Tariff Pages

IV. COST OF GAS CLAUSE

Section

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 allowed 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 allowed by the NHPUC.

2. Applicability

IV. COST OF GAS CLAUSE

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 1st. 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 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

IV. COST OF GAS CLAUSE

reconciliation balance using the monthly prime lending rate, as reported by the NHPUC on its website, and then added to the end of month COG reconciliation balance.

(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) **Economic Benefit** - The difference between the revenues received and the marginal cost determined to serve non-firm customers.

(7) **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.

(8) **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.

(9) **Interruptible Sales Margins** - The Economic Benefit derived from the interruptible sale of gas downstream of the Company's distribution system.

(10) **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.

(11) **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 MPUC Docket Nos. 2005-87 and 2005-273, respectively.

(12) **Non-Core Commodity Costs** - The commodity cost of gas assigned to non-core sales to which the COG Factor is not applied. Non-core sales include sales made under interruptible contracts, non-core contracts and off-system sales contracts.

(13) **Non-Core Sales Margins** - The Economic Benefit derived from non-core transactions to which the COG Factor is not applied, including interruptible sales and other non-core sales generated from the use of the Company's gas supply

IV. COST OF GAS CLAUSE

resource portfolio.

(14) **Off-System Sales Margin** - The Economic Benefit derived from the non-firm sales of natural gas supplies upstream of Company's distribution system.

(15) **Production and Storage Capacity Costs** - The costs of providing local, on-system storage service from the Company's storage facilities (i.e., LNG and LPG) as determined in the Company's most recent base rate proceeding.

(16) **Purchased Gas Working Capital** - The allowable working capital derived from Winter and Summer Season demand and commodity related costs.

(17) **Simplified Market Based Allocation (SMBA) method** – Used in determining the allocation of gas costs among the Company's High and Low load factor Commercial and Industrial Customer Classifications.

(18) **Summer Commodity** - The gas supplies procured by the Company to serve firm sales load in the Summer Season.

(19) **Summer Demand** - The gas supply demand and transmission capacity procured by the Company to serve firm sales load in the Summer Season.

(20) **Summer Season** – The months May through October.

(21) **Winter Commodity** - The gas supplies procured by the Company to serve firm sales load in the Winter Season.

(22) **Winter Demand** – The gas supply demand, peaking demands, storage and transmission capacity procured by the Company to serve firm sales load in the Winter Season.

(23) **Winter Season** – The months November through April.

(24) **Working Capital Carrying Charge Rate**- the monthly prime lending rate, as reported by the NHPUC on its website.

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:

IV. COST OF GAS CLAUSE

VARIABLE	**DESCRIPTION**	**CURRENTLY APPROVED AMOUNTS**
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.

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 1st and Summer Season COG Factors will be effective on May 1st.

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

IV. COST OF GAS CLAUSE

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:

COGw = DCOGw + ICOGw

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

DCOGw = DDw + Cw

and:

DDw = DEMw – NCSMw – 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.

IV. COST OF GAS CLAUSE

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.
NCSMw	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.
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

IV. COST OF GAS CLAUSE

$$Cw = WSC - NCCCw + FC$$

Where:

FC	Annual inventory finance charges as defined in Part IV, Section 5.
NCCCw	Non-core commodity gas costs 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.

Winter Bad Debt Cost (BDw) Formula

$$BDw = EBDw + Rbdw$$

Where:

EBDw	Estimated bad debt expense for the Winter Season.
Rbdw	Bad debt expense reconciliation adjustment assigned to the Winter Season, as outlined in Part IV, Section 10.

Winter Supplier Refund (SRw) Formula

$$SRw= (SRD + SRC)*(W{:}Sales / A{:}Sales)$$

IV. COST OF GAS CLAUSE

Where:

SRD Annualized supplier refund for demand related charges

SRC Annualized supplier refund for commodity related charges

Residential COG Factor Winter Season (COGFACTORwr)

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

$$COGFACTORwr = \frac{COGw}{W{:}Sales}$$

Where:

COGFACTORwr Per unit Residential customer Winter Season COG Factor.

Commercial and Industrial (C&I) Winter Season COG Factors

The C&I firm sales customer's Winter Season COG Factors will be based on the SMBA method of allocating direct gas costs to each of the two C&I firm sales 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 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.

$$COGFACTORwh = DCOGwh + ICOGwh$$

IV. COST OF GAS CLAUSE

and

$$DCOGwh = ADwh + ACwh$$

and

$$ADwh = \frac{DDwh + RRADwh}{WH:Sales}$$

and

$$ACwh = \frac{Cwh + RRACwh}{WH:Sales}$$

and

$$ICOGwh = ICOGw/W:Sales$$

and

$$RRADwh = (RDSMBA – RDAVG)*Dwh\%$$

and

$$RRACwh = (RCSMBA – RCAVG)*Cwh\%$$

Where:

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.

IV. COST OF GAS CLAUSE

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.
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.

6.4 Summer Season COG Factors

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:

COGs= DCOGs + ICOGs

IV. COST OF GAS CLAUSE

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

DCOGs = DDs + Cs

And:

ICOGs = Rs + BDs + WCs + MISC * (S:Sales / A:Sales) + SRs

Where:

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.
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.

IV. COST OF GAS CLAUSE

Summer Commodity Cost (Cs) Formula

Cs = SSC - NCCCs

Where:

NCCCs Non-core commodity gas costs 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 × WCAs% + Rwcs

Where:

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

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:

IV. COST OF GAS CLAUSE

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. This COG Factor is calculated according to the following formula:

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

Where:

COGFACTORsr = Per unit Residential customer Summer Season COG Factor

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

The C&I firm sales customer's Summer Season COG Factors will be based on the SMBA method of allocating direct gas costs to each of the two C&I firm sales 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 class 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.

