DG 16-812

STATE OF NEW HAMPSHIRE

Inter-Department Communication

NHPUC 22DEC'16PM3:53

DATE: December 22, 2016
AT (OFFICE): NHPUC

FROM: Stephen Frink SPF
Assistant Director – Gas & Water Division
Alexander Speidel
Staff Attorney

EXHIBIT #3 DG 16-812

SUBJECT: DG 16-812
Liberty Utilities - Keene Division Cost of Gas
Keene Production Facility Costs

TO: Commissioners
Docket File
Service List

SUMMARY OF STAFF RECOMMENDATION

Keene facility production costs should not be recovered through cost of gas (COG) rates. Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities – Keene Division (Liberty or Company) should remove $124,190 of production costs when calculating its monthly projected over- or under-collection and adjust the Keene COG rate effective January 1, 2017 and a hearing should be scheduled in January to address what, if any, production costs should be allowed for recovery through the COG.

BACKGROUND

On October 28, 2016, the Commission issued Order 25,960 approving the Keene 2016-2017 Winter COG rate and directed Staff to more fully review productions costs with the Company. Commission Analysis (p. 5):

> "The Commission notes that the primary driver of the COG increase is the asserted need to continually staff the Keene production facility. We direct Staff to more fully explore this need with the Company with an eye towards reducing costs as well as ensuring reliable service."

In the 2016-2017 Liberty - Keene COG filing the Company included production costs, which had not been the practice under the predecessor utility, New Hampshire Gas Company, or the prior COG seasons since Liberty acquired the Keene operations on January 2, 2015. The 2016-2017 COG rate calculation includes 2015-2016 winter

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production costs of $124,189 (Audit Report, Audit Issue #1) and 2016-2017 winter production costs (projected) of $124,190 (filing Bates p. 21), for a total of $248,379.

Continual staffing of the production plant commenced in December 2015, a policy change implemented in response to a December 19, 2015 incident which was the subject of Commission Docket IR 15-517. The change in the staffing policy accounts for $78,027 of the 2015-2016 winter production costs (Staff DR 3-5) and $108,600 of the 2016-2017 winter production costs (Staff DR 2-1), for a total of $186,627.

INVESTIGATION

Staff issued data requests regarding the Keene operations on November 15, 2016 and November 30, 2016, and met with Liberty personnel for informal work sessions on November 18, 2016 and December 5, 2016.

At the November 18, 2016 meeting, Staff put Liberty personnel on notice that Staff would be filing a report with the Commission recommending that production costs should not be recovered through the Keene COG, and that the cost of continually manning the Keene production plant is not prudent and should not be recovered from ratepayers.

Staff also reviewed the Commission Safety Division Report on the IR 15-517 Investigation into the Keene incident that led to the staffing policy change, Commission orders establishing the Keene COG mechanism, the Gas Restructuring and EnergyNorth revenue neutral rate redesign dockets (DE 98-124 and DG 00-063, respectively), the New Hampshire Gas Company rate filing in which the current delivery rates were approved by the Commission (DG 09-038), and the docket in which the Liberty acquisition of the Keene facility was approved (DG 14-155).

FINDINGS

Change in Keene Production Facility Staffing Policy

The change in Keene production facility staffing was made unilaterally by the Company in response to an operational incident at the Keene facility that occurred on December 19, 2015. The Commission opened an investigation into the incident, Docket IR 15-517. The Commission Safety Division filed an Investigative Report on April 1, 2016. The Safety Report (pages 15-16) includes the Safety Division's comments on each action and enhancement considered in Liberty's internal report of actions and enhancements to increase the reliability of the Keene plant. Regarding Liberty's decision to staff the facility around the clock, the Safety Division questioned the long term viability of such an approach due to the cost (p. 15, item ii) and commented that the need for such staffing would be diminished if the system can reliably switch to automatic mode and if the restart required for the blowers can be done remotely (p. 16). The plant enhancements necessary to switch to automatic mode operation and remote-restart capability were completed by the Company by July 2016.

On February 21, 2016 another malfunction occurred with the blowers requiring manual resetting at the Keene facility the system automatically went into Atmospheric Safe Mode without operator intervention, as designed. The malfunction was corrected in less than 10 minutes.

Since the December 19, 2015, incident Liberty has implemented 12 Keene production plant enhancements (DR 2-7).

In weighing the operational risk to the reliable and safe operation of the Keene plant, the Company found the risk of a similar incident to be very small (Company response to DR 2-8): 'While the Company has implemented a broad range of safety and operational enhancements to the system, there remains a residual risk of another incident similar to the incident that occurred on December 19, 2015. We believe this risk to be very small; nonetheless, the Company also believes that it must take whatever steps are reasonably justified to ensure the safety of our customers, employees, and the Keene community.'

