

#### **IV. COST OF GAS CLAUSE**

##### **Section**

1. Purpose
2. Applicability
3. Cost of Firm Gas Allowable for Cost of Gas Clause (COGC)
4. Effective Date of Cost of Gas (COG) Factors
5. Definitions
6. COG Factor Calculations by Customer Classification
7. Non-Core Sales Margins (“NCSM”)
8. Gas Suppliers' Refunds – FERC Account 242
9. Annual COG Reconciliation Adjustment - Account 191
10. Bad Debt and Working Capital Reconciliation Adjustments – FERC Account 182
11. Application of COG Factors to Bills
12. Information Required to be Filed with the NHPUC
13. Other Rules
14. Reconciliation Adjustment Accounts

##### **1. Purpose**

The purpose of this clause is to establish procedures that allow the Company, subject to the jurisdiction of the New Hampshire Public Utilities Commission ("NHPUC"), to set on an annual basis seasonal firm gas supply sales rates and to adjust these rates on a monthly basis.

The firm gas supply sales rates recover the seasonal costs of gas supplies, any taxes applicable to those supplies, upstream pipeline and storage capacity costs, on-system production capacity and storage costs, miscellaneous overhead costs related to those supplies, bad debt expense associated with purchased gas costs, costs of purchased gas working capital, and any other costs approved by the NHPUC, and return the seasonal credits from supplier and pipeline refunds, non-core gas supply sales and transportation, interruptible gas supply sales and transportation, capacity assignment, capacity release, application of the Delivery-to-Sales Service Fee, and any other credits or revenue approved by the NHPUC.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

2. **Applicability**

This Cost of Gas Clause ("COGC") shall be applicable to all firm gas supply sales made by Northern, unless otherwise designated. Application of the COGC may, for good cause shown, be modified by the NHPUC. See Part IV, Section 13, "Other Rules."

3. **Cost of Firm Gas Allowable for the COGC**

All costs of firm gas supply including, but not limited to, commodity costs, taxes on commodity, demand charges, local production and storage costs, other gas supply expense incurred to procure and transport supplies, expense of the gas used in company operations, transportation fees, costs associated with buyouts of existing contracts, and bad debt expenses and purchased gas working capital may be included in the COGC. Any costs recovered through application of the COGC shall be identified and explained fully in the annual and monthly COGC filings outlined in Part IV, Section 12.

4. **Effective Date of Cost of Gas Factors**

The firm gas supply sales rates or Cost of Gas ("COG") Factors shall be seasonal and become effective upon NHPUC approval for services rendered on the first day of each season as designated by the Company. Unless otherwise notified by the NHPUC, the Company shall submit its annual COGC filing as outlined in Part IV, Section 12 of this clause at least 45 days before taking effect on November 1<sup>st</sup>. The approved seasonal COG Factors may be adjusted by the Company on a monthly basis without further action by the NHPUC and shall become effective on the first day of the subsequent month. See Part IV, Section 13.

5. **Definitions**

The following terms shall be defined in this Section IV, unless the context requires otherwise.

- (1) **Bad Debt Expense** - The uncollectable expense attributed to the portion of the Company's charges associated with its gas costs.
- (2) **Capacity Assignment Revenue** – The revenue received from Suppliers for the mandatory assignment of capacity pursuant to the Company's Delivery Service