COGFACTORsh = DCOGsh + ICOGsh

and

DCOGsh =ADsh + ACsh

IV. COST OF GAS CLAUSE

and

$$ADsh = \frac{DDSh + RRADsh}{SH{:}Sales}$$

and

$$ACsh = \frac{Csh + RRACsh}{SH{:}Sales}$$

and

ICOGsh = ICOGs/S:Sales

and

RRADsh = (RDSMBA – RDAVG)*Dsh%

and

RRACsh = (RCSMBA – RCAVG)*Csh%

Where:

ACsh — Per unit Summer Season adjusted commodity costs associated with the High Winter Use C&I firm sales customers.

ADsh — Per unit Summer Season adjusted direct demand costs allocated to the High Winter Use C&I firm sales customers.

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.

IV. COST OF GAS CLAUSE

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.

7. Non-Core Sales Margins ("NCSM")

One hundred percent (100%) of the Economic Benefit or margins from Interruptible Sales and Off-System Sales, and all revenues from 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

IV. COST OF GAS CLAUSE

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, as calculated using the quarterly prime lending rate, as posted each quarter on the NHPUC's website, to the average of the beginning and end of month balances of refunds. 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 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

IV. COST OF GAS CLAUSE

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 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 posted on the NHPUC website.

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

10. <u>Bad Debt and Working Capital Reconciliation Adjustments – FERC Account 182</u>

(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

IV. COST OF GAS CLAUSE

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:

Charges associated with write-offs of gas supplies, including any applicable taxes, procured by the Company to serve firm gas supply sales customers in the respective season. 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. <u>Application of COG Factors to Bills</u>

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

IV. COST OF GAS CLAUSE

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.

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

IV. COST OF GAS CLAUSE

(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.

(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

IV. COST OF GAS CLAUSE

the annual calculation of the seasonal COG Factors. Entries to this account shall be determined as outlined in the COCG.

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.

IV. COST OF GAS CLAUSE

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IV. COST OF GAS CLAUSE

Section

1. Purpose

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

The~~its~~ firm gas ~~sales and standby gas~~ supply sales rates ~~in order to~~ recover the seasonal costs of gas supplies, ~~along with~~ 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, ~~and the~~ costs of purchased gas working capital, and any other costs allowed by the NHPUC, and ~~to~~ return~~flect~~ the seasonal ~~variation in the cost of gas, and to~~ credits ~~to firm ratepayers~~ from~~all~~ supplier and pipeline refunds, ~~and capacity credits from~~ non-core gas supply sales and transportation, interruptible gas supply sales and transportation, ~~revenues from~~ capacity assignment, capacity release, ~~revenues, revenues~~

IV. COST OF GAS CLAUSE

~~from the application of the Capacity Reserve Charge~~ ~~and any revenues from the~~ application of the Delivery-to-Sales Service Fee,~~.~~ and any other credits or revenue allowed by the NHPUC.

2. Applicability

This Cost of Gas Clause ("COGC") shall be applicable to ~~Northern and~~ all firm gas supply sales made by Northern, unless otherwise designated. ~~The~~ Aapplication ~~t~~of the COGC~~clause~~ 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 ~~semiannual~~ annual and monthly~~summer and winter~~ COGC~~rate~~ filings outlined in Part IV, Section 12.

4. Effective Date of Cost of Gas Factors

The ~~seasonal~~ firm gas supply sales rates or Cost of Gas ("COG") F~~f~~actors ~~("COG")~~ 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~~s~~ as outlined in Part IV, Section 12 of this clause at least 45 days before ~~they are to~~ taking~~e~~ effect~~.~~ on November 1st. The approved seasonal COG Factors may be ~~revised~~adjusted by the Company on a monthly basis ~~as prescribed~~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 S~~s~~ection IV, unless the context requires otherwise.

(1) **Bad Debt Expense** - The uncollectable expense attributed to the portion of the

IV. COST OF GAS CLAUSE

Company's charges associated with its gas costs.

(2) **Capacity Assignment Revenues** – The revenues received from Suppliers for the mandatory assignment of capacity pursuant to the Company's Delivery Service Terms and Conditions.

(3) **Capacity Release Revenues** - The ~~economic benefit~~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 using the monthly prime lending rate, as reported by the ~~Federal Reserve Statistical Release of Selected Interest Rates~~NHPUC on its website, and then added to the end of month COG reconciliation balance.

~~(6)~~ ~~**Correction Factor** – Seasonal Adjustment necessary to align the peak day volumes used to load calculate the load factor ratios with the seasonal throughput volumes applied to the COG Factor calculations.~~

(5) **Direct Gas Costs** - All purchased gas costs including supplier, storage and pipeline demand and commodity costs, as well as the commodity costs for ~~local~~ production and storage~~manufactured~~ gas (LP-air and LNG).

(6) **Economic Benefit** - The difference between the revenues received and the marginal cost determined to serve non-~~core~~ firm customers.

(7) **Firm Sales Service Re-Entry Fee Revenues** ~~are~~ The revenues resulting from billing certain customers who switched from firm transportation service to firm sales service after June 30, 2006.

(8) **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.

(9) **Interruptible Sales Margins** - The Economic Benefit derived from the interruptible sale of gas downstream of the Company's distribution system.

(10) **Inventory Finance Charges** - As billed in each Winter Season for annual

IV. COST OF GAS CLAUSE

charges. The ~~total~~ 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.

~~(11)~~ ~~**Local Production and Storage Capacity Costs** - include the costs of providing storage service from the Company's storage facilities (i.e., LNG and LPG) as determined in the Company's most recent rate proceeding.~~

(11~~2~~) **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~~Winter Season~~ COGC filing using the Modified Proportional Responsibility ("PR") Method. The allocation percentages for Northern'~~ Utilities Inc.'~~s New Hampshire and Maine divisions reflect the approval of the Modified PR Allocator by the N~~ew~~ H~~ampshire~~ PUC and Maine PUC~~ respectively~~ in NHPUC Docket 05-080 and~~,~~ in MPUC Docket Nos. 2005-87 and 2005-273,~~.~~ ~~R~~respectively.