Cost of Gas Mechanism and Production Expenses

On November 13, 1974, Gas Service, Inc., Keene Division, filed for a gas price adjustment effective December 1974 through April 1975 to coincide with the commencement of a permanent gas price adjustment clause the Company intended to file to become effective May 1, 1975. The Company explained that the gas supply situation dictated the need for the purchase of propane at substantially higher prices than those used to determine basic rates and that the proposed gas price adjustment provided for the collection of that increased cost. Order 11,659 (issued November 29, 1974) approved the revised price adjustment clause to provide for the fluctuating supply costs.

Order 11,976 (issued August 26, 1975) approved a cost adjustment mechanism for Gas Service, Inc. for seasonal adjustments to provide for the direct credit or charge for decreases or increases in purchase or supplemental gas costs.

Order 20,950 (issued September 7, 1993) approved competition in the New Hampshire natural gas industry, and required the natural gas utilities to file both firm and transportation tariffs. At the time delivery rates included certain costs more appropriately attributable to the gas supply function (i.e., bad debts attributable to gas billed to customers, local production and storage capacity costs and miscellaneous administrative and general costs). Customers were not being given appropriate price signals regarding comparative savings available through the competitive market and delivery rates subsidized the COG rates. Rate redesign was undertaken to ensure that the natural gas utilities would be compensated for delivery service through delivery rates only, rather than being dependent on the sale of gas to recover delivery-related costs.

Order 23,675 (issued April 5, 2001) approved EnergyNorth Natural Gas, Inc.'s revenue neutral rate redesign, which moved indirect gas costs from delivery service rates to the COG mechanism. Indirect gas costs previously included in base rates were also moved to the COG. These indirect gas costs related to the portion of the revenue requirement associated with liquid propane and liquefied natural gas peaking facilities, gas dispatching and acquisition costs, administrative and general/miscellaneous expenses, as well as working capital allowance and bad debt expenses related to purchased gas costs. The approved indirect gas supply service revenue requirement could only change pursuant to a Commission rate order in a general rate case.

Production costs to be recovered through the COG must be determined through a general rate case pursuant to Liberty Tariff Page 19, 16(E)(8): 'Local Production and Storage Capacity Costs: The cost of providing storage service from the Company's storage facilities (i.e., LNG and LPG) as determined in the Company's most recent rate proceeding.' Local production and storage capacity costs required for distribution pressure maintenance purposes are recovered through delivery rates determined through a cost of service study filed in a general rate proceeding.

The Keene Division does not provide natural gas or offer transportation service and production costs are recovered through delivery rates. The delivery rates for Keene are based on NHGC's last general rate case. Order 25,039 (issued October 30, 2009) approved the Settlement Agreement on delivery rates entered into by the Staff, Office of the Consumer Advocate and the NHGC. Attachment A of the Settlement Agreement is the revenue requirement used to set the delivery rates and includes COG revenue of $2,329,996 and purchase gas costs of $2,324,216. The revenue requirement also includes a gas production expense of $110,521. While there is a slight discrepancy of $5,780 between the COG revenue and purchased gas costs, the gas production costs are far in excess of that and are therefore reflected in the approved delivery rates. NHGC did not included production costs in any of its COG filings.

Order 25,736 (issued November 21, 2014) approved Liberty's purchase of NHGC under the terms of a Settlement Agreement entered into by the Staff, Office of the Consumer Advocate, HotZero, LLC and the Company. The Commission analysis states (p. 6):

> "We first find that the petitioners have met the no net harm standard of RSA 369:8. The Settlement Agreement requires EnergyNorth to manage and operate what will become the Keene Division separately, without a change in distribution rates, and without substantial changes in the Keene Division's operation. Thus, the financial concerns raised in Mr. Frink's and Mr. Rubin's pre-filed testimony are premature. They will be addressed, if necessary, in a future rate case as Mr. Rubin recommended in his pre-filed testimony and as Mr. Frink suggested at the hearing. Ex. 3 at 18; Tr. at 16-17. The Settlement Agreement also requires EnergyNorth to maintain the current operations of the Keene Division, satisfying Staff's concerns in the areas of safety highlighted in Mr. Knepper's testimony."

Following the acquisition, Liberty continued to charge Keene Division customers the delivery rates approved for NHGC and COG rates that provided for recovery of the same gas cost components that NHGC included in its COG filings, until Liberty added production costs in its 2016-2017 winter COG filing.

On June 28, 2016, Liberty filed its 2015-2016 winter COG reconciliation (Reconciliation) for the Keene Division. The Commission Audit Staff conducted an audit of the revenues and expenses and on September 8, 2016 issued a **Final Audit Report (Attachment 1)**. The Audit Report (p. 5) noted that the Reconciliation includes a "Produced Gas Cost" of $162,308, which included customer installation labor, gas mixing labor, contracted work, misc. production expenses, insurance, property taxes and interest. Audit Report, Audit Issue #1 (p. 6) states that Audit Staff understands that some of these costs can be included according to Keene's tariff, but that costs that are already included in the Company's base rates may not be recovered again by another mechanism. The Audit Report recommended that Liberty remove $38,119 of the produced gas costs and associated interest as those costs are being recovered through the delivery rate. The Company's response to the Audit Staff recommendation (Audit Report p. 6) was that it did not agree but would make the adjustment for the following reason: "The Company understands that the best time to get a full separation of "Produced Gas Costs" from distribution costs is in a distribution rate proceeding and, therefore, will adjust the COG reconciliation accordingly until such time as the Company's next distribution rate case."

