EXHIBIT
#56
S. Frink
DG 17-048

STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

DG 17-048

In the Matter of:
Liberty Utilities (EnergyNorth Natural Gas) Corp., d/b/a Liberty Utilities Request for Change in Rates

Direct Testimony

of

Stephen P. Frink
Assistant Director – Gas & Water Division

November 30, 2017

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New Hampshire Public Utilities Commission

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Request for Change in Rates

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Testimony of
Stephen P. Frink

Q. Please state your name, occupation and business address.

A. My name is Stephen P. Frink and I am employed by the New Hampshire Public Utilities Commission (Commission) as Assistant Director of the Gas & Water Division. My business address is 21 S. Fruit Street, Suite 10, Concord, New Hampshire 03301.

Q. Please summarize your educational and professional experience.

A. I joined the Commission in 1990 as a member of the Audit Team and worked as a Utility Analyst and Sr. Utility Analyst before becoming the Assistant Finance Director in 1998. In 2001 Commission operations were restructured and I became the Assistant Director of the Gas & Water Division and have primary responsibility for the administration of the financial aspects of the regulation of the gas utilities.

Prior to joining the Commission I worked as a Budget/Financial Analyst for the cities of Austin and Dallas, Texas. I have a Bachelor of Arts and a Master's in Business Administration from the University of New Hampshire.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to provide Staff's recommendations on three issues related to the Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities' (Liberty or Company) proposal: 1) on combining the Keene Division (Liberty-Keene) into the Liberty's operations for calculating rates; 2) on rate issues related to the Innovative Natural Gas, LLC d/b/a iNATGAS (iNATGAS) project; and, 3) although not raised by Liberty, changes to the Residential Low Income Assistance Program (RLIAP).

Q. Please summarize Staff's findings and recommendations on these issues.

A. The Commission should not allow Liberty to consolidate Liberty and Liberty-Keene rates. Order 25,736 issued November 21, 2014, approved Liberty's acquisition of the New Hampshire Gas Corporation (NHGC). Under the terms of the approved settlement agreement in that proceeding Liberty is required to operate Liberty-Keene as a separate division without a change in distribution rates and without substantial change in the Keene operations. That condition satisfied Staff's and the Office of the Consumer Advocate's (OCA) concerns regarding potential shifting of costs from NHGC to Liberty. In the immediate filing Liberty's revenue requirement includes a $712,403 revenue deficiency related to its Keene operations, almost all of which will be borne by non-Keene customers if Liberty is allowed to consolidate rates. As required under the settlement agreement, Liberty-Keene should continue to be operated on a stand-alone basis.

The Commission should deny recovery of the costs associated with the cost overruns on the iNATGAS project. The actual cost was more than double the projected cost and ratepayers should not be responsible for Liberty's inability to provide a reasonable cost estimate and/or failure to control project costs. An important consideration in the

Commission's decision to approve the agreements was the expected economic benefit from the $2.2 million capital investment and a more accurate cost projection would have greatly reduced those benefits and may have resulted in a different decision, by either the Company or Commission.

The Commission should modify the RLIAP to require annual rate adjustments designed to produce a 25% saving from total annual cost for an average residential heating customer as projected in the Company's annual winter COG filing in year 1 and 20% thereafter. The RLIAP rate is currently a 60% discount from the residential heating customer delivery rate and has been in effect since 2006.

Keene – Rate Consolidation & Conversion

Q. What is your recommendation regarding Liberty and Liberty-Keene rate consolidation?

A. Rates should not be consolidated, to do so would increase rates for Liberty's customers. In approving Liberty's acquisition of the Keene operations the Commission found that there was 'no-net harm' in part because Liberty and Liberty-Keene were to retain separate rates and thereby avoid cost shifting. Consolidating rates at this time will result in cost shifting and cause financial harm to Liberty's ratepayers through higher rates to subsidize the Keene operations.

Q. When did Liberty acquire Liberty-Keene?

A. Order 25,736 issued November 21, 2014 in Docket DG 14-155 approved a settlement agreement allowing Liberty to purchase NHGC, which Liberty did on January 2, 2015.

Q. Would you please summarize Liberty's position in the NHGC acquisition docket?

A. Liberty sought approval to acquire NHGC for $3,000,000, which was $289,000 or 11.6% over NHGC book value as of December 31, 2013. Liberty was not seeking recovery of the acquisition premium, transaction costs, or transitions costs (as defined by Liberty) related to the acquisition.

Liberty stated that it intended to undertake a number of projects to integrate NHGC into Liberty's operations and described its future plans for the Keene operations. Liberty's president, Richard H. Leehr, testified about the potential to serve new large customers if Liberty were to covert the Keene propane air system to a compressed natural gas (CNG) and/or liquefied natural gas (LNG) system.

> Bates p. 156, lines 9-14: "Following EnergyNorth's acquisition of the Keene System, EnergyNorth would evaluate a near term program to convert those customers from propane air to natural gas. Such a conversion, if approved by the Commission, would have the desired effect, given the more recent historical pricing experience, of lowering their existing energy costs, and stimulate surrounding markets dependent on other competing fuels and market restrictions to seek gas service as well."

> Bates p. 158, lines 3-11: "When reviewing the logistics required to provide safe and reliable delivery of natural gas derived from CNG or LNG, as mentioned below, additional facility investments will be required above those of a facility connected to a transmission pipeline. The additional required investments linking Keene's distribution system to a natural gas supply source require further investigation. Any such investments would not be proposed until after closing, and would be subject to Commission review and approval."

