228,444	213,120	218,129	234,376	247,578	3,183,543
Uncharged Current	190,202	223,563	264,586	324,283	286,663	283,897	251,544	217,788	203,436	208,296	122,848	229,341	265,328	2,881,573
Uncharged Prior	-196,811	-190,202	-223,563	-264,586	-324,283	-286,663	-283,897	-251,544	-217,788	-203,436	-208,296	-122,848	-229,341	-2,806,447
<b>Total Transportation</b>	199,711	243,265	294,794	358,502	317,220	327,168	295,509	233,024	214,092	217,980	132,681	340,869	283,565	3,258,669
<b>Company Use</b>	923	1,453	1,720	2,249	3,489	3,011	2,129	1,326	621	311	591	746	573	18,219
<b>Total Throughput OUT</b>	417,551	556,404	775,785	992,948	1,065,692	935,823	658,113	415,828	322,643	327,108	237,233	459,391	436,500	7,183,468
<b>Total Throughput IN</b>	441,162	579,427	801,790	1,045,053	1,079,657	902,235	652,490	399,985	327,089	323,336	335,800	354,545	453,141	7,254,548
<b>Difference IN/OUT</b>	23,611	23,023	26,005	52,105	13,965	-33,588	-5,623	-15,843	4,446	-3,772	98,567	-104,846	16,641	71,080
<b>%</b>	5.35%	3.97%	3.24%	4.99%	1.29%	-3.72%	-0.86%	-3.96%	1.36%	-1.17%	29.35%	-29.57%	3.67%	0.98%