Liberty filed its 2016-2017 Keene Division winter COG, which included a new line item for 'Direct Propane Produced Costs' and a reported prior period under-collection of $394,761 which included production costs of $124,190 that had not been forecast in Liberty's 2015-2016 COG filing. The added production costs account for $0.2449 of the approved Keene winter COG rate of $1.5152 per therm.

At the October 13, 2016 Keene COG hearing, Commissioner Scott questioned Liberty about the production costs (Hearing Transcript pages 20-22):

Q. I'd like to talk a little bit more about the production costs. So, it's -- you said that portion of the increase is related to staffing the facility 24/7, correct?
A. (Simek) Mostly, yes.
Q. So, help me out here. So, that's a fixed cost, isn't it? That that doesn't vary, that staffing cost doesn't vary with the amount of propane that your customers use, does it?
A. (Simek) No.
Q. Okay.
A. (Simek) What happened was, previously, the production costs were not included in the cost of gas. And we went through the tariff and were researching different ways of how we could work with our cost of gas and what should be included and what shouldn't be included. And we found that production costs should be included. So, we went ahead and reached out to the PUC Audit Staff, and pointed out our findings and asked them if they agreed, and they did. So, they approved that we include these costs, it did go through audit. And these are the costs that we are now including. But they weren't added until

after the winter period was already over. So, that's going to be an undercollection for those costs.

Q. So, help me out. Generally speaking, aren't those type of fixed costs more like a distribution charge than a cost of gas variable cost?

A. (DaFonte) Well, typically, there are what we call "indirect costs", and those are includable in the cost of gas. So, the same occurs with EnergyNorth. For example, they have LNG and propane facilities, but there are indirect costs related to those facilities that are collected through the cost of gas. And I think that's how we see these production costs the same way.

STAFF POSITION

Keene Production Costs Should Not Be Recovered Through COG Rates

As correctly pointed out by Commissioner Scott when questioning the Company regarding Keene production costs, those costs are more like a distribution charge than a gas variable cost.

Liberty witness, Mr. Simek, made a statement that previously, production costs were not included but the Company went through the tariff and researched different ways of how it could work with the COG and what should be included, determined that the COG Tariff provided for the recovery of production costs, and reached out to the PUC Audit Staff and the Audit Staff agreed.

Several points raised by Mr. Simek need clarification. First, the Keene COG Tariff does not specify that production costs should be included. The Tariff term being referenced by the Company regards the purpose of the COG and states (Tariff Page 11, 17(a), 'To permit the company to charge its customers with the cost of gas purchased or produced.' All of Keene's gas (propane) is purchased and to the extent the purchased propane is vaporized and mixed with air at the Keene gas plant before being injected into the distribution system, produced. The fixed costs associated with the Keene gas plant, including gas production (labor) costs, have always been included in delivery (base) rates. Second, the Audit Report, Audit Issue #1 (p. 6), regarding the cost of gas produced in the COG reconciliation, "While Audit understands some of these costs can be included according to Keene's current Tariff, page 11, section 17(a)-Cost of Gas, costs that are already included in the company's base rates may not be recovered again by another mechanism." The Audit Report identified four categories of expense that were being recovered through the COG and recommended that Liberty remove the associated costs from the COG reconciliation. Although the Audit Staff did not realize it at the time it issued its Audit Report, the other production cost categories that the Company included in 2015-2016 COG reconciliation are also in base rates. Third, the Company Comments on the Audit Issue #1, state that while certain categories of cost may have been included in distribution rates it is difficult to state the costs are being recovered when Company is operating at a loss, but concludes with, "The Company understands that the best time to get a full separation of "Produced Gas Costs" from distribution costs is in a distribution rate proceeding and, therefore, will adjust the COG reconciliation accordingly until such time as the Company's next distribution rate case." As the other production cost categories included in the reconciliation are also in delivery rates, those costs should also have been removed from the 2015-2016 winter COG reconciliation and addressed in the Company's next delivery rate case, as should the production costs included in the COG for the 2016-2017 winter period.

Liberty witness, Mr. DaFonte, explained that the Company sees the Keene production costs as similar to the costs of the LNG and propane facilities on its natural gas system that are allowed for recovery through the COG.