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

## Terms and Conditions.

- (3) **Capacity Release Revenue** - The revenue derived from the sale of upstream capacity, including the revenues resulting from the elective, short-term assignment of capacity.
- (4) **Carrying Charges** - Interest expense calculated on the average monthly COG reconciliation balance and added to the end of month COG reconciliation balance. The interest rate is to be adjusted each quarter using the prime interest rate as reported by the Wall Street Journal on the first date of the month preceding the first month of the quarter.
- (5) **Direct Gas Costs** - All purchased gas costs including supplier, storage and pipeline demand and commodity costs, as well as the commodity costs for production and storage gas (LP-air and LNG).
- (6) **Firm Sales Service Re-Entry Fee Revenues** The revenues resulting from billing certain customers who switched from firm transportation service to firm sales service after June 30, 2006.
- (7) **Indirect Gas Costs** – Bad Debt Expense, Working Capital Carrying Charges, COG reconciliation balances, miscellaneous overhead costs, supplier and pipeline refunds, and local production and storage capacity costs.
- (8) **Interruptible Sales Margins** - The Economic Benefit derived from the interruptible sale of gas downstream of the Company's distribution system.
- (9) **Inventory Finance Charges** - As billed in each Winter Season for annual charges. The amount shall represent an accumulation of the projected charges as calculated using the monthly average of financed inventory at the Company's average short-term cost of borrowing for the month, or some other finance vehicle subject to the approval of the NHPUC.
- (10) **Modified PR Allocator** - The percentage allocated for the portion of annual capacity charges assigned to the Company's New Hampshire and Maine divisions calculated in each annual COGC filing using the Modified Proportional Responsibility ("PR") Method. The allocation percentages for Northern's New Hampshire and Maine divisions reflect the approval of the Modified PR Allocator by the NHPUC and Maine PUC in NHPUC Docket 05-080 and in

Issued By: 

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

MPUC Docket Nos. 2005-87 and 2005-273, respectively.

- Issued: September 14, 2016

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

- (22) **Winter Season** – The months November through April.
- (23) **Working Capital Carrying Charge Rate**- the monthly prime interest rate, as reported by the Wall Street Journal on the first date of the month preceding the first month of the quarter.

#### 6. **COG Factor Calculations by Customer Classification**

##### 6.1 **Approved Cost Amounts**

The COG Factor calculations include costs and amounts periodically established by the NHPUC. The table below lists approved costs and amounts:

<b><u>VARIABLE</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>CURRENTLY APPROVED AMOUNTS</u></b>
MISC	Miscellaneous Overhead Costs	\$512,686
PS	Production and Storage Capacity Costs	\$420,658
WCA%	Working Capital Allowance Percentage	9.25 supply related net lag days / 365 days x WCCCR

**Where:** WCCCR=Working Capital Carrying Charge Rate

##### 6.2 **COG Factor Formulas**

The COG Factor Formulas shall be computed on an annual basis for the Company's three (3) groups of customer classes as shown in the table below. The computations will use forecasts of seasonal gas costs, carrying charges, sendout volumes, credits and sales volumes. Forecasts may be based on either historical data or Company projections, but must be weather-normalized. Any projections must be documented in full with each filing.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

GROUP	CUSTOMER CLASSES
Residential	R-5, R-6, R-10 and R-11
Commercial and Industrial: Low Winter	G-50, G-51 and G-52
Commercial and Industrial: High Winter	G-40, G-41 and G-42

COG Factors will be calculated on a seasonal basis. The Winter Season COG Factors will be effective November 1<sup>st</sup> and Summer Season COG Factors will be effective on May 1<sup>st</sup>.

The seasonal COG Factors for the Residential rate classes shall represent the total system average unit cost of gas for meeting firm sales load projected in each COG season. The seasonal COG Factors for the Commercial and Industrial (“C&I”) Low Winter and High Winter classes shall be derived by using the load factor based SMBA method of allocating gas costs as defined in Part IV, Section 5, and shall include other costs and credits allowed by the NHPUC.

##### **6.3 Winter Season COG Factors**

Winter Season COG costs (COGw) shall be comprised of Winter Season direct costs of gas (DCOGw) which include Winter Season direct demand costs (DDw) and Winter Season commodity costs (Cw), and Winter Season indirect costs (ICOGw) including Winter Season COG reconciliation gas costs (Rw), Winter Season working capital costs (WCw), Winter Season bad debt costs (BDw), production and storage capacity costs (PS), Winter Season miscellaneous overhead costs (MISC) and any supplier refunds allocated to the Winter Season (SRw) according to the following formulas:

