IN THE MATTER OF the "Utilities Commission Act" S.B.C. 1980, Chapter 60

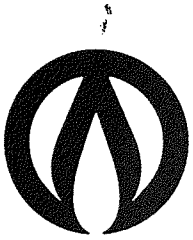
and

IN THE MATTER OF an Application by BC Gas Inc. To Amend its Schedule of Rates

Rate Design Phase B

Volume 2

Application



BC Gas

April 1993

BC Gas Inc.
1111 West Georgia Street
Vancouver, British Columbia
Canada V6E 4M4

Tel (604) 443-6607
Fax (604) 443-6789

David M. Masuhara
Vice President
Legal and Regulatory Affairs

June 10, 1993

BY COURIER

BCGas

Owen, Bird
#2900 - 595 Burrard Street
Vancouver, B.C.
V7X 1J5

Attention: Christopher Weafer

Re: BC Gas Inc. - Rate Design Phase B
FDC Studies

Dear Mr. Weafer:

Mr. C.B. Johnson of Russell & DuMoulin has advised us of your request for the fully distributed cost of service studies on diskette. This is to advise you that the Lower Mainland, Inland, and Columbia Division studies require nine diskettes. The diskettes are enclosed. The files, which operate under Lotus 1-2-3, are named as follows:

	File Name	Size in bytes	Purpose
Lower Mainland Division			
	LMCOSD0.WK3	1,026,078	Functionalization & Classification
	LMDAD0.WK3	1,210,039	Direct Assignments
	LMFDCD0.WK3	844,275	Allocation
Inland Division			
	ICOSD0.WK3	1,099,195	Functionalization & Classification
	IDAD0.WK3	1,254,381	Direct Assignments
	IFDCD0.WK3	805,868	Allocation
Columbia Division			
	CCOSD0.WK3	1,096,978	Functionalization & Classification
	CDAD0.WK3	1,399,145	Direct Assignments
	CFDCD0.WK3	559,960	Allocation

The files are quite large and will be time consuming to analyze. We have prepared a summary of the FDC files in what we have called "Verification Tables". Please find attached copies of these tables.

Yours very truly,

D.M. Masuhara

cc: British Columbia Utilities Commission
Attention: Ms. D. Emes

Attachments
jw109.93

bcc: S.P. Crocker
E.A. Moore
J.O. Wessler
D.J. Reed
P.V. Genderen

(no attachments)

BC Gas Inc.
1111 West Georgia Street
Vancouver, British Columbia
Canada V6E 4M4

Tel (604) 443-6607
Fax (604) 443-6789

David M. Masuhara
Vice President
Legal and Regulatory Affairs

June 10, 1993

BY COURIER

BCGas

The British Columbia Public
Interest Advocacy Centre
#701 - 744 West Hastings Street
Vancouver, B.C.
V6C 1A5

Attention: Ms. Carolyn McCool

Re: BC Gas Inc. - Rate Design Phase B
FDC Studies

Dear Ms. McCool:

Mr. C.B. Johnson of Russell & DuMoulin has advised us of your request for the fully distributed cost of service studies on diskette. This is to advise you that the Lower Mainland, Inland, and Columbia Division studies require nine diskettes. The diskettes are enclosed. The files, which operate under Lotus 1-2-3, are named as follows:

	File Name	Size in bytes	Purpose
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Yours very truly,

D.M. Masuhara

cc: British Columbia Utilities Commission
Attention: Ms. D. Emes

Attachments
jw110.93

bcc: S.P. Crocker
E.A. Moore
J.O. Wessler
D.J. Reed
P.V. Genderen

(no attachments)

BC Gas Inc.
1111 West Georgia Street
Vancouver, British Columbia
Canada V6E 4M4

Tel (604) 443-6607
Fax (604) 443-6789

David M. Masuhara
Vice President
Legal and Regulatory Affairs

BCGas

June 10, 1993

British Columbia Utilities Commission
6th Floor
900 Howe Street
Vancouver, B.C.
V6Z 2N3

BY COURIER

Attention: D. Emes

Re: BC Gas Inc. - Rate Design Phase B
FDC Studies

Dear Ms. Emes:

Mr. Weafer of Owen, Bird and Ms. McCool of the Consumers Association of British Columbia have requested that the FDC studies be provided to them on diskette.

Please find enclosed copies of the nine diskettes. Copies of the Verification Tables are not attached. They have been provided to you previously on an informal basis.

Yours very truly,

D.M. Masuhara

Attachments
jw111.93

bcc: S.P. Crocker
E.A. Moore
J.O. Wessler
D.J. Reed
P.V. Genderen

(no attachments)

BC Gas Inc.
1111 West Georgia Street
Vancouver, British Columbia
Canada V6E 4M4

Tel (604) 443-6607
Fax (604) 443-6789

David M. Masuhara
Vice President
Legal and Regulatory Affairs

June 7, 1993

BCGas

British Columbia Utilities Commission
Sixth Floor, 900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: R.J. Pellatt
Commission Secretary

Dear Sirs:

Re: BC Gas Inc. Rate Design Phase B Application - Revisions and Additions

Pursuant to BCUC Order No. G-38-93, BC Gas files herewith 15 copies of revised pages of the above Application reflecting the withdrawal of the BC Gas Inc. 1993 Revenue Requirement Application. Items such as rates reflecting the revised revenue levels, a revised Fully Distributed Cost of Service (FDC) study, revised customer impacts and revised revenue cost ratios have been included.

The technical appendices included under Tabs 6, 7 and 8 have been revised to include new revenue calculations; however, the accompanying rate plots have not been revised.

Details on the changes to the FDC studies are described in the written evidence of Edward A. Moore.

In addition, 15 copies of new tabs have been included reflecting the Gas Cost Reconciliation Account, Burrard Thermal, Buy-Sells for interruptible customers and new industrial rate schedules.

The following list summarizes the volume number, tab and page numbers of the sheets that must be replaced or added. Please replace the following Volume 1 material:

- Vol 1, Table of Contents
- Vol 1, Tab 1, Glossary of Terms
- Vol 1, Tab 2, page 7
- Vol 1, Tab 3, pages 7-9, 11, 19, 21-29
- Vol 1, Tab 6, pages 3-5, 8, 10-12, 15, 17-19, 21-24, 47, 48
- Vol 1, Tab 7, pages 3, 5-7, 9, 11-14, 16-19, 21-24
- Vol 1, Tab 8, pages 4-10, 12-24
- Vol 1, Tab 9, pages 5, 6, 10, 12-19, 22, 23, 27, 29-35
- Vol 1, Tab 10, pages 5-9

... /2

Please add the following new Volume 1 tabs:

▶ Vol 1:

-Main Extension Policy (new, to be filed at a later date)		Tab 13
-Gas Cost Reconciliation Account (GCRA)	(new)	Tab 14
-Buy-Sell Arrangements for Interruptible Customers	(new)	Tab 15
-Burrard Thermal Pricing	(new)	Tab 16
	(new)	A
	(new)	B
	(new)	C
	(new)	D
	(new)	E
-Burrard Thermal Priority	(new)	Tab 17

Please replace the following Volume 2 material:

- ▶ Vol 2, Table of Contents
- ▶ Vol 2, Tab 1, Glossary of Terms
- ▶ Vol 2, Tab 2A, all pages
- ▶ Vol 2, Tab 2B, all pages
- ▶ Vol 2, Tab 2C, all pages
- ▶ Vol 2, Tab 2D, all pages (Sections 1 and 2 to follow)
- ▶ Vol 2, Tab 4, pages 13, 15, 18, 28
- ▶ Vol 2, Tab 5, page 2
- ▶ Vol 2, Tab 5A, page 5.17
- ▶ Vol 2, Tab 5B, page 25.25
- ▶ Vol 2, Tab 5C, page 7.~~19~~ 18 29
- ▶ Vol 2, Tab 5D, page 27.26
- ▶ Vol 2, Tab 5E, pages 22.~~27~~, 22A.5

Please add the folllowing new Volume 2 tabs:

▶ Vol 2:

Rate Schedule 32 (previously distributed with Schedules 22 and 22A under Tab E)	Tab 5F
Rate Schedule 4 (new)	Tab 5G
Rate Schedule 10 (new)	Tab 5H
Rate Schedule 13 (new, to be filed at a later date)	Tab 5I
Rate Schedule 30 (new, to be filed at a later date)	Tab 5J

Please relocate Rate Schedule 32, Large Volume Gas Balancing, from Tab 5E to Tab 5F. Rate Schedules 22 and 22A, Large Volume Transportation, remain under Tab 5E as filed May 20, 1993.

The above materials will be provided to registered intervenors and interested parties.

Yours very truly,

BC GAS INC.
Per:

David M. Masuhara

cc: Registered Intervenors
Interested Parties

RUSSELL & DUMOULIN

BARRISTERS & SOLICITORS • PATENT & TRADE-MARK AGENTS

1500
1075 W. GEORGIA
VANCOUVER
BRITISH COLUMBIA
CANADA V6E 3G2

FAX:
(604) 631-3232
TELEPHONE:
(604) 631-3131

File No. BCG-4587 **Direct Line: 631-3130**

June 9, 1993

DELIVERED

BC Gas Inc.
1111 West Georgia Street
Vancouver, B.C.
V6E 4M4

Attention: D.M. Masuhara

Dear Sirs:

Re: Rate Design Hearing

My letter earlier today put in writing a number of issues relating to the rate design hearing which were raised at the meeting on Monday, June 7, 1993.

One item was missed in the earlier letter.

Mr. Weafer requested that the FDC be provided to him on diskette. Ms McCool make the same request. Please arrange to supply them with diskettes. You should also provide a diskette to Ms. Emes of the Commission.

Yours very truly,

RUSSELL & DuMOULIN

C.B. Johnson

CBJ/ve

cc: S.P. Crocker

BCG4587.027

BC GAS INC.

ERRATA

EXHIBIT 2, TAB 2

A few calculation errors have been found and are indicated by the letter 'C' beside the numbers on the attached pages. The errors are mechanical in nature, using incorrect divisors (sales volumes or sales and T-service volumes) to derive per unit values for cost of service excluding cost of gas or for cost of gas only.

1. Tab 2A, Page 1.1/2.1/3.1 for Alternative Fuel Rate 2501 Commodity cost of service excluding cost of gas, and Other cost of gas (lines 24 and 25, column (j)) was divided by sales & T-service volumes, should have been divided by sales volumes only.

2. Three pages, ING COS, Tab 2B, Page 1.1/2.1/3.1 have been filed previously in a response to a B.C.U.C. information request, Volume 4, Part B, Tab 45 and are made available again for inclusion in the FDC sections of Volume 2.

3. Tab 2D, Section 1, Page 1.2A/2.2A/3.2A, Line 7, columns (e) and (f) should be deleted and the calculation in column (g) inserted.

4. Tab 2D, Section 3, Page 1.1B/2.1B/3.1B, Line 27, column (d) should have been addition of values from lines 21 and 25.

5. Tab 2D, Section 4, Page 1.1A/2.1A/3.1A, column (g), lines 13/13.1 and lines 20 - 22 were incorrectly divided by sales volumes only and should be divided by sales and T-service volumes.

The mechanical mistakes do not affect the methodology or the conclusions that are drawn from the Fully Distributed Cost Study.

BC Gas Inc.
1111 West Georgia Street
Vancouver, British Columbia
Canada V6E 4M4

Tel (604) 443-6607
Fax (604) 443-6789

David M. Masuhara
Vice President
Legal and Regulatory Affairs

June 7, 1993

BCGas

British Columbia Utilities Commission
Sixth Floor, 900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: R.J. Pellatt
Commission Secretary

Dear Sirs:

Re: BC Gas Inc. Rate Design Phase B Application - Revisions and Additions

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The above materials will be provided to registered intervenors and interested parties.

Yours very truly,

BC GAS INC.
Per:

David M. Masuhara

cc: Registered Intervenors
Interested Parties

Revised July 23, 1993

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GLOSSARY OF TERMS

Alberta Natural Gas (ANG)	Alberta Natural Gas Company Ltd. The operator of a natural gas transmission line which runs from Alberta to the U.S.A. across the south east corner of British Columbia. Gas moving to the Columbia service area flows through the ANG pipeline. The East Kootenay Link running from Trail connects to the ANG pipeline at Yahk.
Alberta and Southern (A & S)	Alberta and Southern Gas Co. Ltd. A marketer of natural gas which purchases natural gas in Canada for sale in California. Most of the capacity on the ANG pipeline is under contract to A & S. A & S supplies peaking gas to BC Gas which is transported via the East Kootenay link. A & S also acts as agent in the transportation of gas via the ANG pipeline to Columbia.
Average and Excess Demand (AED)	A method of distributing utility capacity related costs whereby the costs are allocated to classes partially based on peak day consumption, and partially based on individual class total annual energy consumption.
Basic Charge	A fixed monthly fee charged regardless of the quantity of gas consumed by the customer. May also be half the bimonthly fee charged customers billed bimonthly.
BCUC	British Columbia Utilities Commission.
Burrard Thermal	Electric generating plant owned by B.C. Hydro and located on Burrard Inlet near Ioco.
Burrard Thermal Agreement	The amended and restated interruptible gas agreement made as of the 29th day of September 1988 and providing for the supply and delivery of gas to the Burrard Thermal plant on an interruptible basis.

Burnertip	A term used to refer to the price or other characteristic of natural gas delivered to the premises or facilities of a customer. A "burnertip" price includes all costs to the customer.
Bypass	See "non-captive".
Captive	A term used to describe customers situated far enough from a pipeline that bypassing the distribution system would result in a rate higher than the applicable utility rate. It is also used to describe certain customers whose rates are final and do not change with changes in the utility's revenue requirements.
Coincident Peak	Peak capacity demand of a customer class which coincides with the peak capacity demand established by a system.
Columbia (COL)	The portion of the BC Gas service area which formerly was Columbia Natural Gas Limited. It is located in the East Kootenays and serves customers with gas from the ANG pipeline.
Commercial	Customer group of BC Gas which includes businesses, institutions and large multifamily buildings.
Commission	British Columbia Utilities Commission.
Commodity Charge	A charge collected on a volumetric basis which represents a market based price for utility interruptible gas supplied to the W.E.I. interconnection with BC Gas.
Cost of Gas Recovery	The portion of the price paid by the customer to compensate BC Gas for its costs of acquiring gas supply.

Cost Margin	From the Fully Distributed Cost study, the cost of service associated with a particular rate class less the associated cost of gas supply.
Delivery Charge	A unit rate for gas service, excluding the cost of gas component. This charge is collected on a volume basis and is in addition to the basic charge.
Demand Charge	A fixed monthly amount charged under a rate schedule or a gas supply or service contract. The charge is effectively a reservation fee and is paid regardless of whether or not any gas flows in that month.
Direct Purchase Administration Charge	A charge designed to recover the incremental costs associated with providing transportation service.
Division	A term created by OIC 953/89 which arose as a result of the amalgamation of four companies, namely BC Gas Inc., Inland Natural Gas Co. Ltd., Columbia Natural Gas Limited, and Fort Nelson Gas Ltd. into BC Gas Inc. in 1989. Each of these entities upon amalgamation were to be referred to for regulatory purposes as the Lower Mainland, Inland, Columbia and Fort Nelson Divisions.
East Kootenay Link	A gas transmission pipeline running between Trail and Yahk. It connects the Inland service area with the ANG pipeline.
Firm	Service provided year round without curtailment.
Fort Nelson (FN)	The portion of the BC Gas service area which formerly was Fort Nelson Gas Ltd. It comprises the Fort Nelson and Prophet River areas of northern B.C.

Franchise Fee Charge	A charge collected from customers which reside or operate in a municipality or city to which BC Gas pays franchise fees.
Full Fixed Charge	A fixed monthly fee charged regardless of the quantity of gas consumed by the customer, and representing a majority of the utility cost-of-service, excluding the cost of gas.
Full Variable Charge	A unit toll paid on each unit comprised of Commodity, Demand and Customer Margins, and the Cost of Gas Commodity.
Fully Distributed Cost (FDC)	The distribution of all gas utility costs to classes of customers.
General Service	A class of larger volume firm service customers who may have a significant portion of their consumption dedicated to processing loads.
Gigajoule (GJ)	A metric measure of energy. A billion joules.
Hyperplot	A graphical representation of a utility rate that is displayed as a straight line as a result of using a hyperbolic scale on the horizontal axis.
Inland (INL)	The portion of the BC Gas service area which formerly was Inland Natural Gas Co. Ltd. It is located throughout much of the interior of the Province and serves customers with gas primarily taken from the Westcoast pipeline system.
Integrated Resource Plan (IRP)	Planning process, used by regulated energy utilities, that equally compares options that involve changes in supply resources and changes in energy demand. The outcome of the process is an "integrated resource plan" (usually covering 15 to 20 years) and an "action plan" (usually two years).

Interruptible	Service provided with customer curtailment due to supply or system capacity limitations.
Joule	A metric measure of energy equal to the amount of work done when the point of application of a force of one newton is displaced a distance of one metre in the direction of the force.
Liquified Natural Gas (LNG)	The Company owns and operates an LNG peak shaving facility located in Delta, B.C. where natural gas is liquified and stored during off-peak periods, then vapourized and used to help meet firm customer demands during peak periods.
Load Factor	Ratio of the average load over a designated period of time to the peak load occurring in that period.
Long Run Incremental Costs (LRIC)	The estimated cost of adding an additional customer today calculated recognizing the impact of future costs.
Lower Mainland (LM)	The portion of the BC Gas service area which formerly was the Lower Mainland Gas Division of B.C. Hydro. It is located in the Lower Mainland and Fraser Valley and serves customers with gas primarily taken from the Westcoast pipeline system.
Margin	Charge for utility services calculated as the burnertip rate less the gas cost recovery.
Megajoule (MJ)	A metric measure of energy. A million joules.
Minimum Charge	A minimum monthly bill assessed customers. It is composed of charges specific to the rates in each customer class e.g. Residential, it is the basic charge or for Generally Firm Transportation, it is the basic and administration charges.

National Energy Board (NEB)	The federal regulator of interprovincial and export energy transporters. The regulator of Westcoast Energy Inc.
Non-coincident demand (NCD)	Peak capacity demand of a customer class at any time irrespective of when the system peak capacity demand is established. A method of allocating utility capacity related costs whereby the peak capacity demands for all classes are added together irrespective of the time of occurrence.
Non-captive	Customers close enough to a pipeline that bypassing the distribution system would result in a rate lower than the applicable utility rate.
O & M	Operating & Maintenance expenses of the utility.
Ogive	A graphic that represents the profile of gas sales to a group or class of customers. The horizontal axis is logarithmic and the vertical axis is on a probability scale.
Pacific Coast Energy Corporation (PCEC)	A pipeline company with its starting point at the BC Gas station near Ioco and its terminus in Victoria. The company transports gas for distribution to the Sunshine Coast, Texada Island, Powell River and parts of Vancouver Island.
Peak Responsibility (PR)	A method of allocating utility capacity related costs according to the capacity demands imposed on the system by various classes of customers during peak day.
Petajoule (PJ)	A metric measure of energy. 10^{15} joules.

Phase A	A BC Gas rate design application and hearing dealing with methodology to allocate the gas supply costs for Inland and Lower Mainland. It resulted in the Phase A Decision of February 21, 1992 in which the Lower Mainland and Inland Division gas supply cost allocation methodology and class gas cost recovery were approved.
Postage stamping	Determination of common rates for utility services, excluding gas costs, for classes of customers throughout the BC Gas service territory.
Residential	Class of customers including single family residences and multi-family buildings with less than 4 units.
Seasonal Rate	A rate which varies on a seasonal basis. Typically, the application of higher rates during the winter months of November through March reflecting the greater demand for system capacity.
Terajoule (TJ)	A metric measure of heat. A thousand gigajoules.
Transportation service (T-service)	A gas delivery service provided by a pipeline or local distribution utility to customers who purchase natural gas from producers or marketers.
TY	Test year.
Valley	Pipeline and distribution system capacity available during off peak periods.
Westcoast (WEI)	Westcoast Energy Inc. The operator of natural gas gathering, processing and transmission pipeline facilities located primarily in the Fort Nelson and Fort St. John areas of the province. The transmission facilities are

from those areas, and from Alberta, to the international boundary at Huntingdon in the Lower Mainland. The BC Gas facilities interconnect with the Westcoast facilities at many locations, with major interconnections at Savona and Huntingdon. Burrard Thermal Electric generating plant owned by B.C. Hydro and located onBurrard Inlet near IOCO.

FULLY DISTRIBUTED COST OF SERVICE STUDIES

The basic purpose of a fully distributed cost study is to compare the revenue generated by rates to the cost that a utility incurs in serving its customer classes. A fully distributed cost study (FDC) is one element frequently considered in the setting of rates. Even though it is a useful guide in this regard, it is not a prescription.

Another purpose of the FDC cost studies in this proceeding is to offer evidence about the consolidation of the divisions of BC Gas. Costs incurred by BC Gas to serve particular classes of customers in each division can be compared to illustrate the similarity or contrast between divisional cost incurrence. In its Order No. G-63-92, the Commission directed BC Gas to prepare divisional cost of service studies. The Commission's Order No. G-63-92 on page 20 reads:

> "The Commission recognizes that a financial benefit would accrue to the utility customers as a result of consolidation. While this saving is material, the canvassing of the full impact on all customers is more important. The Commission believes that the Phase B Rate Design hearing will provide an appropriate forum for the resolution of the consolidation issue. Therefore, the Commission directs BC Gas to file its cost of service studies on a divisional basis for that hearing."

1.0 FULLY DISTRIBUTED COSTING METHODOLOGY

There is no cost apportionment formula that is perfect from a theoretical standpoint and, at the same time, practical from an administrative point of view. The National Association of Regulatory Utility Commissioners, in its Cost Allocation Manual, and American Gas Association, in its Gas Rate Fundamentals, do not specify one method to the exclusion of all others. There are arguments that can be made for variants

of fully distributed cost, i. e., peak responsibility (PR), non-coincident demand (NCD), average and excess demand (AED), and others.

The approach taken here is to show for the record the findings under various methodologies of FDC studies. In this way, a range of costs will be developed to illustrate the probable floor and ceiling of costs.

2.0 CATEGORIES OF COST

The cost of gas shown in the FDC studies are those resulting from the Phase A Decision for the Lower Mainland and Inland Divisions, adjusted to reflect a full flow through of costs to the residential and general service classes. (These cost changes are further addressed under Volume 1, Tab 11). The cost of gas shown for Columbia is prepared in the same manner as it has been calculated historically. Two-thirds of BC Gas' cost of doing business relates to acquiring natural gas supplies. The remaining one-third of the costs that BC Gas incurs in serving its customer classes is for what can be called "cost margin", or total cost to serve less cost of gas. The allocation of the "cost margin" to the customer classes is the topic of the material under this Tab.

There are three primary categories of cost causing factors in utility operations: demand-related cost, customer-related cost, and commodity-related cost. The first two are fixed costs that the utility incurs and do not vary in the short term with customer consumption of energy. These costs are called "standing costs" -- the cost incurred in standing by to serve customers whenever they apply a load to the system. Commodity-related cost varies with consumption of energy and is called "running cost", or the additional cost that is incurred with the consumption of one more or one less gigajoule of gas. There are also revenue sensitive costs,

e.g., one percent of revenue in lieu of property taxes on distribution facilities.

3.0 PROCEDURES INVOLVED IN FDC STUDIES

There are three steps in preparing fully distributed cost of service studies: 1) functionalization; 2) classification of function costs into demand, commodity, and customer-related components; and 3) allocation of these costs to the various rate classes. Functionalization is the determination of costs into utility functional groups: gas supply, gas supply administration, transmission, distribution, customer accounting and marketing. Classification is the separation of the functional groups into demand, commodity and customer components by cost causation. Allocation is the process of apportioning each of the functionalized and classified cost groups to each class of customers. When possible, costs have been directly assigned to specific customer classes that caused the cost to arise. The process starts with the utility's chart of accounts.

3.1 Chart of Accounts

BC Gas maintains its accounting records in accordance with the uniform system of accounts prescribed by the Commission. These plant and revenue requirement records are the basic accounting data source for the fully distributed cost studies. The FDC input values reflect the BC Gas Revenue Requirement for Test Year 1992, as adjusted for the Commission's Decision of August 1992, except as follows:

1. The studies are based on a uniform rate of return by division at 10.31 percent, the same as granted in the Commission's Order No. G-63-92.
2. The following adjustments were made:
   i) The East Kootenay Link and the Lower Mainland LNG storage facilities are assigned to the Lower

Mainland and Inland Divisions in the ratio of 79 percent and 21 percent respectively. In Phase A of the rate design application, the Commission authorized BC Gas to allocate the integrated gas supply cost to the customer classes of the Lower Mainland and Inland Divisions. The principle of integrated gas supply facilities is carried over herein and applied to the rate base items that provide the peaking service.

ii) The Surrey-Langley Loop cost has been annualized for the full year 1992.

iii) The franchise fees in the Inland and Columbia Divisions have been removed from customer revenue and from cost of service.

iv) The Burrard and PCEC margin revenue, which was included in Other Revenue and was a reduction of cost of service, has been transferred to Lower Mainland "Other Class" revenue.

3. Corresponding sales and T-service rate schedules have been combined into the same class of customers to calculate a common cost of service margin.

4. The Inland Division industrial captive and bypass customer demand allocators have been weighted by transmission distance.

5. In the Lower Mainland Division customers under present Schedules 2207, 2208, and 2209 have been arranged into proforma customer groupings referred to as Schedule 2, Schedule 3, and Schedule 5. The costs found for customers under present Schedule 2207, 2208, and 2209 were combined and reallocated to the proforma customer groupings in order to match costs with forecasted revenue from the proforma customer groups. In addition, industrial interruptible customers under present Schedules 2501, 2502A, and 2502B are regrouped into small and large interruptible service categories along with small and large T-service customers.

6. In the Inland Division, customers under present Schedules 2.1, 2.2, and 5 have been arranged into proforma customer groupings referred to as Schedule 2, Schedule 3, and Schedule 5. The costs found for customers under present Schedules 2 and 5 were combined and reallocated to the proforma customer groupings in order to match costs to forecasted revenue from the proforma customer groups.
7. In the Columbia Division, commercial customers under present Schedules 2.1, 2.2, and 3 have been arranged into proforma customer groupings referred to as Schedule 2 and Schedule 5. The costs found for customers under present Schedules 2 and 3 were combined and reallocated to the proforma customer groupings in order to match costs to forecasted revenue from the proforma customer groups.
8. In the Columbia Division, the Cranbrook Lateral that was in the TY1992 budget has been annualized in a special study. (See Volume 2, Tab 2C, Section 9).

3.2 Functionalization

The functionalization procedure begins with plant and operating expense accounts. The investment associated with each facility is assigned to a function, e.g., gas supply, gas supply administration, transmission, distribution, customer accounts and marketing. After assigning plant costs functionally, a related expense usually follows the same functionalization logic.

From this analysis, ratios based on the proportion of gas plant assigned to each cost of service function are developed. These plant ratios can be used for the functionalization of most of the other cost items. This process requires the assistance of the Company's engineering and accounting personnel to match the plant investment and associated operating expenses to the proper cost function.

3.3 Classification

In the next step of the FDC, functional cost is divided into cost causation categories. Three principal categories are demand-related cost, commodity-related cost, and customer-related cost.

The term demand (or capacity) refers to utility service that must be available upon the customer's demand. Demand related costs appertain to the peak usage of utility service by the company's customers. Fixed costs are usually assigned to the demand classification except at the distribution, customer accounting and marketing levels where certain facilities are designed and operated with the requirements of customers in mind.

Gas plant in service and rate base costs are fixed costs. They do not vary in the short term with the number of customers or the amount of gas that customers use. These are the costs necessary to install and maintain the facilities at a level sufficient to satisfy the greatest demand that all the customers could place upon the system. They can be apportioned on the basis of the relative demands placed on the system by the various customer classes.

A commodity-related cost is the variable cost of gas. Few of the costs to operate the facilities of BC Gas are variable in nature. Gas supply administration expenses are classified as commodity-related cost in these FDC studies.

The closer a plant item, e.g., a meter and service line, is physically located to a customer, the more that particular item can be related to the requirements of that customer. Customer-related costs are those associated with services, meters, regulators, marketing and customer accounting. They are directly assigned in certain cases or are allocated to the

customers of a particular class of service based on customer weighting factors.

Customers are grouped into cost classes for cost allocation studies. These groupings may differ from the grouping of customers under existing rate schedules. For example, an industrial rate may be broadly applicable to a wide range of customer uses or there may be end-use rates applicable to specific uses within a given class. A customer's service requirements then must be identified with regard to size, load factor and predominant use.

To summarize, the separation of functionalized costs into cost causation components of demand, commodity and customer is called classification.

3.4 Capacity Allocation

Allocation of the functionalized and classified costs among the various classes of customers is the third step of the FDC process. As mentioned earlier, there are various methods that are used in this process. Three of the more commonly used methods have been employed in this study. They are the peak responsibility, non-coincident demand, and the average and excess demand methods. Each is discussed below.

3.4.1 Peak Responsibility (PR)

The PR method is used in these studies to allocate capacity costs according to the demand imposed on the system by the various classes of customers during the peak day. The correct method of determining the peak day is determined by the ex ante peak day during a forecasted test period.

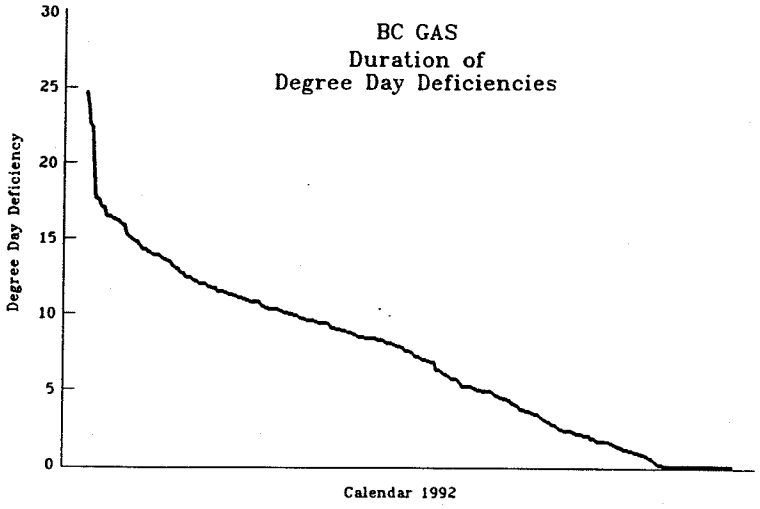
The peak responsibility method seeks to assign the capital required to provide public utility services during the peak

load requirements of its customers. The capital requirement relates to rate base such as the transmission system but not necessarily to all operating and maintenance expenses.

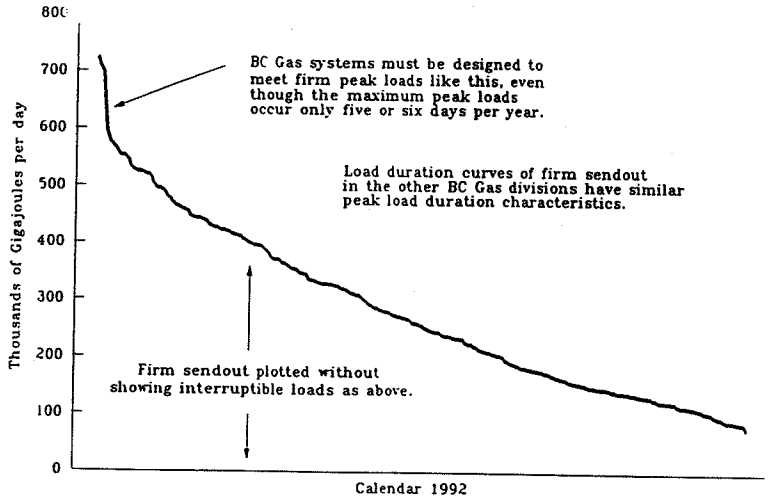
The peak-responsibility method was first used by utility companies to justify allocating capacity costs to lighting customers when the lighting peak was greatest, and to give special off-peak rates to industrial customers. In time, industrial loads became equal to or greater than the peak lighting loads. According to the peak-responsibility method, all capacity costs then should be allocated to the power peak, not the lighting peak. The PR method can cause shifts in allocated costs to different classes of customers. Capacity costs are a function of the load curve and, if the load curve changes, the change should be reflected in a changed allocation of capacity cost.

The maximum daily load imposed on BC Gas by its firm customers is highly correlated to cold winter weather. The chart below depicts the 1992 degree day deficiencies that occurred in the Lower Mainland and is typical of the Inland and Columbia Division weather characteristics.

Heating degree day deficiency (DDD) indicates the relative intensity of cold weather. It is developed by comparing the ambient temperature to 18 degrees Celsius. Thirty DDD's is another way of saying minus 12 degrees Celsius.



The gas load that the BC Gas firm customers imposed on the Lower Mainland Division system during 1992 is shown below. It is evident that there is a high degree of correlation between very cold weather, which lasts only a few days, and the gas sendout to firm customers.



The correlation between very cold weather and the firm peak loads imposed on the BC Gas system forms the basis of using the peak responsibility method as a capacity cost allocator.

3.4.2 Non-coincident Demand (NCD)

Under the NCD method of allocating capacity cost, the maximum rates of consumption of all customers or classes are added together irrespective of the time of occurrence to find the aggregate "non-coincident demand". In the case of BC Gas, peak day loads for the core customers are forecasted to occur on the coldest winter day, which for the NCD study is the same as for the PR study.

Industrial loads usually have a heating component to some degree, but they are more process oriented. Their peak loads may occur at times other than the coldest day of the year. It may be necessary to build certain portions of the system large enough to carry their loads regardless of when the peak occurs. The NCD capacity cost allocation method is of assistance under these circumstances since capacity costs are allocated to each class according the ratio of the maximum rate of consumption that each class bears to the aggregate non-coincident demand of all of the classes.

The NCD method is useful in "what-if" calculations: how would costs be distributed if interruptible class(es) of customers convert to firm service.

3.4.3 Average & Excess Demand (AED)

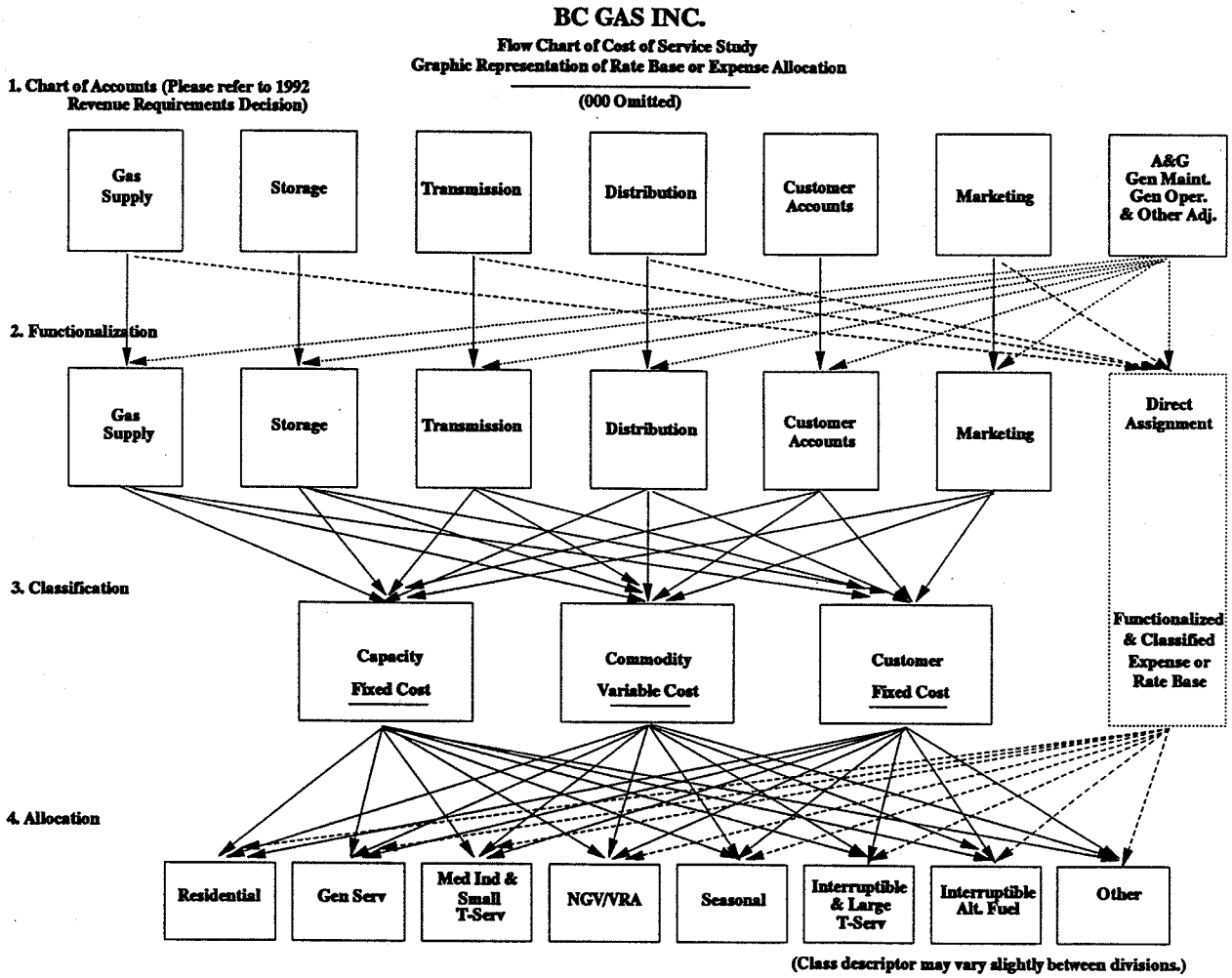
The average and excess demand method was first developed by W. J. Greene, and was called "Consumption and Demand" method. Instead of allocating all of the capacity cost to the output consumed during the system peak period as in the peak-responsibility method, Greene allocated part of the capacity cost to the various customers according to their individual maximum rates of consumption, whenever they occur, and the rest of the capacity cost was allocated to the

customers according to their individual total annual energy consumption.

A significant part of the costs incurred by a utility are sunk fixed costs and are not causally allocable on any basis. An AED allocator reflects the demand and energy delivery function year around.

4.0 GRAPHIC REPRESENTATION OF FDC STUDIES

A flow chart that depicts the process involved in the cost studies is below. The chart represents the allocation of rate base. The same chart also represents allocation of operating expenses and other items of BC Gas's revenue requirement to the various classes.



5.0 THE FDC STUDIES

The report on the Lower Mainland Division cost study is contained in Tab 2A. The Lower Mainland study is referred to as LM COS on the upper right corner of the various sheets in the enclosed report. The Inland Division cost study report is referred to as ING COS and is contained in Tab 2B. The Columbia Division cost study, referred to as CNG COS, is in Tab 2C. The pages filed under Tabs 2A, B and C are taken from the full studies.

The divisional proforma studies can be found under Tab 2D. Section 1 of Tab 2D contains a FDC for consolidated Lower Mainland, Inland and Columbia Divisions proforma rate groups Schedule 2, 3 and 5.

Section 2 of Tab 2D contains a FDC for consolidated Lower Mainland, Inland and Columbia Divisions existing rate classes.

Section 3 of Tab 2D contains a FDC for the Lower Mainland Division proforma rate groups 2, 3 and 5. It also contains a FDC for the Lower Mainland proforma small and large interruptible industrial rate groups 7/27 and 10/13/22.

Section 4 of Tab 2D contains a FDC for the Inland Division proforma rate groups 2, 3 and 5.

Section 5 of Tab 2D contains a FDC for the Columbia Division proforma rate groups 2 and 5.

The summary of the FDC process, that of cost allocation to the classes that existed during TY1992 is shown on the first three sheets contained under Tabs 2A (LM COS), 2B (ING COS), and 2C (CNG COS). The first sheet of the divisional FDC (page 1.1) represents the findings under the peak responsibility (PR) allocation method at a uniform rate of return for each class

of customers. The second sheet, page 2.1, represents the findings of the non-coincident demand (NCD) allocation method at a uniform rate of return for each class of customers. The third sheet, page 3.1, contains the findings of the average and excess demand (AED) allocation method at a uniform rate of return for each class of customers.

The pages of the FDC studies for each division follow the same pattern. Section 1 of the individual cost studies contains the three summary pages referred to above. Following the summary sheet in Tabs 2A, 2B, and 2C, a listing by chart of accounts of various costs is included along with details on the functionalization, classification and allocation process. Section 2, containing 18 pages, identified on the upper right as "Function - Rate Base", shows the process of functionalizing rate base costs. Section 3, consisting of seven pages, displays the process of classifying rate base costs identified as "Classify - Rate Base". Section 5 is the functionalization of the cost of service (which is cost of gas, O&M expenses, taxes, return, etc.) and is identified on the upper right as "Function - Cost of Service". It contains 12 pages. Section 6 contains nine pages and is the classification of the cost of service. Section 7 contains the allocation of direct assignments of rate base and cost of service, is identified by "Direct Assignment", and contains six pages. Section 8 summarizes allocation factors and consists of two pages. The Columbia Division FDC, shown under Tab 2C, has a special proforma study that shows the additional cost of annualizing the Cranbrook Lateral.

Line 10 and 11 of the FDC summary pages show the cost to serve the various customer classes including and excluding the cost of gas. Line 13 on pages 1.1, 2.1, and 3.1 shows the per-unit fully distributed cost of the BC Gas "cost margin" (cost of service less cost of gas). Per-unit values of demand,

commodity, and customer-related costs for the cost with and without the cost of gas are shown on lines 20 through 29.

The last line on the summary pages contains the ratio of "revenue margin" to "cost margin", i.e. revenue excluding cost of gas divided by total cost to serve excluding cost of gas.

BC GAS INC.

LOWER MAINLAND DIVISION
FULL DISTRIBUTED COST OF SERVICE STUDY (FDC)

INDEX

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1	1.2	FDC - PR Adjusted
1	2.1	FDC - NCD
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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

REVISED

L. Mainland
FDC
Page 1.1

Line No.	Description	Total Service	Residential 2101/2	Gen. Serv. 2207/8	Med. Ind. S. T-Serv 2209/2007	NGV/VRA 2206	Seasonal 2601/2	Non-Core Interruptible L. T-Serv 2501/2 22/10	Non-Core Alt. Fuel 2501 2)	Non-Core Other 1)	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
1	Base Rate Revenue	$497,781	$245,127	$161,494	$13,060	$3,109	$438	$35,582	$3,793	$35,178	
2	Cost of Gas Supply (PR)	$302,160	$148,218	$105,147	$5,340	$1,301	$256	$14,611	$2,270	$25,017	
3	Total Functional Expenses (PR)	97,319	60,918	29,928	2,025	679	68	1,134	203	2,365	
4	Total Operating Revenue Deductions	$399,479	$209,136	$135,075	$7,365	$1,980	$324	$15,745	$2,473	$27,382	
5	Operating Income before Taxes & Return	98,302	35,991	26,419	5,695	1,129	114	19,837	1,320	7,796	
6	Income Tax @ 10.31% return on class RB	9,385	6,408	2,463	155	492	4	117	13	(268)	
7	Return @ 10.31% return on class RB	84,595	54,198	25,786	1,672	961	40	367	36	1,536	
8	Rate Base	$820,510	$525,676	$250,099	$16,228	$9,313	$393	$3,562	$348	$14,890	
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.30%	10.31%	10.13%	10.31%	10.26%	10.31%	
10	Total Cost to Serve	$493,459	$269,742	$163,325	$9,192	$3,433	$367	$16,229	$2,521	$28,650	
11	Total Cost to Serve w/o CoG	191,299	121,524	58,178	3,852	2,132	111	1,618	251	3,632	
12	Aver. Cost of Gas, $/GJ	$2.351	$2.927	$2.864	$2.280	$1.573	$1.375	$1.226	$1.127	$1.047	
13	Average Cost to Serve w/o COG, $/GJ	$1.221	$2.400	$1.585	$0.921	$2.579	$0.599	$0.092	$0.125	$0.081	
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.930			$0.101			
14	Revenue less Total Cost to Serve	$4,322	($24,615)	($1,831)	$3,868	($324)	$71	$19,353	$1,272	$6,528	
15	Revenue less Total Cost to Serve, $/GJ	$0.028	(0.486)	(0.050)	0.925	(0.392)	0.382	1.106	0.631	0.146	
16	Rate Incr. (Decr.) Cost Based Rates	-0.87%	10.04%	1.13%	-29.62%	10.42%	-16.22%	-54.39%	-33.53%	-18.56%	
17	Revenue as a percent of Cost of Service	100.88%	90.87%	98.88%	142.08%	90.57%	119.36%	219.25%	150.44%	122.79%	
18	Gross Margin	$195,621	$96,909	$56,347	$7,720	$1,808	$182	$20,971	$1,523	$10,161	
19	Gross Margin, $/GJ	$1.248	$1.914	$1.535	$1.846	$2.187	$0.981	$1.198	$0.756	$0.227	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas										
20	Demand Cost, $/GJ		$1.293	$1.250	$0.793	$1.790	$0.283	$0.020	$0.060	$0.053	
21	Commodity Cost, $/GJ		0.035	0.035	0.028	0.036	0.024	0.025	0.026 C	0.024	
22	Customer Cost, $/GJ		1.072	0.300	0.100	0.753	0.292	0.047	0.039	0.004	
23	Customer Cost, $/bill (Monthly)		10.925	18.845	89.700	322.071	94.246	576.086	1,294.437	7,133.071	
	Per Unit Cost of Gas by Class										
24	Demand Cost, $/GJ		$1.938	$1.875	$1.284	$0.585	$0.386	$0.000	$0.000	$0.055 C	
25	Commodity Cost, $/GJ		0.989	0.989	0.996	0.989	0.989	1.226	1.127	0.992 C	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas										
26	Demand Cost, $/GJ		$3.264	$3.159	$2.078	$2.383	$0.680	$0.020	$0.060	$0.108	
27	Commodity Cost, $/GJ		0.991	0.991	1.023	1.016	1.002	1.251	1.037	1.017	
28	Customer Cost, $/GJ		1.072	0.300	0.100	0.753	0.292	0.047	0.039	0.004	
29	Customer Cost, $/bill		10.925	18.845	89.700	322.071	94.246	576.086	1,294.437	7,133.071	
30	Revenue as a percentage of Cost of Service, exduding gas		79.74%	96.85%	200.42%	84.81%	163.79%	1295.83%	605.95%	279.72%	

1) PCEC, and Burrard - Firm, Interruptible and Swing Gas
2) Non-captive customers with negotiated rates
Canada Lafarge
Tilbury Cement
Columbia Bithulithic (3) - Richmond, Coquitlam and Matsqui

LM COS
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SECTION 1
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July 12, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

REVISED

L. Mainland
FDC – PR
Page 1.2

Line No.	Description	Total Service	Residential 2101/2	Gen. Serv. 2207/8	Med. Ind. S. T–Serv 2209/2007	NGV/VRA 2206	Seasonal 2601/2	Non–Core Interruptible L. T–Serv 2501/2 22/10	Non–Core Alt. Fuel 2501	Non–Core Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Total Cost to Serve w/o CoG	$191,299	$121,524	$58,178	$3,852	$2,132	$111	$1,618	$251	$3,632
2	Adjustment Factor	1.0373								
3	Adjusted Cost to Serve w/o CoG	$198,435	$126,057	$60,348	$3,996	$2,212	$116	$1,679	$261	$3,768
4	Cost of Gas	302,160	148,218	105,147	5,340	1,301	256	14,611	2,270	25,017
5	Adjusted Total Cost to Serve	$500,594	$274,275	$165,495	$9,336	$3,512	$371	$16,290	$2,531	$28,785
6	Average Cost to Serve w/o CoG $/GJ	$1.221	$2.400	$1.585	$0.921	$2.579	$0.599	$0.092	$0.125	$0.081
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.266	$2.489	$1.644	$0.956	$2.675	$0.621	$0.096	$0.129	$0.084
7.1	Adj. T–Service Ave. Cost ind. UAF $/GJ				$0.964			$0.105		
8	Gross Margin	$195,621	$96,909	$56,347	$7,720	$1,808	$182	$20,971	$1,523	$10,161
9	Base Rate Revenue	$497,781	$245,127	$161,494	$13,060	$3,109	$438	$35,582	$3,793	$35,178
10	Gross Margin % Adj CoS, exd CoG	98.58%	76.88%	93.37%	193.21%	81.76%	157.90%	1249.23%	584.16%	269.66%
11	Revenue as a % of Cost of Service	99.44%	89.37%	97.58%	139.89%	88.51%	118.02%	218.43%	149.88%	122.21%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, exd. Cost of Gas									
13	Per Unit COS x Adjustment Factor									
14	Demand Cost, $/GJ		$1.341	$1.297	$0.823	$1.857	$0.294	$0.021	$0.062	$0.055
15	Commodity Cost, $/GJ		0.037	0.037	0.029	0.037	0.025	0.026	0.027 C	0.025
16	Customer Cost, $/GJ		1.112	0.311	0.104	0.781	0.303	0.049	0.040	0.004
17	Customer Cost, $/bill (Monthly)		11.332	19.547	93.045	334.085	97.761	597.574	1,342.719	7,399.134
18	Per Unit Cost of Gas by Class									
19	Demand Cost, $/GJ		$1.938	$1.875	$1.284	$0.585	$0.386	$0.000	$0.000	$0.055 C
20	Commodity Cost, $/GJ		0.989	0.989	0.996	0.989	0.989	1.226	1.127	0.992 C
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, ind. Cost of Gas									
22	Demand Cost, $/GJ		$3.279	$3.172	$2.107	$2.442	$0.679	$0.021	$0.062	$0.110
23	Commodity Cost, $/GJ		1.026	1.026	1.024	1.026	1.014	1.252	1.154	1.017
24	Customer Cost, $/GJ		1.112	0.311	0.104	0.781	0.303	0.049	0.040	0.004
25	Customer Cost, $/bill (Monthly)		11.332	19.547	93.045	334.085	97.761	597.574	1,342.719	7,399.134