Staff disagrees with Mr. DaFonte's characterization of those costs. The LNG and propane facility costs allowed for recovery in the Liberty COG are for a very different reason, directly tied to EnergyNorth's and Northern Utilities's final unbundling of all gas related costs, including supplemental LNG and LPG production and supply related costs from delivery related costs. Not all of the LNG and propane facilities costs for Liberty's natural gas operations are recovered through the COG, costs associated with those facilities are identified and allocated between supply and distribution functions as part of general rates, and the amounts to be recovered through the COG and delivery rates remain fixed until the next general rate case. With the exception of the Laconia region, all of the Liberty LNG and propane plants on the natural gas system are used for supplemental peak-shaving supply, which allows the Company to meet its supply requirements at least cost and the costs associated with those facilities are recovered through the COG. As referenced earlier, in the Laconia region the plants not only operate as a supplemental peak-shaving supply resource in the Company's supply portfolio, the facilities are also available as needed for pressure support of its distribution system during cold, higher demand periods. The allocated portion of those plant costs for pressure support is determined in a general base rate proceeding and recovered through delivery rates. The Keene propane plant is not a peak-shaving facility that supplements pipeline supplies. The Keene plant must be operated to deliver gas to its customers, the plant is an integral component of the Keene Division distribution system and recovered in delivery rates. If Liberty believes it is under earning the Company should file for an increase in delivery rates rather than attempt to recover a perceived shortfall through the COG.

Keene Production Plant Round the Clock Staffing is Unnecessary

Around the clock staffing of the Keene production was initiated by the Company following the December 19, 2015 incident in which the plant blowers that inject air into the system to achieve the required propane-air mix failed. The Company undertook an internal investigation into the event and participated with Staff in a Commission ordered investigation to determine the cause of the failure and evaluate and implement system enhancements to reduce the risk of another failure and limit the damage if a similar event were to occur.

The Company response to **Staff DR 2-8 (Attachment 2)** states: 'We believe this risk to be very small; nonetheless, the Company also believes that it must take whatever steps are reasonably justified to ensure the safety of our customers, employees, and the Keene community. Therefore, the incremental cost to continue 24/7 staffing for the next two to three months is considered to be necessary and justified in order to mitigate the residual safety risks.'

The Company response to **Staff DR 3-2 (Attachment 3)** states: 'The enhancements enacted by the Company since the December 19, 2015, incident have had a significant impact on the safe and reliable operation of the plant, addressing most of the contingency risks associated with supplying a fuel/air mixture to the high pressure (3.5 psi) system. However, levels of residual risk remain associated with continued plant operation. Examples of residual risks include a failure of the backup generator to start following loss of utility power to the plant and a lock-up or a failure of the fuel stepping system to properly respond to propane/air fuel demand. Further, the plant has a unique mix of vintage fuel delivery and control equipment. Despite a very broad and deep research effort, including vendor involvement, the Company cannot be 100 percent certain that all possible failure modes have been identified and fully mitigated.'

Staff does not know the cost of the enhancements the Company has made to address the risk, or when and if the Company will be seeking recovery of the costs of those enhancements. Liberty has estimated the incremental cost of the round the clock staffing for the 2015-2016 and 2016-2107 winter months to be $186,627 and is currently recovering those costs through its 2016-2017 COG rates. There are approximately 1,300 customers on the Keene system, the incremental cost of the round the clock staffing adds $144 in winter costs on a per customer basis. Liberty's Keene customers already pay very high delivery and supply costs compared what the other regulated NH gas utility customers must pay. The added production costs to the COG rate represent a very significant expense to address what the Company has identified as a very small risk. And as Company notes in its response regarding possible failure modes, there is never 100% certainty regarding system operations.

In light of the many and significant enhancements Liberty has made to address the risk of similar event, the incremental cost of manning the plant are not reasonable or justified. Furthermore, personnel costs should not be allowed for recovery through COG rates and the matter should be addressed in a general rate case if Liberty wishes to seek recovery.

STAFF RECOMMENDATIONS

Liberty should remove $124,190 of production cost expense from its December Projected Over- and Under-collection Report and adjust the Keene COG rates effective January 1, 2017 accordingly. A hearing to determine what amount, if any, of Keene production costs should be allowed for recovery through the COG should be conducted in January 2017. The procedural schedule should provide for Liberty discovery on Staff's recommendation and subsequent Staff responses, followed by Liberty rebuttal testimony or brief and a hearing on the merits, with a goal of issuing an order that will allow for Liberty to adjust the Keene COG rates accordingly, effective February 1, 2017.

Removing $124,190 of production expenses from the over- and under-collection report (one half of the production expenses included in Liberty's 2016-2017 Keene winter COG filing) will limit the rate impact for January rates and the rate impact once a final decision is rendered.