Chico DaFonte, Senior Director of Energy Procurement testified:

> Bates p. 180, lines 15-19: "Should the Company decide to continue to serve the Keene System with propane, it may enter into a new propane supply contract that takes advantage of the additional inventory capacity discussed earlier in my testimony. With the additional inventory capacity, the Keene System would not be as reliant on spot propane purchases in the winter period."

> Bates p. 183, lines 10-13: "Given the various economics and logistics of LNG and CNG, the Company will conduct an in-depth analysis before making any decisions as to whether LNG, CNG or a combination of the two is the best-cost future supply option for the Keene System customers."

Q. Please summarize the settlement agreement and Commission decision in DG 14-155.

A. The settlement agreement required Liberty to operate Liberty-Keene separately, without a change in distribution rates or a substantial change in operations. Because distribution rates were to remain unchanged the Commission determined that the financial concerns raised by the Staff and OCA regarding cost shifting were premature and that the issue would be addressed in a future rate case, if necessary.

Q. Will consolidating Liberty and Liberty-Keene rates result in cost shifting?

A. Yes. Rate consolidation will reduce delivery rates currently being charged Liberty-Keene customers and increase delivery rates for all other customers. Liberty calculated a revenue deficiency of $712,403 for Liberty-Keene, almost all of which will be borne by non-Keene customers if rates are consolidated.

Q. What it Liberty's justification for the cost sifting?

A. Liberty claims there is a significant administrative burden and cost in treating Liberty-Keene as a separate entity and that Keene customers would see a dramatic increase in bills if they are held solely responsible for the costs to serve Keene. The Simek and Dane testimony on permanent rates (Bates p. 23, lines 2-6) state, "As a practical matter, filing a distribution rate case for just the Keene Division is not only very costly (in view of the small number of customers served in Keene), but also would result in a dramatic increase in customers' bills if the increase were recovered exclusively from the approximately 1,200 customers in the Keene

Division."

Q. **Do you agree that a Liberty-Keene rate case would be very costly?**

A. No, a concerted effort by the Company to limit rate case expenses can keep those costs to a minimum. Current delivery rates for Liberty-Keene were set in DG 09-038, in which NHGC reported a total rate case expense of $35,524 and the Commission approved $30,524 for recovery. The NHGC rate case expense approved for recovery in its prior rate filing (Docket DG 02-003) was $42,603.

Q. **Do you agree that Liberty-Keene ratepayers would see a dramatic increase in bills if required to bear the full cost to serve Keene?**

A. Not necessarily, NHGC was able to avoid dramatic bill increases by limiting investments, holding down costs and phasing in rate increases.

Q. **Is Staff generally supportive of rate consolidation?**

A. Yes, the cost to serve each city, town and customer can vary greatly and it would be impractical and prohibitively expensive to not consolidated rates in most instances.

Q. **Why is rate consolidation not appropriate in this instance?**

A. Prior to acquiring NHGC Liberty was put on notice that cost shifting would be a concern if it were to seek to consolidate rates. In the immediate filing the Company has made no effort to demonstrate how Liberty's ratepayers might benefit from rate consolidation by quantifying potential current and future benefits that might be realized through consolidation. In fact, Liberty's testimony confirms that its non-Keene customers will suffer immediate harm if rates are consolidated. Liberty's ratepayers should not be made to subsidize Keene operations indefinitely.

Q. How was Liberty put on notice that cost shifting would be a concern?

A. When Liberty petitioned the Commission for permission to acquire NHGC the Company acknowledged that it would not earn its allowed rate of return from Keene customers and that it intended to propose a rate plan to minimize the impact on customers. Liberty testified that there was significant growth potential in Keene if the system were converted to CNG and/or LNG and customer growth would benefit all customers.[1]

In that proceeding Staff and the OCA filed testimony expressing their concern that the Liberty's conversion plans were highly speculative and that consolidating rates could lead to cost shifting. Staff testimony recommended the Commission deny the petition due to the detrimental impact on Liberty's customers under Company's proposed rate plan. [2]

The merger settlement agreement required Liberty to account for and operate Liberty-Keene largely without change and in approving the settlement agreement the Commission found that doing so would result in no net harm. The Commission also stated since the distribution rates would remain unchanged the financial concerns raised by Staff and the OCA was premature and that the issue would be addressed in a future rate case if necessary.

Q. Do you believe Liberty-Keene has a revenue deficiency?

A. Yes, the Commission Audit Staff calculated a negative 7.73% rate of return for calendar year 2016 based on a net operating loss of $196,100.

Q. How should a Liberty-Keene revenue deficiency be addressed?

A. Liberty should either file a petition requesting a rate increase for Liberty-Keene, a rate plan

[1] DG 14-155 Direct Testimony of Stephen R. Hall, Bates page 166.
[2] DG 14-155 Direct Testimony of Stephen P Frink, page 15, lines 11-15.

that would lead to consolidated rates based on a comprehensive business plan and financial analysis that demonstrates a quantifiable benefit for all customers, or at the very least, no net harm, or to discontinue service by demonstrating that continued service can only be provided at a loss and that customers can be conveniently converted to an alternate fuel source and utility plant safely abandoned.

Q. Does Liberty have a business plan for Liberty-Keene that could justify consolidating rates?

A. In its petition to acquire NHGC Liberty touted the potential benefits of significant customer growth in Keene if the system could be economically converted to CNG, LNG or a combination of the two. Liberty is moving forward with conversion plans so one could reasonably assume that the Company has undertaken a financial analysis that indicates a positive return on the expected investment within a reasonable time period.