$$\text{COGw} = \text{DCOGw} + \text{ICOGw}$$

#### **Winter Direct Cost of Gas (DCOGw) and Indirect Cost of Gas (ICOGw) Formulas**

$$\text{DCOGw} = \text{DDw} + \text{Cw}$$

**and:**

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

$$DDw = DEMw - NCDRw - CARw$$

**and:**

$$ICOGw = \_Rw + BDw + WCw + PS + MISC * (W:Sales / A:Sales) + SRw$$

**Where:**

A:Sales	Forecasted annual firm gas supply sales volumes.
BDw	Bad debt expense allocated to the Winter Season.
CARw	Capacity assignment revenues, pursuant to the capacity assignment provisions in the Company's Delivery Service Terms and Conditions, allocated to the Winter Season.
Cw	Commodity gas costs allowable for the Winter Season.
COGw	Total cost of gas for the Winter Season to serve the Company's firm sales customer classes previously defined.
DDw	Direct demand costs allowable for the Winter Season
DCOGw	Direct gas costs allowable for the Winter Season.
DEMw	Demand costs allocated to the Winter Season defined in Part IV, Section 5.
ICOGw	Indirect gas costs allowable for the Winter Season.
MISC	The amount of gas costs associated with acquisition, dispatching, Administrative and General expenses, and miscellaneous overhead costs as determined in the Company's most recent base rate proceeding. Refer to Part IV, Section 6.1 for this amount.
NCDRw	Winter Season returnable capacity release revenues and return to sales service revenues.
PS	The amount of costs associated with production and storage capacity, as determined in the Company's most recent rate proceeding, less any production and storage capacity assignment revenues. Refer to Part IV, Section 6.1 for this amount.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

Rw	Annual reconciliation costs allocated to Winter Season from the Account 191 balance, inclusive of the associated Account 191 interest, as outlined in Part IV, Section 9.
SRw	Supplier demand and commodity related refunds assigned to the Winter Season associated with refund program credits derived from Account 242, "Undistributed Gas Suppliers' Refunds." See Part IV, Section 8.
WCw	Working capital carrying charges allocated to the Winter Season as defined in Part IV, Section 10.
W:Sales	Forecasted Winter Season firm gas supply sales volumes.

#### **Winter Commodity Cost (Cw) Formula**

$$Cw = WSC - NCCRw + FC$$

#### **Where:**

FC	Annual inventory finance charges as defined in Part IV, Section 5.
NCCRw	Non-core commodity gas revenues incurred in the Winter Season as defined in Part IV, Section 5.
WSC	Commodity gas costs associated with gas supply dispatched to firm gas supply sales customers in the Winter Season.

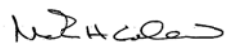
#### **Winter Working Capital Carrying Charges (WCw) Formula**

$$WCw = (DCOGw) \times WCAw \% + Rwcw$$

#### **Where:**

WCAw %	Working capital allowance percentage associated with Winter Season gas costs. See Part IV, Section 6.1.
Rwcw	Working capital allowance reconciliation adjustment associated with Winter Season gas costs Account 182 balance, as outlined in Part IV, Section 10.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016



Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

groups: Rates G-50, G-51 and G-52 which are High Load Factor or Low Winter Use and Rates G-40, G-41 and G-42 which are Low Load Factor or High Winter Use. In addition, the C&I COG Factors will include a rate adjustment that allocates any difference between the Residential average cost of gas and the Residential COG Factor using the SMBA method. This difference is then added to the C&I firm sales customer classes COG Factors. Both C&I firm sales customer classes as well as the Residential customer class pay the Winter Season system average cost for indirect gas costs.

The formulas below pertain to Low Load Factor or High Winter Use C&I firm sales customers. The formulas determining COG Factors for High Load Factor or Low Winter Use C&I firm sales customers are not presented but are identical except for the subscripts: For High Load Factor or Low Winter Use C&I firm sales customers, all variables with a “wh” designation are replaced with a “wl” designation.

$$\text{COGFACTOR}_{\text{wh}} = \text{DCOG}_{\text{wh}} + \text{ICOG}_{\text{wh}}$$

**and**

$$\text{DCOG}_{\text{wh}} = \text{AD}_{\text{wh}} + \text{AC}_{\text{wh}}$$

**and**

$$\text{AD}_{\text{wh}} = \frac{\text{DD}_{\text{wh}} + \text{RRAD}_{\text{wh}}}{\text{WH:Sales}}$$