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: September 8, 2016
AT (OFFICE): NHPUC

FROM: Anthony Leone, Examiner

SUBJECT: Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities Keene Division
DG 15-391, 2015/2016 Winter Cost of Gas Adjustment Reconciliation
FINAL Audit Report

TO: Steve Frink, Assistant Director
Al-Azad Iqbal, Utility Analyst IV

Introduction

New Hampshire Gas Corporation (NHGC, Company), a public utility engaged in the business of propane distribution in the City of Keene, was a subsidiary of Iberdrola USA Enterprises, Inc. Via Commission Order #25,736 issued on 11/21/2014 in docket DG14-155, Iberdrola sold NHGC to Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities Keene Division. The Order describes the sale as a stock purchase agreement of $3 million. The utility is known as the Keene Division of EnergyNorth. The effective date of the sale was January 2, 2015.

The DG 15-391 Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities Keene Division 2015 – 2016 Keene Division winter cost of gas reconciliation was filed with the Commission on June 28, 2016.

Audit appreciates the assistance provided by Dave Simek of Liberty Utilities.

Reported Summary

The reported activity for the period 11/2015 – 4/2016 was summarized by Keene as follows:

Beginning Under-collection (Current Period)	$ 48,567
Revenue	$ (660,126)
Interest Expense	$ 976
Propane Costs	$ 1,043,463
Ending Under-collection	$ 432,880

The beginning Under-collection of $48,567 does not agree with the prior period ending over collection of $92,082. After accounting for gas supply collections, unbilled commodity costs and unbilled reversals of a net $143,451 for the months of May and June, and adjusting the interest for the actual GL balances, the prior period ending balance agrees with the beginning balance.

Propane Cost Adjustments to Reported Reconciliation

Included in the 2015/2016 reconciliation were two items marked as "Propane cost Adjustments". The first was noted in the December 2015 column, and was ($41,173) to adjust for double counting invoices which were to be reversed in December 2015. The second adjustment of $89,185 was related to the inventory transfer between EnergyNorth Natural Gas (regulated utility) and Liberty Keene Division and was reviewed in the Summer 2015 Cost of Gas (COG) Reconciliation.

Revenue $660,126

Audit reviewed the revenue for the period and the reported cost of gas rates for the fixed price option (FPO) and the non-fixed price option (Non-FPO) for compliance with Order #25,834 in DG 15-391, issued on 10/30/2015.

Reported Revenue:

Fixed Price Option	$ 202,213
Non-Fixed Price	$ 457,913
Total Revenue	**$ 660,126**

The Company provided an updated tariff page (3rd revised page 18) on 11/12/2015 in compliance with the Order. Specifically, the Non-FPO was initially set at $.8788 and the Fixed FPO was set at $.8988 per therm and did not change during the winter cost of gas period. Audit notes that Liberty did submit a COG reconciliation on 11/22/2015 detailing the calculation for a $.01 decrease in the Non-FPO rate, but that they did not elect to make the change to the rate for that period resulting in that change being incorporated into the next month's COG calculation. The following tariff pages were submitted for rate changes:

The following tariff pages were reviewed for the Non-fixed Price Option:
4th Revised Page 18 The Non-fixed Price Option was set at $.8196 effective 1/1/2016.
5th Revised Page 18 The Non-fixed Price Option was changed to $.6910 effective 2/1/2016.
6th Revised Page 18 The Non-fixed Price Option was changed to $.3912 effective 3/1/2016.
7th Revised Page 18 The Non-fixed Price Option was changed to $.5052 effective 4/1/2016.

The following table displays the FPO and Non-FPO sales data as submitted by Keene.

FPO Sales Data

	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	Total
FPO Therms	22,385	32,475	43,912	46,421	46,210	33,578	224,981
FPO Rate	$ 0.8988	$ 0.8988	$ 0.8988	$ 0.8988	$ 0.8990	$ 0.8988	
FPO Revenues	$ 20,120	$ 29,189	$ 39,468	$ 41,723	$ 41,542	$ 30,180	**$ 202,221**

Non-FPO Sales Data							
	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	Total
Non-FPO Therms	63,232	91,302	128,573	149,102	152,422	107,029	691,660
Non-FPO Rate	$ 0.8788	$ 0.8788	$ 0.8196	$ 0.6910	$ 0.3912	$ 0.5052	
Non-FPO Revenues	$ 55,568	$ 80,236	$ 105,378	$ 103,029	$ 59,627	$ 54,071	**$ 457,911**
Total Revenue	$ 75,688	$ 109,425	$ 144,847	$ 144,753	$ 101,169	$ 84,251	**$ 660,132**

Audit verified each month's submitted revenue to the Cost of Gas Reconciliation Filing without exception. Audit requested supporting documentation of the FPO, Non-FPO and Total sales data and Keene provided a breakdown the sales data with no exceptions.

<u>Cost of Propane $1,043,463</u>

As noted in the reconciliation of the DG15-391 filing, the following costs for therms sold were identified.