Q. Has Liberty provided a comprehensive business plan for Liberty-Keene?

A. No. During the discovery process Staff requested that the Company provide a comprehensive business plan for the Liberty-Keene conversion that includes a discounted cash flow analysis (Staff DR 2-41). The Company's response (initial and supplemental) fell far short of a comprehensive business plan and provide little to no support regarding the cost and revenue projections used in the DCF analysis. For example, the DCF analysis for Phase I of the expansion did not include the $418,384 cost of land that is currently classified as 'Property Held for Future Use' and therefore not eligible for rate recovery. The Phase I expansion makes use of that land and that cost will become used and useful when placed into service and should be included as a conversion cost. Staff DR 5-1 asked Liberty for the business case analysis for the Liberty-Keene expansion as required under the Company's Capital Expenditure Policy but none was provide in Liberty's response.

The filing indicates the Liberty-Keene customer base is insufficient to support the current cost to serve. In response to Staff DR 2-42, Liberty calculated that Liberty-Keene would need to increase delivery rates by approximately 50% to address its revenue deficiency and that the total annual bill impact would be an increase of approximately 25%. Customer growth could lessen the rate impact but customer growth in Keene has been limited due to competition from local propane dealers and the physical limitations of the Keene propane air production plant.

In DG 14-155 my pre-filed written testimony recommended the Commission deny the Liberty acquisition of NHGC because it failed the 'no net harm test', as Liberty customers would experience higher rates as a result of cost shifting. The rate filing confirms that is the case in the near term and provides no indication that it will be any different over the long term.

Liberty is undertaking a conversion intended to increase capacity and lower rates but the Company's filing provides no details as to whether, or how, that conversion will impact the cost to serve Keene and if the customer base can support that cost.

Q. Do you have concerns regarding the Liberty-Keene revenue deficiency?

A. Yes, I have concerns regarding how Liberty determined the revenue deficiency, the underlying causes of the deficiency and the potential impact on the long term viability of the Keene utility operations.

Q. What are your concerns regarding how Liberty calculated the revenue deficiency?

A. Liberty included costs that were outside the test year and/or may not have been prudently incurred. Staff filed a memorandum in DG 16-812, Liberty-Keene 2016-2017 Winter COG, recommending Keene production costs not be recovered through COG rates as production costs are reflected in delivery rates and the cost of manning the Keene production plant around the clock may have been imprudent. **See Attachment SPF-1 (Staff Memorandum without attachments).**

Liberty also failed to calculate the corporate service costs being paid or provided by Liberty to serve Liberty-Keene, the Liberty-Keene revenue requirement uses a corporate service expense amount that NHGC paid prior to Liberty's acquisition.

The Liberty-Keene revenue deficiency also includes test year production costs which may or may not be representative of production costs going forward given the Company's conversion plans. Furthermore, Liberty has proposed maintaining a separate COG for Liberty-Keene but the proposed tariff does not describe what, if any, production costs will be eligible for recovery through the Liberty-Keene COG. The only reference to Keene production costs is on Proposed Tariff Page 32, '16.2 Cost of Gas Clause – Keene Division, A. Purpose. To permit the Company to charge its customers in the Keene Division with the cost of gas purchased or produced.'

Staff believes Liberty-Keene production costs should be recovered through base rates rather than COG rates for the reasons articulated in the Staff Memorandum filed in DG 16-812 (Attachment SPF-1). If Liberty were allowed to consolidate rates then Staff would support a Keene Division COG that includes supply production costs, but what constitutes supply production costs would need to be determined and defined in the tariff. Also what, if any, Keene conversion costs are to be recovered through the Keene Division COG would need to be addressed.

Q. What are your concerns regarding the underlying causes of the revenue deficiency?

A. It appears that Liberty's cost of doing business in Keene has risen dramatically to address safety concerns. Of particular concern are the municipal costs incurred in the December 2015 Keene incident in which the Keene Fire Department called for mutual assistance from over 60 fire departments located over three states and for which responding municipalities invoiced Liberty for personnel costs totaling $150,957 and for a gas leak on May 2, 2017 in which Keene Fire Department called for mutual assistance from three fire departments located over two states and the Keene Fire Department invoiced Liberty for costs totaling $10,804. **See Attachments SPF-2 (Safety Report without attachments), SPF-3 (Staff DR 8-44) and SPF-4 (Keene Sentinel Article).**

As in all New Hampshire cities and towns served by Liberty, Liberty pays local taxes and fire departments respond to emergency calls. Unique to Keene, and only recently, the fire department issued invoices to Liberty for emergency responses. Liberty failing to contest those costs sets a precedent that could lead to other city and towns invoicing utilities for emergency responses and, a more immediate concern, is the bill impact on Keene customers if those costs are recovered through Liberty-Keene rates.

The Liberty-Keene revenue deficiency includes a $200,000 cost for corporate services that may or may not be representative of the cost of those services being provided by Liberty. The acquisition settlement agreement set the cost to be charged for those services and the parties agreed that the settlement agreement terms would remain in effect until the

Commission approves otherwise. At the acquisition hearing Staff testified that corporate service charge could be an issue if there were a rate case. (DG 14-155 October 30, 2014 transcript page 22, line 16). Liberty has been providing corporate services to Liberty-Keene for almost three years and should be able to determine the actual cost of those services. That determination could lessen or increase the Liberty-Keene revenue requirement.

Q. What are your concerns regarding the long term viability of Liberty-Keene?

A. The filing demonstrates that Liberty-Keene operations are currently operating at a significant loss and provides no evidence that it will ever generate a profit. Given the magnitude of the Liberty-Keene revenue deficiency, if recovered solely from Keene customers, the rate impact on Liberty-Keene customers could lead to customer losses and precipitate a death spiral.

