Northern Utilities, Inc.

New Hampshire Division

Proposal to Revise Cost of Gas Adjustment Clause

Filed June 15, 2016

NORTHERN UTILITIES, INC.
NEW HAMPSHIRE DIVISION
PROPOSAL TO REVISE COST OF GAS ADJUSTMENT CLAUSE
PREFILED TESTIMONY OF
<u>CHRISTOPHER A. KAHL</u>

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Christopher A. Kahl. My business address is 6 Liberty Lane West, Hampton, New Hampshire.

Q. For whom do you work and in what capacity?

A. I am a Senior Regulatory Analyst for Unitil Service Corp. ("Unitil Service"), a subsidiary of Unitil Corporation ("Unitil"). Unitil Service provides managerial, financial, regulatory and engineering services to the principal subsidiaries of Unitil. These subsidiaries are Fitchburg Gas and Electric Light Company d/b/a Unitil, Granite State Gas Transmission, Inc. ("Granite"), Northern Utilities, Inc. d/b/a Unitil ("Northern" or "the Company"), and Unitil Energy Systems, Inc. I am responsible for developing, providing and sponsoring certain reports, testimony and proposals filed with regulatory agencies.

Q. Please summarize your professional and educational background.

A. I have worked in the natural gas industry for over twenty years. Before joining Unitil in January 2011, I was employed as an Analyst with Columbia Gas of Massachusetts ("Columbia") where I had worked since 1997 in supply planning. Prior to working for Columbia, I was employed as an Analyst in the Rates and Regulatory Affairs Department of Algonquin Gas Transmission Company ("Algonquin") from 1993 to 1997. Prior to working for Algonquin, I was employed as a Senior Associate/Energy Consultant for

DRI/McGraw-Hill. I received a Bachelor of Sciences degree and a Masters of Arts degree in Economics from Northeastern University.

Q. Have you previously testified before the New Hampshire Public Utilities Commission or for Unitil?

A. Yes, I have testified before the Commission in the 2016 Summer Season Cost of Gas ("COG") proceeding, Docket No. DG 16-309; and the 2015 / 2016 Winter Season COG proceeding, Docket No. DG 15-393. I have testified in several other COG proceedings as well.

Q. Please explain the purpose of your pre-filed direct testimony in this proceeding.

A. In this proceeding, Northern proposes to modify its current COG filing schedules and procedures from separate Winter Season[1] and Summer Season[2] filings and COG rates to a single Annual[3] COG filing with Winter Season and Summer Season COG rates. In addition, the Company is proposing to submit an Annual COG reconciliation filing in place of separate Winter Season and Summer Season COG reconciliation filings. Lastly, the Company is revising Section 4 of its tariff, the COG Clause, to reflect this proposal.

II. ANNUAL COG FILING

Q. Why is the Company proposing to switch from separate Winter and Summer Season COG filings to a single Annual COG filing?

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[1] Also referred to as the Winter Period or Peak Period, November 1 through October 31.
[2] Also referred to as the Summer Period or Off-peak Period, May 1 through October 31.
[3] The period November 1 through October 31.

A. By having one Annual COG filing with Winter and Summer Season COG rates, the COG filing process is more streamlined, less cumbersome and more efficient for both the Company and the Commission.

Q. How is an Annual COG filing less cumbersome and more efficient than two seasonal COG filings?

A. Under the current COG rate methodology, annual demand costs as well as many other factors used to calculate seasonal COG rates are determined during the Winter Season COG filing. For example, the allocation of annual demand costs between the Winter and Summer Seasons, a significant undertaking, is determined in this filing, as is the seasonal forecast of the Company's sales load. For the most part, the only material update provided in the Summer Season filing is that of NYMEX prices which are used to estimate the Company's total commodity costs. Thus, the Summer Season COG filing is largely repetitive relative to the Winter Season COG filing. By submitting one Annual COG filing with seasonal rates, Northern will eliminate this repetition and conserve the resources of both the Company and the Commission.

Q. How will the shift to an Annual COG filing impact the Company's allocation of its gas costs in the Winter and Summer Seasons?