	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16
Cost Per therm	$ 0.7197	$ 0.8080	$ 0.8862	$ 0.9383	$ 0.9737	$ 0.9616
Firm Sendout	120,961	149,302	232,345	209,470	147,856	112,543
	$ 87,056	$ 120,636	$ 205,904	$ 196,546	$ 143,967	$ 108,221
Company Use	3,453	4,934	6,434	5,845	4,302	3,780
	$2,485	$3,987	$5,702	$5,484	$4,189	$3,635
Total Therms	124,414	154,236	238,779	215,315	152,158	116,323
Total costs	$ 89,541	$ 124,623	$ 211,606	$ 202,030	$ 148,156	$ 111,856
						$ 887,812

The difference in the reported cost of propane of $1,043,463 and the $887,812 listed in the table can be found in the "Cost of Produced Gas" section discussed later in this report. Those differences, along with other variances due to the use of accrual accounting were verified by Audit to the monthly LUNH Accounting Department master file reconciliation for November 2015 through April 2016.

<u>Gas Supply Invoices</u>

For the 2015-2016 heating season, Keene indicated that Patriot Gas Supply, LLC won the bid. Audit requested and Keene supplied a list of the invoices from Patriot for the heating season. From that list of deliveries, Audit selected a sample of actual expenses for review. Below is a summary of that review:

<u>November 2015</u>

An invoice from Patriot Gas Supply LLC contains charges for two separate propane truck loads in November. The loads were picked up at Enterprise Terminals & Storage, LLC, Selkirk, NY, and transported via Northern Gas Transport. The supporting documentation included the Product Receipt/Terminal Delivery form from Enterprise, which identifies the location, date and time, product information, customer (Patriot Gas Supply, LLC), Consignee (Spicer Plus Inc.), and Carrier (Northern Gas Transport). The summary from Northern Gas which indicated the date, loading vapor pressure, percentage, temperature, and pressure for both the start and end of the transportation, plant tank percentages and pressures, an indication that methanol was added, and the hazard class. The propane cost on both loads was $.56506 plus a "Delivery expense including PERC Fee" of $.3365. The "Delivery expense including PERC Fee" varied throughout the period.

<u>December 2015</u>

An invoice from Patriot Gas Supply, LLC indicates 9,005 gallons of propane were shipped from Enterprise Terminals & Storage, LLC, Selkirk, NY, and transported via Northern Gas Transport, Inc. on 12/3/2015. Supporting documentation similar to that as outlined above was included with the invoice. The cost per gallon was $.57644 or $5,190.84. The invoice also added a surcharge of "Delivery expense including PERC Fee" of $ .3525 per gallon.

<u>January 2016</u>

An invoice from Patriot Gas Supply, LLC indicates 9,506 gallons of propane were shipped the terminal and transported via Northern Gas Transport, Inc. on 1/7/2016. Supporting documentation similar to that as outlined above was included with the invoice. The cost per gallon was $.59375 or $5,644.19. The invoice also added a surcharge of "Delivery expense including PERC Fee" of $ .3525 per gallon.

<u>February 2016</u>

An invoice from Patriot Gas Supply, LLC indicates 9,201 gallons of propane were shipped from Enterprise Terminals & Storage, LLC, Selkirk, NY, and transported via SP Transport, LLC on 2/10/2016. Supporting documentation similar to that as outlined above was included with the invoice. The cost per gallon was $.59038 or $5,432.09. The invoice also added a surcharge of "Delivery expense including PERC Fee" of $ .3525 per gallon.

<u>March 2016</u>

An invoice from Patriot Gas Supply, LLC indicates 9,208 gallons of propane were shipped from Enterprise Terminals & Storage, LLC, Selkirk, NY, and transported via SP Transport, LLC on 3/15/2016. Supporting documentation similar to that as outlined above was included with the invoice. The cost per gallon was $.58456 or $5,382.63. The invoice also added a surcharge of "Delivery expense including PERC Fee" of $.3265 per gallon.

April 2015

An invoice from Patriot Gas Supply, LLC indicates 9,992 gallons of propane were shipped from CHS Propane Terminal, Biddeford, ME, and transported via CEI Transport, Inc. on 4/25/2016. Supporting documentation similar to that as outlined above was included with the invoice. The cost per gallon was $.58519 or $5,847.22. The invoice also added a surcharge of "Delivery expense including PERC Fee" of $.2565 per gallon.

Produced Gas Costs

According to the Reconciliation filed in the instant docket, Keene has included a "Produced Gas Costs" line item totaling $162,308 inclusive of interest. Audit requested and Keene indicated that the line item is allowed per the current tariff, page 11, #17-Cost of Gas, #17(a). Liberty Keene also submitted a table and summary for the expenses. The summary has been included below with the detailed table is included at the end of this report.

