FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
COST OF GAS ADJUSTMENT CLAUSE

Section

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
COST OF GAS ADJUSTMENT CLAUSE (continued)

6.01 PURPOSE

The Cost of Gas Adjustment Clause ("CGAC") establishes a procedure that allows Fitchburg Gas and Electric Light Company, subject to the jurisdiction of the Department of Telecommunications and Energy ("Department") to adjust, on a semiannual basis, their rates for firm gas sales in order to recover costs of gas supplies, along with any taxes applicable to those supplies, pipeline and storage capacity, local gas costs including local production and storage costs, dispatch, acquisition, FERC proceedings costs and related overhead, the costs of purchased gas working capital, bad debt related to gas supply to reflect the seasonal variation in the cost of gas, inventory finance charges, and to credit all supplier refunds from non-firm sales, interruptible sales and capacity release sales less margin sharing to firm sales customers.

6.02 APPLICABILITY

This Cost of Gas Adjustment Clause ("CGAC") shall be applicable to Fitchburg Gas and Electric Light Company and all firm sales made by Fitchburg Gas and Electric Light Company unless otherwise designated. The application of the clause may, for good cause shown, be modified by the Department. See Section 6.11, "Other Rules".

6.03 (1) COST OF FIRM GAS ALLOWABLE FOR CGAC

All costs of firm gas including, but not limited to, commodity costs, taxes on commodity, demand charges, gas used in company operations, transportation fees, purchased gas working capital and profits on nonfirm sales and capacity release less any margin sharing may be included in the CGAC. Gas costs associated with the incremental supply procured to ensure a sufficient capacity available to meet system hourly flow requirements, which are recovered pursuant to the Company's Local Distribution Adjustment Clause Tariff, as amended from time to time, are not recoverable through this CGAC. Any costs recovered through the application of this CGAC shall be identified and explained in the Company's annual filing as outlined in Section 6.10. Cost of firm gas allowable by component are listed below:

(a) Gas Costs Allowable Per Peak Demand Formula shall be:

i. Base Load $Demand_P$
ii. Remaining $Demand_P$ allocated to classes on the basis of design day demand.

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iii. Peak demand working capital.

(b) Gas Costs Allowable Per Peak Commodity Formula shall be:

i. Base Load Commodity_{P}
ii. Peak Remaining Commodity_{P} .
iii. Peak commodity working capital.

(c). Gas Costs Allowable per off-Peak Demand Formula shall be:

i. Base Load Demand_{Op}
ii. Remaining Demand_{Op} allocated to classes on the basis of design day demand.
iii. Off-peak demand working capital

(d). Gas Costs Allowable per off-peak Commodity Formula shall be:

i. Base Load Commodity_{Op} .
ii. Remaining Commodity_{Op}
iii. Off-peak commodity working capital.

6.03 (2) LOCAL GAS COSTS ALLOWABLE FOR CGAC

1. Local Production Capacity and Storage Costs for each load factor customer class.

2. Dispatch, Acquisition, and FERC Proceeding costs.

3. Production Related Overhead.

6.03 (3) SUPPLIER REFUNDS ALLOWABLE FOR CGAC

Refunds from suppliers of gas and feedstocks. Refunds associated with FERC Order 636 demand or reservation based transition costs will be credited to the Company's Transition Cost Factor in the Local Distribution Adjustment Clause.

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6.03 (4) BAD DEBT COSTS ALLOWABLE FOR CGAC

Costs associated with uncollected gas costs including any applicable taxes incurred by the Company.

6.03 (5) INVENTORY FINANCE CHARGES ALLOWABLE FOR CGAC

Inventory Finance Charges as calculated using the monthly average of financed inventory at a rate determined based on cash and short term borrowings as approved in D.T.E. 99-32.

6.04 EFFECTIVE DATE OF CGAC

The date on which the seasonal CGAC becomes effective will be the first day of each season as designated by the Company. Unless otherwise notified by the Department, the Company shall submit CGAC filings as outlined in Section 6.10 of this clause at least 45 days before they are to take effect.

6.05 DEFINITIONS

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

Base Load Requirement The average daily normal year sendout volume for July and August.

Bad Debt The uncollectible expense attributed to the Company's gas costs.