**and**

$$\text{AC}_{\text{wh}} = \frac{\text{C}_{\text{wh}} + \text{RRAC}_{\text{wh}}}{\text{WH:Sales}}$$

**and**

$$\text{ICOG}_{\text{wh}} = \text{ICOG}_{\text{w}}/\text{W:Sales}$$

**and**

$$\text{RRAD}_{\text{wh}} = (\text{RDSMBA} - \text{RDAVG}) * \text{D}_{\text{wh}}\%$$

**and**

$$\text{RRAC}_{\text{wh}} = (\text{RCSMBA} - \text{RCAVG}) * \text{C}_{\text{wh}}\%$$

**Where:**

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

ACwh	Per unit Winter Season adjusted commodity costs associated with the High Winter Use C&I firm sales customers.
ADwh	Per unit Winter Season adjusted direct demand costs allocated to the High Winter Use C&I firm sales customers.
COGFACTORwh	Per unit Winter Season COG Factor for G-40, G-41 and G-42 C&I rate classes.
Cwh	Winter Season commodity costs associated with the High Winter Use C&I firm sales customers.
Cwh%	Percent of C&I Winter Season commodity gas costs allocated to High Winter Use C&I firm sales customers.
DOCGwh	Per unit direct cost of gas for the Winter Season for High Winter Use C&I firm sales customers.
DDwh	Winter Season direct demand costs allocated to the High Winter Use C&I firm sales customer classes.
Dwh%	Percent of C&I Winter Season demand costs allocated to High Winter Use firm sales C&I firm sales customers.
ICOGw	As previously defined above.
ICOGwh	Per unit indirect cost of gas for the Winter Season for High Winter Use C&I firm sales customers.
RRADwh	Residential reallocation adjustment for Winter Season demand costs to High Winter Use C&I firm sales customers.
RRACwh	Residential reallocation adjustment for Winter Season commodity costs to High Winter Use C&I firm sales customers.
RDSMBA	Residential demand costs per the SMBA methodology.
RCSMBA	Residential commodity costs per the SMBA methodology.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

RDAVG	Demand cost per average Residential rate.
RCAVG	Commodity cost per average Residential rate.
WH:Sales	Winter Season forecasted C&I High Winter Use firm sales volumes.

Summer Season COG costs (COGs) shall be comprised of Summer Season direct costs of gas (DCOGs) which include Summer Season direct demand costs (DDs) and Summer Season commodity costs (Cs), and Summer Season indirect costs (IGOCs) including Summer Season reconciliation gas costs (Rs), Summer Season working capital costs (WCs), Summer Season bad debt costs (BDs), Summer Season miscellaneous overhead costs (MISC) and any supplier refunds allocated to the Summer Season (SRs) according to the following formulas:

### **Summer Direct Cost of Gas (DCOGs) and Indirect Cost of Gas (ICOGs) Formulas**

$$\text{ICOGs} = \text{Rs} + \text{BDs} + \text{WCs} + \text{MISC} * (\text{S:Sales} / \text{A:Sales}) + \text{SRs}$$

A:Sales	Forecasted annual firm gas supply sales volumes.
BDs	Bad debt expense allocated to the Summer Season.
Cs	Commodity gas costs allowable for the Summer Season.
COGs	The total cost of gas for the Summer Season to serve the Company's firm sales customer classes previously defined.
DDs	Direct demand costs allowable for the Summer Season.
DCOGs	Direct gas costs allowable for the Summer Season.

Issued By: WZHC

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

ICOGs	Indirect gas costs allowable for the Summer Season.
MISC	The amount of gas costs associated with acquisition, dispatching, Administrative and General expenses, and miscellaneous overhead costs as determined in the Company's most recent base rate proceeding. Refer to Part IV, Section 6.1 for this amount.
Rs	Annual reconciliation costs allocated to the Summer Season from the Account 191 balance, inclusive of the associated Account 191 interest, as outlined in Part IV, Section 9.
SRs	Supplier demand and commodity related refunds assigned to the Summer Season associated with refund program credits derived from Account 242, "Undistributed Gas Suppliers' Refunds." See Part IV, Section 8.
S:Sales	Forecasted Summer Season firm gas supply sales volumes.
WCs	Working capital carrying charges allocated to the Summer Season as defined in Part IV, Section 10.