(12~~3~~) **Non-Core Commodity Costs** - The commodity cost of gas assigned to non-core sales to which the COG Factor is not applied. Non-core sales include sales made under interruptible contracts, non-core contracts and o~~O~~ff-s~~S~~ystem s~~S~~ales contracts.

(13~~4~~) **Non-Core Sales Margins** - The Economic Benefit derived from non-core transactions to which the COG Factor is not applied, including interruptible sales and other non-core sales generated from the use of the Company's gas supply resource portfolio.

(14~~5~~) **Off-System Sales Margin** - The Economic Benefit derived from the non-firm sales of natural gas supplies upstream of Company's distribution system.

(15) **Production and Storage Capacity Costs** - The costs of providing local, on-system storage service from the Company's storage facilities (i.e., LNG and LPG) as determined in the Company's most recent base rate proceeding.

(16) **Purchased Gas Working Capital** - The allowable working capital derived from Winter and Summer Season demand and commodity related costs.

(17) ~~**SMBA –**~~**Simplified Market Based Allocation (SMBA) method** – Used in determining the allocation of gas costs among the Company's High and Low

IV. COST OF GAS CLAUSE

load factor Commercial and Industrial Customer Classifications.

(18) **Summer Commodity** - The gas supplies procured by the Company to serve firm ~~customer~~ sales load in the Summer Season.

(19) **Summer Demand** - The gas supply demand and transmission capacity procured by the Company to serve firm ~~customer~~ sales load in the Summer Season.

(20) **Summer Season** – The months May through October.
~~(21)~~

(21) **Winter Commodity** - The gas supplies procured by the Company to serve firm ~~customer~~ sales load in the Winter Season.

(22) **Winter Demand** ~~-~~ – The g~~G~~as supply demand, peaking demands, storage and transmission capacity procured by the Company to serv~~ic~~e firm ~~customer~~ sales load in the Winter Season.

(23) **Winter Season** – The months November through April.

(24) **Working Capital Carrying Charge Rate**- the monthly prime lending rate, as reported by the ~~Federal Reserve Statistical Release of Selected Interest Rates.~~NHPUC on its website.

6. C~~ost of~~ OG~~as~~ Factor Calculations by Customer Classification

6.1 Approved Cost Amounts~~Figures~~

The C~~O~~ost of~~ ~~G~~as~~ Factor calculations ~~utilizes~~ include~~formation~~ costs and amounts periodically established by the N~~ew~~ H~~ampshire~~ P~~ublic~~ U~~tilities~~ C~~ommission~~. The table below lists ~~the~~ approved costs and amounts~~factors~~:

VARIABLE	DESCRIPTION	CURRENTLY APPROVED AMOUNTS~~FIGURES~~

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IV. COST OF GAS CLAUSE

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 ~~Cost of Gas (~~COG~~)~~ Factor Formulas

The ~~Cost of Gas (~~COG~~)~~ Factor Formulas shall be computed on an ~~semi~~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.

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 1st and Summer Season COG Factors will be effective on May 1st.

The seasonal COG Factors for the Residential rate classes shall represent the total system average unit cost of gas for meeting firm ~~customer~~ sales load~~,~~ projected in each COG season~~filing~~. The seasonal COG Factors ~~shall be derived~~ for the

IV. COST OF GAS CLAUSE

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~~ost of Gas~~ Factors~~ormula (CGw)~~

~~The~~ Winter Season COG ~~Factors~~ costs (COGw) shall be comprised of Winter Season direct costs of gas (DCOGw) which include Winter Season direct demand costs (DDw) and Winter Season c~~C~~ommodity costs (Cw), and Winter Season indirect costs (ICOGw) including Winter Season COG reconciliation gas costs (Rw), Winter Season working capital ~~reconciliation~~costs (WCw), Winter Season bad debt costs (BDw), ~~local~~ production and storage capacity costs (PS)~~,~~ , ~~and~~ Winter Season miscellaneous ~~and A&G~~ overhead costs (MISC)- and any ~~capacity or~~ supplier~~y~~ refunds ~~calculated~~ allocated ~~at the beginning~~ to ~~of~~ the Winter Season (SRw) according to the following formulas:

COGw = DCOG~~D~~w + ICOGw~~Cw~~

~~+ Rw + WCRw + BDw + PS + (MISC x W:Sales / A:Sales)~~

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

DCOGw = DDw + Cw

~~Winter Demand Cost (Dw) Formula~~**and:**

DDw = DEMw – NCSMw ~~–~~ – CARw

and: ~~– CRCRw + WCwd – Rld – R2d~~

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

~~**and:**~~

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IV. COST OF GAS CLAUSE

~~NCSMw = CRRw + ISMw + OSSMw~~

~~**and:**~~

~~WCwd = (DEMw – NCSMw) x WCA%~~

Where:

A:Sales Forecasted annual firm gas supply sales volumes.

BDw Bad d~~d~~ebt expense allocated to ~~for~~ the Winter Season.

CARw ~~The~~ Capacity a~~A~~ssignment r~~R~~evenues, pursuant to the c~~C~~apacity a~~A~~ssignment provisions in the Company's Delivery Service Terms and Conditions, allocated to the Winter Season.

~~CRCRw The Capacity Reserve Charge Revenues allocated to firm Sales Service and allocated to the Winter Season.~~

Cw Commodity~~-related direct~~ gas costs allowable for the Winter Season.

COGw T~~he t~~otal cost of gas for the Winter Season to serve ~~for~~ the Company's firm~~-~~ sales customer~~s~~ classes previously defined.

~~CRRw The returnable Capacity Release Revenues allocated to the Winter Season. See Part IV, Section 7.~~

DDw Direct d~~D~~emand costs allowable for the Winter Season

DCOGw Direct gas costs allowable for the Winter Season.

DEMw Demand c~~C~~ost~~harge~~s allocated to the Winter Season defined in Part IV, Section 5.