LM COS
TAB 2A
SECTION 1
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FDC – PR
ADJUSTED
REVISED
July 12, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non-Coincident Demand Method
Test Year 1992

REVISED

L. Mainland
FDC
Page 2.1

Line No.	Description	Total Service	Residential 2101/2	Gen. Serv. 2207/8	Med. Ind. S. T-Serv 2209/2007	NGV/VRA 2206	Seasonal 2601/2	Non-Core Interruptible L. T-Serv 2501/2 22/10	Non-Core Alt. Fuel 2501 2)	Non-Core Other 1)	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
1	Base Rate Revenue	$497,781	$245,127	$161,494	$13,060	$3,109	$438	$35,582	$3,793	$35,178	
2	Cost of Gas Supply	$302,160	$148,218	$105,147	$5,340	$1,301	$256	$14,611	$2,270	$25,017	
3	Total Functional Expenses	97,319	56,358	26,728	1,796	657	75	6,604	1,581	3,521	
4	Total Operating Revenue Deductions	399,479	204,576	131,875	7,136	1,958	330	21,215	3,851	28,538	
5	Operating Income before Taxes & Return	98,302	40,551	29,619	5,924	1,151	108	14,367	(58)	6,640	
6	Income Tax @ 10.31% return on class RB	9,385	6,363	2,432	153	492	4	483	105	(648)	
7	Return @ 10.31% return on class RB	$84,595	$49,726	$22,647	$1,447	$939	$46	$5,555	$1,343	$2,893	
8	Rate Base	$820,510	$482,299	$219,653	$14,051	$9,100	$452	$53,878	$13,026	$28,051	
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.30%	10.31%	10.15%	10.31%	10.31%	10.31%	
10	Total Cost to Serve	$493,459	$260,665	$156,954	$8,737	$3,388	$380	$27,253	$5,299	$30,783	
11	Total Cost to Serve w/o CoG	191,299	112,448	51,807	3,396	2,087	125	12,642	3,029	5,765	
12	Aver. Cost of Gas, $/GJ	$2.351	$2.927	$2.864	$2.280	$1.573	$1.375	$1.226	$1.127	$1.047	
13	Average Cost to Serve w/o COG, $/GJ	$1.221	$2.221	$1.411	$0.812	$2.525	$0.671	$0.722	$1.504	$0.129	
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.821			$0.731			
14	Revenue less Total Cost to Serve	$4,322	($15,538)	$4,540	$4,323	($279)	$58	$8,329	($1,506)	$4,395	
15	Revenue less Total Cost to Serve, $/GJ	$0.028	($0.307)	$0.124	$1.034	($0.338)	$0.310	$0.476	($0.748)	$0.098	
16	Rate Incr. (Decr.) Cost Based Rates	-0.87%	6.34%	-2.81%	-33.10%	8.98%	-13.16%	-23.41%	39.70%	-12.49%	
17	Revenue as a percent of Cost of Service	100.88%	94.04%	102.89%	149.49%	91.76%	115.15%	130.56%	71.58%	114.28%	
18	Gross Margin	$195,621	$96,909	$56,347	$7,720	$1,808	$182	$20,971	$1,523	$10,161	
19	Gross Margin, $/GJ	$1.248	$1.914	$1.535	$1.846	$2.187	$0.981	$1.198	$0.756	$0.227	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding cost of gas										
20	Demand Cost, $/GJ		$1.113	$1.076	$0.685	$1.736	$0.355	$0.650	$1.439	$0.101	
21	Commodity Cost, $/GJ		0.035	0.035	0.028	0.036	0.024	0.025	0.026 C	0.024	
22	Customer Cost, $/GJ		1.072	0.300	0.100	0.753	0.292	0.047	0.039	0.004	
23	Customer Cost, $/bill		10.925	18.845	89.700	322.071	94.246	576.086	1,294.437	7,133.071	
	Per Unit Cost of Gas by Class										
24	Demand Cost, $/GJ		$1.938	$1.875	$1.284	$0.585	$0.386	$0.000	$0.000	$0.055 C	
25	Commodity Cost, $/GJ		0.989	0.989	0.996	0.989	0.989	1.226	1.127	0.992 C	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas										
26	Demand Cost, $/GJ		$3.085	$2.985	$1.969	$2.329	$0.752	$0.650	$1.439	$0.156	
27	Commodity Cost, $/GJ		0.991	0.991	1.023	1.016	1.002	1.251	1.037	1.017	
28	Customer Cost, $/GJ		1.072	0.300	0.100	0.753	0.292	0.047	0.039	0.004	
29	Customer Cost, $/bill		10.925	18.845	89.700	322.071	94.246	576.086	1,294.437	7,133.071	
30	Revenue as a percentage of Cost of Service, excluding gas		86.18%	108.76%	227.30%	86.62%	146.18%	165.88%	50.28%	176.24%	

1) PCEC, and Burrard - Firm, Interruptible and Swing Gas
2) Non-captive customers with negotiated rates
Canada Lafarge
Tilbury Cement
Columbia Bithulithic (3) - Richmond, Coquitlam and Matsqui

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non–Coincident Demand Method
Test Year 1992, Uniform Rate of Return

REVISED

Line No.	Description	Total Service	Residential 2101/2	Gen. Serv. 2207/8	Med. Ind. S.T–Serv 2209/2007	NGV/VRA 2206	Seasonal 2601/2	Non–Core: Interruptible L.T–Serv 2501/2 22/10	Non–Core: Alt. Fuel 2501	Non–Core: Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Total Cost to Serve w/o CoG	$191,299	$112,448	$51,807	$3,396	$2,087	$125	$12,642	$3,029	$5,765
2	Adjustment Factor	1.0373								
3	Adjusted Cost to Serve w/o CoG	$198,435	$116,642	$53,739	$3,523	$2,165	$129	$13,114	$3,142	$5,981
4	Cost of Gas	302,160	148,218	105,147	5,340	1,301	256	14,611	2,270	25,017
5	Adjusted Total Cost to Serve	$500,594	$264,860	$158,886	$8,863	$3,466	$385	$27,724	$5,412	$30,998
6	Average Cost to Serve w/o CoG $/GJ	$1.221	$2.221	$1.411	$0.812	$2.525	$0.671	$0.722	$1.504	$0.129
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.266	$2.304	$1.464	$0.843	$2.619	$0.696	$0.749	$1.560	$0.134
7.1	Adj. T–Service Ave. Cost ind. UAF $/GJ				$0.851			$0.758		
8	Gross Margin	$195,621	$96,909	$56,347	$7,720	$1,808	$182	$20,971	$1,523	$10,161
9	Base Rate Revenue	$497,781	$245,127	$161,494	$13,060	$3,109	$438	$35,582	$3,793	$35,178
10	Gross Margin % Adj CoS, exd CoG	98.58%	83.08%	104.85%	219.13%	83.51%	140.93%	159.92%	48.47%	169.90%
11	Revenue as a % of Cost of Service	99.44%	92.55%	101.64%	147.35%	89.70%	113.76%	128.34%	70.09%	113.49%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, exd. Cost of Gas									
13	Per Unit COS x Adjustment Factor									
14	Demand Cost, $/GJ		$1.155	$1.117	$0.710	$1.801	$0.369	$0.674	$1.493	$0.105
15	Commodity Cost, $/GJ		0.037	0.037	0.029	0.037	0.025	0.026	0.027 C	0.025
16	Customer Cost, $/GJ		1.112	0.311	0.104	0.781	0.303	0.049	0.040	0.004
17	Customer Cost, $/bill (Monthly)		11.332	19.547	93.045	334.085	97.761	597.574	1,342.7 19	7,399.134
18	Per Unit Cost of Gas by Class									
19	Demand Cost, $/GJ		$1.938	$1.875	$1.284	$0.585	$0.386	$0.000	$0.000	$0.055C
20	Commodity Cost, $/GJ		0.989	0.989	0.996	0.989	0.989	1.226	1.127	0.992C
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas									
22	Demand Cost, $/GJ		$3.093	$2.992	$1.994	$2.386	$0.754	$0.674	$1.493	$0.160
23	Commodity Cost, $/GJ		1.026	1.026	1.024	1.026	1.014	1.252	1.154	1.017
24	Customer Cost, $/GJ		1.112	0.311	0.104	0.781	0.303	0.049	0.040	0.004
25	Customer Cost, $/bill (Monthly)		11.332	19.547	93.045	334.085	97.761	597.574	1,342.7 19	7,399.134

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
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Line No.	Description	Total Service	Residential 2101/2	Gen. Serv. 2207/8	Med. Ind. S.T-Serv 2209/2007	NGV/VRA 2206	Seasonal 2601/2	Non-Core Interruptible L.T-Serv 2501/2 22/10	Non-Core Alt. Fuel 2501 2)	Non-Core Other 1)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Base Rate Revenue	$497,781	$245,127	$161,494	$13,060	$3,109	$438	$35,582	$3,793	$35,178
2	Cost of Gas	$302,160	$148,218	$105,147	$5,340	$1,301	$256	$14,611	$2,270	$25,017
3	Total Functional Expenses	97,319	55,860	26,498	1,929	714	87	7,054	1,477	3,701
4	Total Operating Revenue Deductions	399,479	204,077	131,645	7,269	2,015	343	21,665	3,747	28,718
5	Operating Income before Taxes & Return	98,302	41,050	29,849	5,791	1,094	95	13,917	46	6,460
6	Income Tax @ 10.31% return on class RB	9,385	6,353	2,437	168	498	6	533	98	(707)
7	Earned Retturn @ 10.31% on class RB	$84,595	$49,241	$22,417	$1,569	$991	$58	$5,971	$1,245	$3,104
8	Rate Base	$820,510	$477,598	$217,422	$15,235	$9,606	$565	$57,912	$12,075	$30,097
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.30%	10.31%	10.18%	10.31%	10.31%	10.31%
10	Total Cost to Serve	$493,459	$259,672	$156,498	$9,007	$3,503	$406	$28,169	$5,090	$31,114
11	Total Cost to Serve w/o CoG	191,299	111,454	51,351	3,667	2,202	151	13,558	2,820	6,097
12	Aver. Cost of Gas, $/GJ	$2.351	$2.927	$2.864	$2.280	$1.573	$1.375	$1.226	$1.127	$1.047
13	Average Cost to Serve w/o COG, $/GJ	$1.221	$2.201	$1.399	$0.877	$2.664	$0.810	$0.775	$1.400	$0.136
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.886			$0.783		
14	Revenue less Total Cost to Serve	$4,322	($14,545)	$4,996	$4,053	($394)	$32	$7,413	($1,297)	$4,064
15	Revenue less Total Cost to Serve, $/GJ	$0.028	($0.287)	$0.136	$0.969	($0.477)	$0.171	$0.424	($0.644)	$0.091
16	Rate Incr. (Decr.) Cost Based Rates	0.87%	-5.93%	3.09%	31.03%	-12.68%	7.26%	20.83%	-34.18%	11.55%
17	Revenue as a percent of Cost of Service	100.88%	94.40%	103.19%	145.00%	88.75%	107.83%	126.32%	74.53%	113.06%
18	Gross Margin	$195,621	$96,909	$56,347	$7,720	$1,808	$182	$20,971	$1,523	$10,161
19	Gross Margin, $/GJ	$1.248	$1.914	$1.535	$1.846	$2.187	$0.981	$1.198	$0.756	$0.227
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding cost of gas									
20	Demand Cost, $/GJ		$1.094	$1.064	$0.749	$1.875	$0.494	$0.702	$1.335	$0.109
21	Commodity Cost, $/GJ		0.035	0.035	0.028	0.036	0.024	0.025	0.026 C	0.024
22	Customer Cost, $/GJ		1.072	0.300	0.100	0.753	0.292	0.047	0.039	0.004
23	Customer Cost, $/bill		10.925	18.845	89.700	322.071	94.246	576.086	1,294.437	7,133.071
	Per Unit Cost of Gas by Class									
24	Demand Cost, $/GJ		$1.938	$1.875	$1.284	$0.585	$0.386	$0.000	$0.000	$0.055 C
25	Commodity Cost, $/GJ		$0.989	$0.989	$0.996	$0.989	$0.989	$1.226	$1.127	$0.992 C
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas									
26	Demand Cost, $/GJ		$3.065	$2.973	$2.033	$2.468	$0.891	$0.702	$1.335	$0.164
27	Commodity Cost, $/GJ		0.991	0.991	1.023	1.016	1.002	1.251	1.037	1.017
28	Customer Cost, $/GJ		1.072	0.300	0.100	0.753	0.292	0.047	0.039	0.004
29	Customer Cost, $/bill		10.925	18.845	89.700	322.071	94.246	576.086	1,294.437	7,133.071
30	Revenue as a percentage of Cost of Service, excluding gas		86.95%	109.73%	210.53%	82.10%	121.11%	154.68%	54.02%	166.65%

1) PCEC, and Burrard - Firm, Interruptible and Swing Gas
2) Non-captive customers with negotiated rates
Canada Lafarge
Tilbury Cement
Columbia Bithulithic (3) - Richmond, Coquitlam and Matsqui

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

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Line No.	Description	Total Service	Residential 2101/2	Gen. Serv. 2207/8	Med. Ind. S. T–Serv 2209/2007	NGV/VRA 2206	Seasonal 2601/2	Non–Core: Interruptible L. T–Serv 2501/2 22/10	Non–Core: Alt. Fuel 2501	Non–Core: Other	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
1	Total Cost to Serve w/o CoG	$191,299	$111,454	$51,351	$3,667	$2,202	$151	$13,558	$2,820	$6,097	
2	Adjustment Factor	1.0373									
3	Adjusted Cost to Serve w/o CoG	$198,435	$115,611	$53,267	$3,804	$2,284	$156	$14,064	$2,925	$6,324	
4	Cost of Gas	302,160	148,218	105,147	5,340	1,301	256	14,611	2,270	25,017	
5	Adjusted Total Cost to Serve	$500,594	$263,829	$158,414	$9,144	$3,585	$412	$28,675	$5,195	$31,342	
6	Average Cost to Serve w/o CoG $/GJ	$1.221	$2.201	$1.399	$0.877	$2.664	$0.810	$0.775	$1.400	$0.136	
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.266	$2.283	$1.451	$0.910	$2.763	$0.840	$0.803	$1.452	$0.142	
7.1	Adj. T–Service Ave. Cost ind. UAF $/GJ				$0.918			$0.812			
8	Gross Margin	$195,621	$96,909	$56,347	$7,720	$1,808	$182	$20,971	$1,523	$10,161	
9	Base Rate Revenue	$497,781	$245,127	$161,494	$13,060	$3,109	$438	$35,582	$3,793	$35,178	
10	Gross Margin % Adj CoS, exd CoG	98.58%	83.82%	105.78%	202.96%	79.15%	116.76%	149.12%	52.07%	160.66%	
11	Revenue as a % of Cost of Service	99.44%	92.91%	101.94%	142.83%	86.71%	106.36%	124.09%	73.02%	112.24%	
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, exd. Cost of Gas										
13	Per Unit COS x Adjustment Factor										
14	Demand Cost, $/GJ		$1.135	$1.104	$0.777	$1.945	$0.513	$0.728	$1.385	$0.113	C
15	Commodity Cost, $/GJ		0.037	0.037	0.029	0.037	0.025	0.026	0.027	0.025	C
16	Customer Cost, $/GJ		1.112	0.311	0.104	0.781	0.303	0.049	0.040	0.004	
17	Customer Cost, $/bill (Monthly)		11.332	19.547	93.045	334.085	97.761	597.574	1,342.719	7,399.134	
18	Per Unit Cost of Gas by Class										
19	Demand Cost, $/GJ		$1.938	$1.875	$1.284	$0.585	$0.386	$0.000	$0.000	$0.055	C
20	Commodity Cost, $/GJ		0.989	0.989	0.996	0.989	0.989	1.226	1.127	0.992	C
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, ind. Cost of Gas										
22	Demand Cost, $/GJ		$3.073	$2.979	$2.061	$2.530	$0.898	$0.728	$1.385	$0.168	
23	Commodity Cost, $/GJ		1.026	1.026	1.024	1.026	1.014	1.252	1.154	1.017	
24	Customer Cost, $/GJ		1.112	0.311	0.104	0.781	0.303	0.049	0.040	0.004	
25	Customer Cost, $/bill (Monthly)		11.332	19.547	93.045	334.085	97.761	597.574	1,342.719	7,399.134	

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

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Line No.	Description	Total Service	Residential 2101/2	Gen. Serv. 2207/8	Med. Ind. S. T-Serv 2209/2007	NGV/VRA 2206	Seasonal 2601/2	Non-Core Interruptible L. T-Serv 2501/2 22/10	Non-Core Alt. Fuel 2501	Non-Core Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Total Cost to Serve w/o CoG	$191,299	$111,454	$51,351	$3,667	$2,202	$151	$13,558	$2,820	$6,097
2	Adjustment Factor	1.0373								
3	Adjusted Cost to Serve w/o CoG	$198,435	$115,611	$53,267	$3,804	$2,284	$156	$14,064	$2,925	$6,324
4	Cost of Gas	302,160	148,218	105,147	5,340	1,301	256	14,611	2,270	25,017
5	Adjusted Total Cost to Serve	$500,594	$263,829	$158,414	$9,144	$3,585	$412	$28,675	$5,195	$31,342
6	Average Cost to Serve w/o CoG $/GJ	$1.221	$2.201	$1.399	$0.877	$2.664	$0.810	$0.775	$1.400	$0.136
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.266	$2.283	$1.451	$0.910	$2.763	$0.840	$0.803	$1.452	$0.142
7.1	Adj. T-Service Ave. Cost ind. UAF $/GJ				$0.918			$0.812		
8	Gross Margin	$195,621	$96,909	$56,347	$7,720	$1,808	$182	$20,971	$1,523	$10,161
9	Base Rate Revenue	$497,781	$245,127	$161,494	$13,060	$3,109	$438	$35,582	$3,793	$35,178
10	Gross Margin % Adj CoS, excl CoG	98.58%	83.82%	105.78%	202.96%	79.15%	116.76%	149.12%	52.07%	160.66%
11	Revenue as a % of Cost of Service	99.44%	92.91%	101.94%	142.83%	86.71%	106.36%	124.09%	73.02%	112.24%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas									
13	Per Unit COS x Adjustment Factor									
14	Demand Cost, $/GJ		$1.135	$1.104	$0.777	$1.945	$0.513	$0.728	$1.385	$0.113
15	Commodity Cost, $/GJ		0.037	0.037	0.029	0.037	0.025	0.026	(0.093)	0.025
16	Customer Cost, $/GJ		1.112	0.311	0.104	0.781	0.303	0.049	0.040	0.004
17	Customer Cost, $/bill (Monthly)		11.332	19.547	93.045	334.085	97.761	597.574	1,342.719	7,399.134
18	Per Unit Cost of Gas by Class									
19	Demand Cost, $/GJ		$1.938	$1.875	$1.284	$0.585	$0.386	$0.000	$0.000	$0.029
20	Commodity Cost, $/GJ		0.989	0.989	0.996	0.989	0.989	1.226	1.127	0.531
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, ind. Cost of Gas									
22	Demand Cost, $/GJ		$3.073	$2.979	$2.061	$2.530	$0.898	$0.728	$1.385	$0.142
23	Commodity Cost, $/GJ		1.026	1.026	1.024	1.026	1.014	1.252	1.034	0.556
24	Customer Cost, $/GJ		1.112	0.311	0.104	0.781	0.303	0.049	0.040	0.004
25	Customer Cost, $/bill (Monthly)		11.332	19.547	93.045	334.085	97.761	597.574	1,342.719	7,399.134

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ADJUSTED
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Function
Rate Base

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Line No.	Particulars	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	GROSS PLANT IN SERVICE	$840,764	$35,083	$0	$141,193	$657,277	$0	$0	$7,210	See Page 2.12
2	ACCUMULATED DEPRECIATION	(45,208)	(7,756)	0	(3,514)	(33,879)	0	0	(57)	"
3										
4	NET GAS PLANT IN SERVICE	795,556	27,327	0	137,679	623,398	0	0	7,153	See Page 2.12
5										
6										
7	COMMISSION ADJUSTMENT FOR 13 MONTH AVERAGING	(3,044)	(70)	0	(607)	(1,752)	0	0	(615)	
8										
9	CONTRIBUTIONS IN AID OF CONSTRUCTION	(7,183)	0	0	0	(7,183)	0	0	0	See Page 3.0
10										
11	CONSTRUCTION ADVANCES	(1,040)	0	0	0	(1,040)	0	0	0	See Page 4.0
12										
13	WORK IN PROGRESS, NO AFUDC	6,250	60	0	1,015	5,175	0	0	0	See Page 4.0
14										
15	UNAMORTIZED DEFERRED CHARGES	401	1,245	0	0	0	0	0	(844)	See Page 5.0
16										
17	CASH WORKING CAPITAL	14,575	0	0	0	0	0	0	14,575	See Page 6.0
18										
19	OTHER WORKING CAPITAL	14,999	6,357	0	170	3,878	0	0	4,593	See Page 6.0
20										
21	DEFERRED INCOME TAX	0	0	0	0	0	0	0	0	
22										
23										
24	TOTAL RATE BASE	$820,514	$34,919	$0	$138,257	$622,476	$0	$0	$24,862	
25										
26										
27										
28										
29										
30										
31										
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47										

Date: 15-Mar-93

LM COS
TAB 2A
SECTION 2
PAGE 1.0
RATE BASE - FUNCTION - SUMMARY

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	STORAGE GAS								
2	440/441 Land in Fee Simple and Land Rights	709	709						
3									
4	442 Structures and Improvements								
5	Gross Plant	1,193	1,193						
6	Accumulated Depreciation	(178)	(178)						
7									
8	Net Book Value	1,015	1,015						
9									
10	443 Gas Holders - Storage								
11	Gross Plant	7,270	7,270						
12	Accumulated Depreciation	(1,084)	(1,084)						
13									
14	Net Book Value	6,186	6,186						
15									
16	449 Local Storage Equipment								
17	Gross Plant	7,282	7,282						
18	Accumulated Depreciation	(838)	(838)						
19									
20	Net Book Value	6,444	6,444						
21									
22	TOTAL LOCAL STORAGE								
23	Gross Plant	16,454	16,454						
24	Accumulated Depreciation	(2,100)	(2,100)						
25									
26	Net Book Value	14,354	14,354						
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	MANUFACTURED GAS								
2	430 Manufact'd Gas - Land								
3	Gross Plant	$0							
4									
5	432 Manufact'd Gas - Struct. & Improvements								
6	Gross Plant	0							
7	Accumulated Depreciation	0							
8									
9	Net Book Value	0							
10									
11	433 Manufacturing Equipment								
12	Gross Plant	0							
13	Accumulated Depreciation	0							
14									
15	Net Book Value	0							
16									
17	434 Gas Holders - Manufacturing								
18	Gross Plant	0							
19	Accumulated Depreciation	0							
20									
21	Net Book Value	0							
22									
23	TOTAL MANUFACTURED GAS								
24	Gross Plant	0							
25	Accumulated Depreciation	0							
26									
27	Net Book Value	0							
28									
29									
30									
31									
32									
33									
34									
35									
36									
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47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TRANSMISSION PLANT								
2	460/461 Land in Fee Simple & Land Rights	$20,979	525		$20,454				
3									
4	461 Land Rights - Byron Creek								
5	Gross Plant	0			0				
6	Accumulated Depreciation	0			0				
7									
8	Net Book Value	0			0				
9									
10	462 Compressor Structures								
11	Gross Plant	343	343		0				
12	Accumulated Depreciation	(142)	(142)		0				
13									
14	Net Book Value	201	201		0				
15									
16	463 Measuring Structures								
17	Gross Plant	1,127			1,127				
18	Accumulated Depreciation	(31)			(31)				
19									
20	Net Book Value	1,096			1,096				
21									
22	464 Other Structures and Improvements								
23	Gross Plant	4	4		0				
24	Accumulated Depreciation	(2)	(2)		0				
25									
26	Net Book Value	2	2		0				
27									
28	465 Mains								
29	Gross Plant	115,239	14,065		99,746				1,428
30	Accumulated Depreciation	(6,578)	(4,472)		(2,106)				0
31									
32	Net Book Value	108,661	9,593		97,640				1,428
33									
34	465 Mains - Byron Creek								
35	Gross Plant	0			0				
36	Accumulated Depreciation	0			0				
37									
38	Net Book Value	0			0				
39									
40	466 Compressor Equipment								
41	Gross Plant	1,615	1,615		0				
42	Accumulated Depreciation	(695)	(695)		0				
43									
44	Net Book Value	920	920		0				
45									
46									
47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TRANSMISSION PLANT								
2	467-00 Measuring and Regulating Equipment								
3	Gross Plant	$4,841	17		4,824				
4	Accumulated Depreciation	(402)	(1)		(401)				
5									
6	Net Book Value	4,439	16		4,423				
7									
8	467-10 Telemetering								
9	Gross Plant	1,094	113		981				
10	Accumulated Depreciation	(462)	(136)		(326)				
11									
12	Net Book Value	632	(23)		655				
13									
14	468 Communication Structures and Equipment								
15	Gross Plant	52			52				
16	Accumulated Depreciation	1			1				
17									
18	Net Book Value	53			53				
19									
20	469 Other Transmission Equipment								
21	Gross Plant	0			0				
22	Accumulated Depreciation	0			0				
23									
24	Net Book Value	0			0				
25									
26	TOTAL TRANSMISSION PLANT								
27	Gross Plant	145,294	16,682		127,184				1,428
28	Accumulated Depreciation	(8,311)	(5,447)		(2,864)				0
29									
30	Net Book Value	136,983	11,235		124,320				1,428
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply ----- Gas Purch./ LNG/EKL	Gas Supply ----- Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	470 Land	$0				$0			
3									
4	471 Land Rights	10				10			
5									
6	471 Land Rights - Byron Creek								
7	Gross Plant	0				0			
8	Accumulated Depreciation	0				0			
9									
10	Net Book Value	0				0			
11									
12	472 Structures and Improvements - Leasehold Alterations								
13	Gross Plant	0				0			
14	Accumulated Depreciation	0				0			
15									
16	Net Book Value	0				0			
17									
18	472 Structures and Improvements - Frame Buildings								
19	Gross Plant	168				168			
20	Accumulated Depreciation	7				7			
21									
22	Net Book Value	175				175			
23									
24	472 Structures and Improvements - Masonry Buildings								
25	Gross Plant	0				0			
26	Accumulated Depreciation	0				0			
27									
28	Net Book Value	0				0			
29									
30	472 Structures and Improvements - Byron Creek								
31	Gross Plant	0				0			
32	Accumulated Depreciation	0				0			
33									
34	Net Book Value	0				0			
35									
36	473 Services - Lower Mainland								
37	Gross Plant	188,974				188,974			
38	Accumulated Depreciation	(4,389)				(4,389)			
39									
40	Net Book Value	184,585				184,585			
41									
42	473 Services - All Other								
43	Gross Plant	0				0			
44	Accumulated Depreciation	0				0			
45									
46	Net Book Value	0				0			
47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	474 House Regulators and Meter Installations								
3	Gross Plant	$10,480				10,480			
4	Accumulated Depreciation	717				717			
5									
6	Net Book Value	11,197				11,197			
7									
8	475 Mains								
9	Gross Plant	348,446				348,446			
10	Accumulated Depreciation	(21,876)				(21,876)			
11									
12	Net Book Value	326,570				326,570			
13									
14	476 Compressor Equipment - Commercial Cardlock Station								
15	Gross Plant	81							81
16	Accumulated Depreciation	(60)							(60)
17									
18	Net Book Value	21							21
19									
20	476 Compressor Equipment - Lower Mainland								
21	Gross Plant	1,864							1,864
22	Accumulated Depreciation	140							140
23									
24	Net Book Value	2,004							2,004
25									
26	476 Compressor Equipment - All Other								
27	Gross Plant	0				0			
28	Accumulated Depreciation	0				0			
29									
30	Net Book Value	0				0			
31									
32	477-00 Measuring and Regulating Equipment								
33	Gross Plant	10,317				10,317			
34	Accumulated Depreciation	(619)				(619)			
35									
36	Net Book Value	9,698				9,698			
37									
38	477-10 Telemetry Equipment								
39	Gross Plant	7				7			
40	Accumulated Depreciation	1				1			
41									
42	Net Book Value	8				8			
43									
44									
45									
46									
47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	477-00 Byron Creek								
3	Gross Plant	$0				0			
4	Accumulated Depreciation	0				0			
5									
6	Net Book Value	0				0			
7									
8	478 Meters								
9	Gross Plant	57,719				57,719			
10	Accumulated Depreciation	(3,933)				(3,933)			
11									
12	Net Book Value	53,786				53,786			
13									
14	479 Other Distribution Equipment								
15	Gross Plant	181				181			
16	Accumulated Depreciation	(14)				(14)			
17									
18	Net Book Value	167				167			
19									
20									
21	TOTAL DISTRIBUTION PLANT								
22	Gross Plant	618,247				616,302			1,945
23	Accumulated Depreciation	(30,026)				(30,106)			80
24									
25	Net Book Value	588,221				586,196			2,025
26									
27									
28	TOTAL MANUFACTURED GAS, STORAGE,								
29	TRANSMISSION & DISTRIBUTION								
30	Gross Plant	779,995	33,136	0	127,184	616,302			3,373
31	Accumulated Depreciation	(40,437)	(7,547)	0	(2,864)	(30,106)			80
32									
33	Net Book Value	739,558	25,589	0	124,320	586,196			3,453
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply ----- Gas Purch./ LNG/EKL	Gas Supply ----- Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	480 Land	$3,798	161	0	619	3,001	0	0	16
3									
4	481 Land Rights	0	0	0	0	0	0	0	0
5									
6	482 Structures and Improvements - Leasehold Alterations								
7	Gross Plant	752	32	0	123	594	0	0	3
8	Accumulated Depreciation	(499)	(21)	0	(81)	(394)	0	0	(2)
9									
10	Net Book Value	253	11	0	42	200	0	0	1
11									
12	482 Structures and Improvements - Lochburn Admin. Warehouse								
13	Gross Plant	5,161	219	0	842	4,078	0	0	22
14	Accumulated Depreciation	(259)	(11)	0	(42)	(205)	0	0	(1)
15									
16	Net Book Value	4,902	208	0	800	3,873	0	0	21
17									
18	482 Structures and Improvements - Lochburn Cafeteria								
19	Gross Plant	14	1	0	2	11	0	0	0
20	Accumulated Depreciation	(1)	0	0	0	(1)	0	0	0
21									
22	Net Book Value	13	1	0	2	10	0	0	0
23									
24	482 Structures and Improvements - All Other								
25	Gross Plant	5,743	244	0	936	4,538	0	0	25
26	Accumulated Depreciation	(563)	(24)	0	(92)	(445)	0	0	(2)
27									
28	Net Book Value	5,180	220	0	844	4,093	0	0	23
29									
30	483 Office Furniture and Equipment - Fraser Valley/ Lochburn/ LNG								
31	Gross Plant	1,786	76	0	291	1,411	0	0	8
32	Accumulated Depreciation	(40)	(2)	0	(7)	(32)	0	0	0
33									
34	Net Book Value	1,746	74	0	284	1,379	0	0	8
35									
36	483 Office Furniture and Equipment - Computers Software/ LNG/ Misc.								
37	Gross Plant	17,518	744	0	2,856	13,842	0	0	76
38	Accumulated Depreciation	(2,612)	(111)	0	(426)	(2,064)	0	0	(11)
39									
40	Net Book Value	14,906	633	0	2,430	11,778	0	0	65
41									
42	483 Office Furniture and Equipment - Computers Micro. Comp. System								
43	Gross Plant	64	3	0	10	51	0	0	0
44	Accumulated Depreciation	(25)	(1)	0	(4)	(20)	0	0	0
45									
46	Net Book Value	39	2	0	6	31	0	0	0
47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	483 Office Furniture and Equipment - EDP Equipment								
3	Gross Plant	$0	0	0	0	0	0	0	0
4	Accumulated Depreciation	0	0	0	0	0	0	0	0
5									
6	Net Book Value	0	0	0	0	0	0	0	0
7									
8	483 Office Furniture and Equipment - Computers Assist Mapping								
9	Gross Plant	149	6	0	24	118	0	0	1
10	Accumulated Depreciation	(127)	(5)	0	(21)	(100)	0	0	(1)
11									
12	Net Book Value	22	1	0	3	18	0	0	0
13									
14	483 Office Furniture and Equipment - GMS Leased Software								
15	Gross Plant	0	0	0	0	0	0	0	0
16	Accumulated Depreciation	0	0	0	0	0	0	0	0
17									
18	Net Book Value	0	0	0	0	0	0	0	0
19									
20	483 Office Furniture and Equipment - Training, Display & Documentation								
21	Gross Plant	0	0	0	0	0	0	0	0
22	Accumulated Depreciation	0	0	0	0	0	0	0	0
23									
24	Net Book Value	0	0	0	0	0	0	0	0
25									
26	483 Office Furniture and Equipment - All Other								
27	Gross Plant	0	0	0	0	0	0	0	0
28	Accumulated Depreciation	0	0	0	0	0	0	0	0
29									
30	Net Book Value	0	0	0	0	0	0	0	0
31									
32	484 Transportation Equipment - Utility Trailers								
33	Gross Plant	88	4	0	14	70	0	0	0
34	Accumulated Depreciation	(9)	0	0	(1)	(7)	0	0	0
35									
36	Net Book Value	79	4	0	13	63	0	0	0
37									
38	484 Transportation Equipment - Automobiles								
39	Gross Plant	8	0	0	1	6	0	0	0
40	Accumulated Depreciation	0	0	0	0	0	0	0	0
41									
42	Net Book Value	8	0	0	1	6	0	0	0
43									
44									
45									
46									
47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	484 Transportation Equipment - Aircraft								
3	Gross Plant	$0	0	0	0	0	0	0	0
4	Accumulated Depreciation	0	0	0	0	0	0	0	0
5									
6	Net Book Value	0	0	0	0	0	0	0	0
7									
8	484 Transportation Equipment - Leased Equipment								
9	Gross Plant	0	0	0	0	0	0	0	0
10	Accumulated Depreciation	0	0	0	0	0	0	0	0
11									
12	Net Book Value	0	0	0	0	0	0	0	0
13									
14	485 Heavy Work Equipment								
15	Gross Plant	96	4	0	16	76	0	0	0
16	Accumulated Depreciation	1	0	0	0	1	0	0	0
17									
18	Net Book Value	97	4	0	16	77	0	0	0
19									
20	486 Tools and Work Equipment								
21	Gross Plant	4,599	195	0	750	3,634	0	0	20
22	Accumulated Depreciation	(541)	(23)	0	(88)	(427)	0	0	(2)
23									
24	Net Book Value	4,058	172	0	662	3,207	0	0	18
25									
26	487 Equipment on Customer's Premises								
27	Gross Plant	3,156							3,156
28	Accumulated Depreciation	(117)							(117)
29									
30	Net Book Value	3,039							3,039
31									
32	487 Equipment on Customer's Premises - VRA Compressor								
33	Gross Plant	459							459
34	Accumulated Depreciation	0							0
35									
36	Net Book Value	459							459
37									
38	487 Equipment on Customer's Premises - VRA Installation Cost								
39	Gross Plant	0							0
40	Accumulated Depreciation	0							0
41									
42	Net Book Value	0							0
43									
44									
45									
46									
47									

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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	488 Communication Equipment - Structures & Equipment								
3	Gross Plant	$727	31	0	119	574	0	0	3
4	Accumulated Depreciation	(39)	(2)	0	(6)	(31)	0	0	0
5									
6	Net Book Value	688	29	0	113	543	0	0	3
7									
8	488 Communication Equipment - Radios								
9	Gross Plant	4,580	195	0	747	3,619	0	0	20
10	Accumulated Depreciation	(209)	(9)	0	(34)	(165)	0	0	(1)
11									
12	Net Book Value	4,371	186	0	713	3,454	0	0	19
13									
14	489 Other General Equipment								
15	Gross Plant	643	27	0	105	508	0	0	3
16	Accumulated Depreciation	0	0	0	0	0	0	0	0
17									
18	Net Book Value	643	27	0	105	508	0	0	3
19									
20	TOTAL GENERAL EQUIPMENT								
21	Gross Plant	49,341	1,942	0	7,455	36,131	0	0	3,812
22	Accumulated Depreciation	(5,040)	(209)	0	(802)	(3,890)	0	0	(137)
23									
24	Net Book Value	44,301	1,733	0	6,653	32,241	0	0	3,675
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
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40									
41									
42									
43									
44									
45									
46									
47									

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	INTANGIBLE PLANT								
2	117 Utility Plant								
3	Acquisition Adjustment								
4	Gross Plant	$0							
5	Accumulated Depreciation	0							
6									
7	Net Book Value	0							
8									
9	175 Unamortized								
10	Conversion Expense								
11	Gross Plant	0							
12	Accumulated Depreciation	0							
13									
14	Net Book Value	0							
15									
16	178 Organization Expense								
17	Gross Plant	0							
18	Accumulated Depreciation	0							
19									
20	Net Book Value	0							
21									
22	179 Other Deferred Charges								
23	Gross Plant	0							
24	Accumulated Depreciation	0							
25									
26	Net Book Value	0							
27									
28	401 Franchise Consents								
29	Gross Plant	0							
30	Accumulated Depreciation	0							
31									
32	Net Book Value	0							
33									
34	402 Other Intangible Plant								
35	Gross Plant	0							
36	Accumulated Depreciation	0							
37									
38	Net Book Value	0							
39									
40	TOTAL INTANGIBLE PLANT								
41	Gross Plant	0							
42	Accumulated Depreciation	0							
43									
44	Net Book Value	0							
45									
46									
47									

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TOTAL UNCLASSIFIED PLANT								
2	Gross Plant	$11,684	16	0	6,596	5,046	0	0	26
3	Accumulated Depreciation	269	0	0	152	117	0	0	0
4									
5	Net Book Value	11,953	16	0	6,748	5,163	0	0	26
6									
7									
8	DISALLOWED PLANT COSTS								
9	Gross Plant	(256)	(11)	0	(42)	(202)	0	0	(1)
10	Accumulated Depreciation	0	0	0	0	0	0	0	0
11									
12	Net Book Value	(256)	(11)	0	(42)	(202)	0	0	(1)
13									
14									
15	RETIREMENT WORK IN PROGRESS	0	0	0	0	0	0	0	0
16									
17	TOTAL NET GAS PLANT IN SERVICE								
18	Gross Plant	840,764	35,083	0	141,193	657,277	0	0	7,210
19	Accumulated Depreciation	(45,208)	(7,756)	0	(3,514)	(33,879)	0	0	(57)
20									
21	Net Book Value	$795,556	$27,327	$0	$137,679	$623,398	$0	$0	$7,153
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
CONTRIBUTIONS IN AID OF CONSTRUCTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Function
Rate Base
CIAOC
Page 3.0

Line No.	Particulars	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DSEP / PGEP								
2	Gross Grant	$391				$391			
3	Amortization	0				0			
4									
5	Net Grant	391				391			
6									
7	Natural Gas Vehicle Conversion Grants								
8	Gross Grant	1	0	0	0	1	0	0	0
9	Amortization	0	0	0	0	0	0	0	0
10									
11	Net Grant	1	0	0	0	1	0	0	0
12									
13	Natural Gas Vehicle Station Grants								
14	Gross Grant	0							
15	Amortization	0							
16									
17	Net Grant	0							
18									
19	Leasehold Alterations								
20	Gross Grant	0							
21	Amortization	0							
22									
23	Net Grant	0							
24									
25	Furniture and Equipment								
26	Gross Grant	0							
27	Amortization	0							
28									
29	Net Grant	0							
30									
31	Other								
32	Gross Grant	7,015				7,015			
33	Amortization	(224)				(224)			
34									
35	Net Grant	6,791				6,791			
36									
37									
38	TOTAL CONTRIBUTIONS IN AID OF CONSTRUCTION								
39	Gross Grant	7,407	0	0	0	7,407	0	0	0
40	Amortization	(224)	0	0	0	(224)	0	0	0
41									
42	Net Grant	7,183	0	0	0	7,183	0	0	0
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
CONSTRUCTION ADVANCES / GAS PLANT UNDER CONSTRUCTION / DEFERRED INCOME TAX
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Function
Rate Base
Cust. Advances, Gas
Plant Under Construct. &
Deferred Income Tax
Page 4.0

Line No.	Particulars	Total	----- Gas Supply ------ Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	CONSTRUCTION ADVANCES	$1,040				$1,040			
4	GAS PLANT UNDER CONSTRUCTION NOT ATTRACTING AFUDC	$6,250	$60		$1,015	$5,175			
8	DEFERRED INCOME TAX	$0							

Date: 15-Mar-93

LM COS
TAB 2A
SECTION 2
PAGE 4.0
RATE BASE - FUNCTION
- ADVANCES, CWIP,
DEFERRED TAXES

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
DEFERRED CHARGES
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	#179-45 Metering Stations	$0							
2	#179-02 Furnace Grants *	0							
3									
4	Market Rebate Incentive								
5	- #179-52 Water Heater Grants *	273							273
6	- #179-13 Commercial *	41							41
7	- #179-13 Space / Water Heating *	13							13
8									
9	#179-18/42 NGV Conversion Grants *	722							722
10	#279-08 NGV Deferred Margin	0							
11	#179-57 Appliance Insurance Program	110							110
12									
13	#279-24 Revelstoke Deferred Fuel Cost	0							
14	#179-42 Conversion Grants - Revelstoke	0							
15	#279-20 S.S. Tax on Aircraft	0							
16									
17	#179-58 Rate Design Costs - Phase A *	51	51						
18	#179-58 Rate Design Costs - Phase B *	0							
19	#179-59 Revenue Requirement Hearing *	163							163
20									
21	#179-63 Demand Side Management *	0							
22	#179-64 Integrated Resource Planning *	0							
23	#179-30 Gas Purchase Negotiation Cost	403	403						
24									
25	$0.41 Deferral - B.C.U.C. #G-92-91	127							127
26	Deferred Cost of Gas - B.C.U.C. #G-92-91	1,383	1,383						
27	Cost of Gas Rate 2501 - B.C.U.C. #G-92-91	(1,713)							(1,713)
28	Deferred COG Rate 10/12 - B.C.U.C. #G-92-91	0							
29									
30	VIA Credits	(592)	(592)						
31	Burrard Interruptible	(580)							(580)
32	Deferred Capital Gain *	0							
33									
34	Total Deferred Charges in Rate Base	$401	$1,245	$0	$0	$0	$0	$0	($844)
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
WORKING CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Function
Rate Base
Working Capital
Page 6.0

Line No.	Particulars	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Cash Working Capital								
2									
3	Cash Required for Operating Expenses	$15,797							
4	Minimum Bank Balance	649							
5	Customers' Deposits	0							
6	Reserve for Bad Debts								
7	Lower Mainland	0							
8									
9									
10									
11									
12									
13									
14									
15	Withholding from Employees	(1,871)							
16									
17	Total Cash Working Capital	14,575							14,575
18									
19									
20	Other Working Capital								
21									
22	Inventories								
23	Pipe	1,645				1,645			
24	Fittings	1,242				1,242			
25	Meters & Regulators	763				763			
26	Supplies & Other	289	12	0	47	228	0	0	1
27									
28	NGV - Cylinders	509							509
29	- Vehicle Refueling Appliance	158							158
30									
31	Merchandising Inventories	0							
32									
33	Total Inventory	4,606	12	0	47	3,878	0	0	668
34									
35	Transmission Line Pack Gas	123			123				
36	Gas in Storage	6,345	6,345						
37	Appliance Financing Receivables	3,925							3,925
38									
39	Total Other Working Capital	14,999	6,357	0	170	3,878	0	0	4,593
40									
41									
42	Total Working Capital	$29,574	$6,357	$0	$170	$3,878	$0	$0	$19,168
43									
44									
45									
46									
47									

Date: 15-Mar-93

RATE BASE - FUNCTION
- WORKING CAPITAL

TAB 2A
SECTION 2
PAGE 6.0

LM COS

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
SUMMARY BY FUNCTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Gas Supply - Gas Purch./LNG/East Koot. Link	$34,919	$26,766	$8,153	$0	$0	Page 2.0
2							
3	Gas Supply - Administration	0	0	0	0	0	
4							
5	Transmission	138,257	138,257	0	0	0	
6							
7	Distribution	622,476	357,150	0	0	265,326	Page 5.9
8							
9	Marketing	0	0	0	0	0	
10							
11	Customer Accounting	0	0	0	0	0	
12							
13	Direct Assignment	24,862	(615)	163	25,314	0	
14							
15							
16	Total	$820,514	$521,558	$8,316	$25,314	$265,326	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
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36							
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39							
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43							
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45							
46							
47							

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
GAS SUPPLY - GAS PURCHASES/LNG/EAST KOOTENAY LINK
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	TOTAL NET GAS PLANT IN SERVICE					
2	Gross Plant	35,083	35,083			
3	Accumulated Depreciation	(7,756)	(7,756)			
4						
5		27,327	27,327			
6						
7						
8	COMMISSION ADJUSTMENT FOR 13 MONTH AVERAGING	(70)	(70)			
9						
10	CONTRIBUTIONS IN AID OF CONSTRUCTION	0				
11						
12	CONSTRUCTION ADVANCES	0				
13						
14	WORK IN PROGRESS, NO AFUDC	60	60			
15						
16	UNAMORTIZED DEFERRED CHARGES					
17	#179-58 Rate Design Costs - Phase A *	$51	29	22	0	0
18	#179-30 Gas Purchase Negotiation Cost	403		403		
19	Deferred Cost of Gas - B.C.U.C. #G-92-91	1,383		1,383		
20	VIA Credits	(592)	(592)			
21						
22		1,245	(563)	1,808	0	0
23						
24						
25	CASH WORKING CAPITAL	0				
26						
27	OTHER WORKING CAPITAL					
28	Inventories	12	12	0	0	0
29	Gas in Storage	6,345		6,345		
30						
31	DEFERRED INCOME TAX	0				
32						
33						
34	TOTAL RATE BASE	$34,919	$26,766	$8,153	$0	$0
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	460/461 Land in Fee Simple & Land Rights	$20,454	$20,454			
3						
4	461 Land Rights - Byron Creek					
5	Gross Plant	0	0			
6	Accumulated Depreciation	0	0			
7						
8	Net Book Value	0	0	0	0	0
9						
10	462 Compressor Structures					
11	Gross Plant	0	0			
12	Accumulated Depreciation	0	0			
13						
14	Net Book Value	0	0	0	0	0
15						
16	463 Measuring Structures					
17	Gross Plant	1,127	1,127			
18	Accumulated Depreciation	(31)	(31)			
19						
20	Net Book Value	1,096	1,096	0	0	0
21						
22	464 Other Structures and Improvements					
23	Gross Plant	0	0			
24	Accumulated Depreciation	0	0			
25						
26	Net Book Value	0	0	0	0	0
27						
28	465 Mains					
29	Gross Plant	99,746	99,746			
30	Accumulated Depreciation	(2,106)	(2,106)			
31						
32	Net Book Value	97,640	97,640	0	0	0
33						
34	465 Mains - Byron Creek					
35	Gross Plant	0	0			
36	Accumulated Depreciation	0	0			
37						
38	Net Book Value	0	0	0	0	0
39						
40	466 Compressor Equipment					
41	Gross Plant	0	0			
42	Accumulated Depreciation	0	0			
43						
44	Net Book Value	0	0	0	0	0
45						
46						
47						

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	467-00 Measuring and Regulating Equipment					
3	Gross Plant	$4,824	$4,824			
4	Accumulated Depreciation	(401)	(401)			
5						
6	Net Book Value	4,423	4,423	0	0	0
7						
8	467-10 Telemetering					
9	Gross Plant	981	981			
10	Accumulated Depreciation	(326)	(326)			
11						
12	Net Book Value	655	655	0	0	0
13						
14	468 Communication Structures and Equipment					
15	Gross Plant	52	52			
16	Accumulated Depreciation	1	1			
17						
18	Net Book Value	53	53	0	0	0
19						
20	469 Other Transmission Equipment					
21	Gross Plant	0	0			
22	Accumulated Depreciation	0	0			
23						
24	Net Book Value	0	0	0	0	0
25						
26	TOTAL TRANSMISSION PLANT					
27	Gross Plant	127,184	127,184	0	0	0
28	Accumulated Depreciation	(2,864)	(2,864)	0	0	0
29						
30	Net Book Value	124,320	124,320	0	0	0
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Classify
Rate Base - Distribution
Page 5.0