Q. Was the long term viability of gas utility service in Keene a concern prior to Liberty's acquisition of NHGC?

A. Yes. Historically Keene gas utility rates have been competitive with those offered by local propane dealers and a substantial rate increase to address a significant revenue deficiency could put Liberty-Keene at a competitive disadvantage, leading to customer losses and precipitating a death spiral.

NHGC was very cognizant of that risk and considered converting to LNG but decided it would not be economical and instead implemented rate plans (Dockets DG 02-003 and DG 09-038) that phased in rate increases to limit the rate impacts. In DG 09-038, in response to cross examination, the Company testified that it had conducted a study of its competitors and customers to determine whether the rates would be detrimental to its ability to retain customers.

Liberty has chosen to address that concern by addressing the Liberty-Keene revenue deficiency through rate consolidation, reducing Keene rates at a cost to all other customers, despite the fact that doing so would violate the "no-net-harm" standard that was satisfied in part by Liberty agreeing to keep separate rates.

iNATGAS Project

Q. Please describe the iNATGAS project.

A. iNATGAS, a Massachusetts LLC formed in 2013, constructed a CNG station in Concord designed to primarily serve large commercial and industrial customers' on-site energy requirements, referred to as bulk or thermal CNG, but also serves CNG vehicles. The CNG station is located on property leased from Liberty and Liberty delivers CNG to iNATGAS under the terms of a special contract. Under the terms of a lease agreement iNATGAS makes monthly fixed payments to Liberty for the land on which the CNG station is located. Under the terms of the special contract Liberty constructed, owns and operates a CNG station that provides CNG to iNATGAS at a fixed per therm charge for 15 years and in each of the first 5 years iNATGAS pays for a minimum number of therms whether or not those volumes are actually taken, referred to as a 'take-or-pay' or 'must take' requirement. Liberty petitioned for, and received, Commission approval to enter into the lease agreement and special contract.

The project, initially expected to commence operations in November 2014, became operational on December 1, 2016. To date there have been minimal sales to iNATGAS and

Liberty has not planned for any iNATGAS sales this winter.[3]

Q. Please summarize the Commission proceeding.

A. Liberty petitioned the Commission for approval of its agreements with iNATGAS, filed on April 4, 2014.

Liberty's petition included a financial analysis that indicated the project would earn a return in excess of its approved rate of return over ten years based on projected costs and revenues. Liberty also requested an expedited proceeding in order to commence service to iNATGAS by year end.

Liberty proposed that the iNATGAS investment be treated as any other investment in infrastructure, with distribution rates to include the revenue requirement associated with the investment following the next distribution revenue requirement. (Hall Testimony, Bates pages 3-4).

On April 14, 2014, the Commission issued an Order of Notice to consider, among other issues, whether Liberty's investigation and analysis of the risks and benefits of constructing, owning and operating a CNG station were reasonable and entering into the long term special contract prudent and in the public interest.

After several rounds of discovery and two technical sessions, Staff filed a report and the OCA filed testimony regarding Liberty's proposal. Staff recommended approval only if iNATGAS or its affiliates provided additional financial security and if the parties modified the agreements so that Liberty had final say over compressor operations and maintenance. The OCA objected to the proposal based on its assessment that the risks outweighed the

[3] Liberty 2017-2018 COG, transcript of October 13, 2017 hearing, p. 47.

potential benefits. <u>**See Attachments SPF-5 (Staff Report without attachments)**</u>

The Commission held a public hearing on June 10, 2014, at which witnesses testified on behalf of Liberty, Staff, and the OCA.

Order 25,694 issued July 15, 2014 approved a special contract and lease between Liberty and iNATGAS governing the construction of a CNG station on the Liberty natural gas system and the sale of gas to that station.

Q. On what basis did the Commission approve the lease agreement and special contract?

A. Approval was granted in large part because Liberty's investment was expected to be offset by anticipated revenues from iNATGAS, as explained in the Commission analysis (pages 8-9):

> "Liberty's investment of $2.2 million will be more than offset by the anticipated revenues if iNATGAS realizes its projected sales, producing a positive return that will help to hold down rates for all Liberty customers. It is an investment similar to upfront investments in physical plant Liberty has made to serve other large customers. Although the level of risk to Liberty associated with this project may be higher than normal because the thermal CNG market is in its infancy and there are a finite number of potential customers, those risks are mitigated through the "must-take" provision of the special contract, the payment guarantees from iNATGAS's president and AVSG, and the $1.22 million escrow account."

In its order the Commissioners noted that full cost recovery was not guaranteed (page 9):

> "We are not required at this time to decide whether or how Liberty's investment in the CNG facilities should be recovered from ratepayers. We note that in approving the Special Contract and Lease Agreement, full cost recovery is not guaranteed and ultimately the investment must be found prudent for such recovery to occur."

Q. Please describe Liberty's financial analysis in its DG 14-091 filing.

A. Stephen Hall, Liberty Director of Regulatory and Government, filed testimony with an analysis of the annual revenue requirement and revenues under three scenarios. The revenue requirement was the same for all three scenarios, based on a capital cost of $2,245,000.

Projected revenues assumed three levels of sales; 1) at the minimum take-or-pay requirement and continued sales beyond 5 years at the year 5 take-or-pay requirement, 2) baseline, and 3) accelerated.