**Northern Utilities, Inc. - New Hampshire Division  
Firm Sendout vs. End-Use Volumes  
12 Mos December 2007**

Attachment E

	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	<u>Total</u>
<b>New Hampshire Throughput IN</b>													
<i>BTU Factor</i>	1.027	1.044	1.051	1.062	1.076	1.063	1.056	1.054	1.071	1.051	1.06	1.046	
<i>Granite State Throughput (MCF)</i>	959,240	972,142	811,645	584,700	359,173	298,747	298,063	310,547	322,053	417,810	642,939	918,921	6,895,980
<i>Salem Meter (MCF)</i>	58,383	62,184	47,019	29,813	12,549	8,941	8,124	8,324	8,978	13,342	34,387	57,760	349,804
<i>Granite State Throughput (DTH)</i>	985,139	1,014,916	853,039	620,951	386,470	317,568	314,755	327,317	344,919	439,118	681,515	961,191	7,246,899
<i>Salem Meter (DTH)</i>	59,914	64,741	49,196	31,539	13,515	9,521	8,581	8,483	9,626	14,022	36,450	60,417	366,006
<i>LNG/Propane</i>													0
<i>Total Throughput</i>	1,045,053	1,079,657	902,235	652,490	399,985	327,089	323,336	335,800	354,545	453,141	717,966	1,021,608	7,612,905
<b>Throughput Out</b>													
<u><i>Residential Gas</i></u>													
Charged	212,574	317,926	291,086	197,032	121,593	58,951	39,998	34,757	38,744	39,808	92,864	220,057	1,665,390
Uncharged Current	200,289	191,553	148,163	104,309	52,541	31,249	28,952	30,996	35,772	55,750	123,898	190,794	1,194,266
Uncharged Prior	-143,355	-200,289	-191,553	-148,163	-104,309	-52,541	-31,249	-28,952	-30,996	-35,772	-55,750	-123,898	-1,146,827
<b>Total Residential Gas</b>	<b>269,508</b>	<b>309,190</b>	<b>247,696</b>	<b>153,178</b>	<b>69,825</b>	<b>37,659</b>	<b>37,701</b>	<b>36,801</b>	<b>43,520</b>	<b>59,786</b>	<b>161,012</b>	<b>286,953</b>	<b>1,712,829</b>
<b>Interruptible</b>	<b>14</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>43</b>	<b>4</b>	<b>17</b>	<b>3</b>	<b>2</b>	<b>184</b>	<b>4,833</b>	<b>5</b>	<b>5,110</b>
<u><i>Commercial/Industrial Gas</i></u>													
Charged	319,615	450,004	396,073	259,283	148,536	85,352	73,934	64,670	72,582	77,881	149,073	304,727	2,401,730
Uncharged Current	197,626	183,412	145,287	93,299	56,373	41,288	38,453	40,940	42,612	57,123	115,094	182,343	1,193,850
Uncharged Prior	-154,566	-197,626	-183,412	-145,287	-93,299	-56,373	-41,288	-38,453	-40,940	-42,612	-57,123	-115,094	-1,166,073
<b>Total C/I Gas</b>	<b>362,675</b>	<b>435,790</b>	<b>357,948</b>	<b>207,295</b>	<b>111,610</b>	<b>70,267</b>	<b>71,099</b>	<b>67,157</b>	<b>74,254</b>	<b>92,392</b>	<b>207,044</b>	<b>371,976</b>	<b>2,429,507</b>
<u><i>Transportation</i></u>													
Charged	298,805	354,840	329,934	327,862	266,780	228,444	213,120	218,129	234,376	247,578	294,812	317,922	3,332,602
Uncharged Current	324,283	286,663	283,897	251,544	217,788	203,436	208,296	122,848	229,341	265,328	269,090	313,536	2,976,050
Uncharged Prior	-264,586	-324,283	-286,663	-283,897	-251,544	-217,788	-203,436	-208,296	-122,848	-229,341	-265,328	-269,090	-2,927,100
<b>Total Transportation</b>	<b>358,502</b>	<b>317,220</b>	<b>327,168</b>	<b>295,509</b>	<b>233,024</b>	<b>214,092</b>	<b>217,980</b>	<b>132,681</b>	<b>340,869</b>	<b>283,565</b>	<b>298,574</b>	<b>362,368</b>	<b>3,381,552</b>
<b>Company Use</b>	<b>2,249</b>	<b>3,489</b>	<b>3,011</b>	<b>2,129</b>	<b>1,326</b>	<b>621</b>	<b>311</b>	<b>591</b>	<b>746</b>	<b>573</b>	<b>998</b>	<b>2,346</b>	<b>18,390</b>
<b>Total Throughput OUT</b>	<b>992,948</b>	<b>1,065,692</b>	<b>935,823</b>	<b>658,113</b>	<b>415,828</b>	<b>322,643</b>	<b>327,108</b>	<b>237,233</b>	<b>459,391</b>	<b>436,500</b>	<b>672,461</b>	<b>1,023,648</b>	<b>7,547,388</b>
<b>Total Throughput IN</b>	<b>1,045,053</b>	<b>1,079,657</b>	<b>902,235</b>	<b>652,490</b>	<b>399,985</b>	<b>327,089</b>	<b>323,336</b>	<b>335,800</b>	<b>354,545</b>	<b>453,141</b>	<b>717,966</b>	<b>1,021,608</b>	<b>7,612,905</b>
<b>Diff IN/OUT</b>	<b>52,105</b>	<b>13,965</b>	<b>-33,588</b>	<b>-5,623</b>	<b>-15,843</b>	<b>4,446</b>	<b>-3,772</b>	<b>98,567</b>	<b>-104,846</b>	<b>16,641</b>	<b>45,505</b>	<b>-2,040</b>	<b>65,517</b>
<b>%</b>	<b>4.99%</b>	<b>1.29%</b>	<b>-3.72%</b>	<b>-0.86%</b>	<b>-3.96%</b>	<b>1.36%</b>	<b>-1.17%</b>	<b>29.35%</b>	<b>-29.57%</b>	<b>3.67%</b>	<b>6.34%</b>	<b>-0.20%</b>	<b>0.86%</b>