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	470 Land	0				
3						
4	471 Land Rights	10	10			
5						
6	471 Land Rights - Byron Creek					
7	Gross Plant	0				
8	Accumulated Depreciation	0				
9						
10	Net Book Value	0	0	0	0	0
11						
12	472 Structures and Improvements - Leasehold Alterations					
13	Gross Plant	0				
14	Accumulated Depreciation	0				
15						
16	Net Book Value	0				
17						
18	472 Structures and Improvements - Frame Buildings					
19	Gross Plant	168	168			
20	Accumulated Depreciation	7	7			
21						
22	Net Book Value	175	175			0
23						
24	472 Structures and Improvements - Masonry Buildings					
25	Gross Plant	0				
26	Accumulated Depreciation	0				
27						
28	Net Book Value	0	0	0	0	0
29						
30	472 Structures and Improvements - Byron Creek					
31	Gross Plant	0				
32	Accumulated Depreciation	0				
33						
34	Net Book Value	0				
35						
36	473 Services - Lower Mainland					
37	Gross Plant	188,974	0		0	188,974
38	Accumulated Depreciation	(4,389)	0		0	(4,389)
39						
40	Net Book Value	184,585	0		0	184,585
41						
42	473 Services - All Other					
43	Gross Plant	0				
44	Accumulated Depreciation	0				
45						
46	Net Book Value	0				
47						

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	474 House Regulators and Meter Installations					
3	Gross Plant	$10,480	$0		$0	$10,480
4	Accumulated Depreciation	717	0		0	717
5						
6	Net Book Value	11,197	0		0	11,197
7						
8	475 Mains					
9	Gross Plant	348,446	348,446			
10	Accumulated Depreciation	(21,876)	(21,876)			
11						
12	Net Book Value	326,570	326,570			0
13						
14	476 Compressor Equipment - Commercial Cardlock Station					
15	Gross Plant	0				
16	Accumulated Depreciation	0				
17						
18	Net Book Value	0				
19						
20	476 Compressor Equipment - Lower Mainland					
21	Gross Plant	0				
22	Accumulated Depreciation	0				
23						
24	Net Book Value	0				
25						
26	476 Compressor Equipment - All Other					
27	Gross Plant	0				
28	Accumulated Depreciation	0				
29						
30	Net Book Value	0				
31						
32	477-00 Measuring and Regulating Equipment					
33	Gross Plant	10,317	10,317			
34	Accumulated Depreciation	(619)	(619)			
35						
36	Net Book Value	9,698	9,698			0
37						
38	477-10 Telemetry Equipment					
39	Gross Plant	7	7			
40	Accumulated Depreciation	1	1			
41						
42	Net Book Value	8	8			0
43						
44						
45						
46						
47						

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	477-00 Byron Creek					
3	Gross Plant	0				
4	Accumulated Depreciation	0				
5						
6	Net Book Value	0				
7						
8	478 Meters					
9	Gross Plant	57,719	0		0	57,719
10	Accumulated Depreciation	(3,933)	0		0	(3,933)
11						
12	Net Book Value	53,786	0		0	53,786
13						
14	479 Other Distribution Equipment					
15	Gross Plant	181	181			
16	Accumulated Depreciation	(14)	(14)			
17						
18	Net Book Value	167	167			0
19						
20						
21	TOTAL DISTRIBUTION PLANT					
22	Gross Plant	616,302	359,129	0	0	257,173
23	Accumulated Depreciation	(30,106)	(22,501)	0	0	(7,605)
24						
25	Net Book Value	586,196	336,628	0	0	249,568
26						
27						
28						
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Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	GROSS PLANT IN SERVICE	657,277	383,004	0	0	274,273
2	ACCUMULATED DEPRECIATION	(33,879)	(24,700)	0	0	(9,179)
3						
4	NET GAS PLANT IN SERVICE	623,398	358,304	0	0	265,094
5						
6						
7	COMMISSION ADJUSTMENT FOR 13 MONTH AVERAGING	(1,752)	(1,021)	0	0	(731)
8						
9	CONTRIBUTIONS IN AID OF CONSTRUCTION	(7,183)	(4,349)	0	0	(2,834)
10						
11	CONSTRUCTION ADVANCES	(1,040)			0	(1,040)
12						
13	WORK IN PROGRESS, NO AFUDC	5,175	3,016	0	0	2,159
14						
15	UNAMORTIZED DEFERRED CHARGES	0	0	0	0	
16						
17	CASH WORKING CAPITAL	0	0	0	0	0
18						
19	OTHER WORKING CAPITAL					
20	Inventories - Pipe	1,645	1,067	0	0	578
21	- Fittings	1,242	0	0	0	1,242
22	- Meters & Regulators	763	0	0	0	763
23	- Supplies & Other	228	133	0	0	95
24						
25	Total Other Working Capital	3,878	1,200	0	0	2,678
26						
27						
28	DEFERRED INCOME TAX	0				
29						
30						
31	TOTAL RATE BASE	$622,476	$357,150	$0	$0	$265,326
32						
33						
34						
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Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Gas (including Gas Lost)	$302,160	$302,160						$0	
2										
3	Operation and Maintenence	62,438	2,095	2,565	6,442	39,417	1,838	7,342	2,740	Ref. Page 2.2
4	Property and Franchise Tax	15,184	207	0	2,926	7,568	0	0	4,483	Ref. Page 3.0
5	Depreciation and Amortization	22,571	2,026	0	2,783	16,779	0	0	981	Ref. Page 4.3
6	Other Operating Revenue	(12,709)	(1)	0	(4)	(598)	0	0	(12,106)	Ref. Page 5.0
7										
8		87,484	4,327	2,565	12,147	63,166	1,838	7,342	(3,902)	
9										
10										
11	Income Taxes	9,386	924	1	(3,997)	10,985	1	2	1,470	Ref. Page 6.0
12										
13	Earned Return	84,595	3,600	0	14,254	64,177	0	0	2,563	Line 27
14										
15	Total Cost of Service	483,625	311,011	2,566	22,404	138,328	1,839	7,344	131	
16										
17	Less: Cost of Gas	(302,160)	(302,160)	0	0	0	0	0	0	
18										
19	Gross Margin Cost of Service	$181,465	$8,851	$2,566	$22,404	$138,328	$1,839	$7,344	$131	
20										
21										
22	Rate Base x	$820,514	$34,919	$0	$138,257	$622,476	$0	$0	$24,862	Ref. Rate Base Page 1.0
23										
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	Per Decision
25										
26										
27	Earned Return	$84,595	$3,600	$0	$14,254	$64,177	$0	$0	$2,563	
28										
29										
30										
31										
32										
33										
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BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	639 Propane Air Plant - Manufact'd Gas	$0							
2	640 Liquid Natural Gas - Supervision	100	100						
3	649 Liquid Natural Gas Operation - Plant	535	535						
4									
5		635	635						
6									
7	660 Transmission - Supervision	1,010			1,010				
8	665 Transmission Mains	679			679				
9	666 Transmission Compressors	151			151				
10	667 Measuring and Regulating	12			12				
11	668 Telemetry	19			19				
12	669 Gas Load - Supervision	756		746	10				
13	669.198 Charged to Capital	(231)			(231)				
14	669.199 Cross Charges	(233)			(233)				
15									
16		2,163	0	746	1,417				
17									
18	670 Distribution - Supervision	14,146				14,146			
19	671 Load Dispatching	394		363		31			
20	673 Remove & Reset Meters & Regulators	1,494				1,494			
21	674 Premise Calls	4,348				4,348			
22	675 Mains and Services	1,205				1,205			
23	677 Measuring and Regulating	1,185				1,185			
24	679.001 Muster Points	124				124			
25	679.198 Charged to Capital	(9,071)				(9,071)			
26	679.199 Cross Charges	(272)				(272)			
27									
28		13,553		363		13,190			
29									
30	684 System Operation - Communication	117	5	0	19	92	0	0	1
31	685 System Operation & Engineering	9,835	418	0	1,604	7,771	0	0	43
32	688 General Operations	988	42	0	161	781	0	0	4
33	689.198 Charged to Capital	(3,234)	(137)	0	(527)	(2,555)	0	0	(14)
34	689.199 Cross Charges	(1,492)	(63)	0	(243)	(1,179)	0	0	(6)
35									
36		6,214	265	0	1,014	4,910	0	0	28
37									
38									
39	Total Operating Expenses	22,565	900	1,109	2,431	18,100	0	0	28
40									
41									
42									
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	700 Marketing	$2,364					1,948		416
2	700.198 Charged to Capital	(481)					(481)		
3	701 Advertising	647					67		580
4	702 Demonstration & Selling	1,354					176		1,178
5	703 Merchandising Revenue	0					0		
6	704 Merchandising Cost of Goods	57					57		
7	709 Other Sales Promotion	71					71		
8									
9	Total Marketing	4,012					1,838		2,174
10									
11	710 Customer Accounting	1,477						1,477	
12	711 Contracts and Orders	0						0	
13	712 Meter Reading	984						984	
14	713 Customer Billing & Accounting	995						995	
15	714 Credit and Collection	2,596						2,596	
16	718 Uncollectible Accounts	1,290						1,290	
17									
18	Total Customer Accounting	7,342						7,342	
19									
20	832 Manufactured Gas Production - Maint.	0							
21	849 Liquified Natural Gas - Plant Maint.	265	265						
22									
23		265	265	0					
24									
25	862 Trans. Struct. & Improvements - Mtnce.	0			0				
26	865 Transmission Mains - Maintenance	367			367				
27	866 Compressors - Maintenance	60			60				
28	867 Measuring and Regulating - Maintenance	3			3				
29	868 Telemetry - Maintenance	15			15				
30									
31		445			445				
32									
33	872 Distrib. Struct. & Improvements - Mtnce.	0				0			
34	875 Mains and Services - Maintenance	1,833				1,833			
35	877 Measuring and Regulating - Maintenance	130				130			
36	878 Meters - Maintenance	2,044				2,044			
37	879 Muster Points - Maintenance	31				31			
38									
39		4,038				4,038			
40									
41	884 Communication - Maintenance	40	2	0	7	32	0	0	0
42	885 System Mtnce. - Eng./Bldgs./Yards	375	16	0	61	296	0	0	2
43	888 General Operations	1,010	43	0	165	798	0	0	4
44	889.199 Cross Charges	(22)	(1)	0	(4)	(17)	0	0	0
45									
46		1,403	60	0	229	1,109	0	0	6
47									
48	Total Maintenance	6,151	325	0	674	5,147	0	0	6

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	690 NGV Compressors	$0							0
2	790 NGV Operations	521							521
3	790.198 Charged to Capital	(162)							(162)
4	890 NGV Maintenance	84							84
5									
6	Total NGV	443							443
7									
8									
9	721 Administrative Expenses	30,563	1,237	1,456	4,746	22,998	0	0	126
10	722 Special Services	763	32	0	124	603	0	0	3
11	723 Insurance - General	1,032	44	0	168	815	0	0	4
12	724 Injuries and Damages	123	5	0	20	97	0	0	1
13	728 Other Administrative and General Expense	2,277	97	0	371	1,799	0	0	10
14	729.198 Charges to Capital	(10,164)	(432)	0	(1,657)	(8,031)	0	0	(44)
15	729.199 Cross Charges	(1,265)	(54)	0	(206)	(1,000)	0	0	(5)
16									
17	Total Administrative Expenses	23,329	929	1,456	3,566	17,281	0	0	95
18									
19	Subtotal	63,842	2,154	2,565	6,671	40,528	1,838	7,342	2,746
20									
21	Less - Vehicle Depreciation Included Above	(435)	(18)	0	(71)	(344)	0	0	(2)
22	Less - Leased Vehicle Interest								
23	Included Above	(430)	(18)	0	(70)	(340)	0	0	(2)
24	Less - Inflation Adjustment for Materials								
25	and Services	(259)	(11)	0	(42)	(205)	0	0	(1)
26	Less - Salary Adjustment for Management and								
27	Exempt Employees	(59)	(3)	0	(10)	(47)	0	0	0
28	Commission Adjustment	(221)	(9)	0	(36)	(175)	0	0	(1)
29									
30									
31	TOTAL OPERATION AND MAINTENANCE EXPENSES	$62,438	$2,095	$2,565	$6,442	$39,417	$1,838	$7,342	$2,740
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
PROPERTY TAXES AND FRACHISE FEES

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Function
Cost of Service
Property Taxes
Page 3.0

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	1% in Lieu of General Municipal Tax	$4,406							$4,406
2									
3	General, School & Other	8,244	99		2,499	5,646			
4									
5	Property Taxes	12,650	99	0	2,499	5,646	0	0	4,406
6									
7	Franchise Fees	0							
8									
9	Corporate Capital Tax	2,534	108	0	427	1,922	0	0	77
10									
11									
12	Total Property & Franchise Fees	$15,184	$207	$0	$2,926	$7,568	$0	$0	$4,483
13									
14									
15									
16									
17									
18									
19									
20									
21									
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LM COS
TAB 2A
SECTION 5
PAGE 3.0
COS - FUNCTION
- PROPERTY TAXES AND
FRANCHISE FEES
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	MANUFACTURED GAS / LOCAL STORAGE PLANT								
2	---								
3	432 Manufact'd Gas - Struct. & Improvement								
4	- Frame Buildings	$0							
5	- Masonry Buildings	0							
6	433 Manufacturing Equipment	0							
7	434 Gas Holders - Manufacturing	0							
8	442-00 Structures and Improvements	48	48						
9	443-00 Gas Holders Storage	290	290						
10	449-00 Local Storage Equipment	278	278						
11		---	---	---	---	---	---	---	---
12		616	616	0					
13		---	---	---	---	---	---	---	---
14									
15	GAS PLANT HELD FOR FUTURE USE								
16	---								
17	102-00 Structures & Improvements								
18	- Frame Buildings	0							
19	- Masonry Buildings	0							
20	102-00 Manufacturing Equipment	0							
21	102-00 Gas Holder	0							
22		---	---	---	---	---	---	---	---
23		0							
24		---	---	---	---	---	---	---	---
25									
26	TRANSMISSION PLANT								
27	---								
28	461 Land Rights - Byron Creek	0							
29	462-00 Structures and Improvements	0			0				
30	- Compressor Stations	10	10		0				
31	463-00 - Measuring & Regulating	0			0				
32	- Measuring & Regulating	17			17				
33	464-00 - Other	0	0		0				
34	465-00 Mains & Crossings	2,272	281		1,991				
35	465-00 Mains & Crossings - Byron Creek	0							
36	466-00 Compressor Equipment	48	48		0				
37	467-00 Measuring & Regulating	143	1		142				
38	467-10 Telemetering	111	11		100				
39	468-00 Communications Structures & Equip.	3			3				
40		---	---	---	---	---	---	---	---
41		2,604	351		2,253				
42		---	---	---	---	---	---	---	---
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	----------								
3	471 Land Rights - Byron Creek	0							
4	472-00 Structures & Improvements								
5	-Leasehold Alterations	0				0			
6	-Frame Buildings	3				3			
7	-Masonry Buildings	0				0			
8	-Byron Creek	0				0			
9	473-00 Services - Lower Mainland	5,322				5,322			
10	- All Other	0				0			
11	474-00 House Regulator & Meter Installation	263				263			
12	475-00 Mains	6,879				6,879			
13	476-00 Compressed Natural Gas								
14	-Commercial Cardlock Station	16							16
15	-Lower Mainland	105							105
16	-All Other	0				0			
17	477-00 Measuring & Regulating	293				293			
18	477-10 Telemetering	0				0			
19	477-00 Byron Creek	0							
20	478 Meters	1,664				1,664			
21	479 Other Distribution Equipment	0				0			
22		----------	----------	----------	----------	----------	----------	----------	----------
23		14,545				14,424			121
24		----------	----------	----------	----------	----------	----------	----------	----------
25									
26									
27									
28									
29									
30									
31									
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46									
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Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	------------								
3	482-00 Structures & Improvements								
4	-Leasehold Alterations	$334	14	0	54	264	0	0	1
5	-Lochburn Admin. Warehouse	77	3	0	13	61	0	0	0
6	-Lochburn Cafeteria	1	0	0	0	1	0	0	0
7	-All Other	170	7	0	28	134	0	0	1
8	483-00 Office Furniture & Equipment	0	0	0	0	0	0	0	0
9	-Fraser Valley / Lochburn / LNG	82	3	0	13	65	0	0	0
10	-Computers - Software / LNG / Misc.	2,015	86	0	329	1,592	0	0	9
11	-Computers Micro. Comp. System	8	0	0	1	6	0	0	0
12	-EDP Equipment	0	0	0	0	0	0	0	0
13	-Computers - Assist Mapping	34	1	0	6	27	0	0	0
14	-GMS Leased Software	0	0	0	0	0	0	0	0
15	-Training, Display & Documentation								
16	Materials	0	0	0	0	0	0	0	0
17	484-00 Transportation Equipment	9	0	0	1	7	0	0	0
18	-Automobiles	0	0	0	0	0	0	0	0
19	-Aircraft	0	0	0	0	0	0	0	0
20	-Leased Transportation Equipment	0	0	0	0	0	0	0	0
21	485-00 Maintenance & Repair Equipment	5	0	0	1	4	0	0	0
22	486-00 Tools & Work Equipment	218	9	0	36	172	0	0	1
23	487-00 Equipment on Customers' Premises	119	5	0	19	94	0	0	1
24	487-XX - VRA Compressor	0	0	0	0	0	0	0	0
25	487-XX - VRA Compressor Installation Cost	0	0	0	0	0	0	0	0
26	488-00 Communication - Structures & Equip.	36	2	0	6	28	0	0	0
27	488-00 Communication - Radios	415	18	0	68	328	0	0	2
28	489-00 Other General Equipment								
29	-All Other	0	0	0	0	0	0	0	0
30		---	---	---	---	---	---	---	---
31		3,523	148	0	575	2,783	0	0	15
32		---	---	---	---	---	---	---	---
33									
34	INTANGIBLE PLANT								
35	---------------								
36	117-00 Utility Plant Acquisition Adj.	0							
37	175-00 Unamortized Conversion Expense	0							
38	178-00 Organization Expense	0							
39	179-01 Other Deferred Charges	0							
40	401-00 Franchise and Consents	0							
41	402-00 Other Intangible Plant	0							
42		---	---	---	---	---	---	---	---
43		0							
44		---	---	---	---	---	---	---	---
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Gas Supply ----- Gas Purch./ LNG/EKL	Gas Supply ----- Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	UNCLASSIFIED PLANT								
2	498-00 Expense Charged to Construction	13	0	0	7	6	0	0	0
3									
4	TOTAL DEPRECIATION PROVISION	21,301	1,115	0	2,835	17,213	0	0	136
5									
6									
7	AMORTIZATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION								
8	- DSEP/GEAP	0							
9	- Natural Gas Vehicle - Conversion Grants	0							
10	- Natural Gas Vehicle - Station Grants	0							
11	- Leasehold Alterations	0							
12	- Furniture and Equipment	0							
13	- All Other	(124)	0	0	0	(124)	0	0	0
14									
15		(124)	0	0	0	(124)	0	0	0
16									
17									
18	DEPRECIATION CHARGED TO CONSTRUCTION	(362)			(52)	(310)			
19									
20									
21	TOTAL DEPRECIATION EXPENSE	20,815	1,115	0	2,783	16,779	0	0	136
22									
23									
24	AMORTIZATION EXPENSE								
25	NGV Deferred Margin	0							
26	Integrated Resource Plan	0							
27	NGV Grants	231							231
28	Market Rebate Incentive								
29	- Water Heater Grants	29							29
30	- Commercial	0							
31	- Furnace Grants	0							
32	Rate Design Hearing Costs - Phase A	177	177						
33	Revenue Requirement Hearing Costs	364							364
34	Appliance Insurance Program	221							221
35	Gas Purchase Negotiation Cost	734	734						
36									
37	TOTAL AMORTIZATION EXPENSE	1,756	911	0	0	0	0	0	845
38									
39									
40	TOTAL DEPRECIATION AND AMORTIZATION EXPENSE	$22,571	$2,026	$0	$2,783	$16,779	$0	$0	$981
41									
42									
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
OTHER REVENUE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Function
Cost of Service
Other Revenue
Page 5.0

Line No.	B.C.U.C. Account	Total	Gas Supply ----- Gas Purch./ LNG/EKL	Gas Supply ----- Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Late Payment Charge	0							
2	Revenue from Service Work	578				578			
3	NGV Tank Rental	475							475
4									
5	Miscellaneous	0							
6	Burrard - Interruptible Margin / Swing Gas								
7	Reservation Fee	6,306							6,306
8	PCEC Wheeling Charge	3,275							3,275
9	Furnace Repair Program	1,203							1,203
10	Appliance Financing	581							581
11	Amortization of Capital Gain	0							
12									
13	Other Miscellaneous	0							
14	Burrard Line Recovery	266							266
15	Fort Nelson Administration Fee	25	1	0	4	20	0	0	0
16	T-Service Loss Margin	0							0
17	NSF Cheques	0							
18	S.S. Tax Commission	0							
19									
20	Total Other Miscellaneous	291	1	0	4	20	0	0	266
21									
22									
23	TOTAL OTHER REVENUE	$12,709	$1	$0	$4	$598	$0	$0	$12,106
24									

LM COS
TAB 2A
SECTION 5
PAGE 5.0
COS - FUNCTION
- OTHER REVENUE
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
INCOME TAX EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Function
Cost of Service
Income Tax
Page 6.0

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	
			Gas Purch./ LNG/EKL	Admin.						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	CALCULATION OF INCOME TAXES									
2	Earned Return	$84,595	$3,600	$0	$14,254	$64,177	$0	$0	$2,563	
3	Deduct - Interest on Debt	(44,308)	(1,886)	0	(7,466)	(33,614)	0	0	(1,343)	Line 30
4	Add- Non-Tax Ded. Expense (Net)	(560)	159	1	(853)	(496)	1	3	625	Page 6.1, Line 23
5										
6	Accounting Income After Tax	39,727	1,873	1	5,935	30,067	1	3	1,845	
7	Deduct - Timing Differences	(31,482)	(877)	0	(11,407)	(19,058)	0	0	(137)	Page 6.1, Line 44
8	Add - Large Corporation Tax	1,480	63	0	249	1,123	0	0	45	
9										
10	Taxable Income After Tax	$9,725	$1,059	$1	($5,223)	$12,132	$1	$3	$1,753	
11										
12										
13	Income Tax Rate (Current Tax)	44.840%	44.84%	44.84%	44.84%	44.84%	44.84%	44.84%	44.84%	
14	1 - Current Income Tax Rate	55.160%	55.16%	55.16%	55.16%	55.16%	55.16%	55.16%	55.16%	
15										
16	Taxable Income (L10 : L14)	$17,631	$1,920	$2	($9,469)	$21,994	$2	$5	$3,178	
17										
18										
19	Income Tax- Current (L16 x L13)	$7,906	$861	$1	($4,246)	$9,862	$1	$2	$1,425	
20	- Large Corporation Tax	1,480	63	0	249	1,123	0	0	45	
21										
22	Total	$9,386	$924	$1	($3,997)	$10,985	$1	$2	$1,470	
23										
24										
25	Rate Base x	$820,514	$34,919	$0	$138,257	$622,476	$0	$0	$24,862	
26										
27	Cost Component of Debt	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	
28										
29										
30	Utility Interest Expense	$44,308	$1,886	$0	$7,466	$33,614	$0	$0	$1,343	
31										
32										
33										
34										
35										
36										
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LM COS
TAB 2A
SECTION 5
PAGE 6.0
COS - FUNCTION
- INCOME TAX
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
FUNCTIONALIZATION OF
INCOME TAX EXPENSE
PERMANENT AND TIMING DIFFERENCES
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	ITEMS OF A PERMANENT NATURE								
2	INCREASING TAXABLE INCOME								
3									
4	Amortization of NGV grants	$231							$231
5	Amortization of water heater grants	29							29
6	Amortization of furnace grants	0							
7	Amortization of integrated resource								
8	planning	0							
9	Amortization of rate design costs								
10	- phase A	177	177						
11	Amortization of revenue requirment								
12	hearing costs	364							364
13	Amortization of capital gain	0							
14	Non-tax deductible expenses	24	1	1	2	15	1	3	1
15									
16	ITEMS OF A PERMANENT NATURE								
17	DECREASING TAXABLE INCOME								
18	Amortization of non-tax deductible								
19	financing expense	0							
20	Plant removal costs	(1,385)	(19)		(855)	(511)			
21									
22									
23	Total permanent differences	($560)	$159	$1	($853)	($496)	$1	$3	$625
24									
25									
26	TIMING DIFFERENCE ADJUSTMENTS								
27	MIS Lease Payments	($632)	(27)	0	(103)	(499)	0	0	(3)
28	Depreciation	23,283	1,174	0	3,127	18,836	0	0	142
29	Amortization of tax allowable								
30	financing commissions	0							
31	Amortization of tax allowable								
32	debt issue expenses	489	21	0	82	371	0	0	15
33									
34	Debt issue costs	(938)	(40)	0	(158)	(712)	0	0	(28)
35	Capital cost allowance	(39,571)	(1,946)	0	(6,160)	(31,223)	0	0	(235)
36									
37	Cumulative eligible capital allowance	(967)	(41)	0	(926)				
38	Overhead expenses capitalized,								
39	claimed for tax purposes	(12,784)	(18)	0	(7,217)	(5,521)	0	0	(28)
40	Less - Depreciation capitalized	(362)	0	0	(52)	(310)	0	0	0
41									
42	Amortization of NGV deferred margin	0							
43									
44	Total timing differences	($31,482)	($877)	$0	($11,407)	($19,058)	$0	$0	($137)
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Classify
Cost of Service

Page 1.00

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Cost of Gas (including Gas Lost)	$302,160	$171,864	$130,296	$0	$0	Function, COS, Page 1.0
2							
3	Operation and Maintenence	62,439	33,575	2,565	2,740	23,559	Function, COS, Page 1.0
4	Property and Franchise Tax	15,184	10,699	1	4,484	0	"
5	Depreciation and Amortization	22,569	12,546	1,174	617	8,232	"
6	Other Operating Revenue	(12,709)	(603)	0	(12,106)	0	"
7							
8		87,483	56,217	3,740	(4,265)	31,791	
9							
10							
11	Income Taxes	9,386	3,306	551	1,193	4,338	Function, COS, Page 1.0
12							
13	Earned Return	84,594	53,773	858	2,610	27,355	"
14							
15	Total Cost of Service	483,623	285,160	135,445	(462)	63,484	"
16							
17	Less: Cost of Gas	(302,160)	(171,864)	(130,296)	0	0	"
18							
19	Gross Margin Cost of Service	$181,463	$113,296	$5,149	($462)	$63,484	Function, COS, Page 1.0
20							
21							
22							
23							
24							
25							
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BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Classify
Cost of Service

Page 1.01

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gross Margin Cost of Service					
2						
3	Gas Supply - Gas Purch.\LNG\ East Koot. Link	$8,851	$6,954	$1,899	$0	$0
4						
5	Gas Supply - Administration	2,566	0	2,566	0	0
6						
7	Transmission	22,404	22,404	0	0	0
8						
9	Distribution	138,328	84,028	0	0	54,300
10						
11	Marketing	1,839	0	0	0	1,839
12						
13	Customer Accounting	7,344	0	0	0	7,344
14						
15	Direct Assignment	131	5,660	357	0	(5,892)
16						
17	Direct Assignment: Add Burrard/PCEC Margin	9,847	0	0	0	9,847
18						
19	Gross Margin Cost of Service	191,310	119,046	4,822	0	67,438
20						
21	Cost of Gas					
22						
23	Gas Supply	302,160	171,864	130,296	0	0
24						
25	Direct Assignment	0	0	0	0	0
26						
27	Cost of Gas	302,160	171,864	130,296	0	0
28						
29						
30	Cost of Service	$493,470	$290,910	$135,118	$0	$67,438
31						
32						
33						
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LM COS
TAB 2A
SECTION 6
PAGE 1.01
COS - CLASSIFY
- SUMMARY
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
GAS SUPPLY - GAS PURCHASES/LNG/EAST KOOTENAY LINK
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Classify
Cost of Service
Gas Supply
Page 2.0

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Cost of Gas					
2	Cost of Gas per Flowthrough Methodology	$307,088	175,523	131,565		
3	Less: PCEC/Squamish Gas Co. Ltd. Demand					
4	Costs Included Above	(645)	(645)			
5						
6	Annualized Deferral of Gas Purchase Costs					
7	Related to Interruptible Rate Schedules					
8	Rate 2501	0			0	
9	Rate 2502	0			0	
10	Amortization of VIA Credits & Gas Cost					
11	Deferrals	(4,283)	(3,014)	(1,269)		
12						
13						
14	Total Cost of Gas	302,160	171,864	130,296	0	0
15						
16						
17	Operation and Maintenence	2,095	2,095			
18	Property Taxes	207	207			
19	Depreciation and Amortization					
20	Depreciation Provision	1,115	1,115	0	0	0
21	Rate Design Hearing Costs - Phase A	177	101	76	0	0
22	Gas Purchase Negotiation Cost	734		734		
23						
24	Total Depreciation & Amortization	2,026	1,216	810	0	0
25						
26	Other Revenue	(1)	(1)			
27	Income Taxes	924	677	248	0	0
28						
29	Earned Return	3,600	2,760	841	0	0
30						
31	Total Cost of Service	311,011	178,818	132,195	0	0
32						
33	Less: Cost of Gas	(302,160)	(171,864)	(130,296)	0	0
34						
35	Gross Margin Cost of Service	$8,851	$6,954	$1,899	$0	$0
36						
37						
38	Rate Base x	$34,919	$26,766	$8,153	$0	$0
39						
40	Allowed Rate of Return	10.31%	10.31%	10.31%	10.31%	10.31%
41						
42	Earned Return	$3,600	$2,760	$841	$0	$0
43						
44						
45						
46						
47						

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
GAS SUPPLY - SALES & T-SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Classify
Cost of Service
Gas Supply
Page 3.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0	
2							
3	Operation and Maintenence	2,565	0	2,565	0	0	
4	Property and Franchise Tax	0	0	0	0	0	
5	Depreciation and Amortization	0	0	0	0	0	
6	Other Operating Revenue	0	0	0	0	0	
7							
8		2,565	0	2,565	0	0	
9							
10							
11	Income Taxes	1	0	1	0	0	
12							
13	Earned Return	0	0	0	0	0	Line 27
14							
15	Total Cost of Service	2,566	0	2,566	0	0	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$2,566	$0	$2,566	$0	$0	
20							
21							See Classify - Rate Base
22	Rate Base x	$0	$0	$0	$0	$0	Page 2.0
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$0	$0	$0	$0	$0	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
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47							

Date: 15-Mar-93

LM COS
TAB 2A
SECTION 6
PAGE 3.10
COS - CLASSIFY
- GAS SUPPLY

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Classify
Cost of Service
Transmission
Page 4.10

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0	
2							
3	Operation and Maintenence	6,442	6,442	0	0	0	
4	Property and Franchise Tax	2,926	2,926	0	0	0	
5	Depreciation and Amortization	2,783	2,783	0	0	0	
6	Other Operating Revenue	(4)	(4)	0	0	0	
7							
8		12,147	12,147	0	0	0	
9							
10							
11	Income Taxes	(3,997)	(3,997)	0	0	0	
12							
13	Earned Return	14,254	14,254	0	0	0	Line 27
14							
15	Total Cost of Service	22,404	22,404	0	0	0	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$22,404	$22,404	$0	$0	$0	
20							
21							
22	Rate Base x	$138,257	$138,257	$0	$0	$0	See Classify - Rate Base
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$14,254	$14,254	$0	$0	$0	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
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LM COS
TAB 2A
SECTION 6
PAGE 4.10
COS - CLASSIFY
- TRANSMISSION
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Classify
Cost of Service
Distribution
Page 5.10

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	0	0	0	0	
2							
3	Operation and Maintenence	39,417	25,038	0	0	14,379	
4	Property and Franchise Tax	7,568	7,568	0	0	0	
5	Depreciation and Amortization	16,779	8,547	0	0	8,232	
6	Other Operating Revenue	(598)	(598)	0	0	0	
7							
8		63,166	40,555	0	0	22,611	
9							
10							
11	Income Taxes	10,985	6,651	0	0	4,334	
12							
13	Earned Return	64,177	36,822	0	0	27,355	Line 27
14							
15	Total Cost of Service	138,328	84,028	0	0	54,300	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$138,328	$84,028	$0	$0	$54,300	
20							
21							
22	Rate Base x	$622,476	$357,150	$0	$0	$265,326	See Classify - Rate Base Page 5.9, Line 31
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$64,177	$36,822	$0	$0	$27,355	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
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46							
47							

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
MARKETING
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

LMCOS
Classify
Cost of Service
Marketing
Page 6.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	0	0	0	0	
2							
3	Operation and Maintenence	1,838	0	0	0	1,838	
4	Property and Franchise Tax	0	0	0	0	0	
5	Depreciation and Amortization	0	0	0	0	0	
6	Other Operating Revenue	0	0	0	0	0	
7							
8		1,838	0	0	0	1,838	
9							
10							
11	Income Taxes	1	0	0	0	1	
12							
13	Earned Return	0	0	0	0	0	Line 27
14							
15	Total Cost of Service	1,839	0	0	0	1,839	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$1,839	$0	$0	$0	$1,839	
20							
21							
22	Rate Base x	$0	$0	$0	$0	$0	
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$0	$0	$0	$0	$0	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
CUSTOMER ACCOUNTING
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	0	0	0	0	
2							
3	Operation and Maintenence	7,342	0	0	0	7,342	
4	Property and Franchise Tax	0	0	0	0	0	
5	Depreciation and Amortization	0	0	0	0	0	
6	Other Operating Revenue	0	0	0	0	0	
7							
8		7,342	0	0	0	7,342	
9							
10							
11	Income Taxes	2	0	0	0	2	
12							
13	Earned Return	0	0	0	0	0	Line 27
14							
15	Total Cost of Service	7,344	0	0	0	7,344	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$7,344	$0	$0	$0	$7,344	
20							
21							
22	Rate Base x	$0	$0	$0	$0	$0	
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$0	$0	$0	$0	$0	
28							
29							
30							
31							
32							
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47							

Date: 15-Mar-93

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
RATE BASE
DIRECT ASSIGNMENT – TOTAL
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Classify
Rate Base – Dir. Assign.
Allocation

Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv.	NGV/VRA	Seasonal	Interrupt. L. T–Serv.	Alt. Fuel	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Demand									
2	Net Gas Plant in Service	$7,153	$0	$0	$0	$5,681	$0	$0	$0	$1,472
3	Commission Adjustment for 13 Month Averaging	(615)	0	0	0	0	0	0	0	(615)
4	Unamortized Deferred Charges	0	0	0	0	0	0	0	0	0
5	Cash Working Capital	0	0	0	0	0	0	0	0	0
6	Other Working Capital	668	0	0	0	668	0	0	0	0
7										
8	Total Rate Base – Demand	$7,206	$0	$0	$0	$6,349	$0	$0	$0	$857
9										
10	Commodity – Throughput									
11	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0
13	Unamortized Deferred Charges	289	53	38	5	1	0	142	2	46
14	Cash Working Capital	0	0	0	0	0	0	0	0	0
15	Other Working Capital	0	0	0	0	0	0	0	0	0
16										
17	Total Rate Base – Throughput	$289	$53	$38	$5	$1	$0	$142	$2	$46
18										
19	Commodity – Sales									
20	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0
21	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0
22	Unamortized Deferred Charges	0	0	0	0	0	0	0	0	0
23	Cash Working Capital	0	0	0	0	0	0	0	0	0
24	Other Working Capital	0	0	0	0	0	0	0	0	0
25										
26	Total Rate Base – Sales	$0	$0	$0	$0	$0	$0	$0	$0	$0
27										
28	Commodity – Core Market									
29	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0
30	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0
31	Unamortized Deferred Charges	(2,293)	(1,255)	(910)	(104)	(20)	(5)	0	0	0
32	Cash Working Capital	0	0	0	0	0	0	0	0	0
33	Other Working Capital	0	0	0	0	0	0	0	0	0
34										
35	Total Rate Base – Core Market	($2,293)	($1,255)	($910)	($104)	($20)	($5)	$0	$0	$0
36										
37	Customer									
38	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0
39	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0
40	Unamortized Deferred Charges	1,159	383	54	0	722	0	0	0	0
41	Cash Working Capital	14,573	7,240	4,761	480	108	12	1,050	155	769
42	Other Working Capital	3,925	3,475	0	0	450	0	0	0	0
43										
44	Total Rate Base – Customer	$19,657	$11,098	$4,815	$480	$1,280	$12	$1,050	$155	$769
45										
46										
47										

BCG AS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT – CUSTOMER ACCOUNTING
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Classify
COS – Dir. Assign.
Allocation

Page 1.1

Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv.	NGV/VRA	Seasonal	Interrupt. L. T–Serv.	Alt. Fuel	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Gross Margin Cost of Service									
2										
3	Demand	$5,660	$2,154	$1,451	$168	$1,169	$6	$351	$120	$242
4										
5	Commodity	357	36	22	4	1	(2)	84	7	195
6										
7	Customer	(5,892)	1,295	1,539	128	573	17	256	32	(9,729)
8										
9	Add: Burrard/PCEC Margin	9,847	0	0	0	0	0	0	0	9,847
10										
11										
12	Gross Margin Cost of Service	9,973	3,485	3,012	300	1,743	21	691	160	555
13										
14	Cost of Gas	0	0	0	0	0	0	0	0	0
15										
16										
17	Total Cost of Service for Direct Assignment	$9,973	$3,485	$3,012	$300	$1,743	$21	$691	$160	$555
18										
19										
20										
21										
22										
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COS - CLASSIFY
- DIRECT ASSIGNMENTS
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT - DEMAND
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Classify
COS - Dir. Assign.
Allocation
Demand
Page 2.0

Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T-Serv.	NGV/VRA	Seasonal	Interrupt. L. T-Serv.	Alt. Fuel	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Service - Demand									
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0
3										
4	Operation & Maintenance Expense	123	0	0	0	98	0	0	0	25
5	Property Taxes	4,428	2,154	1,451	168	46	6	351	120	133
6	Depreciation and Amortization	136	0	0	0	133	0	0	0	3
7										
8	Subtotal	4,687	2,154	1,451	168	277	6	351	120	161
9										
10	Income Taxes	230	0	0	0	237	0	0	0	(7)
11										
12	Earned Return	743	0	0	0	655	0	0	0	88
13										
14	Total Cost of Service	5,660	2,154	1,451	168	1,169	6	351	120	242
15										
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0
17										
18	Gross Margin Cost of Service	$5,660	$2,154	$1,451	$168	$1,169	$6	$351	$120	$242
19										
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21										
22										
23										
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COS - CLASSIFY
- DIRECT ASSIGNMENTS
- DEMAND
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT – COMMODITY THROUGHPUT
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Classify
COS – Dir. Assign.
Allocation
Commodity Throughput
Page 2.1

Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv.	NGV/VRA	Seasonal	Interrupt. L. T–Serv.	Alt. Fuel	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Service – Commodity Throughput									
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0
3										
4	Operation & Maintenance Expense	0	0	0	0	0	0	0	0	0
5	Property Taxes	0	0	0	0	0	0	0	0	0
6	Depreciation and Amortization	362	117	84	10	2	0	35	4	104
7										
8	Subtotal	362	117	84	10	2	0	35	4	104
9										
10	Income Taxes	306	98	71	9	2	0	34	3	86
11										
12	Earned Return	29	6	4	0	0	0	15	0	5
13										
14	Total Cost of Service	697	221	159	19	4	0	84	7	195
15										
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0
17										
18	Gross Margin Cost of Service	$697	$221	$159	$19	$4	$0	$84	$7	$195
19										
20										
21										
22										
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COS - CLASSIFY
- DIRECT ASSIGNMENTS
- COMMODITY THROUGHPUT
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT – COMMODITY SALES
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Classify
COS – Dir. Assign.
Allocation
Commodity Sales
Page 2.2

Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv.	NGV/VRA	Seasonal	Interrupt. L. T–Serv.	Alt. Fuel	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Service – Commodity Sales									
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0
3										
4	Operation & Maintenance Expense	0	0	0	0	0	0	0	0	0
5	Property Taxes	0	0	0	0	0	0	0	0	0
6	Depreciation and Amortization	0	0	0	0	0	0	0	0	0
7										
8	Subtotal	0	0	0	0	0	0	0	0	0
9										
10	Income Taxes	0	0	0	0	0	0	0	0	0
11										
12	Earned Return	0	0	0	0	0	0	0	0	0
13										
14	Total Cost of Service	0	0	0	0	0	0	0	0	0
15										
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0
17										
18	Gross Margin Cost of Service	$0	$0	$0	$0	$0	$0	$0	$0	$0
19										
20										
21										
22										
23										
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COS - CLASSIFY
- DIRECT ASSIGNMENTS
- COMMODITY SALES
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Classify
COS – Dir. Assign.
Allocation
Commodity Core
Page 2.3

Line No.	Particulars	Total	Residential	Commercial	S. Indust. S.T–Serv.	NGV/VRA	Seasonal	Interrupt. L.T–Serv.	Alt. Fuel	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Service – Commodity Core Market									
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0
3										
4	Operation & Maintenance Expense	0	0	0	0	0	0	0	0	0
5	Property Taxes	(7)	(4)	(3)	(0)	(0)	(0)	0	0	0
6	Depreciation and Amortization	0	0	0	0	0	0	0	0	0
7										
8	Subtotal	(7)	(4)	(3)	(0)	(0)	(0)	0	0	0
9										
10	Income Taxes	(97)	(52)	(40)	(4)	(1)	(1)	0	0	0
11										
12	Earned Return	(236)	(129)	(94)	(11)	(2)	(1)	0	0	0
13										
14	Total Cost of Service	(340)	(185)	(137)	(15)	(3)	(2)	0	0	0
15										
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0
17										
18	Gross Margin Cost of Service	($340)	($185)	($137)	($15)	($3)	($2)	$0	$0	$0
19										
20										
21										
22										
23										
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COS – CLASSIFY
– DIRECT ASSIGNMENTS
– COMMODITY CORE
REVISED
JUNE 7, 1993

BC GAS INC.
LOWER MAINLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

LMCOS
Classify
COS – Dir. Assign.
Allocation
Customer
Page 2.4

Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv.	NGV/VRA	Seasonal	Interrupt. L. T–Serv.	Alt. Fuel	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Service – Customer									
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0
3										
4	Operation & Maintenance Expense	2,617	1,164	826	57	443	16	101	9	1
5	Property Taxes	60	34	15	1	4	0	3	0	2
6	Depreciation and Amortization	481	250	0	0	231	0	0	0	0
7										
8	Subtotal	3,158	1,448	841	58	678	16	104	9	3
9										
10	Income Taxes	1,029	487	201	21	238	0	44	7	35
11										
12	Earned Return	2,027	1,144	497	49	132	1	108	16	80
13										
14	Total Cost of Service	6,214	3,079	1,539	128	1,048	17	256	32	118
15										
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0
17										
18	Gross Margin Cost of Service	$6,214	$3,079	$1,539	$128	$1,048	$17	$256	$32	$118
19										
20										
21										
22										
23										
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COS – CLASSIFY
– DIRECT ASSIGNMENTS
– CUSTOMER
REVISED
JUNE 7, 1993

Fully Distributed Cost of Service
Lower Mainland
Development of Capacity Allocation Factors
Test Year 1992

REVISED

LM COS
Allocation Factors
Page 1

Line No.	Description	Total Service	Residential 2101/2	Gen. Serv. 2207/8	Med. Ind. S. T-Serv 2209/2007	NGV/VRA 2206	Seasonal 2601/2	Non-Core Interrupt. Sales & T-Serv 2501/2 22/10	Non-Core Alt. Fuel 2501	Non-Core Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	Peak Responsibility (PR) 10^3 m^3									
1	Peak Demand, (Throughput)	24,174.7	12,438.5	8,730.4	624.3	61.1	9.2	0.0	0.0	2,311.2
2	Peak Responsibility Factor: DE1G	100.00%	51.45%	36.11%	2.58%	0.25%	0.04%	0.00%	0.00%	9.56%
3	Peak Demand, (Distribution)	21,863.5	12,438.5	8,730.4	624.3	61.1	9.2	0.0	0.0	0.0
4	Peak Responsibility Factor: DE1D	100.00%	56.89%	39.93%	2.86%	0.28%	0.04%	0.00%	0.00%	0.00%
5	Peak Demand (Sales)	21,768.8	12,438.5	8,730.4	529.6	61.1	9.2	0.0	0.0	0.0
6	Peak Responsibility Factor: DE1S	100.00%	57.14%	40.11%	2.43%	0.28%	0.04%	0.00%	0.00%	0.00%
	Non-Coincident Demand (NCD) 10^3 m^3									
7	Non-Coincident Demand, (Throughput)	31,216.8	12,438.5	8,730.4	624.3	61.1	13.7	2,709.9	682.8	5,956.0
8	Non-Coincident Demand Factor: DE2G	100.00%	39.846%	27.967%	2.000%	0.196%	0.044%	8.681%	2.187%	19.079%
9	Non-Coincident Demand, (Distribution)	25,260.8	12,438.5	8,730.4	624.3	61.1	13.7	2,709.9	682.8	0.0
10	Non-Coincident Demand Factor: DE2D	100.00%	49.24%	34.56%	2.47%	0.24%	0.05%	10.73%	2.70%	0.00%
11	Non-Coincident Demand (Sales)	21,773.4	12,438.5	8,730.4	529.6	61.1	13.7	0.0	0.0	0.0
12	Non-Coincident Demand Factor: DE2S	100.00%	57.127%	40.097%	2.432%	0.281%	0.063%	0.000%	0.000%	0.000%
	Average & Excess Demand (AED): Throughput DE3G									
13	Aver Load, Annual GJ/(365*38.56) 10^3M^3	11,436.3	3,747.3	2,716.6	305.3	61.2	13.8	1,256.1	144.6	3,191.5
14	Average Load, as a Percent of Total	100.00%	32.77%	23.75%	2.67%	0.54%	0.12%	10.98%	1.26%	27.91%
15	Annual System Load Factor	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%
16	Average Load % * System Load Factor %	47.26%	15.48%	11.23%	1.26%	0.25%	0.06%	5.19%	0.60%	13.19%
17	Excess Demand (line 7-13)	19,780.5	8,691.2	6,013.8	319.0	(0.1)	(0.0)	1,453.8	538.2	2,764.5
18	Percent of Total	100.00%	43.938%	30.403%	1.613%	-0.000%	-0.000%	7.349%	2.721%	13.976%
19	100% - Annual System LF %	52.74%	52.742%	52.742%	52.742%	52.742%	52.742%	52.742%	52.742%	52.742%
20	%Excess Demand (line 18x19)	52.74%	23.174%	16.035%	0.851%	-0.000%	-0.000%	3.876%	1.435%	7.371%
21	AED Factor (line 16+20) DE3G	100.00%	38.659%	27.261%	2.112%	0.253%	0.057%	9.067%	2.033%	20.559%
	Average & Excess Demand (AED): Distribution DE3D									
22	Aver Load, Annual GJ/(365*38.56) 10^3M^3	8,236.3	3,743.4	2,713.8	305.0	61.1	13.7	1,254.8	144.4	0
23	Average Load, as a Percent of Total	100.00%	45.45%	32.95%	3.70%	0.74%	0.17%	15.24%	1.75%	0.00%
24	Annual System Load Factor	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%
25	Average Load % * System Load Factor %	47.26%	21.48%	15.57%	1.75%	0.35%	0.08%	7.20%	0.83%	0.00%
26	Excess Demand (line 9-22)	17,024.6	8,695.1	6,016.6	319.3	0.0	0.0	1,455.1	538.4	0.0
27	Percent of Total	100.00%	51.07%	35.34%	1.88%	0.00%	0.00%	8.55%	3.16%	0.00%
28	100% - Annual System LF %	52.74%	52.74%	52.74%	52.74%	52.74%	52.74%	52.74%	52.74%	52.74%
29	%Excess Demand (line 27x28)	52.74%	26.94%	18.64%	0.99%	0.00%	0.00%	4.51%	1.67%	0.00%
30	AED Factor (line 25+29) DE3D	100.00%	48.42%	34.21%	2.74%	0.35%	0.08%	11.71%	2.50%	0.00%
	Average & Excess Demand (AED): Sales DE3S									
31	Aver Load, Annual GJ/(365*38.56) 10^3M^3	6,781.9	3,747.3	2,716.6	243.1	61.2	13.8	0.0	0.0	0.0
32	Average Load, as a Percent of Total	100.00%	55.25%	40.06%	3.58%	0.90%	0.20%	0.00%	0.00%	0.00%
33	Annual System Load Factor	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%	47.26%
34	Average Load % * System Load Factor %	47.26%	26.11%	18.93%	1.69%	0.43%	0.10%	0.00%	0.00%	0.00%
35	Excess Demand (line 11-31)	14,991.5	8,691.2	6,013.8	286.5	(0.1)	(0.0)	0.0	0.0	0.0
36	Percent of Total	100.00%	57.975%	40.115%	1.911%	-0.000%	-0.000%	0.000%	0.000%	0.000%
37	100% - Annual System LF %	52.74%	52.742%	52.742%	52.742%	52.742%	52.742%	52.742%	52.742%	52.742%
38	%Excess Demand (line 36x37)	52.74%	30.577%	21.158%	1.008%	-0.000%	-0.000%	0.000%	0.000%	0.000%
39	AED Factor (line 34+38): DE3S	100.00%	56.689%	40.087%	2.702%	0.426%	0.096%	0.000%	0.000%	0.000%

Fully Distributed Cost of Service
Lower Mainland
Development of Commodity Allocation Factors
Test Year 1992

REVISED

LM COS
Allocation Factors
Page 2

Line No.	Description (a)	Total Service (b)	Residential 2101/2 (c)	Gen. Serv. 2207/8 (d)	Med. Ind. S. T-Serv 2209/2007 (e)	NGV/VRA 2206 (f)	Seasonal 2601/2 (g)	Non-Core: Interrupt. Sales & T-Serv 2501/2 22/10 (h)	Non-Core: Alt. Fuel 2501 (i)	Non-Core: Other (j)
1	Sales & T-Service Volumes, GJ	156,737,700	50,636,500	36,708,900	4,181,400	826,800	185,900	17,504,500	2,014,500	44,679,200
2	Commodity Factor-Thruput:.CO1G	100.00%	32.307%	23.421%	2.668%	0.528%	0.119%	11.168%	1.285%	28.506%
3	Sales & T-Service Volumes, GJ	112,058,500	50,636,500	36,708,900	4,181,400	826,800	185,900	17,504,500	2,014,500	0
4	Commodity Factor-Distrib: CO2D	100.00%	45.19%	32.76%	3.73%	0.74%	0.17%	15.62%	1.80%	0.00%
5	Sales Commodity	128,518,400	50,636,500	36,708,900	2,342,500	826,800	185,900	11,921,100	2,014,500	23,882,200
6	Commodity Factor-Sales: CO3S	100.00%	39.400%	28.563%	1.823%	0.643%	0.145%	9.276%	1.567%	18.583%
7	Average Customers	463,361	413,996	48,641	389	161	48	119	5	2
8	Weighting Factor		1.00	1.52	5.84	2.39	6.07	37.21	71.37	1,443.96
9	Weighted Customers	498,551	413,996	73,934	2,272	385	291	4,428	357	2,888
10	Customer Factor CU1	100.00%	83.04%	14.83%	0.46%	0.08%	0.06%	0.89%	0.07%	0.58%
11	Weighted Customers	495,663	413,996	73,934	2,272	385	291	4,428	357	0
12	Customer Factor CU2	100.00%	83.52%	14.92%	0.46%	0.08%	0.06%	0.89%	0.07%	0.00%

BC GAS INC.