The Company's analysis of the iNATGAS capital investments produced a positive Net Present Value (NPV) under all three scenarios.[4]

Q. Did Staff perform a financial analysis in DG 14-091?

A. Yes, Staff accepted the Company's revenue requirement calculation and calculated the NPV of the project based on projected revenues under three different scenarios; 1) no revenue due to iNATGAS default, 2) revenues at the minimum levels required under the terms of the iNATGAS agreements and, 3) revenue based on sales at the minimum level required under terms of the iNATGAS agreements and continued sales beyond year 5 at the year 5 take-or-pay requirement.

Staff's analysis of the iNATGAS capital investments produced a negative NPV under the first two scenarios and a positive NPV under the third scenario.

The Staff Report in DG 14-091 (Attachment SPF-5) provides a summary and critique of the Company's financial analysis and Staff's financial analysis and recommendations.

Q. Did Staff make any subsequent corrections to its report?

A. Yes, at the June 10, 2014 hearing on the merits Staff made the following correction (transcript p. 94, lines 3-20:

> Witness Frink: "On Page 7 of the Report, where it says "Staff Recommendation on Entering the Special Contract and Lease Agreement", in the very first sentence,

[4] **Net Present Value** (**NPV**) is the difference between the present value of cash inflows and the present value of cash outflows. **NPV** is used in capital budgeting to analyze the profitability of a projected investment.

> second line, it says "as required by RSA 374:32", that should be "374:30". And, then, on Page 10, the second to last line, under "Rate Treatment", it says "if the Commission rules that the investment is prudent as part of this proceeding Staff would not seek to disallow the costs if the project ultimately proved unprofitable." And, that should read "if the Commission rules that the investment is prudent as part of this proceeding Staff would not seek to disallow the estimated or prudently incurred costs if the project ultimately proved to be unprofitable." That's by way of clarification, if we have a cost estimate of 2.2 million for Liberty, if those costs should come in at double that, then there would -- the issue of prudency would probably come up in a rate proceeding."

Q. Did Liberty agree that a rate case was the appropriate venue for the Commission to consider the prudence of the Company's investment?

A. Yes, as testified to in response to that question at the June 10, 2014 hearing (transcript p. 62, lines 11-23:

> A. (Hall) In a sense, yes. But let me explain what I mean by that. If the Commission approves this contract in this docket, then we believe that means that the decision to enter into the contract, and therefore construct the compressors, as a prudent decision. However, we will still be subject to prudence review on whether we prudently incurred those costs, whether we prudently managed the project, and so on. But, from our perspective, approval by the Commission in this docket isn't -- shouldn't put us in a position of being second guessed later on, when it comes to the rate case, as to whether or not we should have entered into an agreement to purchase the compressors.

Q. Please compare the projected cost of the iNATGAS investment with the actual cost.

A. Liberty's projected cost to serve iNATGAS was $2,245,000 compared to an actual capital cost of $4,815,594. Actual costs exceed projected costs by $2,570,594 as seen in Table 1:

Table 1

Liberty Capital Investment to Serve iNATGAS			
	Project	Actual	Over
Compressors	$1,000,000	$1,100,000	$100,000
Piping, meter set, survey, etc	$865,000	$3,080,084	$2,215,084
Land (pro-rated)	$200,000	$200,000	$0
Contingency	$180,000		($180,000)
AFUDC		$435,510	$435,510
Total	$2,245,000	$4,815,594	$2,570,594

Q. Please compare projected iNATGAS revenues with actual revenues.

A. Both Liberty and Staff did a revenue projection for the first three years of operation with assumed sales at the iNATGAS take-or-pay requirements. Operations were expected to commence in November 1, 2014 but assuming operations commenced at the January 1, 2015 the projected revenues for 2015, 2016 and 2017 are $192,600, $192,600 and $314,600, a total of $699,800. Because iNATGAS was required to take firm sales service in the first year of the contract Staff's revenue projection also included the amount of fixed supply costs that would have been paid by iNATGAS on metered sales.

As previously noted, iNATGAS started taking service December 1, 2016 and Liberty receive no revenue in 2014 and 2015 and is anticipating minimal metered sales in 2017 but will receive $192,600 of revenue in 2017 under the terms of iNATGAS agreements. Absent metered sales there will be no iNATGAS COG revenue.

Q. If the iNATGAS project had been completed on time and on budget, how would that have impacted Liberty's 2017 revenue deficiency?

A. If iNATGAS had commenced service on January 1, 2015 and used the required minimums per the terms of the agreement, Mr. Hall's testimony in DG 14-091 shows that in the third year of operation (2017) the revenue requirement on the $2,245,000 capital investment would have been $339,640 and revenue would have been $314,600, resulting in a $25,040 revenue deficiency.

Q. In DG 14-091 what did Liberty calculate for a revenue deficiency in the first year of iNATGAS operations?

A. In the first year of operations, with iNATGAS using 'must take' volumes, the revenue requirement is $366,152, revenue is $192,600 and the revenue deficiency is $173,552.

Q. If the Liberty DG 14-091 analysis had accurately projected the iNATGAS capital investment what would the year one revenue deficiency have been?

A. In the first year of operations, with iNATGAS using actual costs 'must take' sales, the revenue requirement is $719,810, revenue is $192,000 and the revenue deficiency is $599,210.