Northern Utilities, Inc. - Spectra / PNGTS Metering Error Analysis - June 2005 through November 2007  
Granite State Newington Plant #3003

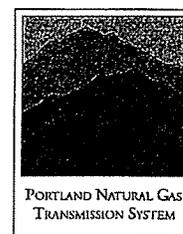
Run 2 Adjustment						Total Station Adjustment			
Month	Old Volume	Revised Volume	Old Energy	Revised Energy	Difference	Original Station	Revised Station	Difference	
Jun-05	12,177	10,510	12,806	11,057	(1,749)	17,968	16,219	(1,750)	
Jul-05	109,859	93,412	115,299	98,035	(17,264)	165,909	148,645	(17,262)	
Aug-05	146,202	123,512	153,288	129,500	(23,788)	215,155	191,367	(23,789)	
Sep-05	14,124	11,865	14,850	12,475	(2,375)	21,632	19,257	(2,375)	
Oct-05	106,989	94,653	112,105	98,510	(13,595)	129,004	115,409	(13,594)	
Nov-05	113,553	96,067	119,820	101,374	(18,446)	172,058	153,612	(18,448)	
Dec-05	375,178	324,979	398,307	344,958	(53,349)	559,512	506,163	(53,349)	
<b>Total 05</b>	<b>878,082</b>	<b>754,998</b>	<b>926,475</b>	<b>795,909</b>	<b>(130,566)</b>	<b>1,281,238</b>	<b>1,150,672</b>	<b>(130,567)</b>	
					-				
Jan-06	235,016	203,589	248,161	214,886	(33,275)	348,689	315,414	(33,272)	
Feb-06	282,916	242,821	297,184	254,062	(43,122)	425,048	381,926	(43,120)	
Mar-06	285,979	244,496	299,545	256,092	(43,453)	423,616	380,163	(43,450)	
Apr-06	141,715	120,599	148,197	126,075	(22,122)	211,728	189,606	(22,124)	
May-06	19,308	16,607	20,488	17,620	(2,868)	29,639	26,771	(2,868)	
Jun-06	33,640	28,370	35,388	29,875	(5,513)	50,154	44,641	(5,515)	
Jul-06	120,204	104,425	126,740	109,711	(17,030)	182,367	165,337	(17,029)	
Aug-06	91,963	77,775	96,644	81,728	(14,916)	139,929	125,013	(14,916)	
Sep-06	156,797	131,114	164,630	137,667	(26,963)	239,358	212,395	(26,967)	
Oct-06	197,730	167,102	209,982	177,327	(32,655)	296,446	263,791	(32,657)	
Nov-06	276,902	231,818	291,223	243,818	(47,405)	408,772	361,367	(47,405)	
Dec-06	364,412	311,980	378,984	324,946	(54,038)	528,869	474,831	(54,038)	
<b>Total 06</b>	<b>2,206,582</b>	<b>1,880,695</b>	<b>2,317,166</b>	<b>1,973,807</b>	<b>(343,360)</b>	<b>3,284,615</b>	<b>2,941,255</b>	<b>(343,360)</b>	
					-				
Jan-07	457,651	387,747	471,974	399,859	(72,115)	656,421	584,306	(72,114)	
Feb-07	-	-	-	-	-	525,794	442,214	(83,578)	
Mar-07	-	-	-	-	-	349,899	293,723	(56,175)	
Apr-07	-	-	-	-	-	60,902	52,154	(8,745)	
May-07	3,476	3,163	3,739	3,401	(338)	14,832	14,494	(338)	
Jun-07	8,015	6,679	8,366	6,972	(1,394)	14,832	13,438	(1,394)	
Jul-07	5,660	4,974	6,005	5,275	(730)	12,384	11,654	(730)	
Aug-07	35,894	30,507	37,848	32,166	(5,682)	52,419	46,737	(5,684)	
Sep-07	-	-	-	-	-	-	-	-	
Oct-07	75,951	64,216	81,209	68,663	(12,546)	112,295	99,749	(12,547)	
Nov-07	261,777	220,840	277,607	234,133	(43,474)	384,850	341,376	(43,474)	
<b>Total 07</b>	<b>848,424</b>	<b>718,126</b>	<b>886,748</b>	<b>750,469</b>	<b>(136,279)</b>	<b>2,184,628</b>	<b>1,899,845</b>	<b>(284,779)</b>	
<b>Total 29-Mos.</b>								<b>(758,702)</b>	