INLAND DIVISION
FULL DISTRIBUTED COST OF SERVICE STUDY (FDC)

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Revised

Line No.	Particulars (a)	Total Service (b)	Residential 1 (c)	Commercial 2 (d)	Small Indust. Sales & T-Serv Captive 5/25 (e)	NGV/VRA 14 (f)	Seasonal 4 (g)	Non-Core: Small T-Serv. Non-Captive 25 (h)	Non-Core: Large Industrial Sales & T-Service Captive 10/20/22 (i)	Non-Core: Large Industrial Sales & T-Service Non-Captive 10/12/22 (j)	Other (k)
1	Base Rate Revenue	$137,265	$78,036	$46,073	$4,306	$744	$459	$841	$4,153	$1,757	$896
2	Cost of Gas Supply (PR)	$69,409	$41,236	$25,341	$1,070	$184	$226	$0	$550	$264	$539
3	Total Functional Expenses (PR)	35,845	21,234	9,574	1,461	583	64	474	1,924	523	6
4	Total Operating Revenue Deductions	$105,254	$62,470	$34,915	$2,532	$767	$291	$474	$2,474	$787	$545
5	Operating Income before Taxes & Return	32,011	15,566	11,158	1,774	(23)	168	367	1,679	970	351
6	Income Tax @ 10.31% return on class RB	4,618	3,415	743	68	97	11	22	181	80	0
7	Return @ 10.31% return on class RB	20,780	13,896	4,457	613	213	43	199	1,111	248	0
8	Rate Base	$201,546	$134,784	$43,233	$5,942	$2,070	$407	$1,926	$10,774	$2,410	$0
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.32%	10.30%	10.49%	10.32%	10.31%	10.28%	0.00%
10	Total Cost to Serve	$130,652	$79,781	$40,116	$3,213	$1,076	$344	$695	$3,766	$1,115	$545
11	Total Cost to Serve w/o CoG	61,243	38,545	14,775	2,143	893	118	695	3,216	851	7
12	Aver. Cost of Gas, $/GJ	$2.617	$2.660	$2.640	$2.083	$1.451	$1.369	$0.000	$4.915	$0.015	$1.077
13	Average Cost to Serve w/o COG, $/GJ	$1.059	$2.486	$1.540	$0.814	$7.059	$0.713	$0.435	$0.313	$0.049	$0.013
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.814			$0.435	$0.313	$0.049	
14	Revenue less Total Cost to Serve	$6,613	($1,745)	$5,957	$1,093	($332)	$115	$146	$387	$642	$351
15	Revenue less Total Cost to Serve, $/GJ	$0.114	(0.113)	0.621	0.415	(2.628)	0.695	0.091	0.038	0.037	0.702
16	Rate Incr. (Decr.) Cost Based Rates	-4.82%	2.24%	-12.93%	-25.38%	44.69%	-25.04%	-17.36%	-9.31%	-36.55%	-39.17%
17	Revenue as a percent of Cost of Service	105.06%	97.81%	114.85%	134.01%	69.11%	133.41%	121.00%	110.27%	157.59%	164.40%
18	Gross Margin	$67,856	$36,800	$20,732	$3,236	$561	$233	$841	$3,603	$1,493	$358
19	Gross Margin, $/GJ	$1.174	$2.374	$2.160	$1.228	$4.431	$1.408	$0.526	$0.351	$0.086	$0.715
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas										
20	Demand Cost, $/GJ		$1.151	$1.140	$0.746	$3.982	$0.224	$0.380	$0.252	$0.017	$0.000
21	Commodity Cost, $/GJ		0.020	0.020	0.015	(1.087)	0.020	0.013	0.013	0.013	0.013
22	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
23	Customer Cost, $/bill (Monthly)		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit Cost of Gas by Class										
24	Demand Cost, $/GJ		$1.717	$1.672	$1.150	$0.519	$0.343	$0.000	$3.941	$0.015	$0.000
25	Commodity Cost, $/GJ		0.943	0.968	0.933	0.931	1.026	0.000	0.974	0.000	1.077
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas										
26	Demand Cost, $/GJ		$2.894	$2.838	$1.896	$4.509	$0.565	$0.380	$4.193	$0.032	$0.000
27	Commodity Cost, $/GJ		0.937	0.963	0.948	(0.163)	1.047	0.013	0.988	0.013	1.090
28	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
29	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of firm T-Service volumes only										
30	Demand Cost, $/GJ								$0.272		
31	Commodity Cost, $/GJ								0.015 C		
32	Customer Cost, $/GJ								0.051		
33	Revenue as a percentage of Cost of Service, excluding gas cost		95.47%	140.32%	150.99%	62.77%	197.57%	121.00%	112.03%	175.46%	5491.52%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

REVISED

ING COS
FDC-PR
Page 1.2

Line No.	Particulars	Total Service	Residential 1	Commercial 2	Small Indust. Sales & T-Serv Captive 5/25	NGV/VRA 14	Seasonal 4	Non-Core: Small T-Serv. Non-Captive 25	Non-Core: Large Industrial Sales & T-Service Captive 10/20/22	Non-Core: Large Industrial Sales & T-Service Non-Captive 10/12/22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Total Cost to Serve w/o CoG	$61,243	$38,545	$14,775	$2,143	$893	$118	$695	$3,216	$851	$7
2	Adjustment Factor	1.0373									
3	Adjusted Cost to Serve w/o CoG	$63,527	$39,983	$15,326	$2,223	$926	$122	$721	$3,336	$883	$7
4	Cost of Gas	69,409	41,236	25,341	1,070	184	226	0	550	264	539
5	Adjusted Total Cost to Serve	$132,936	$81,219	$40,667	$3,293	$1,110	$348	$721	$3,886	$1,147	$545
6	Average Cost to Serve w/o CoG $/GJ	$1.059	$2.486	$1.540	$0.814	$7.059	$0.713	$0.435	$0.313	$0.049	$0.013
7	Adj Ave. Cost to Serve w/o COG $/GJ	$1.099	$2.579	$1.597	$0.844	$7.322	$0.739	$0.451	$0.325	$0.051	$0.014
7.1	Adj T-Service Ave. Cost incl. UAF $/GJ				$0.844			$0.451	$0.325	$0.051	
8	Gross Margin	$67,856	$36,800	$20,732	$3,236	$561	$233	$841	$3,603	$1,493	$358
9	Base Rate Revenue	$137,265	$78,036	$46,073	$4,306	$744	$459	$841	$4,153	$1,757	$896
10	Gross Margin % of COS excl. COG	106.81%	92.04%	135.27%	145.56%	60.51%	190.47%	116.65%	108.00%	169.15%	5294.05%
11	Revenue as a % of cost of Service	103.26%	96.08%	113.29%	130.76%	67.04%	131.73%	116.65%	106.87%	153.23%	164.33%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas										
13	Per Unit COS x Adjustment Factor										
14	Demand Cost, $/GJ		$1.194	$1.183	$0.774	$4.130	$0.232	$0.394	$0.262	$0.017	$0.000
15	Commodity Cost, $/GJ		0.020	0.020	0.015	(1.127)	0.021	0.014	0.014	0.014	0.014
16	Customer Cost, $/GJ		1.365	0.393	0.055	4.320	0.486	0.043	0.049	0.020	0.000
17	Customer Cost, $/bill (Monthly)		12.113	19.398	299.902	1,979.810	478.647	574.453	3,004.876	3,566.179	0.000
18	Per Unit Cost of Gas by Class										
19	Demand Cost, $/GJ		$1.717	$1.672	$1.150	$0.519	$0.343	$0.000	$3.941	$0.015	$0.000
20	Commodity Cost, $/GJ		0.943	0.968	0.933	0.931	1.026	0.000	0.974	0.000	1.077
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas										
22	Demand Cost, $/GJ		$2.910	$2.855	$1.923	$4.649	$0.575	$0.394	$4.203	$0.032	$0.000
23	Commodity Cost, $/GJ		0.964	0.989	0.948	(0.196)	1.047	0.014	0.988	0.014	1.091
24	Customer Cost, $/GJ		1.365	0.393	0.055	4.320	0.486	0.043	0.049	0.020	0.000
25	Customer Cost, $/bill (Monthly)		12.113	19.398	299.902	1,979.810	478.647	574.453	3,004.876	3,566.179	0.000

ING COS
TAB 2B
SECTION 1
PAGE 1.2
FDC - PR
ADJUSTED
REVISED
JUNE 7, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non-Coincident Demand Method
Test Year 1992

Revised

ING COS
FDC-NCD
Page 2.1

Line No.	Particulars (a)	Total Service (b)	Residential 1 (c)	Commercial 2 (d)	Small Indust. Sales & T-Serv Captive 5/25 (e)	NGV/VRA 14 (f)	Seasonal 4 (g)	Non-Core: Small T-Serv. Non-Captive 25 (h)	Non-Core: Large Industrial Sales & T-Service Captive 10/20/22 (i)	Non-Core: Large Industrial Sales & T-Service Non-Captive 10/12/22 (j)	Other (k)
1	Base Rate Revenue	$137,265	$78,036	$46,073	$4,306	$744	$459	$841	$4,153	$1,757	$896
2	Cost of Gas Supply	$69,409	$41,236	$25,341	$1,070	$184	$226	$0	$550	$264	$539
3	Total Functional Expenses	35,844	20,325	9,021	1,358	581	127	566	2,807	646	414
4	Total Operating Revenue Deductions	105,252	61,561	34,362	2,429	764	353	566	3,357	910	952
5	Operating Income before Taxes & Return	32,013	16,475	11,711	1,877	(20)	106	275	796	847	(56)
6	Income Tax @ 10.31% return on class RB	4,618	3,361	711	62	97	13	24	236	88	25
7	Return @ 10.31% return on class RB	$20,779	$13,398	$4,154	$557	$212	$70	$233	$1,609	$317	$230
8	Rate Base	$201,546	$129,956	$40,295	$5,394	$2,058	$668	$2,260	$15,605	$3,081	$2,228
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.32%	10.30%	10.42%	10.32%	10.31%	10.28%	10.31%
10	Total Cost to Serve	$130,649	$78,320	$39,227	$3,048	$1,073	$437	$823	$5,203	$1,315	$1,207
11	Total Cost to Serve w/o CoG	61,241	37,084	13,886	1,978	889	210	823	4,653	1,051	669
12	Aver. Cost of Gas, $/GJ	$2.617	$2.660	$2.640	$2.083	$1.451	$1.369	$0.000	$4.915	$0.015	$1.077
13	Average Cost to Serve w/o COG, $/GJ	$1.059	$2.392	$1.447	$0.751	$7.031	$1.273	$0.515	$0.453	$0.060	$1.338
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.751			$0.515	$0.453	$0.060	
14	Revenue less Total Cost to Serve	$6,616	($284)	$6,846	$1,258	($329)	$22	$18	($1,050)	$442	($311)
15	Revenue less Total Cost to Serve, $/GJ	$0.114	($0.018)	$0.713	$0.478	($2.600)	$0.135	$0.011	($0.102)	$0.025	($0.623)
16	Rate Incr. (Decr.) Cost Based Rates	-4.82%	0.36%	-14.86%	-29.22%	44.21%	-4.88%	-2.12%	25.27%	-25.18%	34.75%
17	Revenue as a percent of Cost of Service	105.06%	99.64%	117.45%	141.29%	69.35%	105.13%	102.16%	79.82%	133.65%	74.21%
18	Gross Margin	$67,856	$36,800	$20,732	$3,236	$561	$233	$841	$3,603	$1,493	$358
19	Gross Margin, $/GJ	$1.174	$2.374	$2.160	$1.228	$4.431	$1.408	$0.526	$0.351	$0.086	$0.715
	Per Unit C.O.S. @ Uniform Rate of Return by Class										
20	Demand Cost, $/GJ		$1.057	$1.048	$0.683	$3.953	$0.784	$0.460	$0.392	$0.028	$1.325
21	Commodity Cost, $/GJ		0.020	0.020	0.015	(1.087)	0.020	0.013	0.013	0.013	0.013
22	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
23	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit Cost of Gas by Class										
24	Demand Cost, $/GJ		$1.717	$1.672	$1.150	$0.519	$0.343	$0.000	$3.941	$0.015	$0.000
25	Commodity Cost, $/GJ		0.943	0.968	0.933	0.931	1.026	0.000	0.974	0.000	1.077
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas										
26	Demand Cost, $/GJ		$2.799	$2.745	$1.833	$4.481	$1.125	$0.460	$4.333	$0.043	$1.325
27	Commodity Cost, $/GJ		0.937	0.963	0.948	(0.163)	1.047	0.013	0.988	0.013	1.090
28	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
29	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of firm T-Service volumes only										
30	Demand Cost, $/GJ								$0.396		
31	Commodity Cost, $/GJ								0.014 C		
32	Customer Cost, $/GJ								0.048		
33	Revenue as a percentage of Cost of Service, excluding gas cost		99.23%	149.30%	163.64%	63.02%	110.64%	102.16%	77.44%	142.11%	

ING COS
TAB 2B
SECTION 1
PAGE 2.1
FDC - NCD
REVISED
JUNE 21, 1993

Fully Di[illegible]ted Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non-Coincident Demand Method
Test Year 1992

REVISED

ING COS
FDC-NCD
Page 2.1

Line No.	Particulars (a)	Total Service (b)	Residential 1 (c)	Commercial 2 (d)	Small Indust. Sales & T-Serv Captive 5/25 (e)	NGV/NRA 14 (f)	Seasonal 4 (g)	Non-Core: Small T-Serv. Non-Captive 25 (h)	Non-Core: Large Industrial Sales & T-Service Captive 10/20/22 (i)	Non-Core: Large Industrial Sales & T-Service Non-Captive 10/12/22 (j)	Other (k)
1	Base Rate Revenue	$137,265	$78,036	$46,073	$4,306	$744	$459	$841	$4,153	$1,757	$896
2	Cost of Gas Supply	$69,409	$41,236	$25,341	$1,070	$184	$226	$0	$550	$264	$539
3	Total Functional Expenses	35,844	20,325	9,021	1,358	581	127	566	2,807	646	414
4	Total Operating Revenue Deductions	105,252	61,561	34,362	2,429	764	353	566	3,357	910	952
5	Operating Income before Taxes & Return	32,013	16,475	11,711	1,877	(20)	106	275	796	847	(56)
6	Income Tax @ 10.31% return on class R	4,618	3,361	711	62	97	13	24	236	88	25
7	Return @ 10.31% return on class RB	$20,779	$13,398	$4,154	$557	$212	$70	$233	$1,609	$317	$230
8	Rate Base	$201,546	$129,956	$40,295	$5,394	$2,058	$668	$2,260	$15,605	$3,081	$2,228
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.32%	10.30%	10.42%	10.32%	10.31%	10.28%	10.31%
10	Total Cost to Serve	$130,649	$78,320	$39,227	$3,048	$1,073	$437	$823	$5,203	$1,315	$1,207
11	Total Cost to Serve w/o CoG	61,241	37,084	13,886	1,978	889	210	823	4,653	1,051	669
12	Aver. Cost of Gas, $/GJ	$2.617	$2.660	$2.640	$2.083	$1.451	$1.369	$0.000	$4.915	$0.015	$1.077
13	Average Cost to Serve w/o COG, $/GJ	$1.059	$2.392	$1.447	$0.751	$7.031	$1.273	$0.515	$0.453	$0.060	$1.338
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.751			$0.515	$0.453	$0.060	
14	Revenue less Total Cost to Serve	$6,616	($284)	$6,846	$1,258	($329)	$22	$18	($1,050)	$442	($311)
15	Revenue less Total Cost to Serve, $/GJ	$0.114	($0.018)	$0.713	$0.478	($2.600)	$0.135	$0.011	($0.102)	$0.025	($0.623)
16	Rate Incr. (Decr.) Cost Based Rates	-4.82%	0.36%	-14.86%	-29.22%	44.21%	-4.88%	-2.12%	25.27%	-25.18%	34.75%
17	Revenue as a percent of Cost of Service	105.06%	99.64%	117.45%	141.29%	69.35%	105.13%	102.16%	79.82%	133.65%	74.21%
18	Gross Margin	$67,856	$36,800	$20,732	$3,236	$561	$233	$841	$3,603	$1,493	$358
19	Gross Margin, $/GJ	$1.174	$2.374	$2.160	$1.228	$4.431	$1.408	$0.526	$0.351	$0.086	$0.715
	Per Unit C.O.S. @ Uniform Rate of Return by Class										
20	Demand Cost, $/GJ		$1.057	$1.048	$0.683	$3.953	$0.784	$0.460	$0.392	$0.028	$1.325
21	Commodity Cost, $/GJ		0.020	0.020	0.015	(1.087)	0.020	0.013	0.013	0.013	0.013
22	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
23	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit Cost of Gas by Class										
24	Demand Cost, $/GJ		$1.717	$1.672	$1.150	$0.519	$0.343	$0.000	$3.941	$0.015	$0.000
25	Commodity Cost, $/GJ		0.943	0.968	0.933	0.931	1.026	0.000	0.974	0.000	1.077
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas										
26	Demand Cost, $/GJ		$2.799	$2.745	$1.833	$4.481	$1.125	$0.460	$4.333	$0.043	$1.325
27	Commodity Cost, $/GJ		0.937	0.963	0.948	(0.163)	1.047	0.013	0.988	0.013	1.090
28	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
29	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of firm T-Service volumes only										
30	Demand Cost, $/GJ								$0.396		
31	Commodity Cost, $/GJ								0.074		
32	Customer Cost, $/GJ								0.048		
33	Revenue as a percentage of Cost of Service, excluding gas		99.23%	149.30%	163.64%	63.02%	110.64%	102.16%	77.44%	142.11%	

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JUNE 7, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non-Coincident Demand Method
Test Year 1992, Uniform Rate of Return

REVISED

Line No.	Particulars	Total Service	Residential 1	Commercial 2	Small Indust. Sales & T-Serv Captive 5/25	NGV/VRA 14	Seasonal 4	Non-Core: Small T-Serv. Non-Captive 25	Non-Core: Large Industrial Sales & T-Service Captive 10/20/22	Non-Core: Large Industrial Sales & T-Service Non-Captive 10/12/22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Total Cost to Serve w/o CoG	$61,241	$37,084	$13,886	$1,978	$889	$210	$823	$4,653	$1,051	$669
2	Adjustment Factor	1.0373									
3	Adjusted Cost to Serve w/o CoG	$63,525	$38,467	$14,404	$2,051	$923	$218	$854	$4,826	$1,090	$694
4	Cost of Gas	69,409	41,236	25,341	1,070	184	226	0	550	264	539
5	Adjusted Total Cost to Serve	$132,934	$79,703	$39,745	$3,121	$1,106	$444	$854	$5,376	$1,354	$1,232
6	Average Cost to Serve w/o CoG $/GJ	$1.059	$2.392	$1.447	$0.751	$7.031	$1.273	$0.515	$0.453	$0.060	$1.338
7	Adj Ave. Cost to Serve w/o COG $/GJ	$1.099	$2.481	$1.501	$0.779	$7.293	$1.320	$0.534	$0.470	$0.063	$1.388
7.1	Adj T-Service Ave. Cost incl. UAF $/GJ				$0.779			$0.534	$0.470	$0.063	
8	Gross Margin	$67,856	$36,800	$20,732	$3,236	$561	$233	$841	$3,603	$1,493	$358
9	Base Rate Revenue	$137,265	$78,036	$46,073	$4,306	$744	$459	$841	$4,153	$1,757	$896
10	Gross Margin % of COS excl. COG	106.82%	95.67%	143.93%	157.75%	60.75%	106.66%	98.49%	74.66%	137.00%	51.53%
11	Revenue as a % of cost of Service	103.26%	97.91%	115.92%	137.95%	67.27%	103.27%	98.49%	77.25%	129.78%	72.71%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas										
13	Per Unit COS x Adjustment Factor										
14	Demand Cost, $/GJ		$1.096	$1.087	$0.709	$4.101	$0.813	$0.477	$0.407	$0.029	$1.374
15	Commodity Cost, $/GJ		0.020	0.020	0.015	(1.127)	0.021	0.014	0.014	0.014	0.014
16	Customer Cost, $/GJ		1.365	0.393	0.055	4.320	0.486	0.043	0.049	0.020	0.000
17	Customer Cost, $/bill (Monthly)		12.113	19.398	299.902	1,979.810	478.647	574.453	3,004.876	3,566.179	0.000
18	Per Unit Cost of Gas by Class										
19	Demand Cost, $/GJ		$1.717	$1.672	$1.150	$0.519	$0.343	$0.000	$3.941	$0.015	$0.000
20	Commodity Cost, $/GJ		0.943	0.968	0.933	0.931	1.026	0.000	0.974	0.000	1.077
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas										
22	Demand Cost, $/GJ		$2.813	$2.759	$1.858	$4.620	$1.156	$0.477	$4.348	$0.044	$1.374
23	Commodity Cost, $/GJ		0.964	0.989	0.948	(0.196)	1.047	0.014	0.988	0.014	1.091
24	Customer Cost, $/GJ		1.365	0.393	0.055	4.320	0.486	0.043	0.049	0.020	0.000
25	Customer Cost, $/bill (Monthly)		12.113	19.398	299.902	1,979.810	478.647	574.453	3,004.876	3,566.179	0.000

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992

Revised

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Line No.	Particulars	Total Service	Residential 1	Commercial 2	Small Indust. Sales & T-Serv Captive 5/25	NGV/VRA 14	Seasonal 4	Non-Core: Small T-Serv. Non-Captive 25	Non-Core: Large Industrial Sales & T-Service Captive 10/20/22	Non-Core: Large Industrial Sales & T-Service Non-Captive 10/12/22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Base Rate Revenue	$137,265	$78,036	$46,073	$4,306	$744	$459	$841	$4,153	$1,757	$896
2	Cost of Gas	$69,409	$41,236	$25,341	$1,070	$184	$226	$0	$550	$264	$539
3	Total Functional Expenses	35,844	20,128	8,926	1,488	594	132	643	2,924	669	342
4	Total Operating Revenue Deductions	105,252	61,364	34,267	2,558	777	358	643	3,474	933	880
5	Operating Income before Taxes & Return	32,013	16,672	11,806	1,748	(33)	101	198	679	824	16
6	Income Tax @ 10.31% return on class RB	4,618	3,354	707	66	97	14	26	244	90	21
7	Return @ 10.31% return on class RB	$20,779	$13,311	$4,112	$611	$217	$72	$263	$1,675	$330	$189
8	Rate Base	$201,546	$129,111	$39,884	$5,916	$2,112	$687	$2,553	$16,242	$3,208	$1,834
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.32%	10.30%	10.42%	10.32%	10.31%	10.29%	10.31%
10	Total Cost to Serve	$130,649	$78,029	$39,086	$3,235	$1,092	$443	$933	$5,392	$1,352	$1,090
11	Total Cost to Serve w/o CoG	61,241	36,793	13,745	2,165	908	217	933	4,842	1,088	552
12	Aver. Cost of Gas, $/GJ	$2.617	$2.660	$2.640	$2.083	$1.451	$1.369	$0.000	$4.915	$0.015	$1.077
13	Average Cost to Serve w/o COG, $/GJ	$1.059	$2.373	$1.432	$0.822	$7.181	$1.314	$0.583	$0.471	$0.063	$1.103
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.822			$0.583	$0.471	$0.063	
14	Revenue less Total Cost to Serve	$6,616	$7	$6,987	$1,071	($348)	$16	($92)	($1,239)	$405	($194)
15	Revenue less Total Cost to Serve, $/GJ	$0.114	$0.000	$0.728	$0.407	($2.750)	$0.094	($0.057)	($0.121)	$0.023	($0.388)
16	Rate Incr. (Decr.) Cost Based Rates	4.82%	0.01%	15.17%	24.88%	-46.76%	3.40%	-10.89%	-29.84%	23.04%	-21.68%
17	Revenue as a percent of Cost of Service	105.06%	100.01%	117.88%	133.12%	68.14%	103.52%	90.18%	77.02%	129.94%	82.18%
18	Gross Margin	$67,856	$36,800	$20,732	$3,236	$561	$233	$841	$3,603	$1,493	$358
19	Gross Margin, $/GJ	$1.174	$2.374	$2.160	$1.228	$4.431	$1.408	$0.526	$0.351	$0.086	$0.715
	Per Unit C.O.S. @ Uniform Rate of Return by Class excluding cost of gas										
20	Demand Cost, $/GJ		$1.038	$1.033	$0.754	$4.103	$0.825	$0.528	$0.411	$0.030	$1.090
21	Commodity Cost, $/GJ		0.020	0.020	0.015	(1.087)	0.020	0.013	0.013	0.013	0.013
22	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
23	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit Cost of Gas by Class										
24	Demand Cost, $/GJ		$1.717	$1.672	$1.150	$0.519	$0.343	$0.000	$3.941	$0.015	$0.000
25	Commodity Cost, $/GJ		$0.943	$0.968	$0.933	$0.931	$1.026	$0.000	$0.974	$0.000	$1.077
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas										
26	Demand Cost, $/GJ		$2.781	$2.731	$1.904	$4.630	$1.166	$0.528	$4.352	$0.045	$1.090
27	Commodity Cost, $/GJ		0.937	0.963	0.948	(0.163)	1.047	0.013	0.988	0.013	1.090
28	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
29	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of firm T-Service volumes only										
30	Demand Cost, $/GJ								$0.415		
31	Commodity Cost, $/GJ								0.014	C	
32	Customer Cost, $/GJ								0.048		
33	Revenue as a percentage of Cost of Service, excluding gas cost		100.02%	150.83%	149.49%	61.70%	107.19%	90.18%	74.41%	137.20%	

ING COS
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SECTION 1
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REVISED
JUNE 21, 1993

Fully Di.. ..ted Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992

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Line No.	Particulars (a)	Total Service (b)	Residential 1 (c)	Commercial 2 (d)	Small Indust. Sales & T-Serv Captive 5/25 (e)	NGV/VRA 14 (f)	Seasonal 4 (g)	Non-Core: Small T-Serv. Non-Captive 25 (h)	Non-Core: Large Industrial Sales & T-Service Captive 10/20/22 (i)	Non-Core: Large Industrial Sales & T-Service Non-Captive 10/12/22 (j)	Other (k)
1	Base Rate Revenue	$137,265	$78,036	$46,073	$4,306	$744	$459	$841	$4,153	$1,757	$896
2	Cost of Gas	$69,409	$41,236	$25,341	$1,070	$184	$226	$0	$550	$264	$539
3	Total Functional Expenses	35,844	20,128	8,926	1,488	594	132	643	2,924	669	342
4	Total Operating Revenue Deductions	105,252	61,364	34,267	2,558	777	358	643	3,474	933	880
5	Operating Income before Taxes & Retur	32,013	16,672	11,806	1,748	(33)	101	198	679	824	16
6	Income Tax @ 10.31% return on class R	4,618	3,354	707	66	97	14	26	244	90	21
7	Return @ 10.31% return on class RB	$20,779	$13,311	$4,112	$611	$217	$72	$263	$1,675	$330	$189
8	Rate Base	$201,546	$129,111	$39,884	$5,916	$2,112	$687	$2,553	$16,242	$3,208	$1,834
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.32%	10.30%	10.42%	10.32%	10.31%	10.29%	10.31%
10	Total Cost to Serve	$130,649	$78,029	$39,086	$3,235	$1,092	$443	$933	$5,392	$1,352	$1,090
11	Total Cost to Serve w/o CoG	61,241	36,793	13,745	2,165	908	217	933	4,842	1,088	552
12	Aver. Cost of Gas, $/GJ	$2.617	$2.660	$2.640	$2.083	$1.451	$1.369	$0.000	$4.915	$0.015	$1.077
13	Average Cost to Serve w/o COG, $/GJ	$1.059	$2.373	$1.432	$0.822	$7.181	$1.314	$0.583	$0.471	$0.063	$1.103
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.822			$0.583	$0.471	$0.063	
14	Revenue less Total Cost to Serve	$6,616	$7	$6,987	$1,071	($348)	$16	($92)	($1,239)	$405	($194)
15	Revenue less Total Cost to Serve, $/GJ	$0.114	$0.000	$0.728	$0.407	($2.750)	$0.094	($0.057)	($0.121)	$0.023	($0.388)
16	Rate Incr. (Decr.) Cost Based Rates	4.82%	0.01%	15.17%	24.88%	-46.76%	3.40%	-10.89%	-29.84%	23.04%	-21.68%
17	Revenue as a percent of Cost of Service	105.06%	100.01%	117.88%	133.12%	68.14%	103.52%	90.18%	77.02%	129.94%	82.18%
18	Gross Margin	$67,856	$36,800	$20,732	$3,236	$561	$233	$841	$3,603	$1,493	$358
19	Gross Margin, $/GJ	$1.174	$2.374	$2.160	$1.228	$4.431	$1.408	$0.526	$0.351	$0.086	$0.715
	Per Unit C.O.S. @ Uniform Rate of Return by Class excluding cost of gas										
20	Demand Cost, $/GJ		$1.038	$1.033	$0.754	$4.103	$0.825	$0.528	$0.411	$0.030	$1.090
21	Commodity Cost, $/GJ		0.020	0.020	0.015	(1.087)	0.020	0.013	0.013	0.013	0.013
22	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
23	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit Cost of Gas by Class										
24	Demand Cost, $/GJ		$1.717	$1.672	$1.150	$0.519	$0.343	$0.000	$3.941	$0.015	$0.000
25	Commodity Cost, $/GJ		$0.943	$0.968	$0.933	$0.931	$1.026	$0.000	$0.974	$0.000	$1.077
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas										
26	Demand Cost, $/GJ		$2.781	$2.731	$1.904	$4.630	$1.166	$0.528	$4.352	$0.045	$1.090
27	Commodity Cost, $/GJ		0.937	0.963	0.948	(0.163)	1.047	0.013	0.988	0.013	1.090
28	Customer Cost, $/GJ		1.316	0.379	0.053	4.164	0.469	0.042	0.047	0.019	0.000
29	Customer Cost, $/bill		11.677	18.701	289.118	1,908.619	461.435	553.797	2,896.824	3,437.944	0.000
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of firm T-Service volumes only										
30	Demand Cost, $/GJ								$0.415		
31	Commodity Cost, $/GJ								0.074		
32	Customer Cost, $/GJ								0.048		
33	Revenue as a percentage of Cost of Service, excluding gas		100.02%	150.83%	149.49%	61.70%	107.19%	90.18%	74.41%	137.20%	

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JUNE 7, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

REVISED

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Line No.	Particulars	Total Service	Residential 1	Commercial 2	Small Indust. Sales & T-Serv Captive 5/25	NGV/VRA 14	Seasonal 4	Non-Core Small T-Serv. Non-Captive 25	Non-Core Large Industrial Sales & T-Service Captive 10/20/22	Non-Core Large Industrial Sales & T-Service Non-Captive 10/12/22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Total Cost to Serve w/o CoG	$61,241	$36,793	$13,745	$2,165	$908	$217	$933	$4,842	$1,088	$552
2	Adjustment Factor	1.0373									
3	Adjusted Cost to Serve w/o CoG	$63,525	$38,165	$14,258	$2,245	$942	$225	$967	$5,023	$1,129	$572
4	Cost of Gas	69,409	41,236	25,341	1,070	184	226	0	550	264	539
5	Adjusted Total Cost to Serve	$132,934	$79,401	$39,599	$3,315	$1,126	$451	$967	$5,573	$1,393	$1,111
6	Average Cost to Serve w/o CoG $/GJ	$1.059	$2.373	$1.432	$0.822	$7.181	$1.314	$0.583	$0.471	$0.063	$1.103
7	Adj Ave. Cost to Serve w/o COG $/GJ	$1.099	$2.462	$1.486	$0.852	$7.449	$1.363	$0.605	$0.489	$0.065	$1.145
7.1	Adj T-Service Ave. Cost incl. UAF $/GJ				$0.852			$0.605	$0.489	$0.065	
8	Gross Margin	$67,856	$36,800	$20,732	$3,236	$561	$233	$841	$3,603	$1,493	$358
9	Base Rate Revenue	$137,265	$78,036	$46,073	$4,306	$744	$459	$841	$4,153	$1,757	$896
10	Gross Margin % of COS excl. COG	106.82%	96.42%	145.41%	144.11%	59.49%	103.34%	86.93%	71.73%	132.27%	62.47%
11	Revenue as a % of cost of Service	103.26%	98.28%	116.35%	129.88%	66.09%	101.66%	86.93%	74.52%	126.15%	80.66%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, exd. Cost of Gas										
13	Per Unit COS x Adjustment Factor										
14	Demand Cost, $/GJ		$1.077	$1.072	$0.782	$4.256	$0.855	$0.548	$0.426	$0.031	$1.131
15	Commodity Cost, $/GJ		0.020	0.020	0.015	(1.127)	0.021	0.014	0.014	0.014	0.014
16	Customer Cost, $/GJ		1.365	0.393	0.055	4.320	0.486	0.043	0.049	0.020	0.000
17	Customer Cost, $/bill (Monthly)		12.113	19.398	299.902	1,979.810	478.647	574.453	3,004.876	3,566.179	0.000
18	Per Unit Cost of Gas by Class										
19	Demand Cost, $/GJ		$1.717	$1.672	$1.150	$0.519	$0.343	$0.000	$3.941	$0.015	$0.000
20	Commodity Cost, $/GJ		0.943	0.968	0.933	0.931	1.026	0.000	0.974	0.000	1.077
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas										
22	Demand Cost, $/GJ		$2.793	$2.744	$1.932	$4.776	$1.198	$0.548	$4.367	$0.046	$1.131
23	Commodity Cost, $/GJ		0.964	0.989	0.948	(0.196)	1.047	0.014	0.988	0.014	1.091
24	Customer Cost, $/GJ		1.365	0.393	0.055	4.320	0.486	0.043	0.049	0.020	0.000
25	Customer Cost, $/bill (Monthly)		12.113	19.398	299.902	1,979.810	478.647	574.453	3,004.876	3,566.179	0.000

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ADJUSTED
REVISED
JUNE 7, 1993

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
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($000)

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Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	STORAGE GAS								
2	440/441 Land in Fee Simple and Land Rights	$188	$188						
3									
4	442 Structures and Improvements								
5	Gross Plant	317	317						
6	Accumulated Depreciation	(48)	(48)						
7									
8	Net Book Value	270	270						
9									
10	443 Gas Holders - Storage								
11	Gross Plant	1,933	1,933						
12	Accumulated Depreciation	(289)	(289)						
13									
14	Net Book Value	1,645	1,645	0					
15									
16	449 Local Storage Equipment								
17	Gross Plant	1,936	1,936						
18	Accumulated Depreciation	(223)	(223)						
19									
20	Net Book Value	1,713	1,713	0					
21									
22	TOTAL LOCAL STORAGE								
23	Gross Plant	4,374	4,374						
24	Accumulated Depreciation	(559)	(559)						
25									
26	Net Book Value	3,815	3,815	0					
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
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42									
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Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	MANUFACTURED GAS								
2	430 Manufact'd Gas - Land								
3	Gross Plant	$11			$11				
4									
5	432 Manufact'd Gas - Struct. & Improvements								
6	Gross Plant	330			330				
7	Accumulated Depreciation	(7)			(7)				
8									
9	Net Book Value	323			323				
10									
11	433 Manufacturing Equipment								
12	Gross Plant	261			261				
13	Accumulated Depreciation	(3)			(3)				
14									
15	Net Book Value	258			258				
16									
17	434 Gas Holders - Manufacturing								
18	Gross Plant	220			220				
19	Accumulated Depreciation	(6)			(6)				
20									
21	Net Book Value	214			214				
22									
23	TOTAL MANUFACTURED GAS								
24	Gross Plant	822			822				
25	Accumulated Depreciation	(16)			(16)				
26									
27	Net Book Value	806			806				
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
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Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TRANSMISSION PLANT								
2	460/461 Land in Fee Simple & Land Rights	$2,227	140		2,087				
3									
4	461 Land Rights - Byron Creek								
5	Gross Plant	0							
6	Accumulated Depreciation	0							
7									
8	Net Book Value	0							
9									
10	462 Compressor Structures								
11	Gross Plant	409	91		318				
12	Accumulated Depreciation	(206)	(37)		(168)				
13									
14	Net Book Value	204	54		150				
15									
16	463 Measuring Structures								
17	Gross Plant	143			143				
18	Accumulated Depreciation	(53)			(53)				
19									
20	Net Book Value	90			90				
21									
22	464 Other Structures and Improvements								
23	Gross Plant	89	1		88				
24	Accumulated Depreciation	(18)	0		(18)				
25									
26	Net Book Value	72	1		71				
27									
28	465 Mains								
29	Gross Plant	55,493	3,739		51,754				
30	Accumulated Depreciation	(20,049)	(1,189)		(18,860)				
31									
32	Net Book Value	35,444	2,550		32,894				
33									
34	465 Mains - Byron Creek								
35	Gross Plant	0							
36	Accumulated Depreciation	0							
37									
38	Net Book Value	0							
39									
40	466 Compressor Equipment								
41	Gross Plant	3,377	429		2,948				
42	Accumulated Depreciation	(1,023)	(184)		(838)				
43									
44	Net Book Value	2,355	245		2,110				
45									
46									
47									

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RATE BASE - FUNCTION
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Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TRANSMISSION PLANT								
2	467-00 Measuring and Regulating Equipment								
3	Gross Plant	$1,178	5		1,173				
4	Accumulated Depreciation	(311)	0		(311)				
5									
6	Net Book Value	867	5		862				
7									
8	467-10 Telemetering								
9	Gross Plant	1,142	30		1,112				
10	Accumulated Depreciation	(1,074)	(37)		(1,037)				
11									
12	Net Book Value	68	(7)		75				
13									
14	468 Communication Structures and Equipment								
15	Gross Plant	96			96				
16	Accumulated Depreciation	0			0				
17									
18	Net Book Value	96			96				
19									
20	469 Other Transmission Equipment								
21	Gross Plant	8			8				
22	Accumulated Depreciation	0			0				
23									
24	Net Book Value	8			8				
25									
26	TOTAL TRANSMISSION PLANT								
27	Gross Plant	64,160	4,435		59,725				
28	Accumulated Depreciation	(22,732)	(1,448)		(21,284)				
29									
30	Net Book Value	41,428	2,987		38,441				
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
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47									

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Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	470 Land	$728				$728			
3									
4	471 Land Rights	300				300			
5									
6	471 Land Rights - Byron Creek								
7	Gross Plant	0							
8	Accumulated Depreciation	0							
9									
10	Net Book Value	0							
11									
12	472 Structures and Improvements - Leasehold Alterations								
13	Gross Plant	203				203			
14	Accumulated Depreciation	(109)				(109)			
15									
16	Net Book Value	94				94			
17									
18	472 Structures and Improvements - Frame Buildings								
19	Gross Plant	1,044				1,044			
20	Accumulated Depreciation	(311)				(311)			
21									
22	Net Book Value	733				733			
23									
24	472 Structures and Improvements - Masonry Buildings								
25	Gross Plant	5,642				5,642			
26	Accumulated Depreciation	(724)				(724)			
27									
28	Net Book Value	4,918				4,918			
29									
30	472 Structures and Improvements - Byron Creek								
31	Gross Plant	0							
32	Accumulated Depreciation	0							
33									
34	Net Book Value	0							
35									
36	473 Services - Lower Mainland								
37	Gross Plant	0							
38	Accumulated Depreciation	0							
39									
40	Net Book Value	0							
41									
42	473 Services - All Other								
43	Gross Plant	68,531				68,531			
44	Accumulated Depreciation	(8,732)				(8,732)			
45									
46	Net Book Value	59,799				59,799			
47									

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Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	474 House Regulators and Meter Installations								
3	Gross Plant	$17,570				$17,570			
4	Accumulated Depreciation	(3,130)				(3,130)			
5									
6	Net Book Value	14,440				14,440			
7									
8	475 Mains								
9	Gross Plant	78,197				78,197			
10	Accumulated Depreciation	(17,112)				(17,112)			
11									
12	Net Book Value	61,085				61,085			
13									
14	476 Compressor Equipment - Commercial Cardlock Station								
15	Gross Plant	0							
16	Accumulated Depreciation	0							
17									
18	Net Book Value	0							
19									
20	476 Compressor Equipment - Lower Mainland								
21	Gross Plant	0							
22	Accumulated Depreciation	0							
23									
24	Net Book Value	0							
25									
26	476 Compressor Equipment - All Other								
27	Gross Plant	2,474							2,474
28	Accumulated Depreciation	(733)							(733)
29									
30	Net Book Value	1,741							1,741
31									
32	477-00 Measuring and Regulating Equipment								
33	Gross Plant	8,025				8,025			
34	Accumulated Depreciation	(1,430)				(1,430)			
35									
36	Net Book Value	6,595				6,595			
37									
38	477-10 Telemetry Equipment								
39	Gross Plant	896				896			
40	Accumulated Depreciation	(470)				(470)			
41									
42	Net Book Value	426				426			
43									
44									
45									
46									
47									

BC GAS INC.
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Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	477-00 Byron Creek								
3	Gross Plant	$0							
4	Accumulated Depreciation	0							
5									
6	Net Book Value	0							
7									
8	478 Meters								
9	Gross Plant	16,060				16,060			
10	Accumulated Depreciation	(4,339)				(4,339)			
11									
12	Net Book Value	11,721				11,721			
13									
14	479 Other Distribution Equipment								
15	Gross Plant	17				17			
16	Accumulated Depreciation	0				0			
17									
18	Net Book Value	17				17			
19									
20									
21	TOTAL DISTRIBUTION PLANT								
22	Gross Plant	199,687				197,213			2,474
23	Accumulated Depreciation	(37,090)				(36,357)			(733)
24									
25	Net Book Value	162,597				160,856			1,741
26									
27									
28	TOTAL MANUFACTURED GAS, STORAGE,								
29	TRANSMISSION & DISTRIBUTION								
30	Gross Plant	269,043	8,809	0	60,547	197,213	0	0	2,474
31	Accumulated Depreciation	(60,397)	(2,007)	0	(21,300)	(36,357)	0	0	(733)
32									
33	Net Book Value	208,646	6,802	0	39,247	160,856	0	0	1,741
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

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Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	480 Land	$0							
3									
4	481 Land Rights	0							
5									
6	482 Structures and Improvements - Leasehold Alterations								
7	Gross Plant	2,250	74	0	506	1,649	0	0	21
8	Accumulated Depreciation	(1,578)	(52)	0	(355)	(1,157)	0	0	(15)
9									
10	Net Book Value	672	22	0	151	493	0	0	6
11									
12	482 Structures and Improvements - Lochburn Admin. Warehouse								
13	Gross Plant	0							
14	Accumulated Depreciation	0							
15									
16	Net Book Value	0							
17									
18	482 Structures and Improvements - Lochburn Cafeteria								
19	Gross Plant	0							
20	Accumulated Depreciation	0							
21									
22	Net Book Value	0							
23									
24	482 Structures and Improvements - All Other								
25	Gross Plant	0							
26	Accumulated Depreciation	0							
27									
28	Net Book Value	0							
29									
30	483 Office Furniture and Equipment - Fraser Valley/ Lochburn/ LNG								
31	Gross Plant	0							
32	Accumulated Depreciation	0							
33									
34	Net Book Value	0							
35									
36	483 Office Furniture and Equipment - Computers Software/ LNG/ Misc.								
37	Gross Plant	1,586	52	0	357	1,163	0	0	15
38	Accumulated Depreciation	0	0	0	0	0	0	0	0
39									
40	Net Book Value	1,586	52	0	357	1,163	0	0	15
41									
42	483 Office Furniture and Equipment - Computers Micro. Comp. System								
43	Gross Plant	0							
44	Accumulated Depreciation	0							
45									
46	Net Book Value	0							
47									

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Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	483 Office Furniture and Equipment - EDP Equipment								
3	Gross Plant	$6,089	$199	$0	$1,370	$4,463	$0	$0	$56
4	Accumulated Depreciation	(2,256)	(74)	0	(508)	(1,654)	0	0	(21)
5									
6	Net Book Value	3,833	126	0	863	2,810	0	0	35
7									
8	483 Office Furniture and Equipment - Computers Assist Mapping								
9	Gross Plant	0							
10	Accumulated Depreciation	0							
11									
12	Net Book Value	0							
13									
14	483 Office Furniture and Equipment - GMS Leased Software								
15	Gross Plant	0							
16	Accumulated Depreciation	0							
17									
18	Net Book Value	0							
19									
20	483 Office Furniture and Equipment - Training, Display & Documentation								
21	Gross Plant	0							
22	Accumulated Depreciation	0							
23									
24	Net Book Value	0							
25									
26	483 Offite Furniture and Equipment - All Other								
27	Gross Plant	3,473	114	0	782	2,546	0	0	32
28	Accumulated Depreciation	(917)	(30)	0	(206)	(672)	0	0	(8)
29									
30	Net Book Value	2,556	84	0	575	1,874	0	0	24
31									
32	484 Transportation Equipment - Utility Trailers								
33	Gross Plant	0							
34	Accumulated Depreciation	0							
35									
36	Net Book Value	0							
37									
38	484 Transportation Equipment - Automobiles								
39	Gross Plant	4,430	145	0	997	3,247	0	0	41
40	Accumulated Depreciation	(2,733)	(89)	0	(615)	(2,003)	0	0	(25)
41									
42	Net Book Value	1,697	56	0	382	1,244	0	0	16
43									
44									
45									
46									
47									

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RATE BASE - FUNCTION
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BC GAS INC.
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Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	484 Transportation Equipment - Aircraft								
3	Gross Plant	$0							
4	Accumulated Depreciation	0							
5									
6	Net Book Value	0							
7									
8	484 Transportation Equipment - Leased Equipment								
9	Gross Plant	0							
10	Accumulated Depreciation	0							
11									
12	Net Book Value	0							
13									
14	485 Heavy Work Equipment								
15	Gross Plant	1,711	56	0	385	1,254	0	0	16
16	Accumulated Depreciation	(251)	(8)	0	(56)	(184)	0	0	(2)
17									
18	Net Book Value	1,460	48	0	329	1,070	0	0	13
19									
20	486 Tools and Work Equipment								
21	Gross Plant	2,704	89	0	609	1,982	0	0	25
22	Accumulated Depreciation	(1,106)	(36)	0	(249)	(811)	0	0	(10)
23									
24	Net Book Value	1,598	52	0	360	1,171	0	0	15
25									
26	487 Equipment on Customer's Premises								
27	Gross Plant	203							203
28	Accumulated Depreciation	89							89
29									
30	Net Book Value	292							292
31									
32	487 Equipment on Customer's Premises - VRA Compressor								
33	Gross Plant	268							268
34	Accumulated Depreciation	0							0
35									
36	Net Book Value	268							268
37									
38	487 Equipment on Customer's Premises - VRA Installation Cost								
39	Gross Plant	5							5
40	Accumulated Depreciation	0							0
41									
42	Net Book Value	5							5
43									
44									
45									
46									
47									