A. There will be no change in the allocation of gas costs to the Summer and Winter Seasons. However, there will no longer be separate COG reconciliations for the Winter and Summer Seasons; only an Annual COG reconciliation which will be discussed in greater detail later in my testimony.

Q. Will the Annual COG filing include both Winter Season and Summer Season COG rates?

A. Yes, the Annual COG filing will include COG rates for both the Winter Season (November through April) and the Summer Season (May through October).

Q. When will Northern submit its Annual COG filing?

A. Northern will submit its Annual COG filing at the same time that it currently submits its Winter Season COG filing: at least 45 days before the November 1st effective date of the Winter Season COG rates.

Q. How will the Company handle significant variations in NYMEX prices that occur between the submittal of the Annual COG filing and when the Summer COG rates go into effect?

A. Significant variations between NYMEX prices will be handled through the Company's ability to adjust monthly COG rates upward by up to 25% of the Commission's approved initial seasonal rates or down by any amount. Though the Company's tariff does not establish a threshold for making such adjustments, and the Company retains the flexibility to make such adjustments as necessary, as a matter of general practice the Company will adjust monthly COG rates upward or downward when the estimated COG reconciliation ending balance is over or under projected total costs by 2% in the Winter Season and 4% of total costs in the Summer Season, thereby realigning projected revenues so that the COG reconciliation ending balance is close to zero. For example, the Company will update its Summer Season cost forecast and compare its initial projected end of season balance (a positive target balance) to its updated projected end of season balance before the Summer Season rates go into effect on May 1st. If the difference between these balances is greater than 4% of total Summer Season costs, then the Summer Season COG rates will be adjusted accordingly.

Q. How will the Company handle instances where a material change occurs in demand costs or other factors that affect the COG after the Annual COG filing is submitted?

A. As with changes in NYMEX prices, unanticipated material changes in demand charges or other factors that occur during the Winter or Summer Seasons will be adjusted in their respective season by the Company's authority to increase COG rates by up to 25% of the COG rates initially approved by the Commission or decrease COG rates by any amount.

Q. What will Northern do if changes in NYMEX prices and / or demand costs result in estimated projected costs being greater than revenues by more than 25 percent?

A. In accordance with Northern's current tariff, the Company may submit an amended COG filing and COG rates for approval by the Commission.

Q. Is the Company proposing a new methodology for estimating the COG reconciliation ending balance and determining if a monthly COG rate adjustment is needed?

A. Yes. Under the existing methodology, the target COG reconciliation end of season balance is zero ($0) for both the Summer and Winter Seasons. With an Annual COG filing and reconciliation, the ending balance is still zero but this applies only to the end of the Annual COG year (October 31). Since the Winter Season will reflect only the first half of the COG year, it will have an expected over-collection at the end of April. This over-collection will then be eliminated during the Summer Season's under-collection at the end of October. The expected end of season target balances will offset each other resulting in an Annual COG reconciliation ending balance of zero.

Q. Please explain why at the end of the Winter Season, April 30, the Company will have an over-collection that will be eliminated over the course of the Summer Season.

A. In accordance with the Simplified Market Based Allocator methodology explained in the Company's previous COG filings, for cost recovery purposes, Northern allocates the majority of demand costs to the Winter Season. This allocation is done to reflect the fact that storage contracts and pipeline contracts that deliver directly to Northern's city-gate, as well as transport gas from storage facilities, are utilized mainly in the Peak Season and, therefore, the costs for these facilities are recovered at that time. However, most pipeline and storage contracts are billed to the Company evenly over a twelve month period. Therefore, while the majority of these costs are recovered in the Peak Season, only about half of these costs are incurred by Northern during that time. This results in an over-collection by the end of the Winter Season.

Conversely, during the Off-Peak Season, COG rates recover a smaller portion of demand costs than that which is billed to Northern. This under-collection during the Summer Season offsets the Winter Season over-collection, resulting in an Annual COG reconciliation ending balance that is at or close to zero.