	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	Total
Customer Installation - Labor	$2,603	$517	$1,677	$712	$1,572	$2,343	$9,424
Gas Mixing - Labor	$1,900	$4,744	$19,473	$21,145	$19,924	$32,221	$99,406
Contracted Work	$0	$1,175	$481	$0	$797	$294	$2,747
Misc. Production Expense	$1,409	$10,589	-$4,730	$5,840	$3,651	$6,475	$23,235
Insurance	$1,639	$1,639	$1,639	$1,639	$1,639	$1,639	$9,832
Property Taxes	$2,686	$2,686	$2,686	$2,686	$2,686	$2,686	$16,116
Total	**$10,237**	**$21,349**	**$21,225**	**$32,022**	**$30,269**	**$45,658**	**$160,760**
Interest	$14	$58	$117	$178	$480	$702	$1,548
Total with Interest	**$10,251**	**$21,407**	**$21,342**	**$32,200**	**$30,749**	**$46,360**	**$162,308**

While the inclusion of produced gas costs is in the tariff, not all of the reported costs are allowed. The Customer Installation Labor, Contracted Work, Insurance, Property Taxes and associated Interest costs are not allowed in the COG as they are already included in base rates as found in the last rate case proceeding for Liberty Keene, DG 09-038. **Audit Issue #1**

Interest $976

The originally reported interest expense of $976 was reviewed by Audit. The monthly figures represent the calculation of the average monthly General Ledger balance * 3.25% divided by twelve. The calculated monthly figure is then rolled into the beginning balance for the next month. Keene provided supporting documentation for the interest without exception.

SUMMARY

Based on a review of all supporting schedules, invoices, revenue details, and adjusting entries, Audit does not concur with the Company that the Winter period 2015 – 2016 COG ending balance represents an under-collection of $432,880, rather it should be reduced by the Produced Gas Cost adjustment of $38,119 to the new, under-collected balance of $394,761.

Audit Issue #1
Cost of Gas Produced

Background

The COG mechanism is designed to capture the cost of gas to the company and not any other additional expenses, including costs already included in a company's base rates.

Issue

As found in the current winter COG reconciliation, Keene has included $162,308 in the cost of gas as the cost of gas produced. While Audit understands some of these costs can be included according to Keene's current Tariff, page 11, section 17(a)-Cost of Gas, costs that are already included in a company's base rates may not be recovered again by another mechanism. The following table lists the costs Liberty Keene must remove. Installation Labor, Contracted Work, Insurance, and Property Taxes ($38,119) and the associated difference in the interest may not be included in the COG Reconciliation.

	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	Total
Customer Installation - Labor	$2,603	$517	$1,677	$712	$1,572	$2,343	$9,424
Contracted Work	$0	$1,175	$481	$0	$797	$294	$2,747
Insurance	$1,639	$1,639	$1,639	$1,639	$1,639	$1,639	$9,832
Property Taxes	$2,686	$2,686	$2,686	$2,686	$2,686	$2,686	$16,116
Total	**$10,237**	**$21,349**	**$21,225**	**$32,022**	**$30,269**	**$45,658**	**$38,119**

Recommendation

Liberty Keene must remove $38,119 and the associated interest from the cost of produced gas from the current reconciliation.

Company Comment

While the Company agrees that certain categories of costs may have been included in the determination of distribution rates in the Company's last base rate case, it is difficult to state that those costs are already being recovered when the Company is operating at a loss. The Company believes that all of the "Produced Gas Costs" it included in the reconciliation are consistent with Section 17(a) of its tariff and requests that the Audit Staff clarify that its recommendation that certain costs not be included in the reconciliation relates only to its view that certain of those costs may have been included in the prior determination of distribution costs and does not mean that those costs are not "Produced Gas Costs" consistent with the tariff provision. The Company understands that the best time to get a full separation of "Produced Gas Costs" from distribution costs is in a distribution rate proceeding and, therefore, will adjust the COG reconciliation accordingly until such time as the Company's next distribution rate case.

Audit Comment

Audit appreciates the Company's response and decision to remove certain costs from this years' COG Reconciliation and agrees that the best time to separate which costs are allowed under provision 17(a) of the current tariff is during the Company's next distribution rate proceeding.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities – Keene Division

DG 16-812
Winter 2016-2017 Cost of Gas

Staff Data Requests - Set 2

Date Request Received: 10/31/16
Request No. Staff 2-8

Date of Response: 11/15/16
Respondent: Christian Brouillard

REQUEST:

Given the changes and enhancements to the control systems since the 2015 operational event, please explain why Liberty continues to man the plant 7/24.