ICOGw Indirect gas costs allowable for the Winter Season.

~~ISMw The returnable Interruptible Sales Margins allocated to the Winter Season. See Part IV, Section 7.~~

MISC The ~~total dollar~~ amount of gas costs associated with acquisition, dispatching, Administrative and General expenses, ~~and~~ and miscellaneous overhead costs~~s~~ as determined in the Company's most recent base rate proceeding. Refer to Part IV, Section 6.1 for this ~~dollar~~ amount.

NCSMw ~~The sum of the~~ Winter Season returnable ~~Interruptible Sales Margins, the~~ c~~C~~apacity r~~R~~elease r~~R~~evenues and return to sales service revenues. ~~and the Off-~~

IV. COST OF GAS CLAUSE

~~System Sales Margins.~~

~~OSSMw The returnable Off-System Sales Margins allocated to the Winter Season. See Part IV, Section 7.~~

PS The ~~total dollar~~ amount of costs associated with ~~the local~~ production and storage capacity, as determined in the Company's most recent rate proceeding, ~~gas~~ less any production and storage capacity assignment revenues. ~~—~~ Refer to Part IV, Section 6.1 for this ~~dollar~~ amount.

~~R1d, R2d Supplier demand-related refunds - The Supplier refunds associated with refund program credits derived from Account 242, "Undistributed Gas Suppliers' Refunds." See Part IV, Section 8.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.~~

Rw Annual r~~R~~econciliation c~~C~~osts allocated to Winter Season ~~deferred gas costs~~from the~~,~~ Account 191 ~~.20~~ balance, inclusive of the associated Account 191~~.20~~ 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.

~~WCA % Ratio of working capital allowance associated with gas cost to total direct gas costs. Refer to Part IV, Section 6.1 for this percentage.~~

WCw~~d~~ Working c~~C~~apital carrying charges ~~allowable associated with demand charges~~ allocated to the Winter Season as defined in Part IV, Section 10.

~~WCRw Working Capital reconciliation adjustment associated with Winter Gas Costs - Account 182.11 balance as outlined in Part IV, Section 10.~~

W:Sales ~~Total~~ Forecasted Winter Season firm gas~~sales~~ supply sales volumes ~~associated with the Winter Season~~.

Winter ~~Season~~ Commodity Cost (Cw) Formula

IV. COST OF GAS CLAUSE

Cw = WSC - NCCCw + FC ~~+ WCwc – R1c – R2c~~

~~**and:**~~

~~WCwc = (WSC - NCCCw + FC) × WCA %~~

Where:

~~Cw Allowable commodity costs for the Winter Season.~~

FC Annual i~~I~~nventory finance charges as defined in Part IV, Section 5.

NCCCw Non-c~~C~~ore c~~C~~ommodity gas c~~C~~osts incurred in the Winter Season as defined in Part IV, Section 5.

~~R1c, R2c Supplier commodity-related refunds - The supplier refunds associated with refund program credits derived from Account 242, "Undistributed Gas Suppliers' Refunds". See Part IV, Section 8.~~

~~WCwc Working Capital allowance Associated with commodity charges allocated to the Winter Season as defined in Part IV, Section 10.~~

~~WCA % Ratio of Working Capital Allowance associated with gas costs to total direct gas costs. Refer to Part IV, Section 6.1 for this percentage.~~

WSC Commodity gas costs ~~charges~~ associated with gas supply ~~sent out~~dispatched to firm gas supply sales customers in the Winter Season~~ as defined in Part IV, Section 5~~.

Winter ~~Season~~ Working Capital ~~Cost~~Carrying Charges (WCw) Formula

WCw = (DCOGw) × WCAw % + Rwcw

Where:

WCAw % Working capital allowance percentage associated with Winter Season gas costs. See Part IV, Section 6.1.

IV. COST OF GAS CLAUSE

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

Winter Bad Debt Cost (BDw) Formula

BDw = EBDw ~~Dw + Cw~~ + Rbdw

Where:

~~BDw Bad Debt expense for Winter Season.~~

~~Dw, Cw~~EBDw Estimated ~~Bad Debt Demand and Commodity related costs in the Winter Season as previously defined~~bad debt expense for the Winter Season.

Rbdw ~~Winter Season~~ Bad d~~D~~ebt e~~E~~xpense reconciliation adjustment assigned to the Winter Season~~- Account 182.16 balance~~.

Winter Supplier Refund (SRw) Formula

SRw= (SRD + SRC)*(W:Sales / A:Sales)

Where:

SRD Annualized supplier refund for demand related charges

SRC Annualized supplier refund for commodity related charges

Residential CO~~ost of~~ G~~as~~ Factor Winter Season (COGFACTORwr)

All R~~r~~esidential firm- sales customers will pay the same C~~Cost of~~ GOG~~as~~ Factor for the Winter Season. Th~~e~~is COG F~~f~~actor represents the total forecasted Winter Season average cost of gas

IV. COST OF GAS CLAUSE

~~rate~~. This COG F~~f~~actor is calculated according to the following formula:

COGFACTORwr ~~COG w~~ = ~~CGw~~COGw / W:Sales

Where:

COGFACTORwr Per unit Residential customer Winter Season COG Factor.