Q. Could Liberty have done better job with its cost projections?

A. Yes. Liberty owned the property, has operated in Concord for years and was working with the City regarding their iNATGAS plans. In response to a question on the status of the project at the June 10, 2014 hearing in DG 14-091 the Company testified that it expected to commence operations in a matter of months (transcript p. 94, lines 1-18):

> A. (Clark) That would be me. We have applied for a zoning variance with the City of Concord. We are in the process of finalizing engineering documents for site plan approval. We have the dates that we will be submitting those. We intend to meet all of our deadlines for that. Which should have an approval around mid August.
>
> Q. Thank you. Do you know when the compressors will be ordered and the CNG compressor fill stations will be in service?
>
> A. (Clark) Currently, the compressors are running between15 and 24 weeks. The long range is a 24-week lead time. I don't -- however, recently, there has been purchases with due dates that are in the 15-week range. We anticipate ordering those compressors upon final approval from the City and PUC. The construction

> lead time is approximately two to three months. So, we are anticipating an operation date of mid to late November.

Liberty projected cost for 'pipping, meter set, survey, etc.' was 865,000 and the actual cost was $3,080,084. Given the Company's extensive experience in that type of work in general and in Concord, specifically, and an expected in service date of less than six months, it is difficult to understand how the Company failed to produce a more accurate cost estimate and/or failed to control those costs. It is also difficult to understand why the project took two years to complete, which added $435,510 to the cost of the project for Allowance for Funds Used During Construction (AFUDC). If there was a question regarding iNATGAS ability to complete its facility in a timely manner the special contract should have addressed that concern by setting a date certain at which iNATGAS payments under the must-take provisions would commence.

Q. Did Staff recommend Commission approval of the lease and special contract?

A. Yes, although Staff conditioned its support on the creation of an escrow account funded by iNATGAS that Liberty could access in case of default and Liberty addressing Staff's concerns regarding compressor maintenance and operations. Staff's recommendation was based on the results of a financial analysis that used the cost estimates provided by Liberty, the results of which indicated the agreements reasonably balanced the potential risks and rewards.

Q. How would an accurate cost project have influenced Staff's financial analysis and recommendation?

A. The Staff analysis would have shown a significant increase in risks associated with the project and a far lower return on the investment under all three scenarios. The Staff report filed in

DG 14-091 provided a table showing the NPVs at the projected costs, which is updated to include the NPVs based on actual costs in Table 2 below:

Table 2

Staff Sale Scenario Results		
Sales Level	NPV Projected Cost	NPV Actual Cost
Scenario I	($2,370,157)	($5,045,494)
Scenario II	($1,146,286)	($3,821,622)
Scenario III	$6,439,606	$3,994,992

Given the much greater risk and lower or negative returns Staff may not have recommended approval of the proposed project or may have sought other protections to limit the risk.

Q. Was the iNATGAS project a bad investment?

A. At this point it appears so. Based on iNATGAS actual usage to date and forecasted usage through October 2018 there is little evidence that Liberty will be able to recover its investment to serve iNATGAS in the near future, although the agreements have a 15 year term and it is possible that the investment will produce a positive return at some point.

Q. Was Liberty's iNATGAS investment imprudent?

A. Yes and no, based on what was known at the time.

At the time Liberty entered into the agreement the Company's capital investment to serve iNATGAS was expected to be $2.2 million and there was a guaranteed five year revenue stream with an NPV of $1.2 million (iNATGAS take-or-pay requirements backed by an escrow account). That level of investment and guaranteed revenue reasonably balanced the potential risk and rewards and the investment was prudent.

Liberty's actual capital investment was more than double the projected capital investment and the iNATGAS payments required under the terms of the special contract did not commence until two years beyond their anticipated start date. Given the escalating cost and project delays the additional capital spending was not prudent.

Q. How should the Commission address the iNATGAS prudency issue?

A. Liberty should be allowed to recover the revenue deficiency related to the projected cost of the project but should not be allowed to recover the revenue deficiency related to the excess spending. Ratepayers should not be required to pay for Liberty's failure to reasonably forecast capital costs to serve iNATGAS and/or failure to control those costs.

Q. What is the revenue requirement associated with the excess spending on the iNATGAS project?

A. The revenue requirement associated with the excess spending is $379,264.

Q. Please explain how the revenue requirement related to the excess spending was calculated.

A. The revenue requirement was calculated by comparing the revenue deficiency in the first year of operations using projected costs and actual costs, updated tax rates (property and income) and the rate of return recommended by Dr. Woolridge. The methodology is the same as employed by Liberty in its 'Computation of Revenue Requirement' in DG 14-091 (Attachment SRH-1, Bates p. 7). **See Attachment SPF-6.**

The results are summarized in table 3 below:

Table 3

iNATGAS Revenue Requirement Adjustment		
	Projected	Actual
Capital Cost	$2,245,000	$4,815,594
Revenue Requirement	$332,906	$712,170
Take or Pay Revenue	$192,600	$192,600
Revenue Deficiency	$140,306	$519,570
Revenue Requirement Adjustment		($379,264)

Q. Are there any other Staff adjustments related to the iNATGAS project?

A. Yes. The Liberty pro forma adjustment to annualize the iNATGAS test year revenue was an increase in test year revenues of $18,300 and should have been $183,000. Staff's revenue requirement calculation presented in the Joint Testimony of Ms. Mullinax and Mr. Laflamme correct for that.

Q. Will this be an issue in future Liberty general rate filings?

A. Possibly but not necessarily. While incurring excessive costs may have been imprudent the iNATGAS investment could produce a positive return at some point and benefit ratepayers, in which case the Company should be allowed to present a case for recovering those costs.

Staff will be monitoring the iNATGAS revenues going forward and, as in the immediate filing, Staff will consider the net harm or benefit to ratepayers and advise the Commission accordingly.

Residential Low Income Assistance Program

Q. Please provide a history of the RLIAP.

A. On May 12, 2005, the Commission issued an Order of Notice in DG 05-076 to investigate whether a low income customer assistance program for natural gas customers should be established.