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Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	488 Communication Equipment - Structures & Equipment								
3	Gross Plant	$1,188	$39	$0	$267	$871	$0	$0	$11
4	Accumulated Depreciation	(288)	(9)	0	(65)	(211)	0	0	(3)
5									
6	Net Book Value	900	29	0	203	660	0	0	8
7									
8	488 Communication Equipment - Radios								
9	Gross Plant	0							
10	Accumulated Depreciation	0							
11									
12	Net Book Value	0							
13									
14	489 Other General Equipment								
15	Gross Plant	90	3	0	20	66	0	0	1
16	Accumulated Depreciation	0	0	0	0	0	0	0	0
17									
18	Net Book Value	90	3	0	20	66	0	0	1
19									
20	TOTAL GENERAL EQUIPMENT								
21	Gross Plant	23,997	770	0	5,293	17,241	0	0	692
22	Accumulated Depreciation	(9,040)	(299)	0	(2,054)	(6,692)	0	0	5
23									
24	Net Book Value	14,957	471	0	3,239	10,550	0	0	697
25									
26									
27									
28									
29									
30									
31									
32									
33									
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47									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Rate Base
Gas Plant in Service
Page 2.11

Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	INTANGIBLE PLANT								
2	117 Utility Plant								
3	Acquisition Adjustment								
4	Gross Plant	$0	$0	$0	$0	$0	$0	$0	$0
5	Accumulated Depreciation	(16)	(1)	0	(4)	(12)	0	0	(0)
6									
7	Net Book Value	(16)	(1)	0	(4)	(12)	0	0	(0)
8									
9	175 Unamortized								
10	Conversion Expense								
11	Gross Plant	109	4	0	25	80	0	0	1
12	Accumulated Depreciation	(33)	(1)	0	(7)	(24)	0	0	(0)
13									
14	Net Book Value	76	2	0	17	56	0	0	1
15									
16	178 Organization Expense								
17	Gross Plant	728	24	0	164	534	0	0	7
18	Accumulated Depreciation	(244)	(8)	0	(55)	(179)	0	0	(2)
19									
20	Net Book Value	484	16	0	109	355	0	0	4
21									
22	179 Other Deferred Charges								
23	Gross Plant	0							
24	Accumulated Depreciation	0							
25									
26	Net Book Value	0							
27									
28	401 Franchise Consents								
29	Gross Plant	94	3	0	21	69	0	0	1
30	Accumulated Depreciation	(31)	(1)	0	(7)	(23)	0	0	(0)
31									
32	Net Book Value	63	2	0	14	46	0	0	1
33									
34	402 Other Intangible Plant								
35	Gross Plant	148	5	0	33	108	0	0	1
36	Accumulated Depreciation	(48)	(2)	0	(11)	(35)	0	0	(0)
37									
38	Net Book Value	100	3	0	23	73	0	0	1
39									
40	TOTAL INTANGIBLE PLANT								
41	Gross Plant	1,079	35	0	243	791	0	0	10
42	Accumulated Depreciation	(372)	(12)	0	(84)	(273)	0	0	(3)
43									
44	Net Book Value	707	23	0	159	518	0	0	7
45									
46									
47									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Rate Base
Gas Plant in Service
Page 2.12

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TOTAL UNCLASSIFIED PLANT								
2	Gross Plant	$2,665	0	0	880	1,757	0	0	28
3	Accumulated Depreciation	22	0	0	7	15	0	0	0
4									
5	Net Book Value	2,687	0	0	887	1,772	0	0	28
6									
7									
8	DISALLOWED PLANT COSTS								
9	Gross Plant	(306)	(10)	0	(69)	(224)	0	0	(3)
10	Accumulated Depreciation	30	1	0	7	22	0	0	0
11									
12	Net Book Value	(276)	(9)	0	(62)	(202)	0	0	(3)
13									
14									
15	RETIREMENT WORK IN PROGRESS	(34)	(1)	0	(8)	(25)	0	0	(0)
16									
17	TOTAL NET GAS PLANT IN SERVICE								
18	Gross Plant	296,478	9,604	0	66,894	216,778	0	0	3,201
19	Accumulated Depreciation	(69,791)	(2,318)	0	(23,432)	(43,309)	0	0	(731)
20									
21	Net Book Value	$226,687	$7,287	$0	$43,462	$173,469	$0	$0	$2,470
22									
23									
24									
25									
26									
27									
28									
29									
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BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
CONSTRUCTION ADVANCES / GAS PLANT UNDER CONSTRUCTION / DEFERRED INCOME TAX
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Rate Base
Customer Advances, Gas
Plant Under Const. &
Deferred Income Tax
Page 4.0

Line No.	B.C.U.C. Account	Total	Gas Supply ----- Gas Purch./ LNG/EKL	Gas Supply ----- Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	CONSTRUCTION ADVANCES	($435)							($435)
2									
3									
4	GAS PLANT UNDER CONSTRUCTION NOT ATTRACTING								
5	AFUDC	$1,750			$480	$1,270			
6									
7									
8	DEFERRED INCOME TAX	($11,031)	($357)	$0	($2,489)	($8,066)	$0	$0	($119)
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
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21									
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BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
RATE BASE
DEFERRED CHARGES
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Rate Base
Deferred Charges
Page 5.0

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	#179-45 Metering Stations	$0							
2	#179-02 Furnace Grants *	0							0
3									
4	Market Rebate Incentive								
5	- #179-52 Water Heater Grants *	358							358
6	- #179-13 Commercial *	8							8
7	- #179-13 Space / Water Heating *	0							
8									
9	#179-18/42 NGV Conversion Grants *	123							123
10	#279-08 NGV Deferred Margin	(37)							(37)
11	#179-57 Appliance Insurance Program	0							
12									
13	#279-24 Revelstoke Deferred Fuel Cost	58	58						
14	#179-42 Conversion Grants - Revelstoke	(160)				(160)			
15	#279-20 S.S. Tax on Aircraft	0							
16									
17	#179-58 Rate Design Costs - Phase A *	12	12						
18	#179-58 Rate Design Costs - Phase B *	0							
19	#179-59 Revenue Requirement Hearing *	37							37
20									
21	#179-63 Demand Side Management *	0							
22	#179-64 Integrated Resource Planning *	0							
23	#179-30 Gas Purchase Negotiation Cost	23	23						
24									
25	$0.41 Deferral - B.C.U.C. #G-92-91	0							
26	Deferred Cost of Gas - B.C.U.C. #G-92-91	(189)	(189)						
27	Cost of Gas Rate 2501 - B.C.U.C. #G-92-91	0							
28	Deferred COG Rate 10/12 - B.C.U.C. #G-92-91	(495)							(495)
29									
30	VIA Credits	(158)	(158)						
31	Burrard Interruptible	0							
32	Deferred Capital Gain *	0							
33									
34	Total Deferred Charges in Rate Base	($420)	($254)	$0	$0	($160)	$0	$0	($6)
35									
36									
37									
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40									
41									
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BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
SUMMARY BY FUNCTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Rate Base - Summary
Page 1.0

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Gas Supply - Gas Purch./LNG/East Koot. Link	$7,971	$6,774	$1,197	$0	$0	Page 2.0
2							
3	Gas Supply - Administration	0	0	0	0	0	
4							
5	Transmission	40,105	40,105	0	0	0	
6							
7	Distribution	150,560	52,102	2	0	98,456	Page 5.10
8							
9	Marketing	0	0	0	0	0	
10							
11	Customer Accounting	0	0	0	0	0	
12							
13	Direct Assignment	2,901	0	37	2,864	0	
14							
15							
16	Total	$201,538	$98,981	$1,236	$2,864	$98,456	
17							
18							
19							
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BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
GAS SUPPLY - GAS PURCHASES, LNG & EAST KOOTENAY LINK
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Rate Base - Gas Supply
Page 2.0

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	TOTAL NET GAS PLANT IN SERVICE					
2	Gross Plant	$9,604	$9,604			
3	Accumulated Depreciation	(2,318)	(2,318)			
4						
5		7,287	7,287	0	0	0
6						
7						
8	CONTRIBUTIONS IN AID OF CONSTRUCTION	(7)	(7)			
9						
10	COMMISSION ADJUSTMENT FOR 13 MONTH AVERAGING	(17)	(17)			
11						
12	CONSTRUCTION ADVANCES	0				
13						
14	WORK IN PROGRESS, NO AFUDC	0				
15						
16	UNAMORTIZED DEFERRED CHARGES					
17	#279-24 Revelstoke Deferred Fuel Cost	$58		$58		
18	#179-58 Rate Design Costs - Phase A *	12	7	5	0	0
19	#179-30 Gas Purchase Negotiation Cost	23		23		
20	Deferred Cost of Gas - B.C.U.C. #G-92-91	(189)		(189)		
21	VIA Credits	(158)	(158)			
22						
23		(254)	(151)	(103)	0	0
24						
25						
26	CASH WORKING CAPITAL	* 0				
27						
28	OTHER WORKING CAPITAL					
29	Inventories	19	19			
30	Gas in Storage	1,300		1,300		
31						
32	DEFERRED INCOME TAX	(357)	(357)			
33						
34	Total Rate Base	$7,971	$6,774	$1,197	$0	$0
35						
36						
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BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Rate Base - Transmission
Page 4.0

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	430 Manufact'd Gas - Land					
3	Gross Plant	$11	$11			
4						
5	432 Manufact'd Gas - Struct. & Improvements					
6	Gross Plant	330	330			
7	Accumulated Depreciation	(7)	(7)			
8						
9	Net Book Value	323	323	0	0	0
10						
11	433 Manufacturing Equipment					
12	Gross Plant	261	261			
13	Accumulated Depreciation	(3)	(3)			
14						
15	Net Book Value	258	258	0	0	0
16						
17	434 Gas Holders - Manufacturing					
18	Gross Plant	220	220			
19	Accumulated Depreciation	(6)	(6)			
20						
21	Net Book Value	214	214	0	0	0
22						
23	TOTAL MANUFACTURED GAS					
24	Gross Plant	822	822			
25	Accumulated Depreciation	(16)	(16)			
26						
27	Net Book Value	806	806	0	0	0
28						
29						
30						
31						
32						
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BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Rate Base - Transmission
Page 4.1

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	460/461 Land in Fee Simple & Land Rights	$2,087	$2,087			
3						
4	461 Land Rights - Byron Creek					
5	Gross Plant	0	0			
6	Accumulated Depreciation	0	0			
7						
8	Net Book Value	0	0	0	0	0
9						
10	462 Compressor Structures					
11	Gross Plant	318	318			
12	Accumulated Depreciation	(168)	(168)			
13						
14	Net Book Value	150	150	0	0	0
15						
16	463 Measuring Structures					
17	Gross Plant	143	143			
18	Accumulated Depreciation	(53)	(53)			
19						
20	Net Book Value	90	90	0	0	0
21						
22	464 Other Structures and Improvements					
23	Gross Plant	88	88			
24	Accumulated Depreciation	(18)	(18)			
25						
26	Net Book Value	71	71	0	0	0
27						
28	465 Mains					
29	Gross Plant	51,754	51,754			
30	Accumulated Depreciation	(18,860)	(18,860)			
31						
32	Net Book Value	32,894	32,894	0	0	0
33						
34	465 Mains - Byron Creek					
35	Gross Plant	0	0			
36	Accumulated Depreciation	0	0			
37						
38	Net Book Value	0	0	0	0	0
39						
40	466 Compressor Equipment					
41	Gross Plant	2,948	2,948			
42	Accumulated Depreciation	(838)	(838)			
43						
44	Net Book Value	2,110	2,110	0	0	0
45						
46						
47						

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Rate Base - Transmission
Page 4.2

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	467-00 Measuring and Regulating Equipment					
3	Gross Plant	$1,173	$1,173			
4	Accumulated Depreciation	(311)	(311)			
5						
6	Net Book Value	862	862	0	0	0
7						
8	467-10 Telemetering					
9	Gross Plant	1,112	1,112			
10	Accumulated Depreciation	(1,037)	(1,037)			
11						
12	Net Book Value	75	75	0	0	0
13						
14	468 Communication Structures and Equipment					
15	Gross Plant	96	96			
16	Accumulated Depreciation	0	0			
17						
18	Net Book Value	96	96	0	0	0
19						
20	469 Other Transmission Equipment					
21	Gross Plant	8	8			
22	Accumulated Depreciation	0	0			
23						
24	Net Book Value	8	8	0	0	0
25						
26	TOTAL TRANSMISSION PLANT					
27	Gross Plant	60,547	60,547	0	0	0
28	Accumulated Depreciation	(21,300)	(21,300)	0	0	0
29						
30	Net Book Value	39,247	39,247	0	0	0
31						
32						
33						
34						
35						
36						
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BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Rate Base - Distribution
Page 5.0

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	470 Land	728	728			0
3						
4	471 Land Rights	300	300			0
5						
6	471 Land Rights - Byron Creek					
7	Gross Plant	0				
8	Accumulated Depreciation	0				
9						
10	Net Book Value	0	0	0	0	0
11						
12	472 Structures and Improvements - Leasehold Alterations					
13	Gross Plant	203	203			0
14	Accumulated Depreciation	(109)	(109)			0
15						
16	Net Book Value	94	0	0	0	0
17						
18	472 Structures and Improvements - Frame Buildings					
19	Gross Plant	1,044	1,044			0
20	Accumulated Depreciation	(311)	(311)			0
21						
22	Net Book Value	733	733			0
23						
24	472 Structures and Improvements - Masonry Buildings					
25	Gross Plant	5,642	5,642			0
26	Accumulated Depreciation	(724)	(724)			0
27						
28	Net Book Value	4,918	4,918	0	0	0
29						
30	472 Structures and Improvements - Byron Creek					
31	Gross Plant	0				
32	Accumulated Depreciation	0				
33						
34	Net Book Value	0				
35						
36	473 Services - Lower Mainland					
37	Gross Plant	0				
38	Accumulated Depreciation	0				
39						
40	Net Book Value	0	0	0	0	0
41						
42	473 Services - All Other					
43	Gross Plant	68,531	0			68,531
44	Accumulated Depreciation	(8,732)	0			(8,732)
45						
46	Net Book Value	59,799	0	0	0	59,799
47						

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	474 House Regulators and Meter Installations					
3	Gross Plant	$17,570	$0		$0	$17,570
4	Accumulated Depreciation	(3,130)	0		0	($3,130)
5						
6	Net Book Value	14,440	0	0	0	14,440
7						
8	475 Mains					
9	Gross Plant	78,197	78,197			0
10	Accumulated Depreciation	(17,112)	(17,112)			0
11						
12	Net Book Value	61,085	61,085	0	0	0
13						
14	476 Compressor Equipment - Commercial Cardlock Station					
15	Gross Plant	0				
16	Accumulated Depreciation	0				
17						
18	Net Book Value	0				
19						
20	476 Compressor Equipment - Lower Mainland					
21	Gross Plant	0				
22	Accumulated Depreciation	0				
23						
24	Net Book Value	0				
25						
26	476 Compressor Equipment - All Other					
27	Gross Plant	0				
28	Accumulated Depreciation	0				
29						
30	Net Book Value	0				
31						
32	477-00 Measuring and Regulating Equipment					
33	Gross Plant	8,025	0			8,025
34	Accumulated Depreciation	(1,430)	0			(1,430)
35						
36	Net Book Value	6,595	0	0	0	6,595
37						
38	477-10 Telemetry Equipment					
39	Gross Plant	896	0			896
40	Accumulated Depreciation	(470)	0			(470)
41						
42	Net Book Value	426	0	0	0	426
43						
44						
45						
46						
47						

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Rate Base - Distribution
Page 5.2

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	477-00 Byron Creek					
3	Gross Plant	0				
4	Accumulated Depreciation	0				
5						
6	Net Book Value	0				
7						
8	478 Meters					
9	Gross Plant	16,060	0		0	16,060
10	Accumulated Depreciation	(4,339)	0		0	(4,339)
11						
12	Net Book Value	11,721	0		0	11,721
13						
14	479 Other Distribution Equipment					
15	Gross Plant	17	17			0
16	Accumulated Depreciation	0	0			0
17						
18	Net Book Value	17	17			0
19						
20						
21	TOTAL DISTRIBUTION PLANT					
22	Gross Plant	197,213	86,131	0	0	111,082
23	Accumulated Depreciation	(36,357)	(18,256)	0	0	(18,101)
24						
25	Net Book Value	160,856	67,875	0	0	92,981
26						
27						
28						
29						
30						
31						
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BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Rate Base - Distribution
Page 5.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	GROSS PLANT IN SERVICE	216,778	94,675	1	0	122,102
2	ACCUMULATED DEPRECIATION	(43,309)	(21,291)	2	0	(22,020)
3						
4	NET GAS PLANT IN SERVICE	173,469	73,384	3	0	100,082
5						
6						
7	COMMISSION ADJUSTMENT FOR 13 MONTH AVERAGING	(369)	(161)	(0)	0	(208)
8						
9	CONTRIBUTIONS IN AID OF CONSTRUCTION	(18,771)	(18,678)	0	0	(93)
10						
11	CONSTRUCTION ADVANCES	0			0	0
12						
13	WORK IN PROGRESS, NO AFUDC	1,270	555	0	0	715
14						
15	UNAMORTIZED DEFERRED CHARGES	(160)	0	0	0	(160)
16						
17	CASH WORKING CAPITAL	0	0	0	0	0
18						
19	OTHER WORKING CAPITAL					
20	Inventories - Pipe	642	342	0	0	300
21	- Fittings	1,633	0	0	0	1,633
22	- Meters & Regulators	495	0	0	0	495
23	- Supplies & Other	418	183	0	0	235
24						
25	Total Other Working Capital	3,188	525	0	0	2,663
26						
27						
28	DEFERRED INCOME TAX	(8,066)	(3,523)	0	0	(4,543)
29						
30						
31	TOTAL RATE BASE	$150,560	$52,102	$2	$0	$98,456
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

ICOS
Function
Cost of Service

Page 1.0

Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Gas (including Gas Lost)	$69,410	$69,410						$0	See Note 1
2										
3	Operation and Maintenence	22,631	466	624	2,578	13,388	1,367	2,776	1,436	Page 2.2, Line 31
4	Property and Franchise Tax	7,347	241	0	3,101	2,928	0	0	1,077	Page 3.0, Line 10
5	Depreciation and Amortization	7,526	410	0	1,654	5,103	0	0	359	Page 4.3, Line 40
6	Other Operating Revenue	(1,662)	0	0	0	(663)	0	0	(999)	Page 5.0, Line 23
7										
8		35,842	1,116	624	7,333	20,756	1,367	2,776	1,873	
9										
10										
11	Income Taxes	4,618	342	2	457	3,562	4	9	244	Page 6.0, Line 22
12										
13	Earned Return	20,779	822	0	4,135	15,523	0	0	299	Line 28
14										
15	Total Cost of Service	130,649	71,690	626	11,925	39,841	1,371	2,785	2,416	
16										
17	Less: Cost of Gas	(69,410)	(69,410)	0	0	0	0	0	0	
18										
19	Gross Margin Cost of Service	$61,239	$2,280	$626	$11,925	$39,841	$1,371	$2,785	$2,416	
20										
21										
22										
23	Rate Base x	$201,539	$7,971	$0	$40,105	$150,560	$0	$0	$2,901	
24										
25	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	
26										
27										
28	Earned Return	$20,779	$822	$0	$4,135	$15,523	$0	$0	$299	
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										

ING COS
TAB 2B
SECTION 5
PAGE 1.0
COS - FUNCTION - SUMMARY
REVISED
JUNE 7, 1993

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Cost of Service
O & M Expense
Page 2.0

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	639 Propane Air Plant - Manufact'd Gas	$18			18				
2	640 Liquid Natural Gas - Supervision	26	26						
3	649 Liquid Natural Gas Operation - Plant	142	142						
4									
5		186	168	0	18	0	0	0	0
6									
7	660 Transmission - Supervision	230			230				
8	665 Transmission Mains	442			442				
9	666 Transmission Compressors	94			94				
10	667 Measuring and Regulating	32			32				
11	668 Telemetry	37			37				
12	669 Gas Load - Supervision	172		182	(10)				
13	669.198 Charged to Capital	(53)			(53)				
14	669.199 Cross Charges	(53)			(53)				
15									
16		901	0	182	719	0	0	0	0
17									
18	670 Distribution - Supervision	7,334				7,334			
19	671 Load Dispatching	90		88		2			
20	673 Remove & Reset Meters & Regulators	910				910			
21	674 Premise Calls	427				427			
22	675 Mains and Services	885				885			
23	677 Measuring and Regulating	712				712			
24	679.001 Muster Points	0				0			
25	679.198 Charged to Capital	(2,761)				(2,761)			
26	679.199 Cross Charges	(16)				(16)			
27									
28		7,581	0	88	0	7,493	0	0	0
29									
30	684 System Operation - Communication	70	2	0	16	51	0	0	1
31	685 System Operation & Engineering	2,500	82	0	563	1,833	0	0	23
32	688 General Operations	192	6	0	43	141	0	0	2
33	689.198 Charged to Capital	(696)	(23)	0	(157)	(510)	0	0	(6)
34	689.199 Cross Charges	(360)	(12)	0	(81)	(264)	0	0	(3)
35									
36		1,706	55	0	384	1,251	0	0	17
37									
38									
39	Total Operating Expenses	10,374	223	270	1,121	8,744	0	0	17
40									
41									
42									
43									
44									
45									
46									
47									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	700 Marketing	$626					$523		$103
2	700.198 Charged to Capital	(68)					(68)		
3	701 Advertising	184					(23)		207
4	702 Demonstration & Selling	1,264					868		396
5	703 Merchandising Revenue	(3,836)							(3,836)
6	704 Merchandising Cost of Goods	2,817							2,817
7	709 Other Sales Promotion	67					67		
8									
9	Total Marketing	1,054	0	0	0	0	1,367	0	(313)
10									
11	710 Customer Accounting	411						411	
12	711 Contracts and Orders	980						980	
13	712 Meter Reading	830						830	
14	713 Customer Billing & Accounting	555						555	
15	714 Credit and Collection	895							895
16	718 Uncollectible Accounts	479							479
17									
18	Total Customer Accounting	4,150	0	0	0	0	0	2,776	1,374
19									
20	832 Manufactured Gas Production - Maint.	1			1				
21	849 Liquified Natural Gas - Plant Maint.	70	70						
22									
23		71	70	0	1	0	0	0	0
24									
25	862 Trans. Struct. & Improvements - Mtnce.	16			16				
26	865 Transmission Mains - Maintenance	148			148				
27	866 Compressors - Maintenance	86			86				
28	867 Measuring and Regulating - Maintenance	9			9				
29	868 Telemetry - Maintenance	25			25				
30									
31		284	0	0	284	0	0	0	0
32									
33	872 Distrib. Struct. & Improvements - Mtnce.	83				83			
34	875 Mains and Services - Maintenance	336				336			
35	877 Measuring and Regulating - Maintenance	105				105			
36	878 Meters - Maintenance	299				299			
37	879 Muster Points - Maintenance	0				0			
38									
39		823	0	0	0	823	0	0	0
40									
41	884 Communication - Maintenance	16	1	0	4	12	0	0	0
42	885 System Mtnce. - Eng./Bldgs./Yards	121	4	0	27	89	0	0	1
43	888 General Operations	266	9	0	60	195	0	0	2
44	889.199 Cross Charges	(5)	0	0	(1)	(4)	0	0	0
45									
46		398	14	0	90	292	0	0	3
47									
48	Total Maintenance	1,576	84	0	375	1,115	0	0	3

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
			Gas Purch./ LNG/EKL	Admin.					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	690 NGV Compressors	$0							0
2	790 NGV Operations	142							142
3	790.198 Charged to Capital	(25)							(25)
4	890 NGV Maintenance	193							193
5									
6	Total NGV	310	0	0	0	0	0	0	310
7									
8									
9	721 Administrative Expenses	6,827	212	354	1,457	4,745	0	0	60
10	722 Special Services	174	6	0	39	128	0	0	2
11	723 Insurance - General	235	8	0	53	172	0	0	2
12	724 Injuries and Damages	28	1	0	6	21	0	0	0
13	728 Other Administrative and General Expense	518	17	0	117	380	0	0	5
14	729.198 Charges to Capital	(1,634)	(54)	0	(368)	(1,198)	0	0	(15)
15	729.199 Cross Charges	(288)	(9)	0	(65)	(211)	0	0	(3)
16									
17	Total Administrative Expenses	5,860	181	354	1,239	4,037	0	0	51
18									
19	Subtotal	23,324	488	624	2,735	13,896	1,367	2,776	1,442
20									
21	Less - Vehicle Depreciation Included Above	(345)	(11)	0	(78)	(253)	0	0	(3)
22	Less - Leased Vehicle Interest								
23	Included Above	0	0	0	0	0	0	0	0
24	Less - Inflation Adjustment for Materials								
25	and Services	(87)	(3)	0	(20)	(64)	0	0	(1)
26	Less - Salary Adjustment for Management and								
27	Exempt Employees	(14)	0	0	(3)	(10)	0	0	0
28	Commission Adjustment	(247)	(8)	0	(56)	(181)	0	0	(2)
29									
30									
31	TOTAL OPERATION AND MAINTENANCE EXPENSES	$22,631	$466	$624	$2,578	$13,388	$1,367	$2,776	$1,436
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
PROPERTY TAXES AND FRACHISE FEES

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

ICOS
Function
Cost of Service
Property Taxes
Page 3.0

Line No.	B.C.U.C. Account	Total	Gas Supply		Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	Comments
			Gas Purch./ LNG/EKL	Admin.						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	1% in Lieu of General Municipal Tax	$1,068							$1,068	See Note 1
2										
3	General, School & Other	5,620	215		2,969	2,436				See Note 2
4										
5	Property Taxes	6,688	215	0	2,969	2,436	0	0	1,068	
6										
7	Franchise Fees	0							0	See Note 3
8										
9	Corporate Capital Tax	659	26	0	131	492	0	0	9	
10										
11										
12	Total Property & Franchise Fees	$7,347	$241	$0	$3,101	$2,928	$0	$0	$1,077	
13										

ING COS
TAB 2B
SECTION 5
PAGE 3.0
COS - FUNCTION
- PROPERTY TAXES
AND FRANCHISE FEES
REVISED
JUNE 7, 1993

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Cost of Service
Dep'n. & Amort. Expense
Page 4.0

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	MANUFACTURED GAS / LOCAL STORAGE PLANT								
2	---								
3	432 Manufact'd Gas - Struct. & Improvement								
4	- Frame Buildings	$0			0				
5	- Masonry Buildings	5			5				
6	433 Manufacturing Equipment	8			8				
7	434 Gas Holders - Manufacturing	4			4				
8	442-00 Structures and Improvements	13	13						
9	443-00 Gas Holders Storage	77	77						
10	449-00 Local Storage Equipment	74	74						
11									
12		181	164	0	17	0	0	0	0
13									
14									
15	GAS PLANT HELD FOR FUTURE USE								
16	---								
17	102-00 Structures & Improvements								
18	- Frame Buildings	1			1				
19	- Masonry Buildings	0			0				
20	102-00 Manufacturing Equipment	9			9				
21	102-00 Gas Holder	4			4				
22									
23		14	0	0	14	0	0	0	0
24									
25									
26	TRANSMISSION PLANT								
27	---								
28	461 Land Rights - Byron Creek	0			0				
29	462-00 Structures and Improvements	0			0				
30	- Compressor Stations	12	3		9				
31	463-00 - Measuring & Regulating	0			0				
32	- Measuring & Regulating	4			4				
33	464-00 - Other	3	0		3				
34	465-00 Mains & Crossings	1,086	75		1,011				
35	465-00 Mains & Crossings - Byron Creek	0			0				
36	466-00 Compressor Equipment	71	13		58				
37	467-00 Measuring & Regulating	35	0		35				
38	467-10 Telemetering	110	3		107				
39	468-00 Communications Structures & Equip.	0			0				
40									
41		1,321	94	0	1,227	0	0	0	0
42									
43									
44									
45									
46									
47									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Cost of Service
Dep'n. & Amort. Expense
Page 4.1

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	----------								
3	471 Land Rights - Byron Creek	0				0			
4	472-00 Structures & Improvements								
5	-Leasehold Alterations	42				42			
6	-Frame Buildings	28				28			
7	-Masonry Buildings	60				60			
8	-Byron Creek	0				0			
9	473-00 Services - Lower Mainland	0				0			
10	- All Other	1,333				1,333			
11	474-00 House Regulator & Meter Installation	515				515			
12	475-00 Mains	1,535				1,535			
13	476-00 Compressed Natural Gas								
14	-Commercial Cardlock Station	0							0
15	-Lower Mainland	0							0
16	-All Other	165							165
17	477-00 Measuring & Regulating	219				219			
18	477-10 Telemetering	85				85			
19	477-00 Byron Creek	0				0			
20	478 Meters	462				462			
21	479 Other Distribution Equipment	0				0			
22									
23		4,444	0	0	0	4,279	0	0	165
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Cost of Service
Dep'n. & Amort. Expense
Page 4.2

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	------------								
3	482-00 Structures & Improvements								
4	-Leasehold Alterations	$472	15	0	106	346	0	0	4
5	-Lochburn Admin. Warehouse	0	0	0	0	0	0	0	0
6	-Lochburn Cafeteria	0	0	0	0	0	0	0	0
7	-All Other	0	0	0	0	0	0	0	0
8	483-00 Office Furniture & Equipment	164	5	0	37	120	0	0	2
9	-Fraser Valley / Lochburn / LNG	0	0	0	0	0	0	0	0
10	-Computers - Software / LNG / Misc.	0	0	0	0	0	0	0	0
11	-Computers Micro. Comp. System	0	0	0	0	0	0	0	0
12	-EDP Equipment	761	25	0	171	558	0	0	7
13	-Computers - Assist Mapping	0	0	0	0	0	0	0	0
14	-GMS Leased Software	0	0	0	0	0	0	0	0
15	-Training, Display & Documentation								
16	Materials	0	0	0	0	0	0	0	0
17	484-00 Transportation Equipment	0	0	0	0	0	0	0	0
18	-Automobiles	636	21	0	143	466	0	0	6
19	-Aircraft	0	0	0	0	0	0	0	0
20	-Leased Transportation Equipment	0	0	0	0	0	0	0	0
21	485-00 Maintenance & Repair Equipment	82	3	0	18	60	0	0	1
22	486-00 Tools & Work Equipment	128	4	0	29	94	0	0	1
23	487-00 Equipment on Customers' Premises	10							10
24	487-XX - VRA Compressor	0							0
25	487-XX - VRA Compressor Installation Cost	0							0
26	488-00 Communication - Structures & Equip.	52	2	0	12	38	0	0	0
27	488-00 Communication - Radios	0	0	0	0	0	0	0	0
28	489-00 Other General Equipment								
29	-All Other	0	0	0	0	0	0	0	0
30		---	---	---	---	---	---	---	---
31		2,305	75	0	516	1,682	0	0	31
32		---	---	---	---	---	---	---	---
33									
34	INTANGIBLE PLANT								
35	----------								
36	117-00 Utility Plant Acquisition Adj.	0	0	0	0	0	0	0	0
37	175-00 Unamortized Conversion Expense	1	0	0	0	1	0	0	0
38	178-00 Organization Expense	7	0	0	2	5	0	0	0
39	179-01 Other Deferred Charges	0	0	0	0	0	0	0	0
40	401-00 Franchise and Consents	1	0	0	0	1	0	0	0
41	402-00 Other Intangible Plant	3	0	0	1	2	0	0	0
42		---	---	---	---	---	---	---	---
43		12	0	0	3	9	0	0	0
44		---	---	---	---	---	---	---	---
45									
46									
47									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	UNCLASSIFIED PLANT								
2	498-00 Expense Charged to Construction	0	0	0	0	0	0	0	0
3									
4	TOTAL DEPRECIATION PROVISION	8,277	333	0	1,777	5,970	0	0	196
5									
6									
7	AMORTIZATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION								
8	- DSEP/GEAP	(218)				(218)			
9	- Natural Gas Vehicle - Conversion Grants	(8)	0	0	(2)	(6)	0	0	0
10	- Natural Gas Vehicle - Station Grants	(33)							(33)
11	- Leasehold Alterations	(125)	(4)	0	(28)	(92)	0	0	(1)
12	- Furniture and Equipment	(6)	0	0	(1)	(4)	0	0	0
13	- All Other	(249)				(249)			
14									
15		(639)	(4)	0	(31)	(569)	0	0	(34)
16									
17									
18	DEPRECIATION CHARGED TO CONSTRUCTION	(390)			(92)	(298)			
19									
20									
21	TOTAL DEPRECIATION EXPENSE	7,248	329	0	1,654	5,103	0	0	162
22									
23									
24	AMORTIZATION EXPENSE								
25	NGV Deferred Margin	(74)							(74)
26	Integrated Resource Plan	0							
27	NGV Grants	145							145
28	Market Rebate Incentive								
29	- Water Heater Grants	45							45
30	- Commercial	0							
31	- Furnace Grants	0							0
32	Rate Design Hearing Costs - Phase A	39	39						
33	Revenue Requirement Hearing Costs	81							81
34	Appliance Insurance Program	0							
35	Gas Purchase Negotiation Cost	42	42						
36									
37	TOTAL AMORTIZATION EXPENSE	278	81	0	0	0	0	0	197
38									
39									
40	TOTAL DEPRECIATION AND AMORTIZATION EXPENSE	$7,526	$410	$0	$1,654	$5,103	$0	$0	$359
41									
42									
43									
44									
45									
46									
47									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
OTHER REVENUE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Late Payment Charge	$570							570
2	Revenue from Service Work	345				345			
3	NGV Tank Rental	65							65
4									
5	Miscellaneous	0							
6	Burrard - Interruptible Margin / Swing Gas								
7	Reservation Fee	0							
8	PCEC Wheeling Charge	0							
9	Furnace Repair Program	0							
10	Appliance Financing	340							340
11	Amortization of Capital Gain	318				318			
12									
13	Other Miscellaneous	0							
14	Burrard Line Recovery	0							
15	Fort Nelson Administration Fee	0							
16	T-Service Loss Margin	0							
17	NSF Cheques	23							23
18	S.S. Tax Commission	1							1
19									
20	Total Other Miscellaneous	24	0	0	0	0	0	0	24
21									
22									
23	TOTAL OTHER REVENUE	$1,662	$0	$0	$0	$663	$0	$0	$999
24									

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
INCOME TAX EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

ICOS
Function
Cost of Service
Income Tax
Page 6.0

Line No.	B.C.U.C. Account	Total	Gas Supply: Gas Purch./ LNG/EKL	Gas Supply: Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	CALCULATION OF INCOME TAXES									
2	Earned Return	$20,779	$822	$0	$4,135	$15,523	$0	$0	$299	Page 1.0, Line 28
3	Deduct - Interest on Debt	(10,883)	(430)	0	(2,166)	(8,130)	0	0	(157)	Line 31
4	Add- Non-Tax Ded. Expense (Net)	(12)	41	2	(31)	(316)	5	11	276	Page 6.1, Line 23
5										
6	Accounting Income After Tax	9,884	433	2	1,938	7,077	5	11	418	
7	Deduct - Timing Differences	(5,095)	(47)	0	(1,555)	(3,362)	0	0	(131)	Page 6.1, Line 44
8	Add - Large Corporation Tax	400	16	0	80	299	0	0	6	
9										
10	Taxable Income After Tax	$5,189	$402	$2	$463	$4,014	$5	$11	$293	
11										
12										
13	Income Tax Rate (Current Tax)	44.840%	44.84%	44.84%	44.84%	44.84%	44.84%	44.84%	44.84%	
14	1 - Current Income Tax Rate	55.160%	55.16%	55.16%	55.16%	55.16%	55.16%	55.16%	55.16%	
15										
16	Taxable Income (L10 : L14)	$9,407	$728	$4	$840	$7,277	$9	$20	$531	
17										
18										
19	Income Tax- Current (L16 x L13)	$4,218	$326	$2	$377	$3,263	$4	$9	$238	
20	- Large Corporation Tax	400	16	0	80	299	0	0	6	See Note 1
21										
22	Total	$4,618	$342	$2	$457	$3,562	$4	$9	$244	
23										
24										
25										
26	Rate Base x	$201,539	$7,971	$0	$40,105	$150,560	$0	$0	$2,901	
27										
28	Cost Component of Debt	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	
29										
30										
31	Utility Interest Expense	$10,883	$430	$0	$2,166	$8,130	$0	$0	$157	
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										

BC GAS INC.
INLAND DIVISION
FUNCTIONALIZATION OF
INCOME TAX EXPENSE
PERMANENT AND TIMING DIFFERENCES
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Function
Cost of Service
Income Tax
Page 6.1

Line No.	B.C.U.C. Account	Total	----- Gas Supply ----- Gas Purch./ LNG/EKL	Admin.	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	ITEMS OF A PERMANENT NATURE								
2	INCREASING TAXABLE INCOME								
3									
4	Amortization of NGV grants	$145							145
5	Amortization of water heater grants	45							45
6	Amortization of furnace grants	0							0
7	Amortization of integrated resource								
8	planning	0							
9	Amortization of rate design costs								
10	- phase A	39	39						
11	Amortization of revenue requirment								
12	hearing costs	81							81
13	Amortization of capital gain	(263)				(263)			
14	Non-tax deductible expenses	86	2	2	10	51	5	11	5
15									
16	ITEMS OF A PERMANENT NATURE								
17	DECREASING TAXABLE INCOME								
18	Amortization of non-tax deductible								
19	financing expense	0							
20	Plant removal costs	(145)			(41)	(104)			
21									
22									
23	Total permanent differences	($12)	$41	$2	($31)	($316)	$5	$11	$276
24									
25									
26	TIMING DIFFERENCE ADJUSTMENTS								
27	MIS Lease Payments	$0							
28	Depreciation	7,751	329	0	1,780	5,482	0	0	163
29	Amortization of tax allowable								
30	financing commissions	0							
31	Amortization of tax allowable								
32	debt issue expenses	126	5	0	25	94	0	0	2
33									
34	Debt issue costs	(243)	(10)	0	(48)	(182)	0	0	(3)
35	Capital cost allowance	(8,641)	(366)	0	(1,985)	(6,111)	0	0	(182)
36									
37	Cumulative eligible capital allowance	(123)	(5)	0	(79)	(39)	0	0	0
38	Overhead expenses capitalized,								
39	claimed for tax purposes	(3,501)	0	0	(1,156)	(2,308)	0	0	(37)
40	Less - Depreciation capitalized	(390)	0	0	(92)	(298)	0	0	0
41									
42	Amortization of NGV deferred margin	(74)							(74)
43									
44	Total timing differences	($5,095)	($47)	$0	($1,555)	($3,362)	$0	$0	($131)
45									
46									
47									

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Cost of Service

Page 1.00

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Cost of Gas (including Gas Lost)	$69,409	$44,077	$25,332	$0	$0	Function, COS, Page 1.0
2							
3	Operation and Maintenence	22,635	12,934	624	1,436	7,641	Function, COS, Page 1.0
4	Property and Franchise Tax	7,347	5,948	0	1,077	322	"
5	Depreciation and Amortization	7,526	3,768	138	278	3,342	"
6	Other Operating Revenue	(1,662)	(663)	0	(999)	0	"
7							
8		35,846	21,987	762	1,792	11,305	
9							
10							
11	Income Taxes	4,620	1,060	126	177	3,255	Function, COS, Page 1.0
12							
13	Earned Return	20,779	10,205	127	295	10,151	"
14							
15	Total Cost of Service	130,654	77,329	26,347	2,264	24,711	"
16							
17	Less: Cost of Gas	(69,409)	(44,077)	(25,332)	0	0	"
18							
19	Gross Margin Cost of Service	$61,245	$33,252	$1,015	$2,264	$24,711	Function, COS, Page 1.0
20							

ING COS
TAB 2B
SECTION 6
PAGE 1.00
COS - CLASSIFY
- SUMMARY
REVISED
JUNE 7, 1993

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Cost of Service

Page 1.01

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Gross Margin Cost of Service						
2							
3	Gas Supply	$2,280	$2,041	$237	$0	$0	
4							
5	Storage	626	0	626	0	0	
6							
7	Transmission	11,925	11,925	0	0	0	
8							
9	Distribution	39,841	19,285	0	0	20,555	
10							
11	Marketing	1,371	0	0	0	1,371	
12							
13	Customer Accounting	2,785	0	0	0	2,785	
14							
15	Direct Assignment	2,416	1,528	(61)	0	949	See D/A under Tab 1
16							
17	Gross Margin Cost of Service	61,245	34,780	802	0	25,660	
18							
19	Cost of Gas						
20							
21	Gas Supply	69,409	44,077	25,332	0	0	
22							
23	Direct Assignment	0	0	0	0	0	See D/A under Tab 1
24							
25	Cost of Gas	69,409	44,077	25,332	0	0	
26							
27							
28	Total Cost of Service	$130,654	$78,857	$26,134	$0	$25,660	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
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41							
42							
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46							
47							

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
GAS SUPPLY - GAS PURCHASES, LNG & EAST KOOTENAY LINK
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Cost of Service
Gas Supply - Gas Purch.
Page 2.0

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Cost of Gas						
2	Cost of Gas per Flowthrough Methodology	$71,744	44,035	27,709			See Note 1
3	Less: Columbia Division Commodity						
4	Costs Included Above	0		0			
5							
6	Annualized Deferral of Gas Purchase Costs						
7	Related to Interruptible Rate Schedules						
8	Rate 10	0			0		
9	Rate 12	0			0		
10	Amortization of VIA Credits & Gas Cost						
11	Deferrals	(3,023)	42	(3,065)			
12							
13	Revelstoke Propane Fuel Cost	688		688			
14							
15							
16	Total Cost of Gas	69,409	44,077	25,332	0	0	
17							
18							
19	Operation and Maintenence	466	466				See Note 2
20	Property and Franchise Tax	241	241				
21	Depreciation and Amortization						
22	Depreciation Expense	329	329				
23	Rate Design Hearing Costs - Phase A	39	24	15	0	0	See Note 3
24	Gas Purchase Negotiation Cost	42		42			
25							
26	Total Depreciation & Amortization	410	353	57	0	0	
27							
28	Other Revenue	0					
29	Income Taxes	342	284	57	0	0	
30							
31	Earned Return	822	698	123	0	0	
32							
33	Total Cost of Service	71,689	46,118	25,569	0	0	
34							
35	Less: Cost of Gas	(69,409)	(44,077)	(25,332)	0	0	
36							
37	Gross Margin Cost of Service	$2,280	$2,041	$237	$0	$0	
38							
39							
40							
41	Rate Base x	$7,971	$6,774	$1,197	$0	$0	See Classify - Rate Base Page 2.0
42							
43	Allowed Rate of Return	10.31%	10.31%	10.31%	10.31%	10.31%	
44							
45	Earned Return	$822	$698	$123	$0	$0	
46							
47							

ING COS
TAB 2B
SECTION 6
PAGE 2.0
COS - CLASSIFY
- GAS SUPPLY
REVISED
JUNE 7, 1993

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
GAS SUPPLY - ADMINISTRATION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Cost of Service
Gas Supply - Admin.
Page 3.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0
2						
3	Operation and Maintenence	624	0	624	0	0
4	Property and Franchise Tax	0	0	0	0	0
5	Depreciation and Amortization	0	0	0	0	0
6	Other Operating Revenue	0	0	0	0	0
7						
8		624	0	624	0	0
9						
10						
11	Income Taxes	2	0	2	0	0
12						
13	Earned Return	0	0	0	0	0
14						
15	Total Cost of Service	626	0	626	0	0
16						
17	Less: Cost of Gas	0	0	0	0	0
18						
19	Gross Margin Cost of Service	$626	$0	$626	$0	$0
20						
21						
22	Rate Base x	$0	$0	$0	$0	$0
23						
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%
25						
26						
27	Earned Return	$0	$0	$0	$0	$0
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
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BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Cost of Service
Transmission
Page 4.10

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0
2						
3	Operation and Maintenence	2,578	2,578	0	0	0
4	Property and Franchise Tax	3,101	3,101	0	0	0
5	Depreciation and Amortization	1,654	1,654	0	0	0
6	Other Operating Revenue	0	0	0	0	0
7						
8		7,333	7,333	0	0	0
9						
10						
11	Income Taxes	457	457	0	0	0
12						
13	Earned Return	4,135	4,135	0	0	0
14						
15	Total Cost of Service	11,925	11,925	0	0	0
16						
17	Less: Cost of Gas	0	0	0	0	0
18						
19	Gross Margin Cost of Service	$11,925	$11,925	$0	$0	$0
20						
21						
22	Rate Base x	$40,105	$40,105	$0	$0	$0
23						
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%
25						
26						
27	Earned Return	$4,135	$4,135	$0	$0	$0
28						
29						
30						
31						
32						
33						
34						
35						
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38						
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ING COS
TAB 2B
SECTION 6
PAGE 4.10
COS - CLASSIFY
- TRANSMISSION
REVISED
JUNE 7, 1993

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Cost of Service
Distribution
Page 5.10

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Cost of Gas (including Gas Lost)	$0	0	0	0	0
2						
3	Operation and Maintenence	13,388	9,890	0	0	3,498
4	Property and Franchise Tax	2,928	2,606	0	0	322
5	Depreciation and Amortization	5,103	1,761	0	0	3,342
6	Other Operating Revenue	(663)	(663)	0	0	0
7						
8		20,756	13,594	0	0	7,162
9						
10						
11	Income Taxes	3,562	319	0	0	3,242
12						
13	Earned Return	15,523	5,372	0	0	10,151
14						
15	Total Cost of Service	39,841	19,285	0	0	20,555
16						
17	Less: Cost of Gas	0	0	0	0	0
18						
19	Gross Margin Cost of Service	$39,841	$19,285	$0	$0	$20,555
20						
21						
22	Rate Base x	$150,560	$52,102	$2	$0	$98,456
23						
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%
25						
26						
27	Earned Return	$15,523	$5,372	$0	$0	$10,151
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
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BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
MARKETING
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Cost of Service
Marketing
Page 6.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Cost of Gas (including Gas Lost)	$0	0	0	0	0
2						
3	Operation and Maintenence	1,367	0	0	0	1,367
4	Property and Franchise Tax	0	0	0	0	0
5	Depreciation and Amortization	0	0	0	0	0
6	Other Operating Revenue	0	0	0	0	0
7						
8		1,367	0	0	0	1,367
9						
10						
11	Income Taxes	4	0	0	0	4
12						
13	Earned Return	0	0	0	0	0
14						
15	Total Cost of Service	1,371	0	0	0	1,371
16						
17	Less: Cost of Gas	0	0	0	0	0
18						
19	Gross Margin Cost of Service	$1,371	$0	$0	$0	$1,371
20						
21						
22	Rate Base x	$0	$0	$0	$0	$0
23						
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%
25						
26						
27	Earned Return	$0	$0	$0	$0	$0
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
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47						

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
CUSTOMER ACCOUNTING
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

ICOS
Classify
Cost of Service
Customer Accounting
Page 7.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0
2						
3	Operation and Maintenence	2,776	0	0	0	2,776
4	Property and Franchise Tax	0	0	0	0	0
5	Depreciation and Amortization	0	0	0	0	0
6	Other Operating Revenue	0	0	0	0	0
7						
8		2,776	0	0	0	2,776
9						
10						
11	Income Taxes	9	0	0	0	9
12						
13	Earned Return	0	0	0	0	0
14						
15	Total Cost of Service	2,785	0	0	0	2,785
16						
17	Less: Cost of Gas	0	0	0	0	0
18						
19	Gross Margin Cost of Service	$2,785	$0	$0	$0	$2,785
20						
21						
22	Rate Base x	$0	$0	$0	$0	$0
23						
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%
25						
26						
27	Earned Return	$0	$0	$0	$0	$0
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
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47						

BC GAS INC.
INLAND DIVISION
CLASSIFICATION OF
RATE BASE
DIRECT ASSIGNMENT - TOTAL
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