#### **Summer Commodity Cost (Cs) Formula**

$$Cs = SSC - NCCRs$$

**Where:**

NCCRs	Non-core commodity gas revenues incurred in the Summer Season as defined in Part IV, Section 5.
SSC	Commodity gas cost charges associated with gas supply dispatched to firm gas supply sales customers in the summer season.

#### **Summer Working Capital Carrying Charges (WCs) Formula**

$$WCs = DCOGs \times WCAs\% + Rwcs$$

**Where:**

WCAs%	Working capital allowance percentage associated with Summer Season gas costs. Refer to Part IV, Section 6.1.
-------	--

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

Rwcs Working capital allowance reconciliation adjustment associated with the Summer Season gas costs, Account 182 balance, as outlined in Part IV, Section 10.

#### **Summer Bad Debt (BDs) Formula**

$$BDs = EBDs + Rbds$$

**Where:**

EBDs Estimated bad debt expense for the Summer Season.

Rbds Bad debt expense reconciliation adjustment assigned to the Summer Season.

#### **Summer Supplier Refund (SRw) Formula**

$$SRs = (SRD + SRC) * (S:Sales / A:Sales)$$

**Where:**

SRD Annualized supplier refund for demand related charges

SRC Annualized supplier refund for commodity related charges

#### **Residential COG Factor Summer Season (COGFACTORsr)**

All Residential firm sales customers will pay the same COG Factor for the Summer Season. This COG Factor represents the total forecasted Summer Season average cost of gas rate. This factor is calculated according to the following formula:

$$COGFACTORsr = \frac{COGs}{S:Sales}$$

**Where:**

COGFACTORsr = Per unit Residential customer Summer Season COG Factor

#### **Commercial and Industrial (C&I) Summer Season COG Factors**

The C&I firm sales Summer Season COG Factors will be based on the SMBA method of

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

allocating direct gas costs to each of the two C&I load factor based customer groups: Rates G-50, G-51 and G-52 which are High Load Factor or Low Winter Use and Rates G-40, G-41 and G-42 which are Low Load Factor or High Winter Use. In addition, the C&I COG Factors will include a rate adjustment that allocates any difference between the Residential average cost of gas and the Residential COG Factor using the SMBA method. This difference is then added to the C&I firm sales customer classes COG Factors. Both C&I firm sales customer classes as well as the Residential customer classes pay the Summer Season system average cost for indirect costs.

The formulas below pertain to Low Load Factor or High Winter Use C&I firm sales customers. The formulas determining COG Factors for High Load Factor or Low Winter Use C&I firm sales customers are not presented but are identical except for the subscripts: For High Load Factor or Low Winter Use C&I firm sales customers, all variables with a “sh” designation would be replaced with a “sl” designation.

$$\text{COGFACTOR}_{\text{sh}} = \text{DCOG}_{\text{sh}} + \text{ICOG}_{\text{sh}}$$

**and**

$$\text{DCOG}_{\text{sh}} = \text{AD}_{\text{sh}} + \text{AC}_{\text{sh}}$$

**and**

$$\text{AD}_{\text{sh}} = \frac{\text{DD}_{\text{sh}} + \text{RRAD}_{\text{sh}}}{\text{SH:Sales}}$$

**and**

$$\text{AC}_{\text{sh}} = \frac{\text{C}_{\text{sh}} + \text{RRAC}_{\text{sh}}}{\text{SH:Sales}}$$

**and**

$$\text{ICOG}_{\text{sh}} = \text{ICOGs/S:Sales}$$

**and**

$$\text{RRAD}_{\text{sh}} = (\text{RDSMBA} - \text{RDAVG}) * \text{D}_{\text{sh}}\%$$

**and**

$$\text{RRAC}_{\text{sh}} = (\text{RCSMBA} - \text{RCAVG}) * \text{C}_{\text{sh}}\%$$

**Where:**

AC<sub>sh</sub>            Per unit Summer Season adjusted commodity costs associated with the High Winter Use C&I firm sales customers.