~~CGw The total cost of gas for the Winter Season for the Company's firm sales customers previously defined.~~

IV. COST OF GAS CLAUSE

~~r Designates the Residential Heating and Residential Non-Heating customer classes.~~

~~W:Sales Total Forecasted firm sales volumes associated with the Winter Season.~~

Commercial and Industrial (C&I) Winter Season ~~Cost of Gas~~COG Factors

The ~~Commercial and Industrial~~C&I firm sales customer's ~~groups'~~ Winter Season ~~Cost of Gas~~COG Factors will be based on the SMBA method of allocating direct gas costs to each of the two ~~Commercial and Industrial~~C&I firm sales load factor based customer groups: Rates G-50, G-51 and G-52 which are H~~h~~igh L~~l~~oad F~~f~~actor or Low Winter Use and Rates G-40, G-41 and G-42 which are L~~l~~ow L~~l~~oad F~~f~~actor 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.

$$COGFACTORwh = DCOGwh + ICOGwh$$

and

$$DCOGwh = ADwh + ACwh$$

and

$$ADwh = \frac{DDwh + RRADwh}{WH:Sales}$$

and

$$ACwh = \frac{Cwh + RRACwh}{WH:Sales}$$

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IV. COST OF GAS CLAUSE

and

ICOGwh = ICOGw/W:Sales

and

RRADwh = (RDSMBA – RDAVG)*Dwh%

and

RRACwh = (RCSMBA – RCAVG)*Cwh%

Where:

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

IV. COST OF GAS CLAUSE

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.

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.

~~COGwl = UDEMwl + UCwl~~

~~COGwh = UDEMwh + UCwh~~

~~and~~

~~UDEMwl = DEMwl NCSMwl CARwl CRCRwl / WL:Sales~~

~~and~~

~~UCwl = WSCl NCCCwl + FCl / WL:Sales~~

~~and~~

~~UDEMwh = DEMwh NCSMwh CARwh CRCRwh / WH:Sales~~

~~and~~

~~UCwh = WSCh NCCCwh + FCh / WH:Sales~~

~~**Where:**~~

~~DEMwl Costs of Winter Demand allocated to the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5~~

~~UCwl Unit Cost of Winter Commodity associated with the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

IV. COST OF GAS CLAUSE

~~UDEMwl Unit Cost of Winter Demand associated with the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~DEMwh Costs of Winter Demand allocated to the High Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~UCwh Unit Cost of Winter Commodity associated with the High Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~UDEMwh Unit Cost of Winter Demand associated with the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~W:Sales Total Forecasted firm sales volumes associated with the Winter Season.~~

~~WH:Sales Total Winter Season forecasted Commercial and Industrial high winter use sales volumes.~~

~~WL:Sales Total Winter Season forecasted Commercial and Industrial low winter use sales volumes.~~

~~WSCl Commodity charges associated with gas supply sent out in Winter Season allocated to the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~WSCh Commodity charges associated with gas supply sent out in Winter Season allocated to the High Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

6.4 Summer Season ~~Cost of Gas (~~COG~~) Formula~~ Factors~~(CGs)~~

~~The~~ 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 ~~reconciliation~~ costs (WCs), ~~plus a~~ Summer Season bad debt ~~charge~~ costs (BDs), Summer Season miscellaneous ~~and A&G costs calculated at the beginning of the Summer Season~~overhead costs (MISC) and any supplier refunds allocated to the Summer Season (SRs) according to the following formulas:

$$COGs = DCOGs + ICOGs$$

IV. COST OF GAS CLAUSE

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

DCOGs = DDs + Cs

And: ~~- CRCRw + WCwd – Rld – R2d~~

ICOGs = Rs + BDs + WCs + MISC * (S:Sales / A:Sales) + SRs

~~CGs = Ds + Cs + Rs + WCRs + BDs + (MISC x S: Sales / A: Sales)~~

~~Summer Demand Cost (Ds) Formula~~

~~Ds = DEMs – NCSMs + WCsd – Rld – R2d~~

~~**and:**~~

~~NCSMs = CRRs + ISMs + OSSMs~~

~~**and:**~~

~~WCsd = (DEMs – NCSMs) x WCA%~~

Where:

A:Sales	Forecasted annual firm gas supply sales volumes.
BDs	Bad debt expense ~~for~~ allocated to the Summer Season.
Cs	Commodity~~-~~ ~~related direct gas costs~~ gas costs allowable for the Summer Season.
COGs	The total cost of gas for the Summer Season to serve ~~for~~ the Company's firm sales customer classes ~~s~~ previously defined.
~~CRRs~~	~~The returnable Capacity Release Revenues allocated to the Summer Season. See Part IV, Section 7.~~
DDs	Direct d~~D~~emand costs allowable for the Summer Season.
DCOGs	Direct gas costs allowable for the Summer Season.
~~DEMs~~	~~Demand charges allocated to the Summer Season defined in Part IV, Section 5.~~

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IV. COST OF GAS CLAUSE

ICOGs ~~ISMs~~	Indirect gas costs allowable for the Summer Season~~The returnable Interruptible Sales Margins allocated to the Summer Season.~~.
MISC	The ~~total dollar~~ amount of gas costs associated with acquisition, dispatching, Administrative and General expenses, and miscellaneous overhead~~s~~ costs as determined in the Company's most recent base rate proceeding. Refer to Part IV, Section 6.1 for this ~~dollar~~ amount.
~~NCSMs~~	~~The sum of the Summer Season returnable Interruptible Non-Core Sales Margins, the Capacity Release Revenues and Off-System Margins..~~
~~OSSMs~~	~~The returnable Off-System Sales Margins allocated to the Summer Season. See Part IV, Section 7.~~
~~R1d, R2d~~	~~Supplier refunds from pipeline demand charges - The per unit supplier refunds associated with refund program credits derived from Account 242, "Undistributed Gas Suppliers' Refunds." See Part IV, Section 8.~~
Rs	Annual ~~R~~reconciliation c~~C~~osts allocated to the Summer Season from the~~-~~ Account 191~~.10~~ balance, inclusive of the associated Account 191~~.10~~ 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~~associated with the Summer Season~~.
~~WCA %~~	~~Ratio of working capital allowance associated with gas costs to total direct gas costs. Refer to Part IV, Section 6.1 for this percentage.~~
~~WCRs~~	~~Working Capital reconciliation adjustment associated with Summer gas costs – Account 182.21 as outlined in Part IV, Section 10.~~
WCs	Working capital carrying charges allocated to the Summer Season as defined in Part IV, Section 10.
~~WCsd~~	~~Working Capital allowable costs associated with demand costs allocated to the Summer Season as defined in Part IV, Section 10.~~

Summer Commodity Cost (Cs) Formula

IV. COST OF GAS CLAUSE

Cs = SSC - NCCCs ~~+ WCsc – R1c – R2c~~
~~and: WCsc = (SSC - NCCCs) x WCA%~~

Where:

~~Cs~~ ~~Allowable commodity costs for the Summer Season.~~

NCCCs Non-core commodity gas costs incurred in the Summer Season as defined in Part IV, Section 5.