ICOS
Classify
Rate Base - Dir. Assign.
Allocation

Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T-Serv Captive	NGV/VRA	Seasonal	Firm S. T-Serv. Non-Captive	-CAPTIVE L. T-Serv. L. Sales	-NON-CAPTIVE L. T-Serv. L. Sales	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Demand										
2	Net Gas Plant in Service	$2,473	$0	$0	$0	$2,473	$0	$0	$0	$0	$0
3	Contributions in Aid of Construction	(346)	0	0	0	(346)	0	0	0	0	0
4	Commission Adjustment for 13 Month Averaging	(306)	0	0	0	(306)	0	0	0	0	0
5	Construction Advances	0	0	0	0	0	0	0	0	0	0
6	Unamortized Deferred Charges	0	0	0	0	0	0	0	0	0	0
7	Cash Working Capital	0	0	0	0	0	0	0	0	0	0
8	Other Working Capital	162	0	0	0	162	0	0	0	0	0
9	Deferred Income Tax	(119)	0	0	0	(119)	0	0	0	0	0
10											
11	Total Rate Base - Demand	$1,864	$0	$0	$0	$1,864	$0	$0	$0	$0	$0
12											
13	Commodity - Throughput										
14	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	Contributions in Aid of Construction	0	0	0	0	0	0	0	0	0	0
16	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0	0
17	Construction Advances	0	0	0	0	0	0	0	0	0	0
18	Unamortized Deferred Charges	0	10	6	2	(37)	0	1	7	11	0
19	Cash Working Capital	0	0	0	0	0	0	0	0	0	0
20	Other Working Capital	0	0	0	0	0	0	0	0	0	0
21	Deferred Income Tax	0	0	0	0	0	0	0	0	0	0
22											
23	Total Rate Base - Throughput	$0	$10	$6	$2	($37)	$0	$1	$7	$11	$0
24											
25	Commodity - Sales										
26	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Contributions in Aid of Construction	0	0	0	0	0	0	0	0	0	0
28	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0	0
29	Construction Advances	0	0	0	0	0	0	0	0	0	0
30	Unamortized Deferred Charges	(495)	(296)	(183)	(10)	(2)	(3)	0	0	0	0
31	Cash Working Capital	0	0	0	0	0	0	0	0	0	0
32	Other Working Capital	0	0	0	0	0	0	0	0	0	0
33	Deferred Income Tax	0	0	0	0	0	0	0	0	0	0
34											
35	Total Rate Base - Sales	($495)	($296)	($183)	($10)	($2)	($3)	$0	$0	$0	$0
36											
37	Customer										
38	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
39	Contributions in Aid of Construction	0	0	0	0	0	0	0	0	0	0
40	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0	0
41	Construction Advances	(435)	(348)	(87)	0	0	0	0	0	0	0
42	Unamortized Deferred Charges	489	358	8	0	123	0	0	0	0	0
43	Cash Working Capital	(3,324)	(1,767)	(1,132)	(126)	(43)	(14)	(24)	(136)	(82)	0
44	Other Working Capital	4,808	4,808	0	0	0	0	0	0	0	0
45	Deferred Income Tax	0	0	0	0	0	0	0	0	0	0
46											
47	Total Rate Base - Customer	$1,538	$3,051	($1,211)	($126)	$80	($14)	($24)	($136)	($82)	$0

BC GAS INC.
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Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv Captive	NGV/VRA	Seasonal	Firm S. T–Serv. Non–Captive	– CAPTIVE L. T–Serv. L. Sales	–NON–CAPTIVE L. T–Serv. L. Sales	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Gross Margin Cost of Service										
2											
3	Demand	$1,528	$511	$376	$115	$461	$0	$9	$34	$21	$0
4											
5	Commodity	(61)	(4)	(2)	6	(140)	(0)	4	27	45	0
6											
7	Customer	949	120	326	(11)	518	0	(3)	3	(2)	0
8											
9											
10	Gross Margin Cost of Service	2,417	628	701	110	839	0	11	64	64	0
11											
12	Cost of Gas	0	0	0	0	0	0	0	0	0	0
13											
14											
15	Total Cost of Service for Direct Assignment	$2,417	$628	$701	$110	$839	$0	$11	$64	$64	$0
16											
17											
18											
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20											
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Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv Captive	NGV/VRA	Seasonal	Firm S. T–Serv. Non–Captive	– CAPTIVE L. T–Serv. L. Sales	–NON–CAPTIVE L. T–Serv. L. Sales	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Cost of Service – Demand										
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3											
4	Operation & Maintenance Expense	65	0	0	0	65	0	0	0	0	0
5	Property Taxes	1,073	511	376	115	6	0	9	34	21	0
6	Depreciation and Amortization	162	0	0	0	162	0	0	0	0	0
7											
8	Subtotal	1,300	511	376	115	233	0	9	34	21	0
9											
10	Income Taxes	36	0	0	0	36	0	0	0	0	0
11											
12	Earned Return	192	0	0	0	192	0	0	0	0	0
13											
14	Total Cost of Service	1,528	511	376	115	461	0	9	34	21	0
15											
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0	0
17											
18	Gross Margin Cost of Service	$1,528	$511	$376	$115	$461	$0	$9	$34	$21	$0
19											
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Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv Captive	NGV/VRA	Seasonal	Firm S. T–Serv. Non–Captive	– CAPTIVE L. T–Serv. L. Sales	–NON–CAPTIVE L. T–Serv. L. Sales	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Cost of Service – Commodity Throughput										
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3											
4	Operation & Maintenance Expense	0	0	0	0	0	0	0	0	0	0
5	Property Taxes	0	0	0	0	0	0	0	0	0	0
6	Depreciation and Amortization	7	22	13	4	(74)	0	2	14	24	0
7											
8	Subtotal	7	22	13	4	(74)	0	2	14	24	0
9											
10	Income Taxes	6	18	11	3	(62)	0	2	12	20	0
11											
12	Earned Return	0	1	1	0	(4)	0	0	1	1	0
13											
14	Total Cost of Service	13	41	25	7	(140)	0	4	27	45	0
15											
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0	0
17											
18	Gross Margin Cost of Service	$13	$41	$25	$7	($140)	$0	$4	$27	$45	$0
19											
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Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T-Serv Captive	NGV/VRA	Seasonal	Firm S. T-Serv. Non-Captive	- CAPTIVE L. T-Serv. L. Sales	-NON-CAPTIVE L. T-Serv. L. Sales	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Cost of Service - Commodity Sales										
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3											
4	Operation & Maintenance Expense	0	0	0	0	0	0	0	0	0	0
5	Property Taxes	(2)	(1)	(1)	(0)	(0)	(0)	0	0	0	0
6	Depreciation and Amortization	0	0	0	0	0	0	0	0	0	0
7											
8	Subtotal	(2)	(1)	(1)	(0)	(0)	(0)	0	0	0	0
9											
10	Income Taxes	(21)	(13)	(7)	(0)	(0)	(0)	0	0	0	0
11											
12	Earned Return	(51)	(31)	(19)	(1)	0	0	0	0	0	0
13											
14	Total Cost of Service	(74)	(45)	(27)	(1)	(0)	(0)	0	0	0	0
15											
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0	0
17											
18	Gross Margin Cost of Service	($74)	($45)	($27)	($1)	($0)	($0)	$0	$0	$0	$0
19											
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Line No.	Particulars	Total	Residential	Commercial	S. Indust. S. T–Serv Captive	NGV/VRA	Seasonal	Firm S. T–Serv. Non–Captive	– CAPTIVE L. T–Serv. L. Sales	–NON–CAPTIVE L. T–Serv. L. Sales	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Cost of Service – Customer										
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3											
4	Operation & Maintenance Expense	1,371	278	738	6	310	2	0	25	11	0
5	Property Taxes	5	11	(3)	(0)	0	(0)	(0)	(0)	(0)	0
6	Depreciation and Amortization	190	45	0	0	145	0	0	0	0	0
7											
8	Subtotal	1,566	334	735	6	455	2	0	24	11	0
9											
10	Income Taxes	223	173	(51)	(5)	120	(1)	(1)	(7)	(4)	0
11											
12	Earned Return	159	315	(125)	(12)	8	(1)	(2)	(14)	(9)	0
13											
14	Total Cost of Service	1,948	822	558	(11)	583	0	(3)	3	(2)	0
15											
16	Less Cost of Gas	0	0	0	0	0	0	0	0	0	0
17											
18	Gross Margin Cost of Service	$1,948	$822	$558	($11)	$583	$0	($3)	$3	($2)	$0
19											
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Line No.	Description (a)	Total Service (b)	Residential 1 (c)	Commercial 2 (d)	S. Indust. S. T-Serv Captive 5/25 (e)	NGV/VRA 14 (f)	Seasonal 4 (g)	Non-Core S. T-Serv. Non-Captive 25 (h)	**Large Industrial** Sales & T-Service Captive 7/10/20/22 (i)	Non-Captive 10/12/22 (j)	Other (k)
	Peak Responsibility (PR)										
1	Peak Demand, On-Peak Loads, 10^3M^3	8,443.5	3,655.8	2,224.4	379.0	9.0	7.8	169.0	820.8	1,177.7	0.0
2	Peak Responsibility Factor: DE 1G	100.00%	43.30%	26.34%	4.49%	0.11%	0.09%	2.00%	9.72%	13.95%	0.00%
3	Peak Demand, On-Peak Loads, 10^3M^3	8,441.0	3,655.8	2,224.4	481.0	9.0	7.8	64.5	1,810.0	188.5	0.0
4	Peak Responsibility Factor: DE 1T	100.00%	43.31%	26.35%	5.70%	0.11%	0.09%	0.76%	21.44%	2.23%	0.00%
5	Peak Demand, 10^3M^3	6,445.0	3,655.8	2,224.4	379.0	9.0	7.8	169.0	0.0	0.0	0.0
6	Peak Responsibility Factor: DE 1D	100.00%	56.72%	34.51%	5.88%	0.14%	0.12%	2.62%	0.00%	0.00%	0.00%
7	Peak Demand, 10^3M^3	5,994.8	3,655.8	2,224.4	97.8	9.0	7.8	0.0	0.0	0.0	0.0
8	Peak Responsibility Factor: DE 1S	100.00%	60.98%	37.11%	1.63%	0.15%	0.13%	0.00%	0.00%	0.00%	0.00%
9	Non-Coincident Demand (NCD)										
10	Non-Coincident Demand, 10^3M^3	11,409.8	3,655.8	2,224.4	379.0	9.0	29.3	212.9	1,705.3	2,560.5	633.6
11	Non-Coincident Demand Factor: DE 2G	100.00%	32.041%	19.495%	3.322%	0.079%	0.257%	1.866%	14.946%	22.441%	5.553%
12	Non-Coincident Demand, 10^3M^3	11,406.9	3,655.8	2,224.4	502.9	9.0	29.3	86.1	3,820.0	445.8	633.6
13	Non-Coincident Demand Factor: DE 2T	100.00%	32.05%	19.50%	4.41%	0.08%	0.26%	0.75%	33.49%	3.91%	5.55%
14	Non-Coincident Demand	6,510.4	3,655.8	2,224.4	379.0	9.0	29.3	212.9	0.0	0.0	0.0
15	Non-Coincident Demand Factor: DE 2D	100.00%	56.154%	34.166%	5.821%	0.138%	0.451%	3.270%	0.000%	0.000%	0.000%
16	Non-Coincident Demand	6,016.3	3,655.8	2,224.4	97.8	9.0	29.3	0.0	0.0	0.0	0.0
17	Non-Coincident Demand Factor: DE 2S	100.00%	60.77%	36.97%	1.63%	0.15%	0.49%	0.00%	0.00%	0.00%	0.00%
18	Average & Excess Demand (AED): DE 3G										
19	Aver Load, Annual GJ/(365*38.56) 10^3M^3	4,102.9	1,100.4	681.2	187.0	9.0	11.7	113.5	729.0	1,235.7	35.5
20	Average Load, as a Percent of Total	100.00%	26.82%	16.60%	4.56%	0.22%	0.29%	2.77%	17.77%	30.12%	0.86%
21	Annual System Load Factor	48.59%	48.59%	48.59%	48.59%	48.59%	48.59%	48.59%	48.59%	48.59%	48.59%
22	Average Load % * System Load Factor %	48.59%	13.03%	8.07%	2.21%	0.11%	0.14%	1.34%	8.63%	14.64%	0.42%
23	Excess Demand (line 10-19)	7,306.9	2,555.4	1,543.2	192.0	0.0	17.6	99.4	976.3	1,324.8	598.1
24	Percent of Total	100.00%	34.97%	21.12%	2.63%	0.00%	0.24%	1.36%	13.36%	18.13%	8.19%
25	100% - Annual System LF %	51.41%	51.41%	51.41%	51.41%	51.41%	51.41%	51.41%	51.41%	51.41%	51.41%
26	%Excess Demand (line 24x25)	51.41%	17.98%	10.86%	1.35%	0.00%	0.12%	0.70%	6.87%	9.32%	4.21%
27	AED Factor (line 22+26) DE 3G	100.00%	31.01%	18.92%	3.57%	0.11%	0.26%	2.04%	15.50%	23.96%	4.63%
28	Average & Excess Demand (AED): DE 3T										
29	Weighting Factor				1.327			0.404	2.240	0.174	
30	Aver Load, Annual GJ/(365*38.56) 10^3M^3	4,102.9	1,100.4	681.2	187.0	9.0	11.7	113.5	729.0	1,235.7	35.5
31	Aver Load Weighted	3,979.7	1,100.4	681.2	248.1	9.0	11.7	45.8	1,632.9	215.0	35.5
32	Average Load, as a Percent of Total	99.11%	27.65%	17.12%	6.23%	0.23%	0.29%	1.15%	41.03%	5.40%	0.89%
33	Annual System Load Factor	48.61%	48.61%	48.61%	48.61%	48.61%	48.61%	48.61%	48.61%	48.61%	48.61%
34	Average Load % * System Load Factor %	48.17%	13.44%	8.32%	3.03%	0.11%	0.14%	0.56%	19.94%	2.63%	0.43%
35	Excess Demand (line 12-31)	7,427.3	2,555.4	1,543.2	254.8	0.0	17.6	40.3	2,187.1	230.8	598.1
36	Percent of Total	91.95%	34.41%	20.78%	3.43%	0.00%	0.24%	0.54%	29.45%	3.11%	8.05%
37	100% - Annual System LF %	51.39%	51.39%	51.39%	51.39%	51.39%	51.39%	51.39%	51.39%	51.39%	51.39%
38	%Excess Demand (line 36x37)	47.25%	17.68%	10.68%	1.76%	0.00%	0.12%	0.28%	15.13%	1.60%	4.14%
39	AED Factor (line 34+38) DE 3T	95.43%	31.12%	19.00%	4.79%	0.11%	0.27%	0.84%	35.08%	4.22%	4.57%
40	Average & Excess Demand (AED): DE 3D										
41	Aver Load, Annual GJ/(365*38.56) 10^3M^3	2,102.7	1,100.4	681.2	187.0	9.0	11.7	113.5	0.0	0.0	0.0
42	Average Load, as a Percent of Total	100.00%	52.33%	32.39%	8.89%	0.43%	0.56%	5.40%	0.00%	0.00%	0.00%
43	Annual System Load Factor	48.17%	48.17%	48.17%	48.17%	48.17%	48.17%	48.17%	48.17%	48.17%	48.17%
44	Average Load % * System Load Factor %	48.17%	25.21%	15.61%	4.28%	0.21%	0.27%	2.60%	0.00%	0.00%	0.00%
45	Excess Demand (line 14-41)	4,407.7	2,555.4	1,543.2	192.0	0.0	17.6	99.4	0.0	0.0	0.0
46	Percent of Total	100.00%	57.977%	35.012%	4.357%	0.000%	0.399%	2.256%	0.000%	0.000%	0.000%
47	100% - Annual System LF %	51.83%	51.828%	51.828%	51.828%	51.828%	51.828%	51.828%	51.828%	51.828%	51.828%
48	%Excess Demand (line 46x47)	51.83%	30.048%	18.146%	2.258%	0.000%	0.207%	1.169%	0.000%	0.000%	0.000%
49	AED Factor (line 44+48): DE 3D	100.00%	55.257%	33.751%	6.541%	0.206%	0.476%	3.769%	0.000%	0.000%	0.000%
50	Average & Excess Demand (AED): DE 3S										
51	Aver Load, Annual GJ/(365*38.56) 10^3M^3	1,838.8	1,100.4	681.2	36.5	9.0	11.7	0.0	0.0	0.0	0.0
52	Average Load, as a Percent of Total	100.00%	59.84%	37.05%	1.98%	0.49%	0.64%	0.00%	0.00%	0.00%	0.00%
53	Annual System Load Factor	48.20%	48.20%	48.20%	48.20%	48.20%	48.20%	48.20%	48.20%	48.20%	48.20%
54	Average Load % * System Load Factor %	48.20%	28.85%	17.86%	0.96%	0.24%	0.31%	0.00%	0.00%	0.00%	0.00%
55	Excess Demand (line 16-51)	4,160.7	2,555.4	1,543.2	44.5	0.0	17.6	0.0	0.0	0.0	0.0
56	Percent of Total	100.00%	61.42%	37.09%	1.07%	0.00%	0.42%	0.00%	0.00%	0.00%	0.00%
57	100% - Annual System LF %	51.80%	51.80%	51.80%	51.80%	51.80%	51.80%	51.80%	51.80%	51.80%	51.80%
58	%Excess Demand (line 56x57)	51.80%	31.81%	19.21%	0.55%	0.00%	0.22%	0.00%	0.00%	0.00%	0.00%
59	AED Factor (line 54+58): DE 3S	100.00%	60.66%	37.07%	1.51%	0.24%	0.53%	0.00%	0.00%	0.00%	0.00%

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Line No.	Description (a)	Total Service (b)	Residential 1 (c)	Commercial 2 (d)	S. Indust. S. T-Serv Captive 5/25 (e)	NGV/VRA 14 (f)	Seasonal 4 (g)	Non-Core S. T-Serv. Non-Captive 25 (h)	**Large Industrial** Sales & T-Service Captive 7/10/20/22 (i)	Non-Captive 10/12/22 (j)	Other (k)
1	Sales & T-Service Volumes, GJ	57,806,100	15,503,600	9,597,200	2,634,200	126,500	165,300	1,598,800	10,270,600	17,409,900	500,000
2	Commodity Factor-Thruput CO 1G	100.00%	26.820%	16.602%	4.557%	0.219%	0.286%	2.766%	17.767%	30.118%	0.865%
3	Commodity excl. L. Indust.	29,625,600	15,503,600	9,597,200	2,634,200	126,500	165,300	1,598,800	0	0	0
4	Commodity Factor-Thruput CO 2D	100.00%	52.332%	32.395%	8.892%	0.427%	0.558%	5.397%	0.000%	0.000%	0.000%
5	Commodity - Sales	26,018,300	15,503,600	9,597,200	513,800	126,500	165,300	0	111,900	0	500,000
6	Commodity Factor-Thruput CO 3S	100.00%	59.587%	36.886%	1.975%	0.486%	0.635%	0.000%	0.430%	0.000%	1.922%
7	Average Customers	161,896	145,563	16,223	40	23	14	10	14	8	1
8	Weighting Factor		1.00	1.62	26.88	2.74	39.75	49.86	316.65	381.21	0.0
9	Weighted Customers:	179,026	145,563	23,787	1,075	63	557	499	4,433	3,050	0
10	Customer Factor CU 1G	100.00%	81.31%	13.29%	0.60%	0.04%	0.31%	0.28%	2.48%	1.70%	0.00%
11	Weighted Customers:	171,544	145,563	23,787	1,075	63	557	499	0	0	0
12	Customer Factor CU 2D	100.00%	84.85%	13.87%	0.63%	0.04%	0.32%	0.29%	0.00%	0.00%	0.00%

ING COS
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ALLOCATION FACTORS
REVISED
JUNE 7, 1993

BC GAS INC.

COLUMBIA DIVISION
FULL DISTRIBUTED COST OF SERVICE STUDY (FDC)

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

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FDC-PR
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Line No.	Description	Total Service	Core Customers: Residential 1	General Serv. 2.1/2.2	Small Ind. 3/25	NGV/VRA 5	Seasonal 4	Firm Large Industrial 22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Base Rate Revenue	$13,677	$7,297	$3,828	$831	$11	$0	$1,572	$138
2	Cost of Gas Supply (PR)	$7,063	$3,950	$2,392	$483	$4	$0	$234	$0
3	Total Functional Expenses (PR)	4,952	2,730	1,011	274	58	0	808	71
4	Total Operating Revenue Deductions	$12,015	$6,679	$3,403	$757	$62	$0	$1,043	$71
5	Operating Income before Taxes & Return	1,662	618	425	74	(51)	0	529	67
6	Income Tax @ 10.31% return on class RB	442	316	50	9	2	0	55	11
7	Return @ 10.31% return on class RB	$2,503	$1,307	$444	$119	$21	0	$556	$56
8	Rate Base	$24,289	$12,684	$4,313	$1,151	$201	$0	$5,389	$550
9	Rate of Return, Percent	10.31%	10.31%	10.29%	10.31%	10.60%	0.00%	10.32%	10.18%
10	Total Cost to Serve	$14,961	$8,303	$3,898	$884	$85	$0	$1,653	$138
11	Total Cost to Serve w/o CoG	7,898	4,353	1,506	401	81	0	1,419	138
12	Aver. Cost of Gas, $/GJ	$2.306	$2.239	$2.239	$2.114	$2.263	$0.000	$0.033	
13	Average Cost to Serve w/o COG, $/GJ	$0.759	$2.468	$1.409	$0.792	$42.666	$0.000	$0.201	
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.830			$0.234	
13	Revenue less Total Cost to Serve	($1,284)	($1,006)	($70)	($53)	($74)	$0	($81)	$0
14	Revenue less Total Cost to Serve, $/GJ	($0.123)	(0.570)	(0.065)	(0.105)	(39.140)	0.000	(0.011)	
15	Rate Incr. (Decr.) Cost Based Rates	9.39%	13.78%	1.82%	6.41%	676.05%	0.00%	5.17%	0.00%
16	Revenue as a percent of Cost of Service	91.42%	87.89%	98.22%	93.98%	12.89%	0.00%	95.09%	100.00%
17	Gross Margin	$6,614	$3,348	$1,436	$348	$7	$0	$1,338	$138
18	Gross Margin, $/GJ	$0.636	$1.898	$1.344	$0.687	$3.526	$0.000	$0.189	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas								
19	Demand Cost, $/GJ		$1.125	$1.002	$0.726	$27.698	$0.000	$0.156	
20	Commodity Cost, $/GJ		0.013	0.013	0.012	0.008	0.000	0.013	
21	Customer Cost, $/GJ		1.329	0.394	0.054	14.960	0.000	0.032	
22	Customer Cost, $/bill (Monthly)		13.127	19.726	379.671	2,368.657	0.000	3,420.672	11,500.00
	Per Unit Cost of Gas by Class								
23	Demand Cost, $/GJ		$0.365	$0.365	$0.411	$0.474	$0.000	$0.007	
24	Commodity Cost, $/GJ		1.874	1.874	1.703	1.789	0.000	0.026	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas								
25	Demand Cost, $/GJ		$1.491	$1.367	$1.137	$28.172	$0.000	$0.163	
26	Commodity Cost, $/GJ		1.887	1.886	1.715	1.798	0.000	0.039	
27	Customer Cost, $/GJ		1.329	0.394	0.054	14.960	0.000	0.035	
28	Customer Cost, $/bill		13.127	19.726	379.671	2,368.657	0.000	3,420.672	11,500.00
29	Revenue as a percentage of Cost of Service, exduding gas cost		76.90%	95.38%	86.73%	8.26%	0.00%	94.28%	100.00%

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

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Line No.	Description	Total Service	Core Customers: Residential 1	General Serv. 2.1/2.2	Small Ind. 3/25	NGV/VRA 5	Seasonal 4	Firm Large Industrial 22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Total Cost to Serve w/o CoG	$7,898	$4,353	$1,506	$401	$81	$0	$1,419	$138
2	Adjustment Factor	1.0373							
3	Adjusted Cost to Serve w/o CoG	$8,193	$4,515	$1,562	$416	$84	$0	$1,472	$143
4	Cost of Gas	7,063	3,950	2,392	483	4	0	234	0
5	Adjusted Total Cost to Serve	$15,256	$8,465	$3,954	$899	$88	$0	$1,706	$143
6	Average Cost to Serve w/o CoG $/GJ	$0.759	$2.468	$1.409	$0.792	$42.666	$0.000	$0.201	
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.787	$2.560	$1.462	$0.821	$44.257	$0.000	$0.208	
7.1	Adj. T-Service Ave. Cost incl. UAF $/GJ				$0.860			$0.241	
8	Gross Margin	$6,614	$3,348	$1,436	$348	$7	$0	$1,338	$138
9	Base Rate Revenue	$13,677	$7,297	$3,828	$831	$11	$0	$1,572	$138
10	Gross Margin % of Adj CoS, excl CoG	80.73%	74.13%	91.95%	83.61%	7.97%	0.00%	90.89%	
11	Revenue as a % of Adj Cost of Service	89.65%	86.20%	96.82%	92.41%	12.44%	0.00%	92.14%	
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas								
13	Per Unit COS x Adjustment Factor								
14	Demand Cost $/GJ		$1.167	$1.039	$0.753	$28.731	$0.000	$0.161	
15	Commodity Cost $/GJ		0.014	0.013	0.013	0.008	0.000	0.014	
16	Customer Cost $/GJ		1.379	0.409	0.056	15.518	0.000	0.033	
17	Customer Cost $/bill (Monthly)		13.616	20.462	393.833	2,457.008	0.000	3,548.263	11,928.950
18	Per Unit Cost of Gas by Class								
19	Demand Cost $/GJ		$0.365	$0.365	$0.411	$0.474	$0.000	$0.007	
20	Commodity Cost $/GJ		1.874	1.874	1.703	1.789	0.000	0.026	
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class incl. Cost of Gas								
22	Demand Cost $/GJ		$1.533	$1.405	$1.164	$29.205	$0.000	$0.169	
23	Commodity Cost $/GJ		1.887	1.887	1.716	1.798	0.000	0.040	
24	Customer Cost $/GJ		1.379	0.409	0.056	15.518	0.000	0.033	
25	Customer Cost $/bill (Monthly)		13.616	20.462	393.833	2,457.008	0.000	3,548.263	11,928.950

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non – Coincident Demand Method
Test Year 1992

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Line No.	Description	Total Service	Core Customers: Residential 1	Core Customers: General Serv. 2.1/2.2	Core Customers: Small Ind. 3/25	Core Customers: NGV/VRA 5	Core Customers: Seasonal 4	Firm: Large Industrial 22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Base Rate Revenue	$13,677	$7,297	$3,828	$831	$11	$0	$1,572	$138
2	Cost of Gas Supply	$7,063	$3,950	$2,392	$483	$4	$0	$234	$0
3	Total Functional Expenses	4,952	2,694	992	267	58	0	871	71
4	Total Operating Revenue Deductions	12,015	6,643	3,384	750	62	0	1,105	71
5	Operating Income before Taxes & Return	1,662	654	444	81	(51)	0	467	67
6	Income Tax @ 10.31% return on class RB	442	315	50	8	2	0	56	11
7	Return @ 10.31% return on class RB	$2,503	$1,277	$428	$113	$21	$0	$607	$57
8	Rate Base	$24,289	$12,392	$4,156	$1,096	$201	$0	$5,894	$550
9	Rate of Return, Percent	10.31%	10.31%	10.29%	10.31%	10.60%	0.00%	10.30%	10.36%
10	Total Cost to Serve	$14,961	$8,235	$3,861	$872	$85	$0	$1,769	$139
11	Total Cost to Serve w/o CoG	7,898	4,286	1,469	389	81	0	1,534	139
12	Aver. Cost of Gas, $/GJ	$2.306	$2.239	$2.239	$2.114	$2.263	$0.000	$0.033	
13	Average Cost to Serve w/o COG, $/GJ	$0.759	$2.430	$1.375	$0.767	$42.655	$0.000	$0.217	
13.1	T–Service Ave. Cost incl. UAF $/GJ				$0.805			$0.250	
14	Revenue less Total Cost to Serve	($1,284)	($938)	($33)	($41)	($74)	$0	($197)	($1)
15	Revenue less Total Cost to Serve, $/GJ	($0.123)	($0.532)	($0.031)	($0.080)	($39.128)	$0.000	($0.028)	
16	Rate Incr. (Decr.) Cost Based Rates	9.39%	12.86%	0.87%	4.88%	675.85%	0.00%	12.50%	0.72%
17	Revenue as a percent of Cost of Service	91.42%	88.61%	99.14%	95.35%	12.89%	0.00%	88.89%	99.28%
18	Gross Margin	$6,614	$3,348	$1,436	$348	$7	$0	$1,338	$138
19	Gross Margin, $/GJ	$0.636	$1.898	$1.344	$0.687	$3.526	$0.000	$0.189	
	Per Unit C.O.S. @ Uniform Rate of Return by Class								
20	Demand Cost, $/GJ		$1.087	$0.968	$0.701	$27.686	$0.000	$0.172	
21	Commodity Cost, $/GJ		0.013	0.013	0.012	0.008	0.000	0.013	
22	Customer Cost, $/GJ		1.329	0.394	0.054	14.960	0.000	0.032	
23	Customer Cost, $/bill		13.127	19.726	379.671	2,368.657	0.000	3,420.672	11,583.33
	Per Unit Cost of Gas by Class								
24	Demand Cost, $/GJ		$0.365	$0.365	$0.411	$0.474	$0.000	$0.007	
25	Commodity Cost, $/GJ		1.874	1.874	1.703	1.789	0.000	0.026	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas								
26	Demand Cost, $/GJ		$1.453	$1.334	$1.112	$28.160	$0.000	$0.179	
27	Commodity Cost, $/GJ		1.887	1.886	1.715	1.798	0.000	0.039	
28	Customer Cost, $/GJ		1.329	0.394	0.054	14.960	0.000	0.032	
29	Customer Cost, $/bill		13.127	19.726	379.671	2,368.657	0.000	3,420.672	11,583.33
30	Revenue as a percentage of Cost of Service, excluding gas cos		78.11%	97.73%	89.56%	8.27%	0.00%	87.19%	99.28%

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non-Coincident Demand Method
Test Year 1992, Uniform Rate of Return

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Line No.	Description	Total Service	Core Customers: Residential 1	General Serv. 2.1/2.2	Small Ind. 3/25	NGV/VRA 5	Seasonal 4	Firm Large Industrial 22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Total Cost to Serve w/o CoG	$7,898	$4,286	$1,469	$389	$81	$0	$1,534	$139
2	Adjustment Factor	1.0373							
3	Adjusted Cost to Serve w/o CoG	$8,192	$4,446	$1,524	$403	$84	$0	$1,591	$144
4	Cost of Gas	7,063	3,950	2,392	483	4	0	234	0
5	Adjusted Total Cost to Serve	$15,255	$8,395	$3,916	$886	$88	$0	$1,826	$144
6	Average Cost to Serve w/o CoG $/GJ	$0.759	$2.430	$1.375	$0.767	$42.655	$0.000	$0.217	
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.787	$2.520	$1.427	$0.795	$44.246	$0.000	$0.225	
7.1	Adj. T-Service Ave. Cost incl. UAF $/GJ				$0.834			$0.258	
8	Gross Margin	$6,614	$3,348	$1,436	$348	$7	$0	$1,338	$138
9	Base Rate Revenue	$13,677	$7,297	$3,828	$831	$11	$0	$1,572	$138
10	Gross Margin % of Adj CoS, excl CoG	80.73%	75.30%	94.22%	86.34%	7.97%	ERR	84.05%	95.71%
11	Revenue as a % of Adj Cost of Service	89.65%	86.92%	97.75%	93.79%	12.45%	ERR	86.10%	95.71%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas								
13	Per Unit COS x Adjustment Factor								
14	Demand Cost $/GJ		$1.128	$1.004	$0.727	$28.719	$0.000	$0.178	
15	Commodity Cost $/GJ		0.014	0.013	0.013	0.008	0.000	0.014	
16	Customer Cost $/GJ		1.379	0.409	0.056	15.518	0.000	0.033	
17	Customer Cost $/bill (Monthly)		13.616	20.462	393.833	2,457.008	0.000	3,548.263	12,015.392
18	Per Unit Cost of Gas by Class								
19	Demand Cost $/GJ		$0.365	$0.365	$0.411	$0.474	$0.000	$0.007	
20	Commodity Cost $/GJ		1.874	1.874	1.703	1.789	0.000	0.026	
21	Adjusted Per Unit COS @ Uniform Rate of Return by Classind. Cost of Gas								
22	Demand Cost $/GJ		$1.493	$1.370	$1.138	$29.193	$0.000	$0.186	
23	Commodity Cost $/GJ		1.887	1.887	1.716	1.798	0.000	0.040	
24	Customer Cost $/GJ		1.379	0.409	0.056	15.518	0.000	0.033	
25	Customer Cost $/bill (Monthly)		13.616	20.462	393.833	2,457.008	0.000	3,548.263	12,015.392

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
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Line No.	Description	Total Service	Core Customers: Residential 1	Core Customers: General Serv. 2.1/2.2	Core Customers: Small Ind. 3/25	Core Customers: NGV/VRA 5	Core Customers: Seasonal 4	Firm Large Industrial 22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Base Rate Revenue	$13,677	$7,297	$3,828	$831	$11	$0	$1,572	$138
2	Cost of Gas	$7,063	$3,950	$2,392	$483	$4	$0	$234	$0
3	Total Functional Expenses	4,952	2,649	989	290	58	0	895	71
4	Total Operating Revenue Deductions	12,015	6,599	3,381	773	62	0	1,129	71
5	Operating Income before Taxes & Return	1,662	698	447	58	(51)	(0)	443	67
6	Income Tax @ 10.31% return on class RB	442	314	50	9	2	0	57	11
7	Return @ 10.31% return on class RB	$2,503	$1,255	$423	$120	$21	$0	$627	$57
8	Rate Base	$24,289	$12,179	$4,112	$1,161	$202	$0	$6,085	$550
9	Rate of Return, Percent	10.31%	10.31%	10.29%	10.31%	10.60%	10.31%	10.30%	10.36%
10	Total Cost to Serve	$14,961	$8,168	$3,854	$902	$86	$0	$1,813	$139
11	Total Cost to Serve w/o CoG	7,898	4,219	1,462	419	81	0	1,578	139
12	Aver. Cost of Gas, $/GJ	$2.306	$2.239	$2.239	$2.114	$2.263	$0.000	$0.033	
13	Average Cost to Serve w/o COG, $/GJ	$0.759	$2.392	$1.369	$0.826	$42.814	$0.000	$0.223	
13.1	T-Service Ave. Cost incl. UAF $/GJ				$0.864			$0.257	
14	Revenue less Total Cost to Serve	($1,284)	($871)	($26)	($71)	($75)	($0)	($241)	($1)
15	Revenue less Total Cost to Serve, $/GJ	($0.123)	($0.494)	($0.024)	($0.139)	($39.288)	$0.000	($0.034)	
16	Rate Incr. (Decr.) Cost Based Rates	-9.39%	-11.94%	-0.68%	-8.50%	-678.61%	0.00%	-15.30%	-0.72%
17	Revenue as a percent of Cost of Service	91.42%	89.34%	99.32%	92.17%	12.84%	0.00%	86.73%	99.28%
18	Gross Margin	$6,614	$3,348	$1,436	$348	$7	$0	$1,338	$138
19	Gross Margin, $/GJ	$0.636	$1.898	$1.344	$0.687	$3.526	$0.000	$0.189	
	Per Unit C.O.S. @ Uniform Rate of Return by Class								
20	Demand Cost, $/GJ		$1.049	$0.961	$0.760	$27.846	$0.000	$0.178	
21	Commodity Cost, $/GJ		0.013	0.013	0.012	0.008	0.000	0.013	
22	Customer Cost, $/GJ		1.329	0.394	0.054	14.960	0.000	0.032	
23	Customer Cost, $/bill		13.127	19.726	379.671	2,368.657	0.000	3,420.672	11,583.33
	Per Unit Cost of Gas by Class								
24	Demand Cost, $/GJ		$0.365	$0.365	$0.411	$0.474	$0.000	$0.007	
25	Commodity Cost, $/GJ		$1.874	$1.874	$1.703	$1.789	$0.000	$0.026	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas								
26	Demand Cost, $/GJ		$1.414	$1.327	$1.171	$28.320	$0.000	$0.186	
27	Commodity Cost, $/GJ		1.887	1.886	1.715	1.798	0.000	0.039	
28	Customer Cost, $/GJ		1.329	0.394	0.054	14.960	0.000	0.032	
29	Customer Cost, $/bill		13.127	19.726	379.671	2,368.657	0.000	3,420.672	11,583.33
30	Revenue as a percentage of Cost of Service, excluding gas cost		79.35%	98.21%	83.13%	8.24%	0.00%	84.76%	99.28%

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

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FDC-AED
Page 3.2

Line No.	Description	Total Service	Core Customers: Residential 1	General Serv. 2.1/2.2	Small Ind. 3/25	NGV/VRA 5	Seasonal 4	Firm Large Industrial 22	Other
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Total Cost to Serve w/o CoG	$7,898	$4,219	$1,462	$419	$81	$0	$1,578	$139
2	Adjustment Factor	1.0373							
3	Adjusted Cost to Serve w/o CoG	$8,192	$4,376	$1,517	$434	$84	$0	$1,637	$144
4	Cost of Gas	7,063	3,950	2,392	483	4	0	234	0
5	Adjusted Total Cost to Serve	$15,255	$8,325	$3,909	$917	$89	$0	$1,871	$144
6	Average Cost to Serve w/o CoG $/GJ	$0.759	$2.392	$1.369	$0.826	$42.814	$0.000	$0.223	
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.787	$2.481	$1.420	$0.857	$44.411	$0.000	$0.232	
7.1	Adj. T-Service Ave. Cost incl. UAF $/GJ				$0.895			$0.265	
8	Gross Margin	$6,614	$3,348	$1,436	$348	$7	$0	$1,338	$138
9	Base Rate Revenue	$13,677	$7,297	$3,828	$831	$11	$0	$1,572	$138
10	Gross Margin % of Adj CoS, excl CoG	80.73%	76.50%	94.68%	80.15%	7.94%	0.00%	81.71%	95.71%
11	Revenue as a % of Adj Cost of Service	89.65%	87.65%	97.94%	90.60%	12.40%	0.00%	84.00%	95.71%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas								
13	Per Unit COS x Adjustment Factor								
14	Demand Cost $/GJ		$1.088	$0.997	$0.788	$28.885	$0.000	$0.185	
15	Commodity Cost $/GJ		0.014	0.013	0.013	0.008	0.000	0.014	
16	Customer Cost $/GJ		1.379	0.409	0.056	15.518	0.000	0.033	
17	Customer Cost $/bill (Monthly)		13.616	20.462	393.833	2,457.008	0.000	3,548.263	12,015.392
18	Per Unit Cost of Gas by Class								
19	Demand Cost $/GJ		$0.365	$0.365	$0.411	$0.474	$0.000	$0.007	
20	Commodity Cost $/GJ		$1.874	$1.874	$1.703	$1.789	$0.000	$0.026	
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class incl. Cost of Gas								
22	Demand Cost $/GJ		$1.454	$1.363	$1.199	$29.358	$0.000	$0.192	
23	Commodity Cost $/GJ		1.887	1.887	1.716	1.798	0.000	0.040	
24	Customer Cost $/GJ		1.379	0.409	0.056	15.518	0.000	0.033	
25	Customer Cost $/bill (Monthly)		13.616	20.462	393.833	2,457.008	0.000	3,548.263	12,015.392

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BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	GROSS PLANT IN SERVICE	$33,567	$0	$0	$12,696	$19,664	$0	$0	$1,207	See Page 2.12
2	ACCUMULATED DEPRECIATION	(7,053)	0	0	(2,750)	(3,925)	0	0	(377)	"
3										
4	NET GAS PLANT IN SERVICE	26,514	0	0	9,945	15,739	0	0	831	See Page 2.12
5										
6										
7	COMMISSION ADJUSTMENT FOR 13 MONTH AVERAGING	(73)	0	0	(28)	(44)	0	0	(3)	
8										
9	CONTRIBUTIONS IN AID OF CONSTRUCTION	(1,615)	0	0	(1)	(1,579)	0	0	(35)	See Page 3.0
10										
11	CONSTRUCTION ADVANCES	(215)	0	0	0	(215)	0	0	0	See Page 4.0
12										
13	WORK IN PROGRESS, NO AFUDC	185	0	0	1	184	0	0	0	See Page 4.0
14										
15	UNAMORTIZED DEFERRED CHARGES	125	0	0	0	9	0	0	116	See Page 5.0
16										
17	CASH WORKING CAPITAL	175	0	0	0	0	0	0	175	See Page 6.0
18										
19	OTHER WORKING CAPITAL	752	0	0	26	269	0	0	457	See Page 6.0
20										
21	DEFERRED INCOME TAX	(1,559)	0	0	(590)	(913)	0	0	(56)	See Page 4.0
22										
23										
24	TOTAL RATE BASE	$24,289	$0	$0	$9,354	$13,450	$0	$0	$1,484	
25										
26										
27										
28										
29										
30										
31										
32										
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BC GAS INC.
COLUMBIA DIVISION
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GAS PLANT IN SERVICE
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	STORAGE GAS								
2	440/441 Land in Fee Simple and Land Rights	$0		$0					
3									
4	442 Structures and Improvements								
5	Gross Plant	0		0					
6	Accumulated Depreciation	0		0					
7									
8	Net Book Value	0		0					
9									
10	443 Gas Holders - Storage								
11	Gross Plant	0		0					
12	Accumulated Depreciation	0		0					
13									
14	Net Book Value	0		0					
15									
16	449 Local Storage Equipment								
17	Gross Plant	0		0					
18	Accumulated Depreciation	0		0					
19									
20	Net Book Value	0		0					
21									
22	TOTAL LOCAL STORAGE								
23	Gross Plant	0		0					
24	Accumulated Depreciation	0		0					
25									
26	Net Book Value	0		0					
27									
28									
29									
30									
31									
32									
33									
34									
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47									

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COLUMBIA DIVISION
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	MANUFACTURED GAS								
2	430 Manufact'd Gas - Land								
3	Gross Plant	$0							
4									
5	432 Manufact'd Gas - Struct. & Improvements								
6	Gross Plant	0							
7	Accumulated Depreciation	0							
8									
9	Net Book Value	0							
10									
11	433 Manufacturing Equipment								
12	Gross Plant	0							
13	Accumulated Depreciation	0							
14									
15	Net Book Value	0							
16									
17	434 Gas Holders - Manufacturing								
18	Gross Plant	0							
19	Accumulated Depreciation	0							
20									
21	Net Book Value	0							
22									
23	TOTAL MANUFACTURED GAS								
24	Gross Plant	0							
25	Accumulated Depreciation	0							
26									
27	Net Book Value	0							
28									
29									
30									
31									
32									
33									
34									
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36									
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TRANSMISSION PLANT								
2	460/461 Land in Fee Simple & Land Rights	$294			$294				
3									
4	461 Land Rights - Byron Creek								
5	Gross Plant	16							16
6	Accumulated Depreciation	(5)							(5)
7									
8	Net Book Value	12			0				12
9									
10	462 Compressor Structures								
11	Gross Plant	0			0				
12	Accumulated Depreciation	0			0				
13									
14	Net Book Value	0			0				
15									
16	463 Measuring Structures								
17	Gross Plant	41			41				
18	Accumulated Depreciation	(25)			(25)				
19									
20	Net Book Value	17			17				
21									
22	464 Other Structures and Improvements								
23	Gross Plant	7			7				
24	Accumulated Depreciation	(2)			(2)				
25									
26	Net Book Value	5			5				
27									
28	465 Mains								
29	Gross Plant	11,192			11,192				0
30	Accumulated Depreciation	(2,514)			(2,514)				0
31									
32	Net Book Value	8,677			8,677				0
33									
34	465 Mains - Byron Creek								
35	Gross Plant	680							680
36	Accumulated Depreciation	(223)							(223)
37									
38	Net Book Value	457			0				457
39									
40	466 Compressor Equipment								
41	Gross Plant	0			0				
42	Accumulated Depreciation	0			0				
43									
44	Net Book Value	0			0				
45									
46									
47									

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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TRANSMISSION PLANT								
2	467-00 Measuring and Regulating Equipment								
3	Gross Plant	$227			$227				
4	Accumulated Depreciation	(47)			(47)				
5									
6	Net Book Value	181			181				
7									
8	467-10 Telemetering								
9	Gross Plant	0			0				
10	Accumulated Depreciation	0			0				
11									
12	Net Book Value	0			0				
13									
14	468 Communication Structures and Equipment								
15	Gross Plant	1			1				
16	Accumulated Depreciation	0			0				
17									
18	Net Book Value	1			1				
19									
20	469 Other Transmission Equipment								
21	Gross Plant	0			0				
22	Accumulated Depreciation	0			0				
23									
24	Net Book Value	0			0				
25									
26	TOTAL TRANSMISSION PLANT								
27	Gross Plant	12,458			11,762				696
28	Accumulated Depreciation	(2,815)			(2,587)				(228)
29									
30	Net Book Value	9,643			9,174				469
31									
32									
33									
34									
35									
36									
37									
38									
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47									

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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	470 Land	$68				$68			
3									
4	471 Land Rights	63				63			
5									
6	471 Land Rights - Byron Creek								
7	Gross Plant	1							1
8	Accumulated Depreciation	0							0
9									
10	Net Book Value	1				0			1
11									
12	472 Structures and Improvements - Leasehold Alterations								
13	Gross Plant	37				37			
14	Accumulated Depreciation	(28)				(28)			
15									
16	Net Book Value	10				10			
17									
18	472 Structures and Improvements - Frame Buildings								
19	Gross Plant	320				320			
20	Accumulated Depreciation	(81)				(81)			
21									
22	Net Book Value	240				240			
23									
24	472 Structures and Improvements - Masonry Buildings								
25	Gross Plant	272				272			
26	Accumulated Depreciation	(18)				(18)			
27									
28	Net Book Value	254				254			
29									
30	472 Structures and Improvements - Byron Creek								
31	Gross Plant	2							2
32	Accumulated Depreciation	(1)							(1)
33									
34	Net Book Value	1				0			1
35									
36	473 Services - Lower Mainland								
37	Gross Plant	0				0			
38	Accumulated Depreciation	0				0			
39									
40	Net Book Value	0				0			
41									
42	473 Services - All Other								
43	Gross Plant	6,396				6,396			
44	Accumulated Depreciation	(1,075)				(1,075)			
45									
46	Net Book Value	5,321				5,321			
47									

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BC GAS INC.
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	474 House Regulators and Meter Installations								
3	Gross Plant	$1,264				$1,264			
4	Accumulated Depreciation	(268)				(268)			
5									
6	Net Book Value	997				997			
7									
8	475 Mains								
9	Gross Plant	7,015				7,015			
10	Accumulated Depreciation	(1,362)				(1,362)			
11									
12	Net Book Value	5,653				5,653			
13									
14	476 Compressor Equipment - Commercial Cardlock Station								
15	Gross Plant	0							0
16	Accumulated Depreciation	0							0
17									
18	Net Book Value	0							0
19									
20	476 Compressor Equipment - Lower Mainland								
21	Gross Plant	0							0
22	Accumulated Depreciation	0							0
23									
24	Net Book Value	0							0
25									
26	476 Compressor Equipment - All Other								
27	Gross Plant	332							332
28	Accumulated Depreciation	(107)							(107)
29									
30	Net Book Value	225				0			225
31									
32	477-00 Measuring and Regulating Equipment								
33	Gross Plant	1,200				1,200			
34	Accumulated Depreciation	(316)				(316)			
35									
36	Net Book Value	884				884			
37									
38	477-10 Telemetry Equipment								
39	Gross Plant	0				0			
40	Accumulated Depreciation	0				0			
41									
42	Net Book Value	0				0			
43									
44									
45									
46									
47									

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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	477-00 Measuring and Regulating - Byron Creek								
3	Gross Plant	$114							$114
4	Accumulated Depreciation	(37)							(37)
5									
6	Net Book Value	77				0			77
7									
8	478 Meters								
9	Gross Plant	1,820				1,820			
10	Accumulated Depreciation	(520)				(520)			
11									
12	Net Book Value	1,300				1,300			
13									
14	479 Other Distribution Equipment								
15	Gross Plant	5				5			
16	Accumulated Depreciation	(3)				(3)			
17									
18	Net Book Value	2				2			
19									
20									
21	TOTAL DISTRIBUTION PLANT								
22	Gross Plant	18,907				18,458			449
23	Accumulated Depreciation	(3,814)				(3,669)			(145)
24									
25	Net Book Value	15,093				14,789			304
26									
27									
28	TOTAL MANUFACTURED GAS, STORAGE,								
29	TRANSMISSION & DISTRIBUTION								
30	Gross Plant	31,365		0	11,762	18,458			1,145
31	Accumulated Depreciation	(6,629)		0	(2,587)	(3,669)			(373)
32									
33	Net Book Value	24,736		0	9,174	14,789			773
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

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BC GAS INC.
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	480 Land	$0	$0	$0	$0	$0	$0	$0	$0
3									
4	481 Land Rights	0	0	0	0	0	0	0	0
5									
6	482 Structures and Improvements - Leasehold Alterations								
7	Gross Plant	0	0	0	0	0	0	0	0
8	Accumulated Depreciation	0	0	0	0	0	0	0	0
9									
10	Net Book Value	0	0	0	0	0	0	0	0
11									
12	482 Structures and Improvements - Lochburn Admin. Warehouse								
13	Gross Plant	0	0	0	0	0	0	0	0
14	Accumulated Depreciation	0	0	0	0	0	0	0	0
15									
16	Net Book Value	0	0	0	0	0	0	0	0
17									
18	482 Structures and Improvements - Lochburn Cafeteria								
19	Gross Plant	0	0	0	0	0	0	0	0
20	Accumulated Depreciation	0	0	0	0	0	0	0	0
21									
22	Net Book Value	0	0	0	0	0	0	0	0
23									
24	482 Structures and Improvements - All Other								
25	Gross Plant	1	0	0	0	1	0	0	0
26	Accumulated Depreciation	0	0	0	0	0	0	0	0
27									
28	Net Book Value	1	0	0	0	1	0	0	0
29									
30	483 Office Furniture and Equipment - Fraser Valley/ Lochburn/ LNG								
31	Gross Plant	0	0	0	0	0	0	0	0
32	Accumulated Depreciation	0	0	0	0	0	0	0	0
33									
34	Net Book Value	0	0	0	0	0	0	0	0
35									
36	483 Office Furniture and Equipment - Computers Software/ LNG/ Misc.								
37	Gross Plant	229	0	0	88	138	0	0	2
38	Accumulated Depreciation	0	0	0	0	0	0	0	0
39									
40	Net Book Value	229	0	0	88	138	0	0	2
41									
42	483 Office Furniture and Equipment - Computers Micro. Comp. System								
43	Gross Plant	0	0	0	0	0	0	0	0
44	Accumulated Depreciation	0	0	0	0	0	0	0	0
45									
46	Net Book Value	0	0	0	0	0	0	0	0
47									