AD<sub>sh</sub>            Per unit Summer Season adjusted direct demand costs allocated to the High Winter Use C&I firm sales customers.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

COGFACTORsh	Per unit Summer Season COG Factor for G-40, G-41 and G-42 C&I rate classes.
Csh	Summer Season commodity costs associated with the High Winter Use C&I firm sales customers.
Csh%	Percent of C&I Summer Season commodity gas costs allocated to High Winter Use C&I firm sales customers.
DDsh	Summer Season direct demand costs allocated to the High Winter Use C&I firm sales customer classes.
DOCGsh	Per unit direct cost of gas for the Summer Season for High Winter Use C&I firm sales customers.
Dsh%	Percent of C&I Summer Season demand costs allocated to High Winter Use C&I firm sales customers
ICOGs	As previously defined above.
ICOGsh	Per unit indirect cost of gas for the Summer Season for High Winter Use C&I firm sales customers.
RRADsh	Residential reallocation adjustment for Summer Season demand costs to High Winter Use C&I firm sales customers.
RRACsh	Residential reallocation adjustment for Summer Season commodity costs to High Winter Use C&I firm sales customers.
RDSMBA	Residential demand costs per the SMBA methodology.
RCSMBA	Residential commodity costs per the SMBA methodology.
RDAVG	Demand cost per average Residential rate
RCAVG	Commodity cost per average Residential rate
SH:Sales	Summer Season forecasted C&I High Winter Use firm sales volumes.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016



#### **IV. COST OF GAS CLAUSE**

7. **Non-Core Sales Demand and Commodity Revenues**

One hundred percent (100%) of revenues from Interruptible Sales, Off-System Sales, and Capacity Release will be credited to firm sales customers through operation of the COGC.

8. **Gas Suppliers' Refunds – FERC Account 242**

Refunds from upstream capacity suppliers and suppliers of product demand are credited to Account 242, "Undistributed Purchased Capacity/Product Demand Refunds." Refunds from suppliers of gas are credited to account 242, "Commodity Undistributed Gas Suppliers' Refunds." Transfers from these accounts will be reflected as a credit in the annual calculation of the seasonal COG Factors to be calculated as follows:

Refund programs shall be initiated with each annual COG filing and shall remain in effect for a period of one year. The amount to be placed into a given refund program shall be net of over/under-balances from expired refund programs plus refunds received from suppliers since the previous program was initiated. Refunds shall be segregated by demand and commodity and distributed volumetrically, producing a per unit refund that will return the principal amount with interest applied to the average of the beginning and end of month balances of refunds. The interest rate is to be adjusted each quarter using the prime interest rate as reported by the Wall Street Journal on the first date of the month preceding the first month of the quarter. The Company shall track and report on all Account 242 activities as specified in Part IV, Section 12.

9. **Annual COG Reconciliation Adjustment – FERC Account 191**

(1) The following **definitions** pertain to the annual COG reconciliation adjustment:

a. **Capacity Costs Allowable** shall be:

- i. Charges associated with upstream storage and transmission capacity and product demand procured by the Company to serve firm gas supply sales service.
- ii. Charges associated with peaking, downstream production and storage capacity to serve firm gas supply sales load, dispatching costs, and other administrative and general expenses in connection with purchasing gas

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

supplies allocated to firm gas supply sales services in the respective season. These expenses are from the test year of the Company's most recent base rate proceeding, and are provided in Part IV, Section 6.1.

- iii. Non-Core Sales Margins or Economic Benefits associated with returnable capacity release, off-system sales and interruptible sales margins allocated to the firm gas supply sales service.
- iv. Credits associated with daily imbalance charges and the fixed component of penalty charges billed Delivery Service, as well as revenues associated with: (a) mandatory assignment of capacity to meet the requirements of firm transportation customers (non-grandfathered customers); (b) the billing of the Capacity Reservation Charge; and (c) the billing of the Delivery-to-Sales Service Fee to firm customers switching from transportation to firm gas supply sales service.
- v. Capacity Cost Carrying Charges.