Q. Will the Winter Season COG reconciliation ending balance over-collection accrue interest?

A. Yes, consistent with current practice, any over and under-collections during either the Winter or Summer Seasons will accrue interest at the prime rate.

Q. Will the Company's proposed methodology result in a material impact on Summer or Winter Season COG rates?

A. No. Though the Company is proposing a new methodology for estimating the COG reconciliation ending balance for the purposes of making a single annual filing, implementation of the methodology should not have a material impact on COG rates relative to the way such rates are currently calculated.

Q Given that Northern projects an over-collection for the Winter Season, how will the Company be able to identify when a 2% or greater fluctuation between costs and revenues warrants a change in COG rates?

A. With its Annual COG filing, Northern will initially establish a target COG reconciliation balance for the end of the Winter Season, April 30. Each month thereafter, Northern will update its expected COG reconciliation ending balance and compare that balance to the target COG reconciliation ending balance. This updated balance will reflect actual costs and revenues to date as well as prospective changes in NYMEX prices[4]. If the projected

[4] The monthly update may also reflect any significant changes in demand costs and commodity costs other than NYMEX, if applicable.

COG reconciliation ending balance varies from the target ending balance by 2% or more of projected Winter Season COG costs, then monthly COG rates will be adjusted accordingly in order to equate the COG reconciliation ending balance to the target balance. I provide an example of this in Table 1 below. This table is a modification of the current COG summary table that is filed each month with the Commission in order to determine if a monthly COG rate change is warranted. Table 1 represents a hypothetical monthly adjustment balance for December 2016. As the table illustrates, the April 30, 2017 target balance is an over-collection $2,692,143. This balance would have been derived in the calculation of the initial November 1st COG rates. In this example, the updated estimated Winter Season COG reconciliation ending balance is an over-collection of $1,844,667. The difference in these two ending balances, $847,476, represents an under-collection of 3.91% of total projected gas costs for the Winter Season. Because this exceeds the 2% Winter Season threshold, monthly COG rates for January 2017 would be increased in order to achieve a COG reconciliation ending balance that is approximately equal to the target balance.

TABLE 1
NORTHERN UTILITIES, INC.
NEW HAMPSHIRE DIVISION
Calculation of the Projected Over or Under Collection of the
Winter 2016-2017 Period Cost of Gas
December 2016 Estimated

Under/(Over) collection as of 10/31/2016				$	(2,106,586)
Forecasted firm therm sales 12/01/2016 - 04/30/2017					
Residential heat & non heat			13,055,351		
HLF classes			2,824,042		
LLF classes			13,142,297		
Current recovery rate per therm					
Residential heat & non heat			$0.6675		
HLF classes			$0.6567		
LLF classes			$0.6721		
Total		$	(19,401,933)		
Forecasted recovered costs at current rates 12/01/2016 - 04/30/2017				$	(19,401,933)
Actual recovered costs 11/01/2016 - 11/30/2016				$	(2,500,000)
Estimated total recovered costs 11/01/2015 - 04/30/2016				$	(21,901,933)
Actual gas costs to date 11/01/2016 - 11/30/2016				$	3,343,989
Revised projected indirect gas costs 12/01/2016 - 04/30/2017	[1]			$	713,859
Revised projected direct gas costs 12/01/2016 - 04/30/2017	[2]			$	18,106,005
Projected under/(over) collection as of 04/30/2017				$	(1,844,667)
April 30, 2017 Target Balance				$	(2,692,143)
Variance from Projected April 30, 2017 Balance				$	847,476
Target Projected Gas Costs				$	21,672,636
Variance as percent of total gas costs					3.91%

NOTES
[1] Revised as follows:
- Futures prices as of December 19, 2016
[2] Includes: Working Capital Allowance, Bad Debt, On-system Production and Storage and Capacity, Miscellaneous Overhead and Interest

Q. How will the Summer Season monthly calculations be performed by the Company to identify when a change in COG rates is warranted?

A. The Summer Season COG rates will be adjusted in order to minimize the Annual COG reconciliation ending balance. As a result, the Summer Season calculations will utilize an expanded variance range that will incorporate the Winter Season's actual reconciliation ending balance variance.