BC GAS INC.
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Gas Plant in Service
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	483 Office Furniture and Equipment - EDP Equipment								
3	Gross Plant	$356	$0	$0	$137	$215	$0	$0	$4
4	Accumulated Depreciation	(23)	0	0	(9)	(14)	0	0	0
5									
6	Net Book Value	333	0	0	128	201	0	0	4
7									
8	483 Office Furniture and Equipment - Computers Assist Mapping								
9	Gross Plant	0	0	0	0	0	0	0	0
10	Accumulated Depreciation	0	0	0	0	0	0	0	0
11									
12	Net Book Value	0	0	0	0	0	0	0	0
13									
14	483 Office Furniture and Equipment - GMS Leased Software								
15	Gross Plant	0	0	0	0	0	0	0	0
16	Accumulated Depreciation	0	0	0	0	0	0	0	0
17									
18	Net Book Value	0	0	0	0	0	0	0	0
19									
20	483 Office Furniture and Equipment - Training, Display & Documentation								
21	Gross Plant	0	0	0	0	0	0	0	0
22	Accumulated Depreciation	0	0	0	0	0	0	0	0
23									
24	Net Book Value	0	0	0	0	0	0	0	0
25									
26	483 Office Furniture and Equipment - All Other								
27	Gross Plant	90	0	0	35	54	0	0	1
28	Accumulated Depreciation	(42)	0	0	(16)	(25)	0	0	0
29									
30	Net Book Value	48	0	0	19	29	0	0	1
31									
32	484 Transportation Equipment - Utility Trailers								
33	Gross Plant	0	0	0	0	0	0	0	0
34	Accumulated Depreciation	0	0	0	0	0	0	0	0
35									
36	Net Book Value	0	0	0	0	0	0	0	0
37									
38	484 Transportation Equipment - Automobiles								
39	Gross Plant	621	0	0	239	375	0	0	7
40	Accumulated Depreciation	(293)	0	0	(113)	(177)	0	0	(3)
41									
42	Net Book Value	328	0	0	126	198	0	0	4
43									
44									
45									
46									
47									

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TAB 2C
SECTION 2
PAGE 2.8
RATE BASE
- FUNCTION
- GAS PLANT
IN SERVICE
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

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Function
Rate Base
Gas Plant in Service
Page 2.9

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	484 Transportation Equipment								
3	Gross Plant	$0	$0	$0	$0	$0	$0	$0	$0
4	Accumulated Depreciation	0	0	0	0	0	0	0	0
5									
6	Net Book Value	0	0	0	0	0	0	0	0
7									
8	484 Transportation Equipment - Leased Equipment								
9	Gross Plant	0	0	0	0	0	0	0	0
10	Accumulated Depreciation	0	0	0	0	0	0	0	0
11									
12	Net Book Value	0	0	0	0	0	0	0	0
13									
14	485 Heavy Work Equipment								
15	Gross Plant	109	0	0	42	66	0	0	1
16	Accumulated Depreciation	15	0	0	6	9	0	0	0
17									
18	Net Book Value	124	0	0	48	75	0	0	1
19									
20	486 Tools and Work Equipment								
21	Gross Plant	238	0	0	92	144	0	0	3
22	Accumulated Depreciation	(59)	0	0	(23)	(36)	0	0	(1)
23									
24	Net Book Value	179	0	0	69	108	0	0	2
25									
26	487 Equipment on Customer's Premises								
27	Gross Plant	41							41
28	Accumulated Depreciation	0							0
29									
30	Net Book Value	41							41
31									
32	487 Equipment on Customer's Premises - VRA Compressor								
33	Gross Plant	0							0
34	Accumulated Depreciation	0							0
35									
36	Net Book Value	0							0
37									
38	487 Equipment on Customer's Premises - VRA Installation Cost								
39	Gross Plant	0							0
40	Accumulated Depreciation	0							0
41									
42	Net Book Value	0							0
43									
44									
45									
46									
47									

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RATE BASE
- FUNCTION
- GAS PLANT
IN SERVICE
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BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Function
Rate Base
Gas Plant in Service
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	488 Communication Equipment - Structures & Equipment								
3	Gross Plant	$128	$0	$0	$49	$77	$0	$0	$1
4	Accumulated Depreciation	(27)	0	0	(10)	(16)	0	0	0
5									
6	Net Book Value	101	0	0	39	61	0	0	1
7									
8	488 Communication Equipment - Radios								
9	Gross Plant	0	0	0	0	0	0	0	0
10	Accumulated Depreciation	0	0	0	0	0	0	0	0
11									
12	Net Book Value	0	0	0	0	0	0	0	0
13									
14	489 Other General Equipment								
15	Gross Plant	12	0	0	5	7	0	0	0
16	Accumulated Depreciation	0	0	0	0	0	0	0	0
17									
18	Net Book Value	12	0	0	5	7	0	0	0
19									
20	TOTAL GENERAL EQUIPMENT								
21	Gross Plant	1,825	0	0	687	1,077	0	0	60
22	Accumulated Depreciation	(429)	0	0	(165)	(259)	0	0	(4)
23									
24	Net Book Value	1,396	0	0	522	818	0	0	56
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

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RATE BASE
- FUNCTION
- GAS PLANT
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BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Function
Rate Base
Gas Plant in Service
Page 2.11

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	INTANGIBLE PLANT								
2	117 Utility Plant								
3	Acquisition Adjustment								
4	Gross Plant	$0							
5	Accumulated Depreciation	0							
6									
7	Net Book Value	0							
8									
9	175 Unamortized								
10	Conversion Expense								
11	Gross Plant	0							
12	Accumulated Depreciation	0							
13									
14	Net Book Value	0							
15									
16	178 Organization Expense								
17	Gross Plant	0							
18	Accumulated Depreciation	0							
19									
20	Net Book Value	0							
21									
22	179 Other Deferred Charges								
23	Gross Plant	0							
24	Accumulated Depreciation	0							
25									
26	Net Book Value	0							
27									
28	401 Franchise Consents								
29	Gross Plant	5	0	0	2	3	0	0	0
30	Accumulated Depreciation	(1)	0	0	0	(1)	0	0	0
31									
32	Net Book Value	4	0	0	2	2	0	0	0
33									
34	402 Other Intangible Plant								
35	Gross Plant	0							
36	Accumulated Depreciation	0							
37									
38	Net Book Value	0							
39									
40	TOTAL INTANGIBLE PLANT								
41	Gross Plant	5	0	0	2	3	0	0	0
42	Accumulated Depreciation	(1)	0	0	0	(1)	0	0	0
43									
44	Net Book Value	4	0	0	2	2	0	0	0
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE
GAS PLANT IN SERVICE
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Function
Rate Base
Gas Plant in Service
Page 2.12

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	TOTAL UNCLASSIFIED PLANT								
2	Gross Plant	$436	$0	$0	$269	$163	$0	$0	$4
3	Accumulated Depreciation	0	0	0	0	0	0	0	0
4									
5	Net Book Value	436	0	0	269	163	0	0	4
6									
7									
8	DISALLOWED PLANT COSTS								
9	Gross Plant	(63)	0	0	(24)	(37)	0	0	(2)
10	Accumulated Depreciation	6	0	0	2	4	0	0	0
11									
12	Net Book Value	(57)	0	0	(22)	(33)	0	0	(2)
13									
14									
15	RETIREMENT WORK IN PROGRESS	0	0	0	0	0	0	0	0
16									
17	TOTAL NET GAS PLANT IN SERVICE								
18	Gross Plant	33,567	0	0	12,696	19,664	0	0	1,207
19	Accumulated Depreciation	(7,053)	0	0	(2,750)	(3,925)	0	0	(377)
20									
21	Net Book Value	$26,514	$0	$0	$9,945	$15,739	$0	$0	$831
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

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RATE BASE
- FUNCTION
- GAS PLANT
IN SERVICE
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JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE
CONTRIBUTIONS IN AID OF CONSTRUCTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Function
Rate Base
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DSEP / PGEP								
2	Gross Grant	$807				$807			
3	Amortization	(85)				(85)			
4									
5	Net Grant	722				722			
6									
7	Natural Gas Vehicle Conversion Grants								
8	Gross Grant	3	0	0	1	2	0	0	0
9	Amortization	(1)	0	0	0	(1)	0	0	0
10									
11	Net Grant	2	0	0	1	1	0	0	0
12									
13	Natural Gas Vehicle Station Grants								
14	Gross Grant	50	0	0	0	0	0	0	50
15	Amortization	(15)	0	0	0	0	0	0	(15)
16									
17	Net Grant	35	0	0	0	0	0	0	35
18									
19	Leasehold Alterations								
20	Gross Grant	0							
21	Amortization	0							
22									
23	Net Grant	0							
24									
25	Furniture and Equipment								
26	Gross Grant	0							
27	Amortization	0							
28									
29	Net Grant	0							
30									
31	Other								
32	Gross Grant	984				984			
33	Amortization	(128)				(128)			
34									
35	Net Grant	856				856			
36									
37									
38	TOTAL CONTRIBUTIONS IN AID OF CONSTRUCTION								
39	Gross Grant	1,844	0	0	1	1,793	0	0	50
40	Amortization	(229)	0	0	0	(214)	0	0	(15)
41									
42	Net Grant	1,615	0	0	1	1,579	0	0	35
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE
CONSTRUCTION ADVANCES / GAS PLANT UNDER CONSTRUCTION / DEFERRED INCOME TAX
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Rate Base
Cust. Advances, Gas
Plant Under Construct. &
Deferred Income Tax
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Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	CONSTRUCTION ADVANCES	$215				$215			
4	GAS PLANT UNDER CONSTRUCTION NOT ATTRACTING AFUDC	$185		$0	$1	$184			
8	DEFERRED INCOME TAX	$1,559	$0	$0	$590	$913	$0	$0	$56

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RATE BASE
- FUNCTION
- ADVANCES, CWIP,
DEFERRED TAXES
REVISED
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BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE
DEFERRED CHARGES
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	#179-45 Metering Stations	$9				$9			
2	#179-02 Furnace Grants *	56							56
3									
4	Market Rebate Incentive								
5	- #179-52 Water Heater Grants *	41							41
6	- #179-13 Commercial *	1							1
7	- #179-13 Space / Water Heating *	0							0
8									
9	#179-18/42 NGV Conversion Grants *	5							5
10	#279-08 NGV Deferred Margin	0							
11	#179-57 Appliance Insurance Program	0							0
12									
13	#279-24 Revelstoke Deferred Fuel Cost	0							
14	#179-42 Conversion Grants - Revelstoke	0							
15	#279-20 S.S. Tax on Aircraft	0							
16									
17	#179-58 Rate Design Costs - Phase A *	0	0						
18	#179-58 Rate Design Costs - Phase B *	0							
19	#179-59 Revenue Requirement Hearing *	13							13
20									
21	#179-63 Demand Side Management *	0							
22	#179-64 Integrated Resource Planning *	0							
23	#179-30 Gas Purchase Negotiation Cost	0	0						
24									
25	$0.41 Deferral - B.C.U.C. #G-92-91	0							
26	Deferred Cost of Gas - B.C.U.C. #G-92-91	0	0						0
27	Cost of Gas Rate 2501 - B.C.U.C. #G-92-91	0							
28	Deferred COG Rate 10/12 - B.C.U.C. #G-92-91	0							0
29									
30	VIA Credits	0	0						
31	Burrard Interruptible	0							
32	Deferred Capital Gain *	0							0
33									
34	Total Deferred Charges in Rate Base	$125	$0	$0	$0	$9	$0	$0	$116
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
RATE BASE
WORKING CAPITAL
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Function
Rate Base
Working Capital
Page 6.0

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Cash Working Capital								
2									
3	Cash Required for Operating Expenses	$383							$383
4	Minimum Bank Balance	0							0
5	Customers' Deposits	(116)							(116)
6	Reserve for Bad Debts								
7	Columbia	(30)							(30)
8									
9									
10									
11									
12									
13									
14									
15	Withholding from Employees	(62)							(62)
16									
17	Total Cash Working Capital	175			0	0	0	0	175
18									
19									
20	Other Working Capital								
21									
22	Inventories								
23	Pipe	80				80			
24	Fittings	155				155			
25	Meters & Regulators	2				2			
26	Supplies & Other	55	0	0	21	32	0	0	2
27									
28	NGV - Cylinders	3							3
29	- Vehicle Refueling Appliance	0							0
30									
31	Merchandising Inventories	182							182
32									
33	Total Inventory	477	0	0	21	269	0	0	187
34									
35	Transmission Line Pack Gas	5			5				
36	Gas in Storage	0	0						
37	Appliance Financing Receivables	270							270
38									
39	Total Other Working Capital	752	0	0	26	269	0	0	457
40									
41									
42	Total Working Capital	$927	$0	$0	$26	$269	$0	$0	$632
43									
44									
45									
46									
47									

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TAB 2C
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RATE BASE
- FUNCTION
- WORKING CAPITAL
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BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
RATE BASE
SUMMARY BY FUNCTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Classify
Rate Base - Summary
Page 1.0

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Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Gas Supply	$0	$0	$0	$0	$0	
2							
3	Storage	0	0	0	0	0	
4							
5	Transmission	9,354	9,354	0	0	0	
6							
7	Distribution	13,449	4,886	(0)	0	8,565	Page 5.9
8							
9	Marketing	0	0	0	0	0	
10							
11	Customer Accounting	0	0	0	0	0	
12							
13	Direct Assignment	1,484	0	13	1,457	14	
14							
15							
16	Total	$24,286	$14,239	$13	$1,457	$8,579	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
RATE BASE
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Classify
Rate Base - Transmission
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Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	460/461 Land in Fee Simple & Land Rights	$294	$294			
3						
4	461 Land Rights - Byron Creek					
5	Gross Plant				0	
6	Accumulated Depreciation				0	
7						
8	Net Book Value	0	0	0	0	0
9						
10	462 Compressor Structures					
11	Gross Plant	0	0			
12	Accumulated Depreciation	0	0			
13						
14	Net Book Value	0	0	0	0	0
15						
16	463 Measuring Structures					
17	Gross Plant	41	41			
18	Accumulated Depreciation	(25)	(25)			
19						
20	Net Book Value	17	17	0	0	0
21						
22	464 Other Structures and Improvements					
23	Gross Plant	7	7			
24	Accumulated Depreciation	(2)	(2)			
25						
26	Net Book Value	5	5	0	0	0
27						
28	465 Mains					
29	Gross Plant	11,192	11,192			
30	Accumulated Depreciation	(2,514)	(2,514)			
31						
32	Net Book Value	8,677	8,677	0	0	0
33						
34	465 Mains - Byron Creek					
35	Gross Plant	0	0			
36	Accumulated Depreciation	0	0			
37						
38	Net Book Value	0	0	0	0	0
39						
40	466 Compressor Equipment					
41	Gross Plant	0	0			
42	Accumulated Depreciation	0	0			
43						
44	Net Book Value	0	0	0	0	0
45						
46						
47						

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
RATE BASE
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

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Classify
Rate Base - Transmission
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Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	467-00 Measuring and Regulating Equipment					
3	Gross Plant	$227	$227			
4	Accumulated Depreciation	(47)	(47)			
5						
6	Net Book Value	181	181	0	0	0
7						
8	467-10 Telemetering					
9	Gross Plant	0	0			
10	Accumulated Depreciation	0	0			
11						
12	Net Book Value	0	0	0	0	0
13						
14	468 Communication Structures and Equipment					
15	Gross Plant	1	1			
16	Accumulated Depreciation	0	0			
17						
18	Net Book Value	1	1	0	0	0
19						
20	469 Other Transmission Equipment					
21	Gross Plant	0	0			
22	Accumulated Depreciation	0	0			
23						
24	Net Book Value	0	0	0	0	0
25						
26	TOTAL TRANSMISSION PLANT					
27	Gross Plant	11,762	11,762	0	0	0
28	Accumulated Depreciation	(2,587)	(2,587)	0	0	0
29						
30	Net Book Value	9,174	9,174	0	0	0
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						

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RATE BAS
- CLASSIF
- TRANSMISSION
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BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Gas Plant in Service						
2	470 Land	$68	$68			$0	
3							
4	471 Land Rights	63	63			0	
5							
6	471 Land Rights - Byron Creek						
7	Gross Plant	0	0			0	
8	Accumulated Depreciation	0	0			0	
9							
10	Net Book Value	0	0	0	0	0	
11							
12	472 Structures and Improvements - Leasehold Alterations						
13	Gross Plant	37	37			0	
14	Accumulated Depreciation	(28)	(28)			0	
15							
16	Net Book Value	10	10	0	0	0	
17							
18	472 Structures and Improvements - Frame Buildings						
19	Gross Plant	320	320			0	
20	Accumulated Depreciation	(81)	(81)			0	
21							
22	Net Book Value	240	240			0	
23							
24	472 Structures and Improvements - Masonry Buildings						
25	Gross Plant	272	272			0	
26	Accumulated Depreciation	(18)	(18)			0	
27							
28	Net Book Value	254	254	0	0	0	
29							
30	472 Structures and Improvements - Byron Creek						
31	Gross Plant	0	0			0	
32	Accumulated Depreciation	0	0			0	
33							
34	Net Book Value	0					
35							
36	473 Services - Lower Mainland						
37	Gross Plant	0	0		0	0	
38	Accumulated Depreciation	0	0		0	0	
39							
40	Net Book Value	0	0		0	0	
41							
42	473 Services - All Other						
43	Gross Plant	6,396	0			6,396	
44	Accumulated Depreciation	(1,075)	0			(1,075)	
45							
46	Net Book Value	5,321	0	0	0	5,321	
47							

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	474 House Regulators and Meter Installations					
3	Gross Plant	$1,264	$0		$0	$1,264
4	Accumulated Depreciation	(268)	0		0	($268)
5						
6	Net Book Value	997	0		0	997
7						
8	475 Mains					
9	Gross Plant	7,015	7,015			0
10	Accumulated Depreciation	(1,362)	(1,362)			0
11						
12	Net Book Value	5,653	5,653			0
13						
14	476 Compressor Equipment - Commercial Cardlock Station					
15	Gross Plant	0				
16	Accumulated Depreciation	0				
17						
18	Net Book Value	0				
19						
20	476 Compressor Equipment - Lower Mainland					
21	Gross Plant	0				
22	Accumulated Depreciation	0				
23						
24	Net Book Value	0				
25						
26	476 Compressor Equipment - All Other					
27	Gross Plant	0				
28	Accumulated Depreciation	0				
29						
30	Net Book Value	0				
31						
32	477-00 Measuring and Regulating Equipment					
33	Gross Plant	1,200	0			1,200
34	Accumulated Depreciation	(316)	0			(316)
35						
36	Net Book Value	884	0			884
37						
38	477-10 Telemetry Equipment					
39	Gross Plant	0	0			0
40	Accumulated Depreciation	0	0			0
41						
42	Net Book Value	0	0			0
43						
44						
45						
46						
47						

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gas Plant in Service					
2	477-00 Measuring and Regulating - Byron Creek					
3	Gross Plant	$0	$0		$0	$0
4	Accumulated Depreciation	0	0		0	0
5						
6	Net Book Value	0	0	0	0	0
7						
8	478 Meters					
9	Gross Plant	1,820	0		0	1,820
10	Accumulated Depreciation	(520)	0		0	(520)
11						
12	Net Book Value	1,300	0		0	1,300
13						
14	479 Other Distribution Equipment					
15	Gross Plant	5	5			0
16	Accumulated Depreciation	(3)	(3)			0
17						
18	Net Book Value	2	2			0
19						
20						
21	TOTAL DISTRIBUTION PLANT					
22	Gross Plant	18,458	7,779	0	0	10,679
23	Accumulated Depreciation	(3,669)	(1,491)	0	0	(2,179)
24						
25	Net Book Value	14,789	6,289	0	0	8,501
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
RATE BASE
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Rate Base - Distribution
Page 5.9

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	GROSS PLANT IN SERVICE	$19,663	$8,287	$0	$0	$11,377
2	ACCUMULATED DEPRECIATION	(3,925)	(1,599)	0	0	(2,327)
3						
4	NET GAS PLANT IN SERVICE	15,738	6,689	0	0	9,051
5						
6						
7	COMMISSION ADJUSTMENT FOR 13 MONTH AVERAGING	(44)	(19)	0	0	(25)
8						
9	CONTRIBUTIONS IN AID OF CONSTRUCTION	(1,579)	(1,579)	0	0	0
10						
11	CONSTRUCTION ADVANCES	(215)			0	(215)
12						
13	WORK IN PROGRESS, NO AFUDC	184	78	0	0	106
14						
15	UNAMORTIZED DEFERRED CHARGES	9	9		0	0
16						
17	CASH WORKING CAPITAL	0	0	0	0	0
18						
19	OTHER WORKING CAPITAL					
20	Inventories - Pipe	80	80	0	0	0
21	- Fittings	155	0	0	0	155
22	- Meters & Regulators	2	0	0	0	2
23	- Supplies & Other	32	13	0	0	19
24						
25	Total Other Working Capital	269	93	0	0	176
26						
27						
28	DEFERRED INCOME TAX	(913)	(385)	(0)	0	(528)
29						
30						
31	TOTAL RATE BASE	$13,449	$4,886	($0)	$0	$8,565
32						
33						
34						
35						
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42						
43						
44						
45						
46						
47						

CNG COS
TAB 2C
SECTION 3
PAGE 5.9
RATE BASE
- CLASSIFY
- DISTRIBUTION
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service

Page 1.0

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Gas (including Gas Lost)	$7,063	$7,063							
2									$0	
3	Operation and Maintenence	3,400	86	2	564	1,923	178	606	41	Ref. Page 2.2
4	Property and Franchise Tax	736	0	0	316	247	0	0	173	Ref. Page 3.0
5	Depreciation and Amortization	962	0	0	282	472	0	0	208	Ref. Page 4.3
6	Other Operating Revenue	(143)	0	0	0	(23)	0	0	(120)	Ref. Page 5.0
7										
8		4,955	86	2	1,161	2,619	178	606	302	
9										
10										
11	Income Taxes	444	0	0	27	254	0	0	162	Ref. Page 6.0
12										
13	Earned Return	2,504	0	0	964	1,387	0	0	153	Line 27
14										
15	Total Cost of Service	14,966	7,149	2	2,152	4,260	178	606	617	
16										
17	Less: Cost of Gas	(7,063)	(7,063)	0	0	0	0	0	0	
18										
19	Gross Margin Cost of Service	$7,903	$86	$2	$2,152	$4,260	$178	$606	$617	
20										
21										
22	Rate Base x	$24,289	$0	$0	$9,354	$13,450	$0	$0	$1,484	Ref. Rate Base Page 1.0
23										
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%	Per Decision
25										
26										
27	Earned Return	$2,504	$0	$0	$964	$1,387	$0	$0	$153	
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
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40										
41										
42										
43										
44										
45										
46										
47										

CNG COS
TAB 2C
SECTION 5
PAGE 1.0
COS - FUNCTION
- SUMMARY
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service
O & M Expenses
Page 2.0

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	639 Propane Air Plant - Manufact'd Gas	$0							
2	640 Liquid Natural Gas - Supervision	2		2					
3	649 Liquid Natural Gas Operation - Plant	0		0					
4									
5		2		2					
6									
7	660 Transmission - Supervision	33			33				
8	665 Transmission Mains	59			59				
9	666 Transmission Compressors	5			5				
10	667 Measuring and Regulating	16			15				1
11	668 Telemetry	1			1				
12	669 Gas Load - Supervision	25	25		0				
13	669.198 Charged to Capital	(8)			(8)				
14	669.199 Cross Charges	(8)			(8)				
15									
16		123	25	0	97	0	0	0	1
17									
18	670 Distribution - Supervision	1,166				1,166			
19	671 Load Dispatching	13	13			0			0
20	673 Remove & Reset Meters & Regulators	146				146			
21	674 Premise Calls	72				72			
22	675 Mains and Services	120				120			
23	677 Measuring and Regulating	123				123			
24	679.001 Muster Points	17				17			
25	679.198 Charged to Capital	(513)				(513)			
26	679.199 Cross Charges	0				0			
27									
28		1,144	13			1,131			0
29									
30	684 System Operation - Communication	9	0	0	3	5	0	0	0
31	685 System Operation & Engineering	396	0	0	152	239	0	0	4
32	688 General Operations	44	0	0	17	27	0	0	0
33	689.198 Charged to Capital	(100)	0	0	(38)	(60)	0	0	(1)
34	689.199 Cross Charges	(49)	0	0	(19)	(30)	0	0	(1)
35									
36		300	0	0	115	181	0	0	2
37									
38									
39	Total Operating Expenses	1,569	38	2	212	1,312	0	0	3
40									
41									
42									
43									
44									
45									
46									
47									

CNG COS
TAB 2C
SECTION 5
PAGE 2.0
COS - FUNCTION
- O&M EXPENSES
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service
O & M Expenses
Page 2.1

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	700 Marketing	$93					$79		$14
2	700.198 Charged to Capital	(10)					(10)		
3	701 Advertising	36					8		28
4	702 Demonstration & Selling	170					115		55
5	703 Merchandising Revenue	(482)					0		(482)
6	704 Merchandising Cost of Goods	372					0		372
7	709 Other Sales Promotion	(14)					(14)		
8									
9	Total Marketing	165					178	0	(13)
10									
11	710 Customer Accounting	59						59	
12	711 Contracts and Orders	126						126	
13	712 Meter Reading	105						102	3
14	713 Customer Billing & Accounting	81						81	
15	714 Credit and Collection	159						159	
16	718 Uncollectible Accounts	79						79	
17									
18	Total Customer Accounting	609	0	0	0	0	0	606	3
19									
20	832 Manufactured Gas Production - Maint.	0							
21	849 Liquified Natural Gas - Plant Maint.	0		0					
22									
23		0		0					
24									
25	862 Trans. Struct. & Improvements - Mtnce.	8			8				
26	865 Transmission Mains - Maintenance	49			49				
27	866 Compressors - Maintenance	2			2				
28	867 Measuring and Regulating - Maintenance	3			3				
29	868 Telemetry - Maintenance	8			8				
30									
31		70			70				
32									
33	872 Distrib. Struct. & Improvements - Mtnce.	26				26			
34	875 Mains and Services - Maintenance	90				90			
35	877 Measuring and Regulating - Maintenance	26				26			
36	878 Meters - Maintenance	28				28			
37	879 Muster Points - Maintenance	0				0			
38									
39		170				170			
40									
41	884 Communication - Maintenance	3	0	0	1	2	0	0	0
42	885 System Mtnce. - Eng./Bldgs./Yards	13	0	0	5	8	0	0	0
43	888 General Operations	33	0	0	13	20	0	0	0
44	889.199 Cross Charges	(1)	0	0	0	(1)	0	0	0
45									
46		48	0	0	19	29	0	0	0
47									
48									

CNG COS
TAB 2C
SECTION 5
PAGE 2.1
COS - FUNCTION
- O&M EXPENSES
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
OPERATING AND MAINTENENCE EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	690 NGV Compressors	$0							$0
2	790 NGV Operations	18							18
3	790.198 Charged to Capital	(4)							(4)
4	890 NGV Maintenance	11							11
5									
6	Total NGV	25							25
7									
8									
9	721 Administrative Expenses	987	48	0	355	558	0	0	26
10	722 Special Services	25	0	0	10	15	0	0	0
11	723 Insurance - General	34	0	0	13	21	0	0	0
12	724 Injuries and Damages	4	0	0	2	2	0	0	0
13	728 Other Administrative and General Expense	75	0	0	29	45	0	0	1
14	729.198 Charges to Capital	(236)	0	0	(91)	(143)	0	0	(3)
15	729.199 Cross Charges	(42)	0	0	(16)	(25)	0	0	0
16									
17	Total Administrative Expenses	847	48	0	302	473	0	0	24
18									
19	Subtotal	3,503	86	2	603	1,984	178	606	42
20									
21	Less - Vehicle Depreciation Included Above	(52)	0	0	(20)	(31)	0	0	(1)
22	Less - Leased Vehicle Interest								
23	Included Above	0	0	0	0	0	0	0	0
24	Less - Inflation Adjustment for Materials								
25	and Services	(14)	0	0	(5)	(8)	0	0	0
26	Less - Salary Adjustment for Management and								
27	Exempt Employees	(2)	0	0	(1)	(1)	0	0	0
28	Commission Adjustment	(35)	0	0	(13)	(21)	0	0	0
29									
30									
31	TOTAL OPERATION AND MAINTENANCE EXPENSES	$3,400	$86	$2	$564	$1,923	$178	$606	$41
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
PROPERTY TAXES AND FRACHISE FEES

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service
Property Taxes
Page 3.0

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	1% in Lieu of General Municipal Tax	$160							$160
2									
3	General, School & Other	507			289	209			9
4									
5	Property Taxes	667	0	0	289	209	0	0	169
6									
7	Franchise Fees	0							0
8									
9	Corporate Capital Tax	69	0	0	27	38	0	0	4
10									
11									
12	Total Property & Franchise Fees	$736	$0	$0	$316	$247	$0	$0	$173
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
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45									
46									
47									

CNG COS
TAB 2C
SECTION 5
PAGE 3.0
COS - FUNCTION
- PROPERTY TAXES AND
FRANCHISE FEES
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service
Dep'n & Amort. Expense
Page 4.0

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	MANUFACTURED GAS / LOCAL STORAGE PLANT								
2	---								
3	432 Manufact'd Gas - Struct. & Improvement								
4	- Frame Buildings	$0							
5	- Masonry Buildings	0							
6	433 Manufacturing Equipment	0							
7	434 Gas Holders - Manufacturing	0							
8	442-00 Structures and Improvements	0		0					
9	443-00 Gas Holders Storage	0		0					
10	449-00 Local Storage Equipment	0		0					
11		---	---	---	---	---	---	---	---
12		0		0					
13		---	---	---	---	---	---	---	---
14									
15	GAS PLANT HELD FOR FUTURE USE								
16	---								
17	102-00 Structures & Improvements								
18	- Frame Buildings	0							
19	- Masonry Buildings	0							
20	102-00 Manufacturing Equipment	0							
21	102-00 Gas Holder	0							
22		---	---	---	---	---	---	---	---
23		0							
24		---	---	---	---	---	---	---	---
25									
26	TRANSMISSION PLANT								
27	---								
28	461 Land Rights - Byron Creek	1							1
29	462-00 Structures and Improvements	0			0				
30	- Compressor Stations	0			0				
31	463-00 - Measuring & Regulating	1			1				
32	- Measuring & Regulating	0			0				
33	464-00 - Other	0			0				
34	465-00 Mains & Crossings	228			228				
35	465-00 Mains & Crossings - Byron Creek	34							34
36	466-00 Compressor Equipment	0			0				
37	467-00 Measuring & Regulating	5			5				
38	467-10 Telemetering	0			0				
39	468-00 Communications Structures & Equip.	0			0				
40		---	---	---	---	---	---	---	---
41		269			234				
42		---	---	---	---	---	---	---	---
43									
44									
45									
46									
47									

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	DISTRIBUTION PLANT								
2	----------								
3	471 Land Rights - Byron Creek	$0							$0
4	472-00 Structures & Improvements								
5	-Leasehold Alterations	23				23			
6	-Frame Buildings	10				10			
7	-Masonry Buildings	3				3			
8	-Byron Creek	0							0
9	473-00 Services - Lower Mainland	0				0			
10	- All Other	125				125			
11	474-00 House Regulator & Meter Installation	37				37			
12	475-00 Mains	138				138			
13	476-00 Compressed Natural Gas								
14	-Commercial Cardlock Station	0							0
15	-Lower Mainland	0							0
16	-All Other	22							22
17	477-00 Measuring & Regulating	35				35			
18	477-10 Telemetering	0				0			
19	477-00 Byron Creek	6							6
20	478 Meters	52				52			
21	479 Other Distribution Equipment	0				0			
22		----------	----------	----------	----------	----------	----------	----------	----------
23		451				423			28
24		----------	----------	----------	----------	----------	----------	----------	----------
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service
Dep'n & Amort. Expense
Page 4.2

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	GENERAL PLANT								
2	------------								
3	482-00 Structures & Improvements								
4	-Leasehold Alterations	$0	$0	$0	$0	$0	$0	$0	$0
5	-Lochburn Admin. Warehouse	0	0	0	0	0	0	0	0
6	-Lochburn Cafeteria	0	0	0	0	0	0	0	0
7	-All Other	0	0	0	0	0	0	0	0
8	483-00 Office Furniture & Equipment	3	0	0	1	2	0	0	0
9	-Fraser Valley / Lochburn / LNG	0	0	0	0	0	0	0	0
10	-Computers - Software / LNG / Misc.	0	0	0	0	0	0	0	0
11	-Computers Micro. Comp. System	0	0	0	0	0	0	0	0
12	-EDP Equipment	45	0	0	17	27	0	0	0
13	-Computers - Assist Mapping	0	0	0	0	0	0	0	0
14	-GMS Leased Software	0	0	0	0	0	0	0	0
15	-Training, Display & Documentation								
16	Materials	0	0	0	0	0	0	0	0
17	484-00 Transportation Equipment	0	0	0	0	0	0	0	0
18	-Automobiles	89	0	0	34	54	0	0	1
19	-Aircraft	0	0	0	0	0	0	0	0
20	-Leased Transportation Equipment	0	0	0	0	0	0	0	0
21	485-00 Maintenance & Repair Equipment	4	0	0	2	2	0	0	0
22	486-00 Tools & Work Equipment	11	0	0	4	7	0	0	0
23	487-00 Equipment on Customers' Premises	0							0
24	487-XX - VRA Compressor	0							0
25	487-XX - VRA Compressor Installation Cost	0							0
26	488-00 Communication - Structures & Equip.	5	0	0	2	3	0	0	0
27	488-00 Communication - Radios	0	0	0	0	0	0	0	0
28	489-00 Other General Equipment								
29	-All Other	0	0	0	0	0	0	0	0
30		---	---	---	---	---	---	---	---
31		157	0	0	60	95	0	0	1
32		---	---	---	---	---	---	---	---
33									
34	INTANGIBLE PLANT								
35	---------------								
36	117-00 Utility Plant Acquisition Adj.	0							
37	175-00 Unamortized Conversion Expense	0							
38	178-00 Organization Expense	0							
39	179-01 Other Deferred Charges	0							
40	401-00 Franchise and Consents	0							
41	402-00 Other Intangible Plant	0							
42		---	---	---	---	---	---	---	---
43		0							
44		---	---	---	---	---	---	---	---
45									
46									
47									

CNG COS
TAB 2C
SECTION 5
PAGE 4.2
COS - FUNCTION
- DEP'N AND AMORTIZATION
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
DEPRECIATION AND AMORTIZATION

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service
Dep'n & Amort. Expense
Page 4.3

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	UNCLASSIFIED PLANT								
2	498-00 Expense Charged to Construction	$0	$0	$0	$0	$0	$0	$0	$0
3									
4	TOTAL DEPRECIATION PROVISION	877	0	0	294	518	0	0	64
5									
6									
7	AMORTIZATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION								
8	- DSEP/GEAP	(16)				(16)			
9	- Natural Gas Vehicle - Conversion Grants	(0)	0	0	0	0	0	0	0
10	- Natural Gas Vehicle - Station Grants	(3)							(3)
11	- Leasehold Alterations	0							
12	- Furniture and Equipment	0							
13	- All Other	(22)				(22)			
14									
15		(42)	0	0	0	(38)	0	0	(3)
16									
17									
18	DEPRECIATION CHARGED TO CONSTRUCTION	(35)			(12)	(23)			
19									
20									
21	TOTAL DEPRECIATION EXPENSE	800	0	0	282	457	0	0	61
22									
23									
24	AMORTIZATION EXPENSE								
25	NGV Deferred Margin	0							
26	Integrated Resource Plan	0							
27	NGV Grants	2							2
28	Market Rebate Incentive								
29	- Water Heater Grants	4							4
30	- Commercial	0							0
31	- Furnace Grants	112							112
32	Rate Design Hearing Costs - Phase A	0	0						
33	Revenue Requirement Hearing Costs	29							29
34	Appliance Insurance Program	0							0
35	Amort. of Metering station Comm. Adjust.	15				15			
36									
37	TOTAL AMORTIZATION EXPENSE	162	0	0	0	15	0	0	147
38									
39									
40	TOTAL DEPRECIATION AND AMORTIZATION EXPENSE	$962	$0	$0	$282	$472	$0	$0	$208
41									
42									
43									
44									
45									
46									
47									

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
OTHER REVENUE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Function
Cost of Service
Other Revenue
Page 5.0

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Late Payment Charge	$83							$83
2	Revenue from Service Work	23				23			
3	NGV Tank Rental	0							
4									
5	Miscellaneous	0							
6	Burrard - Interruptible Margin / Swing Gas								
7	Reservation Fee	0							
8	PCEC Wheeling Charge	0							
9	Furnace Repair Program	0							
10	Appliance Financing	35							35
11	Miscellaneous revenue/expense	2							2
12									
13	Other Miscellaneous	0							
14	Burrard Line Recovery	0							
15	Fort Nelson Administration Fee	0							
16	T-Service Loss Margin	0							
17	NSF Cheques	0							
18	S.S. Tax Commission	0							
19									
20	Total Other Miscellaneous	0	0	0	0	0	0	0	0
21									
22									
23	TOTAL OTHER REVENUE	$143	$0	$0	$0	$23	$0	$0	$120
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
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45									
46									
47									

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
INCOME TAX EXPENSE

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service
Income Tax
Page 6.0

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	CALCULATION OF INCOME TAXES									
2	Earned Return	$2,504	$0	$0	$964	$1,387	$0	$0	$153	
3	Deduct - Interest on Debt	(1,312)	0	0	(505)	(726)	0	0	(80)	Line 30
4	Add- Non-Tax Ded. Expense (Net)	150	0	0	0	2	0	1	147	Page 6.1, Line 23
5										
6	Accounting Income After Tax	1,343	0	0	460	663	0	1	220	
7	Deduct - Timing Differences	(919)	0	0	(474)	(418)	0	0	(28)	Page 6.1, Line 44
8	Add - Large Corporation Tax	55	0	0	21	30	0	0	3	
9										
10	Taxable Income After Tax	$478	$0	$0	$7	$275	$0	$1	$195	
11										
12										
13	Income Tax Rate (Current Tax)	44.840%	44.84%	44.84%	44.84%	44.84%	44.84%	44.84%	44.84%	
14	1 - Current Income Tax Rate	55.160%	55.16%	55.16%	55.16%	55.16%	55.16%	55.16%	55.16%	
15										
16	Taxable Income Before Income Tax (L10 : L1	867	0	0	12	499	0	1	353	
17	Add - Amount Required to Provide for									
18	Deferred Income Tax									
19										
20	Taxable Income	$867	$0	$0	$12	$499	$0	$1	$353	
21										
22										
23	Income Tax- Current (L16 x L13)	$389	$0	$0	$5	$224	$0	$0	$158	
24	- Deferred Income Tax									
25	- Large Corporation Tax	55	0	0	21	30	0	0	3	
26										
27	Total	$444	$0	$0	$27	$254	$0	$0	$162	
28										
29										
30	Rate Base x	$24,289	$0	$0	$9,354	$13,450	$0	$0	$1,484	
31										
32	Cost Component of Debt	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	5.40%	
33										
34										
35	Utility Interest Expense	$1,312	$0	$0	$505	$726	$0	$0	$80	
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										

CNG COS
TAB 2C
SECTION 5
PAGE 6.0
COS - FUNCTION
- INCOME TAX
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
FUNCTIONALIZATION OF
INCOME TAX EXPENSE
PERMANENT AND TIMING DIFFERENCES
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

C COS
Function
Cost of Service
Income Tax
Page 6.1

Line No.	B.C.U.C. Account	Total	Gas Supply	Storage	Trans-mission	Distrib-ution	Marketing	Customer Accounting	Direct Assignment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	ITEMS OF A PERMANENT NATURE								
2	INCREASING TAXABLE INCOME								
3									
4	Amortization of NGV grants	$2							$2
5	Amortization of water heater grants	4							4
6	Amortization of furnace grants	112							112
7	Amortization of integrated resource								
8	planning	0							
9	Amortization of rate design costs								
10	- phase A	0	0						
11	Amortization of revenue requirment								
12	hearing costs	29							29
13	Amortization of capital gain	0							
14	Non-tax deductible expenses	3	0	0	0	2	0	1	0
15									
16	ITEMS OF A PERMANENT NATURE								
17	DECREASING TAXABLE INCOME								
18	Amortization of non-tax deductible								
19	financing expense	0							
20	Plant removal costs	0							
21									
22									
23	Total permanent differences	$150	$0	$0	$0	$2	$0	$1	$147
24									
25									
26	TIMING DIFFERENCE ADJUSTMENTS								
27									
28	MIS Lease Payments	0	0	0	0	0	0	0	0
29	Depreciation	840	0	0	296	483	0	0	61
30	Amortization of tax allowable								
31	financing commissions	0							
32	Amortization of tax allowable								
33	debt issue expenses	14	0	0	5	7	0	0	1
34									
35	Debt issue costs	(27)	0	0	(10)	(15)	0	0	(2)
36	Capital cost allowance	(1,146)	0	0	(404)	(659)	0	0	(83)
37									
38	Cumulative eligible capital allowance	(5)		0	(3)	(2)			
39	Overhead expenses capitalized,								
40	claimed for tax purposes	(560)	0	0	(346)	(209)	0	0	(5)
41	Less - Depreciation capitalized	(35)	0	0	(12)	(23)	0	0	0
42									
43	Amortization of NGV deferred margin	0							
44									
45	Total timing differences	($919)	$0	$0	($474)	($418)	$0	$0	($28)
46									
47									

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Cost of Service

Page 1.00

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	Comments
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Cost of Gas (including Gas Lost)	$7,063	$1,181	$5,882	$0	$0	Function, COS, Page 1.0
2							
3	Operation and Maintenence	3,400	1,852	86	41	1,421	Function, COS, Page 1.0
4	Property and Franchise Tax	736	538	0	173	24	"
5	Depreciation and Amortization	961	463	29	181	289	"
6	Other Operating Revenue	(143)	(23)	0	(120)	0	"
7							
8		4,954	2,830	115	275	1,734	
9							
10							
11	Income Taxes	444	65	0	160	217	Function, COS, Page 1.0
12							
13	Earned Return	2,504	1,468	1	150	884	
14							
15	Total Cost of Service	14,965	5,544	5,999	585	2,835	
16							
17	Less: Cost of Gas	(7,063)	(1,181)	(5,882)	0	0	
18							
19	Gross Margin Cost of Service	$7,902	$4,363	$117	$585	$2,835	Function, COS, Page 1.0
20							

CNG COS
TAB 2C
SECTION 6
PAGE 1.00
COS - CLASSIFY
- SUMMARY
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT

FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Cost of Service

Page 1.01

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Gross Margin Cost of Service					
2						
3	Gas Supply	$86	$0	$86	$0	$0
4						
5	Storage	2	2	0	0	0
6						
7	Transmission	2,152	2,153	0	0	0
8						
9	Distribution	4,260	2,208	(0)	0	2,052
10						
11	Marketing	178	0	0	0	178
12						
13	Customer Accounting	606	0	0	0	606
14						
15	Direct Assignment	617	316	54	0	246
16						
17	Gross Margin Cost of Service	7,902	4,679	140	0	3,082
18						
19	Cost of Gas					
20						
21	Gas Supply	7,063	1,181	5,882	0	0
22						
23	Direct Assignment	0	0	0	0	0
24						
25	Cost of Gas	7,063	1,181	5,882	0	0
26						
27						
28	Total Cost of Service	$14,965	$5,860	$6,022	$0	$3,082
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						

CNG COS
TAB 2C
SECTION 6
PAGE 1.01
COS - CLASSIFY
- SUMMARY
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
GAS SUPPLY
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Cost of Service
Gas Supply
Page 2.0

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other
	(1)	(2)	(3)	(4)	(5)	(6)
1	Cost of Gas					
2	Cost of Gas per Flowthrough Methodology	$7,063	$1,181	$5,882		
3	Less: PCEC/Squamish Gas Co. Ltd. Demand					
4	Costs Included Above	0	0			
5						
6	Annualized Deferral of Gas Purchase Costs					
7	Related to Interruptible Rate Schedules					
8	Rate 2501	0			0	
9	Rate 2502	0			0	
10	Amortization of Deferred Gas Purchase					
11	Negotiating Costs	0		0		
12						
13						
14	Total Cost of Gas	7,063	1,181	5,882	0	0
15						
16						
17	Operation and Maintenence	86		86		
18	Depreciation and Amortization					
19	Rate Design Hearing Costs - Phase A	0	0	0	0	0
20	Gas Purchase Negotiation Cost	0		0		
21						
22	Total Depreciation & Amortization	0	0	0	0	0
23						
24						
25	Income Taxes	0	0	0	0	0
26						
27	Earned Return	0	0	0	0	0
28						
29	Total Cost of Service	7,149	1,181	5,968	0	0
30						
31	Less: Cost of Gas	(7,063)	(1,181)	(5,882)	0	0
32						
33	Gross Margin Cost of Service	$86	$0	$86	$0	$0
34						
35						
36						
37	Rate Base x	$0	$0	$0	$0	$0
38						
39	Allowed Rate of Return	10.31%	10.31%	10.31%	10.31%	10.31%
40						
41	Earned Return	$0	$0	$0	$0	$0
42						
43						
44						
45						
46						
47						

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
GAS SUPPLY - OTHER
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Cost of Service
Gas Supply
Page 3.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0	
2							
3	Operation and Maintenence	2	2	0	0	0	
4	Property and Franchise Tax	0	0	0	0	0	
5	Depreciation and Amortization	0	0	0	0	0	
6	Other Operating Revenue	0	0	0	0	0	
7							
8		2	2	0	0	0	
9							
10							
11	Income Taxes	0	0	0	0	0	
12							
13	Earned Return	0	0	0	0	0	Line 27
14							
15	Total Cost of Service	2	2	0	0	0	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$2	$2	$0	$0	$0	
20							
21							
22	Rate Base x	$0	$0	$0	$0	$0	See Classify - Rate Base
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$0	$0	$0	$0	$0	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
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47							

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
TRANSMISSION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Cost of Service
Transmission
Page 4.10

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0	
2							
3	Operation and Maintenence	564	564	0	0	0	
4	Property and Franchise Tax	316	316	0	0	0	
5	Depreciation and Amortization	282	282	0	0	0	
6	Other Operating Revenue	0	0	0	0	0	
7							
8		1,161	1,161	0	0	0	
9							
10							
11	Income Taxes	27	27	0	0	0	
12							
13	Earned Return	964	964	0	0	0	Line 27
14							
15	Total Cost of Service	2,153	2,153	0	0	0	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$2,153	$2,153	$0	$0	$0	
20							
21							See Classify - Rate Base
22	Rate Base x	$9,354	$9,354	$0	$0	$0	
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$964	$964	$0	$0	$0	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
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BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DISTRIBUTION
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Cost of Service
Distribution
Page 5.10

REVISED

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0	
2							
3	Operation and Maintenence	1,923	1,286	0	0	637	
4	Property and Franchise Tax	247	223	(0)	0	24	
5	Depreciation and Amortization	472	181	0	0	291	
6	Other Operating Revenue	(23)	(23)	0	0	0	
7							
8		2,619	1,667	(0)	0	952	
9							
10							
11	Income Taxes	255	38	(0)	0	216	
12							
13	Earned Return	1,387	504	(0)	0	883	Line 27
14							
15	Total Cost of Service	4,260	2,208	(0)	0	2,052	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$4,260	$2,208	($0)	$0	$2,052	
20							
21							
22	Rate Base x	$13,449	$4,886	($0)	$0	$8,565	See Classify - Rate Base Page 5.9, Line 31
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$1,387	$504	($0)	$0	$883	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
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45							
46							
47							

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
MARKETING
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Cost of Service
Marketing
Page 6.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0	
2							
3	Operation and Maintenence	178	0	0	0	178	
4	Property and Franchise Tax	0	0	0	0	0	
5	Depreciation and Amortization	0	0	0	0	0	
6	Other Operating Revenue	0	0	0	0	0	
7							
8		178	0	0	0	178	
9							
10							
11	Income Taxes	0	0	0	0	0	
12							
13	Earned Return	0	0	0	0	0	Line 27
14							
15	Total Cost of Service	178	0	0	0	178	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$178	$0	$0	$0	$178	
20							
21							
22	Rate Base x	$0	$0	$0	$0	$0	
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$0	$0	$0	$0	$0	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							

Date: 15-Mar-93

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
CUSTOMER ACCOUNTING
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
Cost of Service
Customer Accounting
Page 7.10