Order 24,508 issued September 1, 2005 approved a RLIAP Pilot Program (Pilot Program) for the two New Hampshire natural gas utilities. The Pilot Program established a low income rate to be a 50% discount from the utility's residential heating base rates for delivery service (base rates include customer and delivery charges). Qualifying customers were expected to see a savings of approximately 15% in their annual natural gas bills, with the cost of the program (primarily low income customer discounts) to be recovered from all customers through the Local Distribution Adjustment Clause (LDAC). One of the parameters of the proposed Pilot Program was that the cost be limited to no more than one percent of the utilities' annual gross revenue.

Order 24,669 issued September 22, 2006 (Docket DG 06-120) approved the continuation the RLIAP with one modification, that the 50% discount be increased to 60%. The change was expected to increase EnergyNorth RLIAP customer savings from 12.8 percent to 15.4 percent and increase the cost of the program as a percentage of gross revenues from 0.59 percent to 0.71 percent. The Commission Analysis states (page 5):

> "Based on the sensitivity analyses submitted to the Commission, it appears that the proposed increase in the discount rate during the next program year may be accomplished within the financial cost parameters of the RLIAP. Accordingly, we conclude that it is appropriate to approve the proposed increase. However, we expect the parties and Staff to inform the Commission immediately if it should turn out that the assumptions underlying the sensitivity analyses are incorrect and the financial cost parameters of the RLIAP are jeopardized."

On November 2, 2017 Liberty filed its RLIAP Quarterly Report for the 2016-2017 RLIAP program year (November 1, 2016 through October 30, 2017). The 4rd Quarter Report for the 2016-2017 RLIAP program year shows customer savings of 33% and program costs as 1.08% of gross revenue. The program costs as a percent of gross revenue for the 2016-2017 program year would be 1.34% absent the prior year over recovery credit of $333,808. **See Attachment SPF-7.**

Q. Why are the results of the program so different from what was originally anticipated?

A. Because base rates have increased and supply rates have decreased. The low income rate is a fixed percentage discount on the residential heating base rate only and the total bill consists of both delivery and supply charges so the increase in base rates and decrease in COG rates means greater savings for low income customers. Low supply costs also results in lower gross revenue for the utility, so the cost of the RLIAP represents a higher percentage of gross revenue when gas costs decline.

The disparity in how the base and supply costs have changed from the inception of the RLIAP to the present is significant. The typical residential heating customer bill impact in EnergyNorth's 2005-2006 winter COG filing shows base rate charges represented 23% of the total annual bill ($421 divided by $1,802) and the 2017-2018 winter COG filing shows base rate charges represent 52% of the total annual bill ($578 divided by $1,113).

Q. How should the RLIAP be changed to bring it back in line with the original intent?

A. The RLIAP rate should be set annually to produce 25% savings for qualifying customers based on the average residential heating customer's total projected gas costs for the upcoming 12 months in the first year following implementation and 20% savings thereafter. As is currently done, the proposed RLIAP rate should be included in Liberty's winter COG filing and the approved rate would be effective for November 1 through October 30, with savings to be calculated on the projected total bill for an average residential heating customer for the 12 months commencing November 1 of that year. The filing should include the most recent

RLIAP quarterly report for the current year and an RLIAP report with projected participation and costs for the upcoming year.

Q. Will qualifying low income customers be harmed by the proposed change?

A. In the short run, yes, which is why the proposal is to lower the discount in two phases. While the immediate impact will be less savings for those customers, in the long run they may see more savings if supply charges increase at a faster rate than base rate charges or if there is a spike in gas costs. If gas costs were to increase significantly, the bill impact on low income customers would be much more significant than is the case when gas costs are decreasing. Unlike the current RLIAP, which is a set discount rate of 60% of residential heating delivery rates, the proposed program change will increase the discount rate when supply costs/rates go up as part of the annual RLIAP rate adjustment.

Q. What would the 2016-2017 program savings have been under the modified program?

A. The average low income customer annual bill for November 2016 through October 2017 was $685, compared to an annual bill of $1,018 for an average non-low income residential heating customer, a savings of $333. Under the proposed program an average low income customer annual bill would have been $815, a savings of $204.

Q. How do the expected savings under the proposed change compare to expected saving when the RLIAP was first approved?

A. As a percentage of annual gas bills, the 2016-2017 savings would have been greater (20% compared to 15%), but the dollar savings are less ($204 compared to $284) as current bills are much lower than in 2005-2006.

Q. Do lower annual gas bills factor into Staff's proposed changes to the RLIAP?

A. No but it does mean the financial burden on low income customers and all firm sales customers are far less than when the RLIAP was established.

Q. Will the proposed change ensure that RLIAP costs will not exceed one percent of Liberty's gross revenue?

A. No, but it should result in RLIAP costs better tracking gross revenues, as the annual RLIAP rate will reflect the current delivery and supply rates from which annual utility revenues are derived. The number of RLIAP participants will impact the cost of the program, but the number of participants has been fairly consistent over the life of the program, with an approximate annual average monthly participation of 5,000, ranging from approximately 4,000 to 6,000 in any given year.

Q. Will the Commission be notified if RLIAP costs exceed one percent of gross revenue?

A. Yes, RLIAP reports will be included in the COG filing and show program costs as a percentage of gross revenues for both the current and upcoming year.