**b. Commodity Gas Costs Allowable shall be:**

- i. Commodity Charges associated with gas supplies, including any applicable taxes, purchased by the Company to serve firm gas supply sales service.
- ii. Credit for non-core commodity costs assigned to non-core customers to which the COGC does not apply, as defined in Part IV, Section 6.3 (NCCCw and NCCCs), as well as the commodity costs of all supplies nominated by third party Suppliers associated with the assignment of Company-Managed resources, as defined in the Company's Delivery Service Terms and Conditions.
- iii. Inventory finance charges.
- iv. Commodity Cost Carrying Charges.

- (2) Allocation of the annual COG Reconciliation Adjustment to the Summer Season (Rs) and Winter Season (Rw).

Account 191 contains the accumulated difference between actual COG Factor revenues and the actual monthly COG Factor costs incurred by the Company

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

including Carrying Charges. The allocation of the annual COG reconciliation ending balance to the Winter and Summer Seasons is derived by multiplying the ratio of each season's firm gas supply sales service to annual firm gas supply sales service by the annual COG reconciliation ending balance.

Carrying Charges shall be calculated on the average monthly balance of each subaccount. The interest rate is to be adjusted each quarter using the prime interest rate as reported by the Wall Street Journal on the first date of the month preceding the first month of the quarter.

The annual COG Reconciliation filing shall coincide with the next annual COG filing each year.

#### **10. Bad Debt and Working Capital Reconciliation Adjustments – FERC Account 182**

(1) The following **definitions** pertain to Working Capital and Bad Debt reconciliation adjustment calculations:

a. **Working Capital Costs Allowable** shall be:

- i. Charges associated with gas supplies, upstream storage, transmission capacity, and product demand procured by the Company, as well as applicable taxes, to serve firm gas supply sales customers in the respective season. The annual working capital accumulated difference is then multiplied by the ratio of each season's firm gas supply sales to annual firm gas supply sales in order to derive the seasonal working capital reconciliation amount.
- ii. Non-core commodity costs associated with non-core sales in the respective season to which the COG Factor is not applied, as defined in Part IV, Section 5.
- iii. Carrying charges.

b. **Bad Debt Costs Allowable** shall be:

Costs associated with uncollected gas costs, incurred by the Company to serve sales load in the Winter and Summer Seasons. Such costs represent the bad debt expense related to the gas supply related write-off of sales

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

customers. The annual bad debt expense accumulated difference is then multiplied by the ratio of each season's firm gas supply sales to annual firm gas supply sales in order to derive the seasonal bad debt reconciliation amount.

2) Calculation of the Working Capital and Bad Debt Reconciliation Adjustments

- A Account 182 contains the accumulated difference between actual working capital allowance revenues and the actual monthly working capital allowance costs. The actual monthly working capital allowance costs shall be calculated by multiplying the actual gas costs times the Working Capital Allowance Percentage (WCA%) set forth in Part IV, Section 6.1, to the actual Direct Gas Costs allowable.
- b. Account 182 contains the accumulated difference between actual monthly bad debt allowance revenues and the actual monthly bad debt expense. Bad debt revenues are based on the Company's annual forecast of gas supply related write-offs and allocated to each respective season based on the portion of historical bad debt activity occurring in each season.

11. Application of COG Factors to Bills

The Company will charge the COG Factors as follows: The COG Factors (\$/therm) for each customer group for each season shall be calculated to the nearest hundredth of a cent per unit and will be applied to each firm gas supply customer's monthly usage volume within the corresponding customer classification. The COG Factors will be applicable to gas used on or after the first day of the month in which the COG Factors become effective.