RESPONSE:

Liberty weighed the operation risks to the reliable and safe operation of the Keene Propane Air Plant. We focused our evaluation specifically on the blower and fuel control system that is necessary to supply an adequate air supply and fuel mixture to the high pressure (3.5 psig) system. While the Company has implemented a broad range of safety and operational enhancements to the system, there remains a residual risk of another incident similar to the incident that occurred on December 19, 2015. We believe this risk to be very small; nonetheless, the Company also believes that it must take whatever steps are reasonably justified to ensure the safety of our customers, employees, and the Keene community. Therefore, the incremental cost to continue 24/7 staffing for the next two to three months is considered to be necessary and justified in order to mitigate the residual safety risks. Further, as a temporary measure to improve safety and reliability, we plan to convert a portion of the high pressure system (Monadnock Marketplace) to CNG. We expect to complete this limited conversion in December/early January at which time the blower system will be placed in cold standby and the plant run on atmospherically supplied air to supply only low pressure system and a small remaining portion of the high pressure system. This is only a temporary measure, specific to the Monadnock Marketplace segment of the high pressure system. The permanent CNG conversion of both the high pressure and low pressure systems is not expected to begin until later in 2017.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities – Keene Division

DG 16-812
Winter 2016-2017 Cost of Gas

Staff Data Requests - Set 3

Date Request Received: 11/22/16 | Date of Response: 12/8/16
Request No. Staff 3-2 | Respondent: Christian Brouillard

REQUEST:

Ref. Staff DR 2-7. Liberty has implemented 12 enhancements to the production facility since implementing the new policy and is in the process of implementing additional enhancements. Please explain why these measures do not adequately address the risks identified in DR 3-1. With the new enhancements, please explain what the protocols would be for addressing the risks under both the old and new policy and what the difference in response time and cost exposure would be under the old and new policies.

RESPONSE:

Please refer to the Company's response to Staff 3-1, detailing the risks, enhancements, residual risks, and continuing operating policy.

The enhancements enacted by the Company since the December 19, 2015, incident have had a significant impact on the safe and reliable operation of the plant, addressing most of the contingency risks associated with supplying a fuel/air mixture to the high pressure (3.5 psi) system. However, levels of residual risk remain associated with continued plant operation. Examples of residual risks include a failure of the backup generator to start following loss of utility power to the plant and a lock-up or a failure of the fuel stepping system to properly respond to propane/air fuel demand. Further, the plant has a unique mix of vintage fuel delivery and control equipment. Despite a very broad and deep research effort, including vendor involvement, the Company cannot be 100 percent certain that all possible failure modes have been identified and fully mitigated.

Therefore, we believe it entirely prudent and necessary to continue the round-the-clock staffing coverage of the plant with regular Keene staff and augmented with EnergyNorth staff during off hours. Doing so provides the layer of assurance necessary to expeditiously respond to any incident that may occur. Having personnel readily available or on site virtually assures that consequences resulting from an incident similar to the one that occurred on December 19, 2015, will not happen again.

The improvement in response time, beyond the enhancements enacted, would vary for each potential incident. In general, the improvement would be the difference in time for on-call personnel to respond to the plant during off hours vs. personnel being present at the plant to immediately carry out response actions from gas control. Considering the potential safety consequences of extended response times as well as the possibility of unforeseen equipment failure modes given the age and mix of the on-site equipment, the Company views the full-time staffing measures as prudent and necessary.

The incremental costs of this staffing approach are detailed in the Company's response to data requests Staff 2-1 and Staff 2-2.

To expeditiously address the concerns with the blower system, the Company is proceeding with plans to install a temporary CNG feed into the HP (3.5 psi) system. This will allow the existing propane/air blower system to be retired and the system fuel/air mixture to be supplied solely via atmospheric air. The reasons and benefits for providing temporary CNG service in Monadnock Marketplace include:

- Removing the Monadnock Marketplace gas load from the Keene manufactured gas system will allow the Emerald Street gas plant to operate in atmospheric mode year round. The blower system can be permanently retired.
- Converting customers within Monadnock Marketplace in 2016 will allow Liberty to convert Manadnock Marketplace customer appliances and the distribution system to natural gas, reducing the eventual scope of a wider, system wide conversion to CNG sourced, and eventually LNG sourced, natural gas system.
- Having customers converted to natural gas via a temporary plant will facilitate commissioning and startup of a permanent CNG plant while providing for uninterrupted service.

SERVICE LIST - EMAIL ADDRESSES - DOCKET RELATED

Pursuant to N.H. Admin Rule Puc 203.11 (a) (1): Serve an electronic copy on each person identified on the service list.

Executive.Director@puc.nh.gov

al-azad.iqbal@puc.nh.gov

alexander.speidel@puc.nh.gov

amanda.noonan@puc.nh.gov

john.clifford@puc.nh.gov

karen.sinville@libertyutilities.com

mark.naylor@puc.nh.gov

michael.sheehan@libertyutilities.com

ocalitigation@oca.nh.gov

steve.frink@puc.nh.gov

Docket #: 16-812-1 Printed: December 22, 2016

FILING INSTRUCTIONS:

a) **Pursuant to N.H. Admin Rule Puc 203.02 (a), with the exception of Discovery, file 7 copies, as well as an electronic copy, of all documents including cover letter with:**

DEBRA A HOWLAND
EXECUTIVE DIRECTOR
NHPUC
21 S. FRUIT ST, SUITE 10
CONCORD NH 03301-2429

b) **Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.**

c) **Serve a written copy on each person on the service list not able to receive electronic mail.**