~~R1c, R2c~~ ~~Supplier refunds from pipeline commodity charges - The supplier refunds associated with refund program credits derived from Account 242, "Undistributed Gas Suppliers' Refunds."~~

SSC Commodity gas cost charges associated with gas supply ~~supply sent~~dispatched to firm gas supply sales customers in the summer season ~~out in the Summer Season as defined in Part IV, Section 5~~.

~~WCA%~~ ~~Ratio of working capital allowance associated with gas costs to total direct gas costs. Refer to Part IV, Section 6.1 for this percentage.~~

~~WCsc~~ ~~Working Capital allowable costs associated with commodity charges allocated to the Summer Season as defined in Part IV, Section 10.~~

Summer Working Capital Carrying Charges (WCs) Formula

WCs = DCOGs × WCAs% + Rwcs

Where:

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

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

IV. COST OF GAS CLAUSE

BDs = ~~Ds + Cs~~EBDs + Rbds

Where:

~~BDs~~ ~~Forecasted gas supply related Bad Debt Expense calculated for Summer Season defined in Part IV, Section 5 plus the Summer Season Bad Debt Expense Reconciliation.~~

~~Ds, Cs~~EBDs Estimated b~~B~~ad d~~D~~ebt ~~Demand and Commodity related costs in~~expense for the Summer Season ~~as previously defined.~~.

~~Ds~~ ~~Demand related costs in the Summer Season as previously defined.~~

Rbds ~~Summer Season Bad~~Bad d~~D~~ebt e~~E~~xpense reconciliation adjustment assigned to the Summer Season.~~adjustment – Account 182.22 balance.~~

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 COost of Gas Factor Summer Season (COGsFACTORsr)

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

IV. COST OF GAS CLAUSE

COGFACTORsr = COGs / S:Sales

Where:

COGFACTORsr = Per unit Residential customer Summer Season COG Factor

~~CGs The total cost of gas for the Summer Season for the Company's firm sales customers as previously defined.r Designates the Residential Heating and Residential Non-Heating customer classes.~~

~~S:Sales Total Forecasted firm sales volumes associated with the Summer Season.~~

Commercial and ~~Industria~~Industrial (C&I) ~~I~~ Summer Season ~~Cost of Gas~~COG Factors

The ~~Commercial and Industrial~~C&I firm sales Summer Season COG Factors ~~customer groups' Summer Season Cost of Gas~~ will be based on the SMBA method of allocating direct gas costs to each of the two ~~Commercial and Industrial~~C&I load factor based customer groups: Rates G-50, G-51 and G-52 which are H~~h~~igh L~~l~~oad F~~f~~actor or Low Winter Use and Rates G-40, G-41 and G-42 which are L~~l~~ow L~~l~~oad F~~f~~actor 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.

COGFACTORsh = DCOGsh + ICOGsh

and

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IV. COST OF GAS CLAUSE

DCOGsh =ADsh + ACsh

and

ADsh = DDSh + RRADsh
SH:Sales

and

ACsh = Csh + RRACsh
SH:Sales

and

ICOGsh = ICOGs/S:Sales

and

RRADsh = (RDSMBA – RDAVG)*Dsh%

and

RRACsh = (RCSMBA – RCAVG)*Csh%

Where:

ACsh Per unit Summer Season adjusted commodity costs associated with the High Winter Use C&I firm sales customers.

ADsh Per unit Summer Season adjusted direct demand costs allocated to the High Winter Use C&I firm sales customers.

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

IV. COST OF GAS CLAUSE

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.

~~COGsl = UDEMsl + UCsl~~

~~COGsh = UDEMsh + UCsh~~

~~**and**~~

~~UDEMsl = DEMsl – NCSMsl – CARsl – CRCRsl~~
~~SL:Sales~~

IV. COST OF GAS CLAUSE

~~**and**~~

~~UCsl = SSCl NCCCsl + FCl / SL:Sales~~

~~**and**~~

~~UDEMsh = DEMsh NCSMsh CARsh CRCRsh / SH:Sales~~

~~**and**~~

~~UCsh = SSCh NCCCsh + FCh / SH:Sales~~

~~**Where:**~~

~~COGsr Residential Summer Season Cost of Gas as previously defined.~~

~~SH:Sales Total Summer Season forecasted Commercial and Industrial High Winter use sales volumes.~~

~~SL:Sales Total Summer Season forecasted Commercial and Industrial Low Winter use sales volumes.~~

~~DEMsl Costs of Summer Demand allocated to the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~SSCl Commodity charges associated with gas supply sent out in Summer Season allocated to the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~UCsl Unit Cost of Summer Commodity associated with the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~UDEMsl Unit Cost of Summer Demand associated with the Low Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~DEMsh Costs of Summer Demand allocated to the High Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~SSCh Commodity charges associated with gas supply sent out in Summer Season allocated to the High Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

~~UCsh Unit Cost of Summer Commodity associated with the High Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

IV. COST OF GAS CLAUSE

~~UDEMsh Unit Cost of Summer Demand associated with the High Winter Use Commercial and Industrial customer group as defined in Part IV, Section 5.~~

7. Non-Core Sales Margins ("NCSM")

One hundred percent (100%) of the E~~e~~conomic B~~b~~enefit or margins from Interruptible Sales and Off-System Sales, and all revenues from Capacity Release will be credited to firm sales customers through operation of the COGC.