Capacity Release and Interruptible Sales Margins Any profits on nonfirm sales as calculated by forecasting nonfirm rates, costs and associated nonfirm sales volumes for the twelve-month period. Also includes profits from capacity release and sales for resale. These amounts are adjusted to account for nonfirm sales, capacity release, and sales for resale margin sharing. Margin sharing shall be calculated in accordance with Order D.P.U. 93-141-A, dated February 14, 1996, on nonfirm sales, capacity release, and sales for resale transactions entered into or renewed prior to February 20, 2013. Margin sharing shall be calculated in accordance with Order D.P.U. 10-62-A dated February 19, 2013, on nonfirm sales, capacity release, and sales for resale transactions entered into or renewed on and after February 20, 2013.

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Cost of Debt The debt component of the rate of return as approved by the Department in the Company's most recent base rate case.

Cost of Equity The equity component of the rate of return as approved by the Department in the Company's most recent base rate case.

Design Day Allocator percentage allocator for capacity charges as calculated in each CGA filing.

Dispatch, Acquisition, and FERC Proceeding costs (DAFP) Test year dispatch, acquisition, and FERC proceeding costs as most recently approved by the Department.

Effective Tax Rate is the combined effective state and federal income tax rate.

Finance charges (FC) As billed in each peak season for annual charges. The total shall represent an accumulation of the projected charges as calculated using the monthly average cost of financed inventory at a rate determined based on cash and short term borrowings as approved in D.T.E. 99-32.

Local Production Capacity and Storage Costs include the fixed costs of providing vaporization and storage service from the Company's storage facilities (i.e. - LNG and Propane) as most recently approved by the Department.

Local Propane and Liquefied Natural Gas (LPLNG) Test year local production capacity and storage costs as defined above as most recently approved by the Department.

Number of Days Lag is the number of days lag to calculate the purchased gas working capital requirement as defined in the Company's most recently available Lead Lag Study.

Off-peak Commodity is, unless otherwise approved by the Department, the gas supplies procured by the company to serve firm load in the off-peak season.

Off-peak Demand is, unless otherwise approved by the Department, the storage and transmission capacity procured by the company to serve firm load in the off-peak season.

Off-peak Season is the summer season of May through October.

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Peak Commodity is, unless otherwise approved by the Department, the gas supplies procured by the company to serve firm load in the peak season.

Peak Demand is, unless otherwise approved by the Department, the storage and transmission capacity procured by the company to serve firm load in the peak season.

Peak Season is the winter heating season of November through April.

Production Related Overhead costs (PRO) Test year production related overhead costs as most recently approved by the Department.

Purchased Gas Working Capital is the allowable working capital derived from peak and off-peak, demand, and commodity related costs.

6.06 COST OF GAS ADJUSTMENT CLAUSE FORMULAS

The CGAC shall comprise a Gas Adjustment Factor ("GAF"), Liquefied Propane and Liquefied Natural Gas ("LPLNG"), Distribution, Acquisition, and FERC Proceedings ("DAFP"), Production and Related Overhead ("PRO"), Supplier Refunds ("R1d,R2d"), Bad Debt ("BD"), and Inventory Finance Charge ("IFC") calculated according to the following formula:

Peak Season CGAC = GAF_P + LPLNG + DAFP + PRO + R1d + R2d + BD + IFC
Off-Peak Season CGAC = GAF_{Op} + DAFP + PRO + R1d + R2d + BD

(1) Gas Adjustment Factor Formulae

Peak GAF Formula:

The Peak GAF shall be comprised of a peak demand factor and a peak commodity factor calculated at the beginning of the peak season according to the following formulae:

$GAFp^x = DFp^x + CFp^x$

Peak Demand Factor (DFp) Formulae:

$$DFp^x = \frac{BLDp^x + (RD^x * DD) + WCpd^x + Rpd}{P{:}Sales^x}$$

and:

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WCpd = WCApd * (CD + (CE/(1 - TR)))

WCApd = Dp * (DL/365)

Where:

BLDp	Demand charges billed to the Company during the peak period for the portion of base demand associated with serving Base Load Requirements (Base Load Demand_p)
Dp	Total demand charges allocated to the peak period.
P: Sales	Forecasted sales volumes associated with the peak period.
RD	Remaining Demand charges billed to the company for year round capacity. Calculated by subtracting Base Load Demand, Capacity Release and Interruptible Sales Margins from total demand charges.
DD	Design Day Allocator as defined in Section 6.05.
WCpd	Working Capital allowable associated with demand charges allocated to the peak period.
WCApd	Demand charges allowable for working capital application.
CE	Weighted cost of equity as defined in Section 6.05.
CD	Weighted cost of debt as defined in Section 6.05.
TR	Effective Tax rate as defined in Section 6.05.
DL	Number of days lag from the purchase of gas from suppliers to the payment by customers as defined in Section 6.05.
x	Designates allocation of costs to high and low load factor customer classes as calculated in each CGA filing.
Rpd	The total reconciliation amount determined in Section 6.08 divided by forecasted sales volumes.