Winter (579,287) 76.4%  
Summer (179,415) 23.6%

## Portland Natural Gas Transmission System

One Harbour Place  
Suite 375  
Portsmouth, NH 03801

Telephone: 603/559-5500  
Facsimile: 603/427-2807



August 25, 2008

Mr. John McNamara  
Granite State Gas Transmission, Inc.  
5151 San Felipe, Suite 2500  
Houston, TX 77056

Re: Correction of Measurement Error at Newington Meter Station

Dear Mr. McNamara:

Portland Natural Gas Transmission ("PNGTS") offers the following imbalance repayment schedule, pursuant to Section 6.7 of the General Terms and Conditions of the PNGTS Tariff, to Granite State Gas Transmission ("Granite") to compensate for the measurement error at PNGTS' Newington, New Hampshire, meter station ("Newington Meter Station").

PNGTS will deliver to Granite a total of 758,702 dekatherms ("Dth") of natural gas ("Repayment Amount"), in-kind and at no charge (including, but not limited to, fuel, shrinkage and transportation) at the Newington Meter Station. This Repayment Amount will be managed by, and be subject to, the terms and conditions regarding Measurement Variance ("MV") outlined in Section 7.3 of the General Terms and Conditions of the PNGTS Tariff.

This Repayment Amount will be delivered to Granite as follows:

- Commencing on December 1, 2008, or some other date mutually agreeable to PNGTS and Granite, PNGTS, with the assistance of Maritimes & Northeast Pipeline ("Maritimes"),<sup>1</sup> will use commercially reasonable efforts to deliver, subject to the conditions set forth in the paragraph below, the Repayment Amount in-kind to Granite on a ratable daily basis of 1,382 Dth/day (the "Daily Repayment Quantity"), over eighteen (18) consecutive months after deliveries commence or until such date that the Repayment Amount has been fully delivered to Granite, as further outlined herein.
- Granite, or its designee, shall contact PNGTS to confirm the daily nominations of the Daily Repayment Quantity or such other quantity mutually agreeable to PNGTS and Granite or Granite's designee.

PNGTS intends to deliver the Repayment Amount over a period of eighteen (18) consecutive months. However, PNGTS may be required to curtail any and all of the Daily Repayment

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<sup>1</sup>PNGTS understands that Maritimes will be sending a letter to PNGTS and Granite outlining the terms and conditions under which Maritimes is willing to provide such assistance. Nothing in this letter is intended to alter or override any agreements or arrangements between PNGTS and Maritimes.

Quantity to Granite if PNGTS determines in good faith, in its reasonable discretion, that delivery:

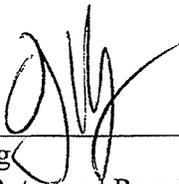
- (1) threatens the integrity of the PNGTS' transmission system;
- (2) adversely affects PNGTS' ability to provide service to its customers;
- (3) requires PNGTS to obtain gas supply through any mechanism other than MV (notwithstanding Maritimes assistance); or
- (4) is subject to Force Majeure, as defined in the PNGTS Tariff.