8. Gas Suppliers' Refunds ~~-~~– FERC Account~~s~~ 242

Refunds from upstream capacity suppliers and suppliers of product demand are credited to Account 242, "Undistributed Purchased Capacity/Product Demand Refunds." Refunds from ~~gas~~ 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 ~~semi~~annual calculation of the seasonal COG Factors to be calculated as follows:

Refund programs shall be initiated with each ~~semi~~annual COG filing and shall remain in effect for a period of one year. The ~~total~~ amount~~dollars~~ to be placed into a given refund program shall be net of over/under-~~returns~~ balances from -expired refund programs plus refunds received from suppliers- since the previous program was initiated. Refunds shall be segregated by demand and commodity ~~charges~~ and distributed volumetrically, producing a per unit refund that will return the principal amount with interest, as calculated using the ~~monthly~~ quarterly prime lending rate, as ~~reported by the Federal Reserve Statistical Release of Selected Interest Rates~~posted each quarter on the NHPUC's website, to the average of the beginning and end of month balances of refunds. The Company shall track and report on all ~~Account 242 and~~ Account 242 activities as specified in Part IV, Section ~~10~~12-.

9. Annual COG Reconciliation Adjustment~~s~~ ~~-~~– FERC Account ~~182~~191

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

a. **Capacity Costs Allowable ~~per Winter Season Formula~~** shall be:

IV. COST OF GAS CLAUSE

i. ~~i.~~ Charges associated with upstream storage and transmission capacity and product demand procured by the Company to serve firm gas supply~~customer~~ sales- ~~load in the Winter~~service. ~~Season, plus a reallocation of a portion of such charges incurred in the Summer Season to serve firm load.~~

ii. Charges associated with peaking, downstream production and storage capacity to serve firm gas supply ~~customer~~sales load, dispatching costs, and other administrative and general expenses in connection with purchasing gas supplies allocated to firm ~~customer~~ gas supply sales services in the respective season ~~and allocated to the Winter Season~~. These expenses are from the test year of the Company's most recent base rate proceeding, and are provided in Part~~y~~ IV, Section 6.1.~~.~~

iii. Non-Core Sales Margins or E~~e~~conomic B~~b~~enefits 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 ~~customers in the Winter Season~~, 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. ~~Winter Season~~ Capacity ~~Demand~~ Cost Carrying Charges.

b. **Commodity Gas Costs Allowable ~~Per Winter Season Formula~~** shall be:

i. Commodity Charges associated with gas supplies, including any applicable taxes, purchased by the Company to serve firm gas supply sales service. ~~load in the Winter Season.~~

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

IV. COST OF GAS CLAUSE

Service Terms and Conditions.

iii. Inventory finance charges ~~(FC)~~.

iv. ~~Winter Season~~ C~~c~~ommodity ~~c~~Cost Carrying Charges.

~~c. **Capacity Costs Allowable Per Summer Season Formula** shall be:~~

~~i. Charges associated with transmission capacity and product demand procured by the Company to serve firm load in the Summer Season.~~

~~ii. Charges associated with administrative and general expenses in connection with purchasing gas supplies allocated to firm sales service and allocated to the Summer Season. These expenses are from the test year of the Company's most recent rate proceeding.~~

~~iii. Credits associated with daily imbalance charges and the fixed component of penalty charges billed Delivery Service customers in the Summer Season.~~

~~iv. Summer Season demand cost Carrying Charges.~~

~~d. **Gas Costs Allowable Per Summer Season Formula** shall be:~~

~~i. Charges associated with gas supplies, including any applicable taxes, procured by the Company to serve firm load in the Summer Season.~~

~~ii. Credit Non-core commodity costs associated with non-core sales to which the COG is not applied, as defined in Part IV, Section 5.~~

~~iii. Summer Season commodity cost Carrying Charges.~~

~~e. **Costs Allowable Per Bad Debt Formula** shall be:~~

~~i. 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 customers. The reconciliation adjustment each season will be computed as the difference between the previous year's actual bad debt expense related to gas supply for the same season and the actual bad debt revenues collected related to gas supply for~~

IV. COST OF GAS CLAUSE

~~that season.~~

~~ii. Account 182.16 - Winter Season Bad Debt, reconciliation adjustment.~~

~~iii. Account 182.22 - Summer Season Bad Debt reconciliation adjustment.~~

(2) ~~Calculation~~ Allocation of the annual COG Reconciliation Adjustment~~s~~ to the S~~s~~ummer Season (Rs) and Winter Season (Rw).

Account 191 contains the accumulated difference between actual ~~gas~~ COG Factor ~~cost~~ revenues and the actual monthly COG Factor ~~gas~~ costs incurred by the Company 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. ~~The Company shall separate Account 191 into Winter Season Gas Costs (Account 191.20) and~~

~~Summer Season Gas Costs (Account 191.10). Account 191.20 shall contain the accumulated difference between revenues toward gas costs calculated by multiplying the Winter Season Gas Cost for each Customer Classification, (COGwr, COGwl and COGwh) times monthly firm sales volumes for each Customer Classification, and the total costs allowable per the Winter Season gas cost formula. Account 191.10 shall contain the accumulated difference between revenues toward gas costs calculated by multiplying the Summer Season Gas Cost for each Customer Classification, (COGsr, COGsl and COGsh) times monthly firm sales volumes for each Customer Classification, and the total gas costs allowable per the Summer Season gas cost formula.~~

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 posted on the NHPUC website. ~~as reported by the Wall Street Journal on the first date of the month preceding the first month of the quarter~~. ~~Effective on and after May 1, 2006, the interest rate is to be adjusted monthly using the monthly prime lending rate, as reported by the Federal Reserve Statistical Release of Selected Interest Rates on the first date of the month preceding the first month of the quarter.~~

~~The seasonal bad debt reconciliation adjustments Rbdw and Rbds shall be determined for use in each season incorporating the bad debt balances in Account~~

IV. COST OF GAS CLAUSE

~~182.16 and 182.22 respectively.~~

~~The bad debt account balance for each season shall be calculated by taking the bad debt expense of gas costs for sales service and multiplying by the difference between the Cost of Gas in the Company's Seasonal COG filing, less the actual costs for the same season.~~

The annual COG ~~Winter Season~~ R~~r~~econciliation filing ~~date~~ shall coincide with the next ~~Winter period~~ annual COG filing ~~on September 16 of~~ each year.