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Peak Commodity Factor (CFp^x) Formulae:

$$CFp^x = \frac{BLCp^x + RCp^x + WCpc^x}{P{:}Sales^x}$$

and:

$$WCpc^x = WCApc * (CD + (CE/(1 - TR)))$$

$$WCApc = Cp * (DL/365)$$

Where:

Cp	Total commodity charges allocated to the peak period.
P:Sales	Forecasted sales volumes associated with the peak period.
Rcp	Remaining Commodity charges assigned to the peak period calculated by subtracting Base Load Commodity from commodity charges associated with firm sales.
WCpc	Working Capital allowable associated with commodity charges allocated to the peak period.
WCApc	Commodity charges allowable for working capital application.
CE	Weighted cost of equity as defined in Section 6.05.
CD	Weighted cost of debt as defined in Section 6.05.
TR	Effective Tax rate as defined in Section 6.05.
DL	Number of days lag from the purchase of gas from suppliers to the payment by customers as defined in Section 6.05.
x	Designates allocation of costs to high and low load factor customer classes as allocated in each CGA filing.

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BLCp Commodity charges billed to the Company associated with firm sales during the peak period for the portion of base commodity associated with serving Base Load Requirements . (Base Load Commodity$_p$)

Off-peak GAF Formula

The Off-peak GAF shall be comprised of an off-peak demand factor and an off-peak commodity factor calculated at the beginning of the off-peak season according to the following formulae:

$GAFop^x = DFop^x + Cfop^x$

Off-peak Demand Factor (DFop) Formulae:

$$DFop^x = \frac{BLDop^x + (RD^x * DD) + WCopd^x + Ropd}{Op:Sales^x}$$

and:

$WCopd = WCAopd * (CD + (CE/(1 - TR)))$

$WCAopd = (Dop) * (DL/365)$

Where:

Dop Total demand charges allocated to the off-peak period.

OP:Sales Forecasted sales volumes associated with the off-peak period

RD Remaining Demand charges billed to the company for year round capacity calculated by subtracting Base Load Demand, Capacity Release and Interruptible Sales Margins from total demand charges.

DD Design Day Allocator as defined in Section 6.05.

WCopd Working Capital allowable associated with demand charges allocated to the off-peak period.

WCAopd Demand charges allowable for working capital application.

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CD Weighted cost of debt as defined in Section 6.05.

CE Weighted cost of equity as defined in Section 6.05.

TR Effective Tax rate as defined in Section 6.05.

DL Number of days lag from the purchase of gas from suppliers to the payment by customers as defined in Section 6.05.

Ropd The total reconciliation amount as determined in Section 6.08 divided by forecasted sales volumes.

x Designates allocation of costs to high and low load factor customer classes as calculated in each CGA filing.

BLDop Demand charges billed to the Company during the off-peak period for the portion of base demand associated with serving Base Load Requirements. (Base Load $Demand_{op}$)

Off-peak Commodity Factor (CFop) Formulae:

$$CFop^{x} = \frac{BLCop^{x} + RCop^{x} + Wcopc^{x}}{OP{:}Sales^{x}}$$

and:

WCopc = WCAopc * (CD + (CE/(1 - TR)))

WCAopc = Cop * (DL/365)

Where:

Cop Total commodity charges billed to the off-peak period

OP:Sales Forecasted sales volumes associated with the off-peak period.

WCopc Working Capital allowable associated with commodity charges allocated to the off-peak period.

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WCAopc Commodity charges allowable for working capital application.

CE Weighted cost of equity as defined in Section 6.05.

CD Weighted cost of debt as defined in Section 6.05.

TR Effective Tax rate as defined in Section 6.05.

DL Number of days lag from the purchase of gas from suppliers to the payment by customers as defined in Section 6.05.

BLCop Commodity charges billed to the Company associated with firm sales during the off-peak period for the portion of base commodity associated with serving Base Load Requirements. (Base Load Commodity_{op})

x Designates allocation of costs to high and low load factor customer classes as calculated each CGA filing.

(2) Liquefied Propane and Liquefied Natural Gas Costs Formula

The LPLNG shall be calculated by dividing test year Local Production Capacity and Storage costs for each load factor customer class, and reconciliation amount by the firm peak sales according to the following formula:

$$\text{LPLNG} = \frac{\text{LPLNGC} + R_{\text{LPLNGC}}}{\text{P:Sales}}$$

Where:

LPLNGC Test year local production capacity and storage costs.