Q. Please explain the Summer Season expanded variance range in greater detail.

The expanded variance range allows Northern to minimize the Annual COG reconciliation ending balance by combining the Winter Season's actual variance with the Summer Season's projected variance. For instance, in the example set forth in Table 1 above, Northern's projected Winter Season reconciliation ending balance was an over-collection of about $2.7 million. If the actual ending balance was an over-collection of $3.0 million, then the Winter Season ending balance would have a variance of ($300,000). This over-collection would then be included in the Summer Season's expanded variance range and allow for a greater under-collection variance.

Q. Why would a Winter Season variance that is an over-collection increase the Summer Season's under-collection range?

A. The goal is to minimize the Annual COG reconciliation ending balance. If the Winter Season has a variance that is an over-collection, then a larger under-collection in the Summer Season can be tolerated without needing to adjust rates. This helps off-set the Winter Season's over-collection variance and minimizes the Annual COG reconciliation ending balance. Conversely, if the Winter Season has a projected end of season variance that is an under-collection, then a larger over-collection in the Summer Season can be tolerated without having to adjust COG rates.

Q. How would the Summer Season's expanded variance range be calculated?

A. As with the Winter Season, the Summer Season variance range has two endpoints representing the limits of under and over-collections. Applying the example described earlier in my testimony, if the Summer Season COG is projected to be $4 million dollars, then the endpoints representing a 4% variance would range from a $160,000 under-collection to a $160,000 over-collection. If the $300,000 Winter Season variance referenced in the example above is then factored in, the endpoint representing an under-collection would be expanded to $460,000. In other words, a $460,000 under-collection variance would represent the trigger for a Summer COG rate increase whereas a $160,000 over-collection variance would represent the trigger for a Summer COG rate decrease.

Q. How is this Summer Season expanded variance range used to minimize the Annual COG reconciliation ending balance?

A. A Summer Season expanded variance range allows the Company to offset a Winter Season variance and thereby minimize the Annual COG reconciliation ending balance. If, for example, Northern realized an under-collection below the $460,000 trigger, Summer COG rates would not be adjusted but the Annual COG reconciliation ending balance would be closer to zero. Conversely, if Northern's under-collection met or exceeded the

$460,000 threshold, the Company would adjust rates to recover the $160,000 under-collection of the Summer Season. By allowing the remaining $300,000 to be unrecovered, the Annual COG reconciliation ending balance will be at or close to zero.

Q. When will Northern begin to estimate the Summer Season COG reconciliation ending balance to determine if a change is warranted to the Summer Season COG rates?

A. Throughout the Winter Season, the Company will be following NYMEX futures prices. On or about March 1, Northern will initially estimate the Summer Season COG reconciliation ending balance using the latest NYMEX prices. In the event that NYMEX prices increase, or other unforeseen factors within the COG impact Summer Season COG rates by more than 25%, Northern will submit an amended filing.[5] In the event an amended COG filing is not required, no change will be made to COG rates.

Further, in April, the Company will again estimate the Summer Season COG reconciliation ending balance with updated NYMEX prices and adjust the May 1 COG rates, if necessary. As I stated previously in my testimony, if the projected Summer Season COG reconciliation ending balance varies from the target balance by more than 4%, then Northern, consistent with its general practice, will adjust its COG rates.

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[5] By submitting an amended filing in mid-March, sufficient time is allowed for the filing to be reviewed and approved by the Commission for effect on May 1.

Q. Will Northern incorporate other changes in its initial projected Summer Season COG reconciliation ending balance?

A. If Northern is aware of any material change in other factors, such as demand costs or projected sales, it will incorporate them into its Summer Season COG reconciliation ending balance calculation.

Q. How will the Company recover the actual Annual COG reconciliation ending balance?

A. Any variances between the aggregated target Winter and Summer Season COG reconciliation ending balances and the actual Winter and Summer Season COG reconciliation ending balances will be recovered or credited in the subsequent year's COG rates.