12. Information Required to be Filed with the NHPUC

Information pertaining to the COGC shall be filed with the NHPUC in accordance with the format established by the NHPUC. Reporting requirements include filing the Company's annual COG filing with seasonal COG Factors and its monthly calculations of the projected over or under-collection of the COG reconciliation ending balance, along with notification by the Company to the NHPUC of any revised COG Factors for the subsequent month, not less than five (5) business days prior to the first day of the subsequent month.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

Additionally, the Company shall file with the NHPUC an annual reconciliation of gas costs and gas cost collections containing information in support of the reconciliation calculation set out in Part IV, Section 9 (2). Such information shall include the complete list of gas costs claimed as recoverable through the COGC over the previous year. This annual COG reconciliation shall be submitted with each annual COG filing, along with complete documentation of the COG reconciliation adjustment calculations.

The Company shall file with the NHPUC an annual reconciliation of bad debt expense and bad debt collections containing information in support of the reconciliation calculation set out in Part IV, Section 10 (2). Such information shall detail the revenues collected as an allowance for bad debt as well as the per books actual gas cost bad debt expense claimed as recoverable through the COGC over the previous year. This annual reconciliation of bad debt expenses shall be included with the respective annual COG reconciliation filing, along with supporting documentation.

The Company shall file with the NHPUC an annual reconciliation of gas supply related working capital expense and working capital collections containing information in support of the reconciliation calculation set out in Part IV, Section 10 (2). Such information shall detail the revenues collected as an allowance for gas supply related working capital as well as the per books actual gas supply related working capital expense claimed as recoverable through the COGC over the previous year. This annual reconciliation of gas supply related working capital expense shall be included with the respective annual COG reconciliation filing, along with supporting documentation.

13. **Other Rules**

- (1) The NHPUC may, where appropriate, on petition or on its own motion, grant an exception from the provisions of this Section IV, upon such terms that it may determine to be in the public interest.
- (2) The Company may, without further NHPUC action, adjust the approved seasonal COG Factors upward or downward monthly based on the Company's calculation of the projected COG reconciliation ending balance over or under-collection for the applicable Summer or Winter Season, but the cumulative upward adjustments shall not exceed twenty-five (25) percent of the approved seasonal COG Factors.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

#### **IV. COST OF GAS CLAUSE**

- (3) The Company may, at any time, file with the NHPUC an amended COGC. An amended COGC filing must be submitted 45 days before the first day of the month in which it is proposed to take effect.
- (4) The operation of the COGC is subject all powers of suspension and investigation vested in the NHPUC.

#### **14. Reconciliation Adjustment of FERC Accounts**

191 Annual Gas Cost Reconciliation Adjustment for COGC

This account shall be used to record the cumulative difference between annual gas revenues and annual gas costs. Entries to this account shall be determined as outlined in the COGC.

182 Annual Bad Debt Reconciliation Adjustment for COGC

This account shall be used to record the cumulative difference between annual bad debt revenues and annual bad debt costs. Entries to this account shall be determined as outlined in the COGC.

182 Annual Gas Working Capital Allowance Reconciliation Adjustment for COGC

This account shall be used to record the cumulative difference between annual gas working capital allowance revenues and the annual gas working capital allowance. Entries to this account shall be determined as outlined in the COGC.

242 Undistributed Purchase Capacity/Product Demand Refunds

This account shall be used to record the refunds from upstream capacity suppliers and suppliers of product demand and the transfer of credits in the annual calculation of the seasonal COG Factors. Entries to this account shall be determined as outlined in the COGC.

242 Undistributed Commodity Gas Supplier Refunds.

This account shall be used to record the refunds from upstream commodity supplies and suppliers of product commodity and the transfers of credits in the annual calculation of the seasonal COG Factors. Entries to this account shall be determined as outlined in the COGC.

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

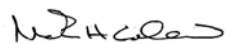
Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

**IV. COST OF GAS CLAUSE**

CANCELED

RESERVED FOR FUTURE USE

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

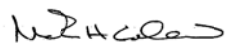
Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016

**IV. COST OF GAS CLAUSE**

CANCELED

RESERVED FOR FUTURE USE

Issued: September 14, 2016

Issued By: 

Effective: November 1, 2016

Title: Senior Vice President

Authorized by NHPUC Order No. 25,940 in Docket No. DG 16-564, dated August 25, 2016