R_{LPLNGC} Balance in Account 175.15 as outlined in Section 6.08 inclusive of the Associated Account 175.15 interest.

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(3) Dispatch, Acquisition and FERC Proceeding Costs Formula

The DAFP shall be calculated by dividing test year Dispatch, Acquisition, and FERC Proceeding costs and reconciliation amount by the firm sales according to the following formula:

$$DAFP = \frac{DAFPC + R_{DAFPC}}{P{:}Sales + Op{:}Sales}$$

Where:

DAFPC Test year dispatch, acquisition, and FERC proceeding costs.

R_{DAFPC} Balance in Account 175.16 as outlined in Section 6.08 inclusive of the Associated Account 175.16 interest.

(4) Production Related Overhead Costs Formula

The PRO shall be calculated by dividing test year Production Related Overhead costs and reconciliation amount by the firm sales according to the following formula:

$$PRO = \frac{PROC + R_{PROC}}{P{:}Sales + Op{:}Sales}$$

Where:

PROC = Test year production related overhead costs.

R_{DAFPC} Balance in Account 175.17 as outlined in Section 6.08 inclusive of the Associated Account 175.17 interest.

(5) Bad Debt Expenses Formula

The BD shall be calculated by dividing a 12 month forecast of Bad Debt expenses and reconciliation amount by the firm sales according to the following formula:

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$$BD = \frac{BDE + R_{BDE}}{P{:}Sales + Op{:}Sales}$$

Where:

BDE Costs associated with uncollected gas costs including any applicable taxes.

R_{BDE} Balance in Account 175.14 as outlined in Section 6.08 inclusive of the Associated Account 175.14 interest.

(6) Inventory Finance Charge Formula

The IFC shall be calculated by dividing a 12 month forecast of finance charges and reconciliation amount by the firm peak sales according to the following formula:

$$IFC = \frac{FC + R_{FC}}{P{:}Sales}$$

Where:

R_{FC} Balance in Account 175.13 as outlined in Section 6.08 inclusive of the Associated Account 175.13 interest.

6.07 GAS SUPPLIERS' REFUNDS FORMULA (R1d, R2d per unit refunds)

Refunds from suppliers of gas and feedstocks are credited to account 242.25, "Undistributed Purchased Capacity Refunds". Transfers from these accounts will reflect as a credit in the semiannual calculation of the GAF to be calculated as follows:

Refund program shall be initiated with each semiannual GAF filing and shall remain in effect for a period of one year. The total dollars to be placed into a given refund program shall be net of over/underreturns from expired programs plus monies received from suppliers since the previous program was initiated. Monies to be refunded through each program shall be distributed volumetrically, producing per unit refund factors that will return the principal amount with interest as calculated using the BankBoston's prime lending rate. Fitchburg Gas

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and Electric Light Company shall track and report all account 242.25 activities as specified in Section 6.10.

6.08 RECONCILIATION ADJUSTMENTS

All reconciliations are to be made to actual costs except reconciliations in Sections 6.08 (2), (3), and (4) shall reconcile to test year costs.

Calculation of the Reconciliation Adjustments

(1) Gas Adjustment Factor:

(a.) Account 175.00 shall contain the accumulated difference between the actual Costs of Firm Gas Allowable per the GAF formula and the revenue toward gas costs. Interest shall be calculated on the average monthly balance of Account 175.00 using the Bank of America's, or its successor's, prime lending rate after tax (i.e. prime lending rate * (1-tax rate), then added to each end-of-month balance. The tax rate shall be the Effective Tax Rate as defined in Section 6.05.
(b.) The GAF reconciliation adjustment shall be taken as the Account 175.00 balance as of October 31st of each year.

(2) Liquefied Propane and Liquefied Natural Gas Costs:

(a.) Account 175.15 shall contain the accumulated difference between the Local Production Capacity and Storage Costs allowable per the LPLNG formula and the revenue toward these costs. Interest shall be calculated on the average monthly balance of Account 175.15 using the Bank of America's, or its successor's, prime lending rate after tax (i.e. prime lending rate * (1-tax rate), then added to each end-of-month balance. The tax rate shall be the Effective Tax Rate as defined in Section 6.05.
(b.) The LPLNG reconciliation adjustment shall be taken as the Account 175.15 balance as of October 31st of each year.