Q. How will the proposed Annual COG filing be different from that of the current seasonal filing?

A. The Annual COG filing will have the same schedules as the existing Winter Season COG filing. However, schedules that currently reflect only Winter Season data will be expanded to include both Winter and Summer Season data. Of the schedules that the Company currently submits with its Winter COG filing, only Schedules 2 (contracts ranked on a per unit cost basis), 6A (commodity cost forecast), 6B (detailed citygate cost calculations), 10A (allocation of demand costs by rate class), 10C (allocation of commodity costs by rate classes), 11 (normal year sendout volumes) and 22 (allocation of total commodity costs between divisions) will require an expansion from six to twelve months. Schedule 8 will be expanded to show the typical bill impacts for both the Winter and Summer Seasons. In addition, the Summary Schedule will be expanded to reflect calculations of both the Winter and Summer Season COG rates. Lastly, the Annual COG filing will include two sets of tariff pages that reflect the COG rates for the Winter and Summer Seasons. All other schedules will have little or no modifications.

Q. Are there any schedules that the Company has historically only submitted in the Summer filing?

A. Yes. Schedule 20, the Company's hedging plan, is only included in the Summer COG filing. This is because the hedging plan is developed in February of each year. The Company proposes to submit this schedule as a supplemental filing on or before March 1.

Q. When does Northern propose to have the Annual COG filing go into effect?

A. Northern proposes that its first Annual COG filing be effective on November 1, 2016 with Winter Season COG rates for November 2016 through April 2017 and Summer Season COG rates for May 1, 2017 through October 31, 2017.

III. ANNUAL RECONCILIATION FILING

Q. Why is Northern proposing to change its COG reconciliation from a seasonal to an annual filing?

A. Northern proposes an Annual COG reconciliation filing for the same reasons it proposes an Annual COG rate filing. An Annual COG reconciliation filing is more efficient, less cumbersome and provides the same information as two seasonal filings. In addition, an

Annual COG reconciliation simplifies the recording, tracking and analysis of costs and revenues.

Q. Do any of Unitil's affiliates utilize an Annual COG reconciliation?

A. Yes, Unitil Energy Systems, Inc. and Fitchburg Gas and Electric Company both utilize an Annual COG reconciliation.

Q. How will Northern's current separate twelve-month Winter Season and Summer Season reconciliations be changed?

A. The existing two twelve-month seasonal COG reconciliation will be replaced by an Annual COG reconciliation period (November 1 – October 31). This Annual COG reconciliation will reflect actual data as well as three months of estimated data.

Q. Why will the Annual COG reconciliation period reflect three months of estimated data?

A. With Northern's current COG reconciliation methodology, there is a six month lag between the end of each seasonal reconciliation period and the inclusion of the actual seasonal COG reconciliation ending balance into the proposed COG rates. For instance, the COG reconciliation period for Northern's current Summer Season COG rates runs from November 2015 through October 2016. The Summer Season COG reconciliation ending balance on October 31, 2016 is then factored into the following Summer Season COG rates which go into effect on May 1, 2017. The Winter Season has a similar lag.

Under the Company's proposal, the Annual COG reconciliation filing will take place in mid-September. Thus, the Annual COG reconciliation period will reflect actual COG data through July 2016 with estimates for August 2016 through October 2016. The October 31, 2016 COG reconciliation ending balance would then be assigned to the upcoming Winter Season and Summer Season COG rates. By utilizing this period, Northern will be able to eliminate the lag that currently exists between the seasonal COG reconciliation ending balances and the implementation of new seasonal COG rates.

Q. Will the August to October estimates be reconciled?

A. Yes. These monthly estimates will be replaced with actual data in the following year's Annual COG reconciliation. In addition, given that these are summer months, weather should have a minimal impact on customer usage and on COG costs and revenues. I expect the Company's estimates for this period will provide reasonable approximations of actual costs and revenues.