Q. Will the proposed changes to the RLIAP be applicable to Northern Utilities Inc.?

A. Staff will be proposing the same changes to the RLIAP in the Northern rate filing, DG 17-070.

<u>Observations & Conclusion</u>

Q. Does Staff support Company efforts to expand natural gas service in New Hampshire?

A. Staff supports economic expansion as it provides New Hampshire business and residents an alternative energy source and will lower rates for existing customers as Liberty's fixed costs are spread over greater sales.

Staff appreciates Liberty's efforts to expand natural gas service but is concerned that those efforts may have resulted in, or could result in, uneconomic expansion and higher rates. A key component in two Liberty expansion plans is the use of CNG and/or LNG and was also the impetus behind the iNATGAS investment. Liberty has never operated a satellite franchise area served solely by CNG and/or LNG, nor is Staff aware of any other public utility that has done so for an extend period of time. The iNATGAS project exemplifies the inherent risk of a utility pursuing growth opportunities outside its core competency, it can be difficult to gauge both the cost and market.

Q. Are you suggesting Liberty should not pursue those opportunities?

A. No but Liberty should proceed cautiously. A thorough market analysis should be undertaken to determine the market potential and to accurately determine the cost to realize that potential. Liberty should also work with targeted communities and state agencies to help in determining construction and permitting costs and lead times, as well as what safety measures may be required.

Q. Do you have concerns regarding Liberty's budget planning?

A. Yes. Both the iNATGAS and training center capital projects were woefully over budget, to the extent that the projected costs used in in the financial analysis rendered the results of that analysis invalid. Those concerns were raised in Liberty's last rate case and Liberty agreed to an audit by an independent consultant to examine, among other things, Liberty's business planning. The Liberty Consulting Group (LCG) was hired by the Commission to conduct the audit and on August 15, 2016 Staff filed the LCG "Final Report on A Management and Operations Audit of The Customer Service and Accounting Functions of Liberty Utilities."

Q. What were LCG's conclusions regarding Liberty's business planning?

A. LGC had major concerns regarding certain aspects of Liberty's planning and budgeting, those concerns being (as cited in the LGC report):

- The CapEx budgeting process does not provide required analysis, business cases and detailed cost estimate packages prior to budget presentation to and approval by the local management, Oakville senior management, or the parent board of directors.
- The New Hampshire capital budget packages do not provide detailed business case analysis for the growth, discretionary and regulatory supported projects as specified in the applicable Capital Expenditure Policy.
- Recent capital expense variances demonstrate a lack of effective control of capital expenditures
- New Hampshire and Oakville management did not effectively monitor and control problems with capital budget timing or 2014 and 2015 capital expenditure performance.
- New Hampshire executive management and Oakville executive management did not take action to mitigate problems with capital budget process timing and reconciliations of 2014 capital expenditure performance.

The LCG report provided recommendations on how to address those concerns. In conjunction with this proceeding, the Commission asked LCG to review and report on the progress made by Liberty in implementing the LCG recommendations.

LCG 'Recommendations of Verifications of Liberty Utilities' report dated November 1, 2017 (Verification Report) found that Liberty has made significant progress in implementing the recommendations but reported that Liberty has not demonstrated that improvements to its capital budgeting processes satisfy LCG's audit Planning and Budgeting Recommendation 2, which addressed planning and estimating processes. **See Attachment SPF-8 (Verification Report).**

Q. Please describe Planning and Budgeting Recommendation 2.

A. Recommendation 2 identified the need for management to revise its capital budgeting processes to ensure that capital project planning, analysis, and sufficiently detailed estimating take place before presentation of projects and programs for senior management and board review and approval.

Q. What were LCG's findings regarding Recommendation 2.

A. The Verification Report explains LCG's verification process and findings on Recommendation 2 (page 21):

> "We were looking for specific elements that we consider central to determining the sufficiency of management's planning and budgeting improvements. Specifically, we wanted to verify the existence of sufficient project analysis, and particularly the performance of reasonably-detailed cost estimating for capital expenditure projects prior to the budget approval process. The lack of sufficient cost estimating for projects included in the Board-approved capital budget reflected a major shortfall in management's processes associated with 2014 and 2015 capital budget formation. In particular, the Training Center and iNATGAS CNG projects suffered from poor cost estimating at the time of the approved capital budgets in these years, as we detailed in this report. Management appears to have improved the timing of preparation for some of its business cases, but we found the Keene Propane project (See Conclusion #4 below) an exception. Importantly, the information management provided does not support a determination that management has improved cost estimates for projects included in its board-approved capital budgets."

Q. What are the potential consequences of failing to adequately evaluate major expansions

and other projects requiring a significant capital investment?

A. Liberty could make an uneconomic investment as a result of missing or faulty information and, when seeking cost recovery, could lead to higher rates, a Commission decision denying recovery or a combination of the two.

The Training Center and iNATGAS projects are two such instances and Staff is very concerned that the Keene conversion may prove to be uneconomical as well based on the limited information that has been provided to date.

Q. Please summarize your recommendations.

A. My recommendations to address the concerns raised above are:

- the Commission find that the iNATGAS cost overruns were imprudent and deny recovery of the related costs
- the Commission find that consolidating the Liberty and Liberty-Keene rates will cause financial harm to Liberty ratepayers and deny rate consolidation
- Liberty should petition the Commission to address a Liberty-Keene revenue deficiency though either a Liberty-Keene rate increase, a rate plan that ensures the long-term viability of Keene operations and does not harm Liberty ratepayers, or a request to discontinue service demonstrating that continued service can only be provided at a loss and customers can be conveniently converted to an alternate fuel source and utility plant safely abandoned.
- the Commission should modify the RLIAP to provide for an annual discounted rate on total gas costs.

Q. Does that conclude your testimony?

A. Yes.