(3) Dispatch, Acquisition and FERC Proceeding Costs:

(a.) Account 175.16 shall contain the accumulated difference between the Dispatch, Acquisition, and FERC Proceeding Costs allowable per the DAFP formula and the revenue toward these costs. Interest shall be calculated on the average monthly balance of Account 175.16 using the Bank of America's, or its successor's, prime lending rate

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after tax (i.e. prime lending rate * (1-tax rate), then added to each end-of-month balance. The tax rate shall be the Effective Tax Rate as defined in Section 6.05.
(b.) The DAFP reconciliation adjustment shall be taken as the Account 175.16 balance as of October 31st of each year.

(4) Production Related Overhead Costs:

(a.) Account 175.17 shall contain the accumulated difference between the Production Related Overhead Costs allowable per the PRO formula and the revenue toward these costs. Interest shall be calculated on the average monthly balance of Account 175.17 using the Bank of America's, or its successor's, prime lending rate after tax (i.e. prime lending rate * (1-tax rate), then added to each end-of-month balance. The tax rate shall be the Effective Tax Rate as defined in Section 6.05.
(b.) The PRO reconciliation adjustment shall be taken as the Account 175.17 balance as of October 31st of each year.

(5) Bad Debt Expenses:

(a.) Account 175.14 shall contain the accumulated difference between the Bad Debt Expenses allowable per the BD formula and the revenue toward bad debt. Interest shall be calculated on the average monthly balance of Account 175.14 using the Bank of America's, or its successor's, prime lending rate after tax (i.e. prime lending rate * (1-tax rate), then added to each end-of-month balance. The tax rate shall be the Effective Tax Rate as defined in Section 6.05.
(b.) The BD reconciliation adjustment shall be taken as the Account 175.14 balance as of October 31st of each year.

(6) Finance Charges:

(a.) Account 175.13 shall contain the accumulated difference between the finance costs allowable per the IFC formula and the revenue toward finance charges. Interest shall be calculated on the average monthly balance of Account 175.13 using the Bank of America's, or its successor's, prime lending rate after tax (i.e. prime lending rate * (1-tax rate), then added to each end-of-month balance. The tax rate shall be the Effective Tax Rate as defined in Section 6.05.
(b.) The IFC reconciliation adjustment shall be taken as the Account 175.13 balance as of October 31st of each year.

(7) Supplier Refunds:

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(a.) Account 242.25 shall contain the accumulated difference between the supplier refunds allowable per the Gas Suppliers' Refund formula and the revenue toward supplier refunds. Interest shall be calculated on the average monthly balance of Account 242.25 using the Bank of America's, or its successor's, prime lending rate after tax (i.e. prime lending rate * (1-tax rate), then added to each end-of-month balance. The tax rate shall be the Effective Tax Rate as defined in Section 6.05.

(b.) The R1, R2 reconciliation adjustment shall be taken as the Account 242.25 balance as of October 31st of each year.

6.09 APPLICATION OF CGAC TO BILLS

The Company will employ the CGAC as follows:

The CGAC will be applied to the monthly firm sales volumes for each Customer. The CGAC shall be calculated to the nearest one hundredth of a cent per Therm.

6.10 INFORMATION TO BE FILED WITH THE DEPARTMENT

Information pertaining to the CGAC shall be filed with the Department in accordance with the standardized forms approved by the Department. Required filings include a monthly report which shall be submitted to the Department on the twentieth of each month, and a semiannual CGAC which shall be submitted to the Department at least 45 days before the date on which the new CGAC is to be effective.

Additionally, each company shall file with the Department a complete list by (sub)account of all gas costs claimed as recoverable through the CGAC over the previous year as included in the annual reconciliation. This information shall be submitted with each peak CGAC filing, along with complete documentation of the reconciliation adjustment calculations.

6.11 OTHER RULES

1. The Department may where appropriate, on petition or on its own motion, grant an exception from the provisions of 220 CMR 6.00, upon such terms that it may determine to be in the public interest.

2. A gas company may, at any time, file with the Department an amended CGAC. An amended CGAC filing must be submitted seven business days before the first billing cycle of the month in which it is proposed to take effect.

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3. The Department may at any time require a gas company to file an amended CGAC.

4. The operation of the cost of gas adjustment clause is subject to all powers of suspension and investigation vested in the Department by G.L. c. 164.

6.12 CUSTOMER NOTIFICATION

Each company will notify customers in simple terms of changes to the CGAC, including the nature of the change and the change and the manner in which the CGAC is applied to the bill. In the absence of a standard format, the company will submit this notice for approval at the time of each CGAC filing. Upon approval by the Department, the company must immediately distribute these notices to all of its customers either through direct mail or with its bills.