If PNGTS identifies an issue that necessitates the curtailment of the Daily Repayment Quantity (as outlined above), PNGTS will notify Granite of such issue as soon as reasonably practicable but not later than twenty-four (24) hours after such issue first arises. PNGTS shall have no liability for any such curtailment, outside of the continuing obligations as provided in this letter agreement to deliver to Granite the Repayment Amount. In the event of any such curtailment(s), PNGTS and Granite will consult in good faith to establish an alternate delivery schedule of any Daily Repayment Quantities not delivered. If the entire Repayment Amount has not been repaid to Granite after eighteen (18) consecutive months, PNGTS shall continue to deliver the Daily Repayment Quantity, or such other amount agreed to by the Parties, and shall complete the delivery of the Repayment Amount within two (2) consecutive months after the expiration of the eighteen (18) month period (such two (2) month period hereinafter referred to as the "Extended Delivery Period"). In the event of a Force Majeure, as defined in the PNGTS Tariff, that (1) prevents delivery of natural gas to the Newington Meter Station and (2) which continues into or occurs during the Extended Delivery Period, the Extended Delivery Period will be lengthened for the amount of time the Force Majeure event was in effect.

By executing the acknowledgement below, Granite accepts PNGTS' offer as outlined in this letter agreement.

Please contact the undersigned at 603-559-5515 if you have any questions.

Regards,



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David Haag  
Manager, Rates and Regulatory Affairs  
Portland Natural Gas Transmission System

cc: Mr. Richard Terrazas, Maritimes & Northeast

Accepted and Agreed

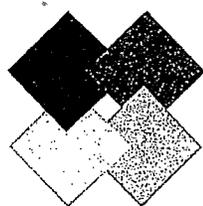
By Granite State Gas Transmission:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date



## NiSource Gas Transmission & Storage

5151 San Felipe, Suite 2500  
Houston, Texas 77056

August 28, 2008

Mr. F. Chico DaFonte  
Director, Energy Supply Services  
Northern Utilities, Inc.  
300 Friberg Parkway  
Westborough, MA 01581

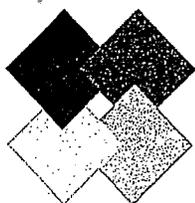
**Re: Correction of Measurement Error at PNGTS' Newington Meter Station**

Dear Mr. DaFonte:

As you are aware, Granite State Gas Transmission, Inc. ("Granite") and Portland Natural Gas Transmission System ("PNGTS") reached an agreement on an imbalance repayment schedule to compensate Granite for the measurement error at PNGTS' Newington, New Hampshire, meter station. Enclosed please find a copy of the letter agreement entered into by Granite and PNGTS that memorializes the terms and conditions of this imbalance repayment schedule (referred to herein as the "PNGTS-Granite Agreement").

Since the imbalance repayment from PNGTS to Granite is attributable to and for the benefit of Northern Utilities, Inc. ("Northern"), under and by the operation of the Operational Balancing Agreement between Granite and Northern dated November 1, 1993 (referred to herein as the "OBA"), Granite will deliver to Northern a total of 758,702 dekatherms of natural gas, in-kind and at no charge (including, but not limited to, fuel, shrinkage and transportation) under the same terms and conditions as those contained in the PNGTS-Granite Agreement and the OBA.

In order to facilitate the repayment deliveries, Granite authorizes Northern to be Granite's designee under the PNGTS-Granite Agreement for purposes of contacting PNGTS directly regarding Northern's daily nominations of the Daily Repayment Quantity or such other quantity mutually agreeable to PNGTS and Northern. Once these nominations are confirmed, pursuant to the OBA, Granite will make those daily volumes available to Northern at the requested "Delivery Point(s)" (as that term is defined in the OBA).



## NiSource Gas Transmission & Storage

5151 San Felipe, Suite 2500  
Houston, Texas 77056

As we have expressed previously, Granite will continue to cooperate with Northern in the expeditious receipt of any approvals necessary regarding the repayment of the imbalance created by PNGTS' Newington meter error, including those that may be required by the Maine PUC and New Hampshire PUC.

Please feel free to contact me with any questions.

Very truly yours,

John J. McNamara  
Vice President, Marketing & Origination