~~The Summer Season reconciliation filing date shall coincide with the next Summer period COG filing on March 16 of 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 ~~Demand Gas~~ Costs Allowable ~~per Winter Season Gas Formula~~** shall be:

~~i~~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~~load~~ in the respective season. ~~peak period, plus a reallocation of a portion of such charges incurred in the Summer Season to serve firm load.~~ 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.

~~b. ii. Carrying Charges.~~~~**Working Capital Commodity Gas Costs Allowable per Winter Season Gas Formula**~~ ~~shall be:~~

~~i. Charges associated with gas supplies, including any applicable taxes, purchased by the Company to serve firm load~~ in the respective season ~~in the Winter Season.~~

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.

IV. COST OF GAS CLAUSE

iii. Carrying charges.

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

Charges associated with write-offs of gas supplies, including any applicable taxes, procured by the Company to serve firm gas supply sales customers in the respective season. 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.

~~c. **Working Capital Demand Gas Costs Allowable per Summer Season Gas Formula** shall be:~~

~~i. Charges associated with upstream storage and transmission capacity procured by the Company to serve firm load in the Summer Season.~~

~~ii. Carrying Charges.~~

~~**Working Capital Commodity Gas Costs Allowab per Summer Season Gas Formula** shall be:~~

~~Charges associated with gas supplies, including any applicable taxes, procured by the Company to serve firm load in the Summer Season.~~

~~i. Non-core commodity costs associated with non-core sales to which the COG is not applied, as defined in Part IV, Section 5.~~

~~iii. Carrying Charges.~~

~~(2) The Winter and Summer Cost of Gas working capital allowances shall be calculated by applying the Working Capital Allowance percentage (WCA %).~~

(~~3~~2) Calculation of the Working Capital and Bad Debt Reconciliation Adjustments

A Accounts~~s~~ 182 ~~.11 and 182.21~~ 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.

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IV. COST OF GAS CLAUSE

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.

~~The Winter Season working capital reconciliation adjustment (WCRw) shall be determined for use in the Winter Season Gas Cost calculations incorporating the Winter Season working capital account 182.11. A Summer Season working capital reconciliation adjustment (WCRs) shall be determined for use in the Summer Season Gas Cost calculations incorporating the Summer Season working capital account 182.21 balance.~~

11. Application of COG Factors to Bills

The Company will charge~~employ~~ 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 ~~sales~~ volume within the corresponding customer classification. The CO~~ost of~~ G~~as~~ Factors will be applicable to gas ~~consumed~~ used on or after the first day of the month in which the CO~~ost of~~ G~~as~~ Factors become~~s~~ effective.

12. Information Required to be Filed with the NHPUC

~~(1) Reconciliation Adjustments~~

Information pertaining to the CO~~ost of~~ GC~~as~~ 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~~with the NHPUC~~, 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.

Additionally, the Company shall file with the NHPUC an ~~seasonal~~ annual reconciliation of gas costs and gas cost collections containing information in support of the reconciliation calculation set out in Part IV, Section ~~0~~9 (2). Such information shall include the complete list of gas costs claimed as recoverable through the COGC over the previous ~~season~~year. This ~~seasonal~~ annual COG

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IV. COST OF GAS CLAUSE

reconciliation shall be submitted with each ~~seasonal the~~ annual COG filing, along with complete documentation of the COG reconciliation adjustment calculations.

The Company shall file with the NHPUC an ~~seasonal~~ 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~~9~~ (2~~1~~). 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 ~~season~~year. This ~~seasonal~~ annual reconciliation of bad debt expenses shall be included with the respective ~~seasonal~~ 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 ~~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 ~~these regulations~~this Section IV, upon such terms that it may determine to be in the public interest.

~~(1)~~(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.

~~(2)~~(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

IV. COST OF GAS CLAUSE

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~~.10~~ ~~Summer Season~~Annual Gas Cost Reconciliation Adjustment for COGC
This account shall be used to record the cumulative difference between annual~~Summer Season~~ gas revenues and annual~~Summer Season~~ gas costs. Entries to this account shall be determined as outlined in the ~~Cost of Gas Clause~~COGC.

182~~.22~~ ~~Summer Season~~Annual Bad Debt Reconciliation Adjustment for COGC
This account shall be used to record the cumulative difference between ~~Summer Season~~annual bad debt revenues and ~~Summer Season~~annual bad debt costs. Entries to this account shall be determined as outlined in the ~~Cost of Gas Clause~~COGC.

182~~.21~~ ~~Summer Season~~Annual Gas Working Capital Allowance Reconciliation Adjustment for COGC
This account shall be used to record the cumulative difference between annual~~Summer Season~~ gas working capital allowance revenues and the annual~~Summer Season~~ gas working capital allowance. Entries to this account shall be determined as outlined in the CO~~ost of~~ G~~as~~ C~~lause~~.

~~182.11~~ ~~Winter Season Gas Working Capital Allowance Reconciliation Adjustment for COGC~~
~~This account shall be used to record the cumulative difference between Winter Season gas working capital allowance revenues and Winter Season gas working capital allowance. Entries to this account shall be determined as outlined in the Cost of Gas Clause.~~

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 ~~semi~~annual calculation of the seasonal COG Factors. Entries to this account shall be determined as outlined in the ~~Cost of Gas Clause~~COCG.

IV. COST OF GAS CLAUSE

242 ~~Commodity~~ 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 ~~semi~~annual calculation of the seasonal COG ~~Factor~~Factors. Entries to this account shall be determined as outlined in the CO~~ost of~~ G~~as~~ C~~laus~~.~~e.~~

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