Q. Will the Company's first Annual COG reconciliation be different from the current seasonal COG reconciliation filings?

A. Yes. The initial Annual COG reconciliation will begin in May 2015. This is because the prior Winter Season COG reconciliation period ended April 30, 2015. Therefore, the Company's first Annual COG reconciliation will run from May 2015 to October 2016.

Q. When will the Company's Annual COG reconciliation begin to reflect costs from both the Winter and Summer Seasons?

A. Since the prior Summer Season COG reconciliation ended on October 31, 2015, beginning November 1, 2015, the Annual COG reconciliation will reflect both Winter and Summer Season costs and revenues through October 31, 2016.

Q. How will Northern allocate the Annual COG reconciliation ending balance to the subsequent Winter and Summer Seasons?

A. The Annual COG reconciliation ending balance will be allocated to each season of the upcoming year based on the ratio of forecasted firm customer gas sales in each season to annual forecasted firm customer gas sales. This will result in a fixed per unit reconciliation charge or credit during the subsequent Winter and Summer Seasons.

Q. How will the schedules of the proposed Annual COG reconciliation compare to the current seasonal COG reconciliation schedules?

A. Most schedules in the Annual COG reconciliation will be the same as the current seasonal COG reconciliations. The one exception is Appendix C, a comparison of forecast vs. actual sales. It will be expanded from a six-month comparison to a twelve-month comparison.

Q. When does Northern plan to submit its Annual COG reconciliation?

A. Historically, Northern has submitted its seasonal reconciliations approximately six weeks before the submittal of the seasonal COG filing. However, due to the Annual COG reconciliation reflecting actual data through July, the reconciliation will not be available for submittal until two weeks before the Annual COG filing.

VI. TARRIF CHANGES

Q. Will the proposed change to an Annual COG filing and Annual COG reconciliation require changes to Northern's existing tariff?

A. Yes. Section 4 of Northern's tariff is being revised to reflect an Annual COG filing and Annual COG reconciliation. For the most part, tariff language pertaining to Winter and Summer Season costs will not require any changes because Northern will still require costs to be allocated to their respective periods and will continue to utilize seasonal rates. I have provided Attachment 1 which is the clean and red-line versions of the revised COG tariff language[6].

Q. Are there any additional changes being made to the Company's existing tariff?

A. Yes. After reviewing Northern's existing tariff language pertaining to its COG Clause, the Company has determined that some of the definitions of certain cost classifications and formulas do not accurately reflect how the Company will incorporate these costs into its COG rates. Thus, revised formulas and text that better describe certain cost derivations and classifications have been included in the revised tariff provisions.

V. ADDITIONAL ATTACHMENTS

Q. Are there any additional attachments provided with your testimony?

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[6] The attachment provides revised tariff pages for the COG Clause portion of the tariff with the exception the last two pages. These pages, Nos. 42 and 43, show the calculation of the currently effective COG rates and are not impacted by the proposed changes to the tariff language. Please note that in the revised tariff pages, the Company uses the term COG Factors for its COG rates.

A. Yes. I have provided two additional attachments. The first is a sample Summary Schedule that would be included in the Annual COG filing. The first four pages of the Summary Schedule are identical to the Winter Season's Summary Schedule and provide the cost summary and derivation of the Winter Season COG rates. The next four pages provide the cost summary and derivation of the Summer Season COG rates. The final two pages show the annual cost summary for the Annual COG period November 2016 through October 2017[7].

The second attachment is a sample of the Company's existing Schedule 3 submitted in its seasonal COG filing. This sample schedule shows the projected monthly cost and revenue balances to be provided in the proposed Annual COG filing. For illustrative purposes, this sample schedule reflects both the Winter Season and Summer Season COG rates over the November 2016 to October 2017 period. In addition, the sample schedule shows a minimal ending reconciliation balance for October 31, 2017[8].

Q. Does this conclude your testimony?

A. Yes it does.

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[7] The costs used in the sample Summary Schedule were partially based on the COG filing submitted for the 2015-2016 Winter Season and are included in the sample Summary Schedule for illustrative purposes.
[8] Final balance of ($34,600) is located Page 3, Line 94 under the Column entitled October.