Line No.	Particulars	Total	Demand	Commodity	Customer - Direct	Customer - Other	
	(1)	(2)	(3)	(4)	(5)	(6)	
1	Cost of Gas (including Gas Lost)	$0	$0	$0	$0	$0	
2							
3	Operation and Maintenence	606	0	0	0	606	
4	Property and Franchise Tax	0	0	0	0	0	
5	Depreciation and Amortization	0	0	0	0	0	
6	Other Operating Revenue	0	0	0	0	0	
7							
8		606	0	0	0	606	
9							
10							
11	Income Taxes	0	0	0	0	0	
12							
13	Earned Return	0	0	0	0	0	Line 27
14							
15	Total Cost of Service	606	0	0	0	606	
16							
17	Less: Cost of Gas	0	0	0	0	0	
18							
19	Gross Margin Cost of Service	$606	$0	$0	$0	$606	
20							
21							
22	Rate Base x	$0	$0	$0	$0	$0	
23							
24	Allowed Return on Rate Base	10.31%	10.31%	10.31%	10.31%	10.31%	
25							
26							
27	Earned Return	$0	$0	$0	$0	$0	
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
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42							
43							
44							
45							
46							
47							

Date: 15-Mar-93

CNG COS
TAB 2C
SECTION 6
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COS - CLASSIFY
- CUSTOMER ACCOUNTING

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
RATE BASE
DIRECT ASSIGNMENT - TOTAL
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

CDA
Classify
Rate Base - Dir. Assign.
Allocation

Line No.	Particulars	Total	Residential	Commercial	Small Industrial	NGV/VRA	Seasonal	Large Industrial	Other		
	(1)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Demand										
2	Net Gas Plant in Service	$753	$0	$0	$0	$283	$0	$0	$470	$0	$0
3	Commission Adjustment for 13 Month Averaging	(3)	0	0	0	(3)	0	0	0	0	0
4	Contributions in Aid of Construction	(35)	0	0	0	(35)	0	0	0	0	0
5	Unamortized Deferred Charges	0	0	0	0	0	0	0	0	0	0
6	Cash Working Capital	0	0	0	0	0	0	0	0	0	0
7	Other Working Capital	4	0	0	0	4	0	0	0	0	0
8	Deferred Taxes	(56)	0	0	0	(56)	0	0	0	0	0
9											
10	Total Rate Base - Demand	$663	$0	$0	$0	$193	$0	$470	$470	$0	$0
11											
12	Commodity - Throughput										
13	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0	0
15	Unamortized Deferred Charges	13	2	1	1	0	0	9	0	0	0
16	Cash Working Capital	0	0	0	0	0	0	0	0	0	0
17	Other Working Capital	0	0	0	0	0	0	0	0	0	0
18	Deferred Taxes	0	0	0	0	0	0	0	0	0	0
19											
20	Total Rate Base - Throughput	$13	$2	$1	$1	$0	$0	$9	$0	$0	$0
21											
22	Commodity - Sales										
23	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0	0
25	Unamortized Deferred Charges	0	0	0	0	0	0	0	0	0	0
26	Cash Working Capital	0	0	0	0	0	0	0	0	0	0
27	Other Working Capital	0	0	0	0	0	0	0	0	0	0
28	Deferred Taxes	0	0	0	0	0	0	0	0	0	0
29											
30	Total Rate Base - Sales	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31											
32	Commodity - Core Market										
33	Net Gas Plant in Service	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
34	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0	0
35	Unamortized Deferred Charges	0	0	0	0	0	0	0	0	0	0
36	Cash Working Capital	0	0	0	0	0	0	0	0	0	0
37	Other Working Capital	0	0	0	0	0	0	0	0	0	0
38	Deferred Taxes	0	0	0	0	0	0	0	0	0	0
39											
40	Total Rate Base - Core Market	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
41											
42	Customer										
43	Net Gas Plant in Service	$77	$0	$0	$0	$0	$0	$0	$77	$0	$0
44	Commission Adjustment for 13 Month Averaging	0	0	0	0	0	0	0	0	0	0
45	Contributions in Aid of Construction	0	0	0	0	0	0	0	0	0	0
46	Unamortized Deferred Charges	103	97	1	0	5	0	0	0	0	0
47	Cash Working Capital	176	45	25	9	0	2	96	1	0	0
48	Other Working Capital	453	452	0	0	0	0	0	1	0	0
49	Deferred Taxes	0	0	0	0	0	0	(1)	0	0	0
50											
	Total Rate Base - Customer	$809	$594	$26	$9	$5	$2	$95	$79	$0	$0

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT
FOR THE YEAR ENDED DECEMBER 31, 1992

CCOS -
Classify
COS – Dir. Assign.
Allocation

REVISED

Page 1.1

Line No.	Particulars	Total	Residential	Commercial	Small Industrial	NGV/VRA	Seasonal	Large Industrial	Other	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Gross Margin Cost of Service									
2										
3	Demand	$316	$54	$31	$4	$52	$0	$71	$104	
4										
5	Commodity	54	9	5	2	0	0	36	0	
6										
7	Customer	366	251	31	2	28	0	19	34	
8										
9	Gross Marging Cost of Service	736	314	67	8	80	0	126	138	
10										
11	Cost of Gas	0	0	0	0	0	0	0	0	
12										
13										
14	Total Cost of Service for Direct Assignment	$736	$314	$67	$8	$80	$0	$126	$138	
15										
16										
17										
18										
19										
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21										
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CNG COS
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COS - CLASSIFY
- DIRECT
ASSIGNMENTS
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT – DEMAND
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

CDA
Classify
COS – Dir. Assign.
Allocation
Demand
Page 2.0

Line No.	Particulars	Total	Residential	Commercial	Small Industrial	NGV/VRA	Seasonal	Large Industrial	Other		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Cost of Service – Demand										
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3											
4	Operation & Maintenance Expense – Marketing	10	0	0	0	9	0	0	1	0	0
5	Property Taxes	171	54	31	4	1	0	71	10	0	0
6	Franchise Fees	0	0	0	0	0	0	0	0	0	0
7	Depreciation and Amortization	55	0	0	0	20	0	0	35	0	0
8											
9	Subtotal	236	54	31	4	30	0	71	46	0	0
10											
11	Income Taxes	12	0	0	0	2	0	0	10	0	0
12											
13	Earned Return	68	0	0	0	20	0	0	48	0	0
14											
15	Total Cost of Service	316	54	31	4	52	0	71	104	0	0
16											
17	Less Cost of Gas	0	0	0	0	0	0	0	0	0	0
18											
19	Gross Margin Cost of Service	$316	$54	$31	$4	$52	$0	$71	$104	$0	$0
20											
21											
22											
23											
24											
25											
26											
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CNG COS
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COS - CLASSIFY
- DIRECT ASSIGNMENTS
- DEMAND
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT – COMMODITY THROUGHPUT
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

CDA
Classify
COS – Dir. Assign.
Allocation
Commodity Throughput
Page 2.1

Line No.	Particulars	Total	Residential	Commercial	Small Industrial	NGV/VRA	Seasonal	Large Industrial	Other		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Cost of Service – Commodity Throughput										
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3											
4	Operation & Maintenance Expense	0	0	0	0	0	0	0	0	0	0
5	Property Taxes	0	0	0	0	0	0	0	0	0	0
6	Franchise Fees	0	0	0	0	0	0	0	0	0	0
7	Depreciation and Amortization	29	5	3	1	0	0	20	0	0	0
8											
9	Subtotal	29	5	3	1	0	0	20	0	0	0
10											
11	Income Taxes	24	4	2	1	0	0	15	0	0	0
12											
13	Earned Return	1	0	0	0	0	0	1	0	0	0
14											
15	Total Cost of Service	54	9	5	2	0	0	36	0	0	0
16											
17	Less Cost of Gas	0	0	0	0	0	0	0	0	0	0
18											
19	Gross Margin Cost of Service	$54	$9	$5	$2	$0	$0	$36	$0	$0	$0
20											
21											
22											
23											
24											
25											
26											
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CNG COS
TAB 2C
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COS - CLASSIFY
- DIRECT ASSIGNMENTS
- COMMODITY THROUGHPUT
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT – COMMODITY SALES
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
COS – Dir. Assign.
Allocation
Commodity Sales
Page 2.2

Line No.	Particulars	Total	Residential	Commercial	Small Industrial	NGV/VRA	Seasonal	Byron Creek	Firm Lg. Industrial	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Service – Commodity Sales									
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0
3										
4	Operation & Maintenance Expense	0	0	0	0	0	0	0	0	0
5	Property Taxes	0	0	0	0	0	0	0	0	0
6	Franchise Fees	0	0	0	0	0	0	0	0	0
7	Depreciation and Amortization	0	0	0	0	0	0	0	0	0
8										
9	Subtotal	0	0	0	0	0	0	0	0	0
10										
11	Income Taxes	0	0	0	0	0	0	0	0	0
12										
13	Earned Return	0	0	0	0	0	0	0	0	0
14										
15	Total Cost of Service	0	0	0	0	0	0	0	0	0
16										
17	Less Cost of Gas	0	0	0	0	0	0	0	0	0
18										
19	Gross Margin Cost of Service	$0	$0	$0	$0	$0	$0	$0	$0	$0
20										
21										
22										
23										
24										
25										
26										
27										
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CNG COS
TAB 2C
SECTION 7
PAGE 2.2
COS - CLASSIFY
- DIRECT ASSIGNMENTS
- COMMODITY SALES

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIG– COMMODITY CORE MARKET
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

C COS
Classify
COS – Dir. Assign.
Allocation
Commodity Core
Page 2.3

Line No.	Particulars	Total	Residential	Commercial	Small Industrial	NGV/VRA	Seasonal	Byron Creek	Firm Lg. Industrial	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Cost of Service – Commodity Core Market									
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0
3										
4	Operation & Maintenance Expense	0	0	0	0	0	0	0	0	0
5	Property Taxes	0	0	0	0	0	0	0	0	0
6	Franchise Fees	0	0	0	0	0	0	0	0	0
7	Depreciation and Amortization	0	0	0	0	0	0	0	0	0
8										
9	Subtotal	0	0	0	0	0	0	0	0	0
10										
11	Income Taxes	0	0	0	0	0	0	0	0	0
12										
13	Earned Return	0	0	0	0	0	0	0	0	0
14										
15	Total Cost of Service	0	0	0	0	0	0	0	0	0
16										
17	Less Cost of Gas	0	0	0	0	0	0	0	0	0
18										
19	Gross Margin Cost of Service	$0	$0	$0	$0	$0	$0	$0	$0	$0
20										
21										
22										
23										
24										
25										
26										
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CNG COS
TAB 2C
SECTION 7
PAGE 2.3
COS - CLASSIFY
- DIRECT ASSIGNMENTS
- COMMODITY CORE

BC GAS INC.
COLUMBIA DIVISION
CLASSIFICATION OF
REVENUE REQUIREMENT
DIRECT ASSIGNMENT – CUSTOMER
FOR THE YEAR ENDED DECEMBER 31, 1992
($000)

REVISED

CDA
Classify
COS – Dir. Assign.
Allocation
Customer
Page 2.4

Line No.	Particulars	Total	Residential	Commercial	Small Industrial	NGV/VRA	Seasonal	Large Industrial	Other		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Cost of Service – Customer										
2	Cost of Gas	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3											
4	Operation & Maintenance Expense										
5	Gas Supply	0	0	0	0	0	0	0	0	0	0
6	Storage	0	0	0	0	0	0	0	0	0	0
7	Transmission	16	0	0	0	0	0	0	16	0	0
8	Distribution	0	0	0	0	0	0	0	0	0	0
9	Marketing	12	(47)	28	1	25	0	4	0	0	0
10	Custpmer accounting	3	0	0	0	0	0	0	3	0	0
11	Property Taxes	1	1	0	0	0	0	0	0	0	0
12	Franchise Fees	0	0	0	0	0	0	0	0	0	0
13	Depreciation and Amortization	124	116	0	0	2	0	0	6	0	0
14											
15	Subtotal	156	70	28	1	27	0	4	25	0	0
16											
17	Income Taxes	127	120	1	0	0	0	5	1	0	0
18											
19	Earned Return	83	61	2	1	1	0	10	8	0	0
20											
21	Total Cost of Service	366	251	31	2	28	0	19	34	0	0
22											
23	Less Cost of Gas	0	0	0	0	0	0	0	0	0	0
24											
25	Gross Margin Cost of Service	$366	$251	$31	$2	$28	$0	$19	$34	$0	$0
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
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CNG COS
TAB 2C
SECTION 7
PAGE 2.4
COS - CLASSIFY
- DIRECT ASSIGNMENTS
- CUSTOMER
REVISED
JUNE 7, 1993

Fully Distributed Cost of Service
Columbia
Development of Capacity Allocation Factors
Test Year 1992

REVISED

C COS
Allocation Factors
Page 1

Line No.	Description (a)	Total Service (b)	Core Customers: Residential (c)	General Serv. (d)	Small Ind. (e)	NGV/VRA (f)	Seasonal (g)	Firm Large Industrial (h)	Transportation (i)
	Peak Responsibility (PR)								
1	Peak Demand, Throughput, 10^3M^3	1,433.6	434.0	233.6	81.8	0.1	0.0	684.1	0.0
2	Peak Responsibility Factor: DE1G	100.00%	30.27%	16.30%	5.70%	0.01%	0.00%	47.72%	0.00%
3	Peak Demand, Distribution 10^3M^3	749.5	434.0	233.6	81.8	0.1	0.0	0.0	0.0
4	Peak Responsibility Factor: DE1D	100.00%	57.90%	31.17%	10.91%	0.02%	0.00%	0.00%	0.00%
	Non-Concident Demand (NCD)								
5	Non-Coincident Demand, 10^3M^3	1,598.7	434.0	233.6	81.8	0.1	0.0	849.2	0.0
6	Non-Coincident Demand Factor: DE2G	100.00%	27.144%	14.613%	5.115%	0.009%	0.000%	53.119%	0.000%
7	Non-Coincident Demand	749.5	434.0	233.6	81.8	0.1	0.0	0.0	0.0
8	Non-Coincident Demand Factor: DE2D	100.00%	57.899%	31.171%	10.911%	0.019%	0.000%	0.000%	0.000%
	Average & Excess Demand (AED): DE3G								
9	Aver Load, Annual GJ/(365*38.56) 10^3M^3	753.4	127.7	77.3	36.7	0.1	0.0	511.5	0.0
10	Average Load, as a Percent of Total	100.00%	16.95%	10.27%	4.87%	0.02%	0.00%	67.89%	0.00%
11	Annual System Load Factor	54.42%	54.42%	54.42%	54.42%	54.42%	54.42%	54.42%	54.42%
12	Average Load % * System Load Factor %	54.42%	9.23%	5.59%	2.65%	0.01%	0.00%	36.95%	0.00%
13	Excess Demand (line 5-9)	845.3	306.2	156.3	45.1	0.0	0.0	337.7	0.0
14	Percent of Total	100.00%	36.228%	18.488%	5.333%	0.000%	0.000%	39.951%	0.000%
15	100% - Annual System LF %	45.58%	45.576%	45.576%	45.576%	45.576%	45.576%	45.576%	45.576%
16	%Excess Demand (line 14x15)	45.58%	16.511%	8.426%	2.430%	0.000%	0.000%	18.208%	0.000%
17	AED Factor (line 12+16): DE3G	100.00%	25.737%	14.013%	5.082%	0.010%	0.000%	55.158%	0.000%
	Average & Excess Demand (AED): DE3D								
18	Aver Load, Annual GJ/(365*38.56) 10^3M^3	241.9	127.7	77.3	36.7	0.1	0.0	0.0	0.0
19	Average Load, as a Percent of Total	100.00%	52.80%	31.98%	15.17%	0.06%	0.00%	0.00%	0.00%
20	Annual System Load Factor	54.42%	54.42%	54.42%	54.42%	54.42%	54.42%	54.42%	54.42%
21	Average Load % * System Load Factor %	54.42%	28.73%	17.40%	8.26%	0.03%	0.00%	0.00%	0.00%
22	Excess Demand (line 7-18)	507.6	306.2	156.3	45.1	0.0	0.0	0.0	0.0
23	Percent of Total	100.00%	60.331%	30.788%	8.881%	0.001%	0.000%	0.000%	0.000%
24	100% - Annual System LF %	45.58%	45.576%	45.576%	45.576%	45.576%	45.576%	45.576%	45.576%
25	%Excess Demand (line 23x24)	45.58%	27.496%	14.032%	4.047%	0.000%	0.000%	0.000%	0.000%
26	AED Factor (line 21+25): DE3D	100.00%	56.230%	31.434%	12.305%	0.031%	0.000%	0.000%	0.000%

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ALLOCATION FACTORS
REVISED
JUNE 7, 1993

Fully Distributed Cost of Service
Columbia
Development of Commodity Allocation Factors
Test Year 1992

REVISED

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Allocation Factors
Page 2

Line No.	Description (a)	Total Service (b)	SCHEDULE 1 Residential (c)	SCHEDULE 2.1/2. General Serv. (d)	SCHEDULE 3/25 Small Ind. (e)	SCHEDULE 5 NGV/VRA (f)	SCHEDULE 4 Seasonal (g)	SCHEDULE 22 Firm Large Industri (h)	BYRON CREEK Transportation (i)
			Core Customers						
1	Sales & T-Service Volumes, GJ	10,406,000	1,763,900	1,068,300	506,900	1,900	0	7,065,000	0
2	Commodity Factor-Thruput: CO1G	100.00%	16.951%	10.266%	4.871%	0.018%	0.000%	67.894%	0.000%
3	Sales Commodity	3,062,500	1,763,900	1,068,300	228,400	1,900	0	0	0
4	Commodity Factor: CO2D	100.00%	57.597%	34.883%	7.458%	0.062%	0.000%	0.000%	0.000%
5	Average Customers	16,679	14,886	1,780	6	1	0	6	
6	Weighting Factor		1.0	1.6	28.8	2.9	28.8	319.6	
7	Weighted Customers	19,848	14,886	2,869	173	3	0	1,917	
8	Customer Factor CU1	100.00%	75.00%	14.46%	0.87%	0.01%	0.00%	9.66%	
9	Weighted Customers for Dist.	17,931	14,886	2,869	173	3	0	0	
10	Customer Factor CU2	100.00%	83.02%	16.00%	0.96%	0.02%	0.00%	0.00%	

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ALLOCATION FACTORS
REVISED
JUNE 7, 1993

BC GAS INC.
COLUMBIA DIVISION
IMPACT FROM ANNUALIZING CRANBROOK LATERAL

Rate Base			
1992 Addition		$2,935	
13 Month Average		(677)	$2,258
Acc. Depreciation	$2,935 x 2% x 1/2		(29)
Total Rate Base Adjustment			$2,229
Depreciation Expense	$2,935 x 2%		59
Earned Return	$2,229 x 10.31%		230
Income Taxes			87
Incremental Cost of Service			$ 376
Income Taxes			
Earned Return			$ 230
Interest Expense	$2,229 x 5.40%		(120)
			110
Timing Differences			
Depreciation Expenses		59	
CCA	$2,935		
Less AFUDC	(70)		
	$2,865		
x CCA Rate	4% ÷ 2 =	(57)	2
Taxable Income After Tax			$ 112
Income Tax Expense	$112 ÷ 56.16% x 43.84% =		$ 87

BC GAS INC.
COLUMBIA DIVISION
IMPACT FROM ANNUALIZING CRANBROOK LATERAL

Incremental Cost of Service

	Peak Responsibility % Allocation		Sales VolumesTJ	$ /GJ
Residential	28.95%	$109	1,698.2	$0.064
Commercial	17.36%	65	1,148.3	0.057
Small Industrial	5.01%	19	440.0	0.043
NGV	0.01%	--	2.3	0.016
Seasoned	0.35%	1	100.0	0.010
Large Industrial	48.32%	182	6,780.7	0.027
	100.00%	$376	10,169.5	

Proforma Rate Classes

Small Commercial Rate 2	15.93%	$ 60	989.8	$0.061
General Service Rate 5	6.44%	24	598.5	0.040

	Non-Coincident Demand % Allocation		Sales VolumesTJ	$ /GJ
Residential	25.89%	$ 97	1,698.2	$0.057
Commercial	15.52%	58	1,148.3	0.051
Small Industrial	4.48%	17	440.0	0.038
NGV	0.01%	--	2.3	0.016
Seasoned	0.47%	2	100.0	0.018
Large Industrial	53.63%	202	6,780.7	0.030
	100.00%	$376	10,169.5	

Proforma Rate Classes

Small Commercial Rate 2	14.25%	$ 54	989.8	$0.054
General Service Rate 5	5.76%	22	598.5	0.036

BC GAS INC.
COLUMBIA DIVISION
IMPACT FROM ANNUALIZING CRANBROOK LATERAL

Incremental Cost of Service

	Average & Excess Demand % Allocation		Sales VolumesTJ	$ /GJ
Residential	24.74%	$ 93	1,698.2	$0.055
Commercial	14.99%	56	1,148.3	0.049
Small Industrial	4.46%	17	440.0	0.038
NGV	0.01%	--	2.3	0.016
Seasoned	0.52%	2	100.0	0.020
Large Industrial	55.27%	208	6,780.7	0.031
	100.00%	$376	10,169.5	

Proforma Rate Classes

Small Commercial Rate 2	13.72%	$ 52	989.8	$0.052
General Service Rate 5	5.79%	22	598.5	0.036

BC GAS INC.

CONSOLIDATED AND DIVISIONAL PROFORMA RATE GROUPS
FULL DISTRIBUTED COST OF SERVICE STUDY (FDC)

REVISED
JUNE 9, 1993

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Consolidated
FDC–PR
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Line No.	Description	Existing Rate Groups: General Service	Small / Medium Industrial Sales & T–Service	Total	Proforma Rate Groups: Small Commercial 2	Large Commercial 3	General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$211,395	$18,197	$229,592	$99,700	$108,608	$20,331
2	Cost of Gas Supply (PR)	$132,880	$6,893	$139,773	$63,382	$68,153	$8,244
3	Total Functional Expenses (PR)	40,512	3,767	44,279	22,566	17,560	4,277
4	Total Operating Revenue Deductions	173,392	10,660	184,052	85,947	85,713	12,521
5	Operating Income before Taxes & Return	37,576	7,470	45,046	13,468	22,895	7,675
6	Income Tax @ 10.31% return on RB	3,257	232	3,489	1,877	1,315	278
7	Return @ 10.31% return on RB	30,686	2,407	33,093	16,359	13,990	2,703
8	Rate Base	297,637	23,351	320,988	158,672	135,692	26,230
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%
10	Total Cost to Serve	$207,335	$13,299	$220,634	$104,183	$101,018	$15,503
11	Total Cost to Serve w/o COG	74,455	6,406	80,861	40,802	32,865	7,259
12	Aver. Cost of Gas, $/GJ	$2.805	$2.235	$2.555	$2.979	$2.673	$2.237
13	Average Cost to Serve w/o COG, $/GJ	$1.572	$0.875	$1.478	$1.918	$1.289	$0.916
13.1	T–Service Ave. Cost incl. UAF $/GJ		$0.881				
14	Revenue less Total Cost to Serve	$4,060	$4,898	$8,958	($4,484)	$7,590	$4,828
15	Revenue less Total Cost to Serve, $/GJ	$0.086	$0.669	$0.164	($0.211)	$0.298	$0.609
16	Rate Incr. (Decr.) Cost Based Rates	–1.92%	–26.91%	–3.90%	4.50%	–6.99%	–23.75%
17	Revenue as a percent of Cost of Service	101.96%	136.83%	104.06%	95.70%	107.51%	131.14%
18	Gross Margin	$78,515	$11,304	$89,819	$36,318	$40,455	$12,087
19	Gross Margin, $/GJ	$1.657	$1.544	$1.642	$1.707	$1.587	$1.525
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas						
20	Demand Cost, $/GJ				$1.343	$1.132	$0.779
21	Commodity Cost, $/GJ				0.031	0.033	0.021
22	Customer Cost, $/GJ				0.544	0.124	0.116
23	Customer Cost, $/bill (Monthly)				15.715	48.932	260.638
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$1.957	$1.687	$1.173
25	Commodity Cost, $/GJ				1.022	0.986	1.063
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$3.300	$2.819	$1.953
27	Commodity Cost, $/GJ				1.053	1.019	1.085
28	Customer Cost, $/GJ				0.544	0.124	0.116
29	Customer Cost, $/bill				15.715	48.932	260.638
30	Revenue as a percentage of Cost of Service , excluding gas costs				89.01%	123.09%	166.51%

REVISED
JUNE 14, 1993
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PROFORMA

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Consolidated
FDC – PR
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Line No.	Description	Existing Rate Groups: General Service	Small / Medium Industrial Sales & T–Service	Total	Proforma Rate Groups: Small Commercial 2	Large Commercial 3	General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$74,455	$6,406	$80,861	$40,802	$32,865	$7,259
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$77,232	$6,645	$83,877	$42,323	$34,091	$7,530
4	Cost of Gas	132,880	6,893	139,773	63,382	68,153	8,244
5	Adjusted Total Cost to Serve	$210,112	$13,538	$223,651	$105,705	$102,244	$15,774
6	Average Cost to Serve w/o CoG $/GJ	$1.572	$0.875	$1.478	$1.918	$1.289	$0.916
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.630	$0.908	$1.533	$1.989	$1.337	$0.950
7	Adj. T–Service Ave. Cost incl. UAF $/GJ		$0.914		C	C	$0.957 C
8	Gross Margin	$78,515	$11,304	$89,819	$36,318	$40,455	$12,087
9	Base Rate Revenue	$211,395	$18,197	$229,592	$99,700	$108,608	$20,331
10	Gross Margin % of Adj CoS, excl CoG	101.66%	170.11%	107.08%	85.81%	118.67%	160.52%
11	Revenue as a % of Adj Cost of Service	100.61%	134.41%	102.66%	94.32%	106.22%	128.89%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost $/GJ				$1.393	$1.174	$0.808
15	Commodity Cost $/GJ				0.032	0.034	0.022
16	Customer Cost $/GJ				0.565	0.128	0.120
17	Customer Cost $/bill (Monthly)				16.302	50.757	270.360
18	Per Unit Cost of Gas by Class						
19	Demand Cost $/GJ				$1.957	$1.687	$1.173
20	Commodity Cost $/GJ				1.022	0.986	1.063
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class Incl. Cost of Gas						
22	Demand Cost $/GJ				$3.350	$2.861	$1.982
23	Commodity Cost $/GJ				1.054	1.020	1.086
24	Customer Cost $/GJ				0.565	0.128	0.120
25	Customer Cost $/bill (Monthly)				16.302	50.757	270.360

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July 12, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Non–Coincident Demand Method with Gas Cost
Test Year 1992, Uniform Rate of Return

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FDC–NCD
Page 2.1 A

Line No.	Description	Existing Rate Groups: General Service	Small / Medium Industrial Sales & T–Service	Total	Proforma Rate Groups: Small Commercial 2	Large Commercial 3	General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$211,395	$18,197	$229,592	$99,700	$108,608	$20,331
2	Cost of Gas Supply (PR)	$132,880	$6,893	$139,773	$63,382	$68,153	$8,244
3	Total Functional Expenses (PR)	36,739	3,428	40,167	20,701	15,600	3,905
4	Total Operating Revenue Deductions	169,619	10,321	179,940	84,083	83,753	12,149
5	Operating Income before Taxes & Return	41,330	7,802	49,132	15,313	24,855	8,038
6	Income Tax @ 10.31% return on RB	3,192	224	3,416	1,824	1,279	262
7	Return @ 10.31% return on RB	27,228	2,120	29,348	14,697	12,166	2,395
8	Rate Base	264,096	20,569	284,665	142,551	118,002	23,242
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%
10	Total Cost to Serve	$200,039	$12,665	$212,704	$100,604	$97,198	$14,807
11	Total Cost to Serve w/o COG	67,159	5,772	72,931	37,223	29,045	6,563
12	Aver. Cost of Gas, $/GJ	$2.805	$2.235	$2.555	$2.979	$2.673	$2.237
13	Average Cost to Serve w/o COG, $/GJ	$1.418	$0.788	$1.333	$1.750	$1.139	$0.828
13.1	T–Service Ave. Cost incl. UAF $/GJ		$0.795				
14	Revenue less Total Cost to Serve	$11,356	$5,532	$16,888	($905)	$11,410	$5,524
15	Revenue less Total Cost to Serve, $/GJ	$0.240	$0.755	$0.309	($0.043)	$0.447	$0.697
16	Rate Incr. (Decr.) Cost Based Rates	–5.37%	–30.40%	–7.36%	0.91%	–10.51%	–27.17%
17	Revenue as a percent of Cost of Service	105.68%	143.68%	107.94%	99.10%	111.74%	137.31%
18	Gross Margin	$78,515	$11,304	$89,819	$36,318	$40,455	$12,087
19	Gross Margin, $/GJ	$1.657	$1.544	$1.642	$1.707	$1.587	$1.525
	Per Unit C.O.S. @ Uniform Rate of Return by Class, exduding Cost of Gas						
20	Demand Cost, $/GJ				$1.175	$0.982	$0.692
21	Commodity Cost, $/GJ				0.031	0.033	0.021
22	Customer Cost, $/GJ				0.544	0.124	0.116
23	Customer Cost, $/bill (Monthly)				15.715	48.932	260.638
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$1.957	$1.687	$1.173
25	Commodity Cost, $/GJ				1.022	0.986	1.063
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$3.132	$2.669	$1.865
27	Commodity Cost, $/GJ				1.053	1.019	1.085
28	Customer Cost, $/GJ				0.544	0.124	0.116
29	Customer Cost, $/bill				15.715	48.932	260.638
30	Revenue as a percentage of Cost of Service , exduding gas costs				97.57%	139.28%	184.17%

CON COS
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REVISED
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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non–Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Consolidated
FDC – NCD
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Line No.	Description	Existing Rate Groups: General Service	Small / Medium Industrial Sales & T–Service	Total	Proforma Rate Groups: Small Commercial 2	Large Commercial 3	General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$67,159	$5,772	$72,931	$37,223	$29,045	$6,563
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$69,664	$5,987	$75,651	$38,611	$30,129	$6,808
4	Cost of Gas	132,880	6,893	139,773	63,382	68,153	8,244
5	Adjusted Total Cost to Serve	$202,544	$12,881	$215,425	$101,993	$98,282	$15,052
6	Average Cost to Serve w/o CoG $/GJ	$1.418	$0.788	$1.333	$1.750	$1.139	$0.828
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.471	$0.818	$1.383	$1.815	$1.182	$0.859
7	Adj. T–Service Ave. Cost Incl. UAF $/GJ		$0.824		C	C	$0.865 C
8	Gross Margin	$78,515	$11,304	$89,819	$36,318	$40,455	$12,087
9	Base Rate Revenue	$211,395	$18,197	$229,592	$99,700	$108,608	$20,331
10	Gross Margin % of Adj CoS, excl CoG	112.71%	188.80%	118.73%	94.06%	134.27%	177.55%
11	Revenue as a % of Adj Cost of Service	104.37%	141.28%	106.58%	97.75%	110.51%	135.07%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost $/GJ				$1.219	$1.019	$0.717
15	Commodity Cost $/GJ				0.032	0.034	0.022
16	Customer Cost $/GJ				0.565	0.128	0.120
17	Customer Cost $/bill (Monthly)				16.302	50.757	270.360
18	Per Unit Cost of Gas by Class						
19	Demand Cost $/GJ				$1.957	$1.687	$1.173
20	Commodity Cost $/GJ				1.022	0.986	1.063
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class Incl. Cost of Gas						
22	Demand Cost $/GJ				$3.176	$2.706	$1.891
23	Commodity Cost $/GJ				1.054	1.020	1.086
24	Customer Cost $/GJ				0.565	0.128	0.120
25	Customer Cost $/bill (Monthly)				16.302	50.757	270.360

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PROFORMA
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ADJUSTED
REVISED
July 12, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Average & Excess Demand Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rate Groups: General Service	Small / Medium Industrial Sales & T–Service	Total	Proforma Rate Groups: Small Commercial 2	Large Commercial 3	General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$211,395	$18,197	$229,592	$99,700	$108,608	$20,331
2	Cost of Gas Supply (PR)	$132,880	$6,893	$139,773	$63,382	$68,153	$8,244
3	Total Functional Expenses (PR)	36,411	3,712	40,123	20,243	15,731	4,227
4	Total Operating Revenue Deductions	169,291	10,605	179,896	83,624	83,884	12,471
5	Operating Income before Taxes & Return	41,655	7,539	49,194	15,743	24,724	7,750
6	Income Tax @ 10.31% return on RB	3,194	243	3,437	1,805	1,315	287
7	Return @ 10.31% return on RB	26,951	2,302	29,253	14,343	12,251	2,596
8	Rate Base	261,412	22,333	283,745	139,114	118,826	25,190
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.31%	10.31%	10.31%
10	Total Cost to Serve	$199,436	$13,150	$212,587	$99,772	$97,451	$15,354
11	Total Cost to Serve w/o COG	66,556	6,257	72,814	36,391	29,298	7,110
12	Aver. Cost of Gas, $/GJ	$2.805	$2.235	$2.555	$2.979	$2.673	$2.237
13	Average Cost to Serve w/o COG, $/GJ	$1.405	$0.855	$1.331	$1.710	$1.149	$0.897
13.1	T–Service Ave. Cost incl. UAF $/GJ		$0.861				
14	Revenue less Total Cost to Serve	$11,959	$5,047	$17,005	($73)	$11,157	$4,977
15	Revenue less Total Cost to Serve, $/GJ	$0.252	$0.689	$0.311	($0.003)	$0.438	$0.628
16	Rate Incr. (Decr.) Cost Based Rates	−5.66%	−27.73%	−7.41%	0.07%	−10.27%	−24.48%
17	Revenue as a percent of Cost of Service	106.00%	138.38%	108.00%	99.93%	111.45%	132.41%
18	Gross Margin	$78,515	$11,304	$89,819	$36,318	$40,455	$12,087
19	Gross Margin, $/GJ	$1.657	$1.544	$1.642	$1.707	$1.587	$1.525
	Per Unit C.O.S. @ Uniform Rate of Return by Class, exduding Cost of Gas						
20	Demand Cost, $/GJ				$1.136	$0.993	$0.760
21	Commodity Cost, $/GJ				0.031	0.033	0.021
22	Customer Cost, $/GJ				0.544	0.124	0.116
23	Customer Cost, $/bill (Monthly)				15.713	48.963	260.581
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$1.957	$1.687	$1.173
25	Commodity Cost, $/GJ				1.022	0.986	1.063
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$3.093	$2.680	$1.934
27	Commodity Cost, $/GJ				1.053	1.019	1.085
28	Customer Cost, $/GJ				0.544	0.124	0.116
29	Customer Cost, $/bill				15.713	48.963	260.581
30	Revenue as a percentage of Cost of Service , exduding gas costs				99.80%	138.08%	170.00%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

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Line No.	Description	Existing Rate Groups: General Service	Existing Rate Groups: Small / Medium Industrial Sales & T–Service	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 2	Proforma Rate Groups: Large Commercial 3	Proforma Rate Groups: General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$66,556	$6,257	$72,814	$36,391	$29,298	$7,110
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$69,039	$6,491	$75,530	$37,748	$30,391	$7,375
4	Cost of Gas	132,880	6,893	139,773	63,382	68,153	8,244
5	Adjusted Total Cost to Serve	$201,919	$13,384	$215,303	$101,130	$98,543	$15,619
6	Average Cost to Serve w/o CoG $/GJ	$1.405	$0.855	$1.331	$1.710	$1.149	$0.897
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.457	$0.886	$1.381	$1.774	$1.192	$0.931
7	Adj. T–Service Ave. Cost incl. UAF $/GJ		$0.893		C	C	$0.937 C
8	Gross Margin	$78,515	$11,304	$89,819	$36,318	$40,455	$12,087
9	Base Rate Revenue	$211,395	$18,197	$229,592	$99,700	$108,608	$20,331
10	Gross Margin % of Adj CoS, excl CoG	113.73%	174.16%	118.92%	96.21%	133.12%	163.89%
11	Revenue as a % of Adj Cost of Service	104.69%	135.96%	106.64%	98.59%	110.21%	130.17%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost $/GJ				$1.178	$1.030	$0.789
15	Commodity Cost $/GJ				0.032	0.034	0.022
16	Customer Cost $/GJ				0.565	0.128	0.120
17	Customer Cost $/bill (Monthly)				16.299	50.789	270.301
18	Per Unit Cost of Gas by Class						
19	Demand Cost $/GJ				$1.957	$1.687	$1.173
20	Commodity Cost $/GJ				$1.022	$0.986	$1.063
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class incl. Cost of Gas						
22	Demand Cost $/GJ				$3.135	$2.717	$1.962
23	Commodity Cost $/GJ				1.054	1.020	1.086
24	Customer Cost $/GJ				0.565	0.128	0.120
25	Customer Cost $/bill (Monthly)				16.299	50.789	270.301

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
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Line No.	Description	Existing Rate Groups: General Service	Small / Medium Industrial Sales & T–Service	Total	Proforma Rate Groups: Small Commercial 2	Large Commercial 3	General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$66,556	$6,257	$72,814	$36,391	$29,298	$7,110
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$69,039	$6,491	$75,530	$37,748	$30,391	$7,375
4	Cost of Gas	132,880	6,893	139,773	63,382	68,153	8,244
5	Adjusted Total Cost to Serve	$201,919	$13,384	$215,303	$101,130	$98,543	$15,619
6	Average Cost to Serve w/o CoG $/GJ	$1.405	$0.855	$1.331	$1.710	$1.149	$0.897
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.457	$0.886	$1.381	$1.774	$1.192	$0.931
7	Adj. T–Service Ave. Cost Incl. UAF $/GJ		$0.893		$1.781	$1.198	
8	Gross Margin	$78,515	$11,304	$89,819	$36,318	$40,455	$12,087
9	Base Rate Revenue	$211,395	$18,197	$229,592	$99,700	$108,608	$20,331
10	Gross Margin % of Adj CoS, excl CoG	113.73%	174.16%	118.92%	96.21%	133.12%	163.89%
11	Revenue as a % of Adj Cost of Service	104.69%	135.96%	106.64%	98.59%	110.21%	130.17%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost $/GJ				$1.178	$1.030	$0.789
15	Commodity Cost $/GJ				0.032	0.034	0.022
16	Customer Cost $/GJ				0.565	0.128	0.120
17	Customer Cost $/bill (Monthly)				16.299	50.789	270.301
18	Per Unit Cost of Gas by Class						
19	Demand Cost $/GJ				$1.957	$1.687	$1.173
20	Commodity Cost $/GJ				$1.022	$0.986	$1.063
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class Incl. Cost of Gas						
22	Demand Cost $/GJ				$3.135	$2.717	$1.962
23	Commodity Cost $/GJ				1.054	1.020	1.086
24	Customer Cost $/GJ				0.565	0.128	0.120
25	Customer Cost $/bill (Monthly)				16.299	50.789	270.301

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
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Line No.	Description	Total Service	Residential	Gen. Serv.	Small/Medium Indust. Sales & T–Service	NGV/VRA	Seasonal	Total Core Customers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Base Rate Revenue	$648,723	$330,460	$211,395	$18,197	$3,864	$897	$564,813
2	Cost of Gas Supply (PR)	378,632	193,403	132,880	6,893	1,489	482	335,147
3	Total Functional Expenses (PR)	138,116	84,882	40,514	3,760	1,320	132	130,608
4	Total Operating Revenue Deductions	516,748	278,285	173,394	10,653	2,809	614	465,755
5	Operating Income before Taxes & Return	131,975	52,175	38,001	7,544	1,055	283	99,058
6	Income Tax @ 10.31% return on RB	14,445	10,139	3,257	232	591	14	14,234
7	Return @ 10.31% return on RB	107,878	69,401	30,687	2,404	1,195	82	103,770
8	Rate Base	$1,046,344	$673,145	$297,645	$23,322	$11,585	$800	$1,006,496
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.31%	10.32%	10.31%	10.31%
10	Total Cost to Serve	$639,072	$357,826	$207,338	$13,290	$4,595	$711	$583,759
11	Total Cost to Serve w/o COG	260,440	164,422	74,458	6,396	3,106	229	248,612
12	Aver. Cost of Gas, $/GJ	$2.395	$2.848	$2.805	$2.235	$1.559	$1.372	$2.801
13	Average Cost to Serve w/o COG, $/GJ	$1.158	$2.421	$1.572	$0.874	$3.252	$0.653	$2.006
14	Revenue less Total Cost to Serve	$9,651	($27,366)	$4,057	$4,907	($731)	$186	($18,946)
15	Revenue less Total Cost to Serve, $/GJ	$0.043	($0.403)	$0.086	$0.670	($0.765)	$0.530	($0.153)
16	Rate Incr. (Decr.) Cost Based Rates	−1.49%	8.28%	−1.92%	−26.97%	18.91%	−20.73%	3.35%
17	Revenue as a percent of Cost of Service	101.51%	92.35%	101.96%	136.93%	84.10%	126.16%	96.75%
18	Gross Margin	$270,091	$137,057	$78,515	$11,304	$2,375	$415	$229,666
19	Gross Margin, $/GJ	$1.201	$2.018	$1.657	$1.544	$2.487	$1.182	$1.854
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas							
20	Demand Cost, $/GJ		$1.267	$1.232	$0.779	$2.133	$0.259	
21	Commodity Cost, $/GJ		0.031	0.032	0.022	(0.113)	0.022	
22	Customer Cost, $/GJ		1.134	0.318	0.080	1.233	0.376	
23	Customer Cost, $/bill (Monthly)		11.173	18.834	112.091	530.469	177.466	
	Per Unit Cost of Gas by Class							
24	Demand Cost, $/GJ		$1.847	$1.800	$1.197	$0.576	$0.365	
25	Commodity Cost, $/GJ		1.001	1.005	1.038	0.983	1.007	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas							
26	Demand Cost, $/GJ		$3.114	$3.032	$1.976	$2.709	$0.624	
27	Commodity Cost, $/GJ		1.033	1.036	1.060	0.870	1.029	
28	Customer Cost, $/GJ		1.134	0.318	0.080	1.233	0.376	
29	Customer Cost, $/bill		11.173	18.834	112.091	530.469	177.466	
30	Revenue as a percentage of Cost of Service, excluding gas c		83.36%	105.45%	176.72%	76.47%	181.16%	

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
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Line No.	Description	Lower Mainland: Interrupt Sales & T–Serv 2501/2 22/10	Lower Mainland: Alt. Fuel 2501	Lower Mainland: Other	Inland: S. T–Serv. Non–Captive 25	Inland: Large Industrial Sales & T–Service Captive 10/20/22	Inland: Large Industrial Sales & T–Service Non–Captive 10/12/22	Inland: Other	Columbia: Firm Large Industrial 22	Columbia: Byron Creek T–Service	Total Non–Core Customers
		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Base Rate Revenue	$35,582	$3,793	$35,178	$841	$4,153	$1,757	$896	$1,572	$138	$83,910
2	Cost of Gas Supply (PR)	14,611	2,270	25,017	0	550	264	539	234	0	43,485
3	Total Functional Expenses (PR)	1,134	203	2,365	474	1,924	523	6	808	71	7,508
4	Total Operating Revenue Deductions	15,745	2,473	27,382	474	2,474	787	545	1,043	71	50,993
5	Operating Income before Taxes & Return	19,837	1,320	7,796	367	1,679	970	351	529	67	32,917
6	Income Tax @ 10.31% return on RB	117	13	(268)	22	181	80	0	55	11	212
7	Return @ 10.31% return on RB	367	36	1,536	199	1,111	248	0	556	56	4,108
8	Rate Base	$3,562	$348	$14,890	$1,926	$10,774	$2,410	$0	$5,389	$550	$39,848
9	Rate of Return, Percent	10.31%	10.26%	10.31%	10.32%	10.31%	10.28%	0.00%	10.32%	10.18%	10.31%
10	Total Cost to Serve	$16,229	$2,521	$28,650	$695	$3,766	$1,115	$545	$1,653	$138	$55,313
11	Total Cost to Serve w/o COG	1,618	251	3,632	695	3,216	851	7	1,419	138	11,828
12	Aver. Cost of Gas, $/GJ	$1.226	$1.127	$1.048	$0.000	$4.915	$0.000	$1.077	$0.033		$1.132
13	Average Cost to Serve w/o COG, $/GJ	$0.092	$0.125	$0.081	$0.435	$0.313	$0.049	$0.013	$0.201		$0.117
14	Revenue less Total Cost to Serve	$19,353	$1,272	$6,528	$146	$387	$642	$351	($81)	$0	$28,597
15	Revenue less Total Cost to Serve, $/GJ	$1.106	$0.631	$0.146	$0.091	$0.038	$0.037	$0.702	($0.011)		$0.283
16	Rate Incr. (Decr.) Cost Based Rates	–54.39%	–33.53%	–18.56%	–17.36%	–9.31%	–36.55%	–39.17%	5.17%	0.00%	–34.08%
17	Revenue as a percent of Cost of Service	219.25%	150.44%	122.79%	121.00%	110.27%	157.59%	164.40%	95.09%	100.00%	151.70%
18	Gross Margin	$20,971	$1,523	$10,161	$841	$3,603	$1,493	$358	$1,338	$138	$40,425
19	Gross Margin, $/GJ	$1.198	$0.756	$0.227	$0.526	$0.351	$0.086	$0.715	$0.189		$0.400
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas										
20	Demand Cost, $/GJ	$0.020	$0.060	$0.053	$0.390	$0.252	$0.016	$0.000	$0.156		
21	Commodity Cost, $/GJ	0.025	0.026	0.024	0.013	0.013	0.013	0.013	0.013		
22	Customer Cost, $/GJ	0.047	0.039	0.004	0.042	0.047	0.019	0.000	0.032		
23	Customer Cost, $/bill (Monthly)	576.239	1,302.323	7,147.683	556.789	2,891.839	3,437.002	0.000	3,129.005	11,521.788	
	Per Unit Cost of Gas by Class										
24	Demand Cost, $/GJ	$0.000	$0.000	$0.055	$0.000	$3.941	$0.015	$0.000	$0.007		
25	Commodity Cost, $/GJ	1.226	1.127	0.992	0.000	0.974	0.000	1.077	0.026		
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas										
26	Demand Cost, $/GJ	$0.020	$0.060	$0.108	$0.390	$4.193	$0.032	$0.000	$0.163		
27	Commodity Cost, $/GJ	1.251	1.153	1.017	0.013	0.988	0.013	1.090	0.039		
28	Customer Cost, $/GJ	0.047	0.039	0.004	0.042	0.047	0.019	0.000	0.032		
29	Customer Cost, $/bill	576.239	1,302.323	7,147.683	556.789	2,891.839	3,437.002	0.000	3,129.005	11,521.788	
30	Revenue as a percentage of Cost of Servic	1295.83%	605.95%	279.72%	121.00%	112.03%	175.46%	5491.52%	94.28%	100.00%	

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
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Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

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Line No.	Description	Total Service	Residential	Gen. Serv.	Small/Medium Indust. Sales & T–Service	NGV/VRA	Seasonal	Total Core Customers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Total Cost to Serve w/o CoG	$260,440	$164,422	$74,458	$6,396	$3,106	$229	$248,612
2	Adjustment Factor	1.0373						
3	Adjusted Cost to Serve w/o CoG	$270,154	$170,555	$77,235	$6,635	$3,222	$238	$257,885
4	Cost of Gas	378,632	193,403	132,880	6,893	1,489	482	335,147
5	Adjusted Total Cost to Serve	$648,786	$363,959	$210,115	$13,528	$4,711	$720	$593,032
6	Average Cost to Serve w/o CoG $/GJ	$1.158	$2.421	$1.572	$0.874	$3.252	$0.653	$2.006
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.201	$2.512	$1.630	$0.906	$3.373	$0.677	$2.081
8	Gross Margin	$270,091	$137,057	$78,515	$11,304	$2,375	$415	$229,666
9	Base Rate Revenue	$648,723	$330,460	$211,395	$18,197	$3,864	$897	$564,813
10	Gross Margin % Adj CoS, excl CoG	99.98%	80.36%	101.66%	170.37%	73.72%	174.64%	89.06%
11	Revenue as a % of Cost of Service	99.99%	90.80%	100.61%	134.51%	82.03%	124.66%	95.24%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas							
13	Per Unit COS x Adjustment Factor							
14	Demand Cost, $/GJ		$1.314	$1.278	$0.808	$2.213	$0.268	
15	Commodity Cost, $/GJ		0.032	0.033	0.023	(0.117)	0.023	
16	Customer Cost, $/GJ		1.176	0.330	0.083	1.279	0.390	
17	Customer Cost, $/bill (Monthly)		11.589	19.536	116.272	550.255	184.085	
18	Per Unit Cost of Gas by Class							
19	Demand Cost, $/GJ		$1.847	$1.800	$1.197	$0.576	$0.365	
20	Commodity Cost, $/GJ		1.001	1.005	1.038	0.983	1.007	
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas							
22	Demand Cost, $/GJ		$3.161	$3.078	$2.005	$2.789	$0.634	
23	Commodity Cost, $/GJ		1.034	1.038	1.060	0.866	1.029	
24	Customer Cost, $/GJ		1.176	0.330	0.083	1.279	0.390	
25	Customer Cost, $/bill (Monthly)		11.589	19.536	116.272	550.255	184.085	

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Fully Distributed Cost of Service
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Line No.	Description	Lower Mainland: Interrupt Sales & T–Serv 2501/2 22/10	Lower Mainland: Alt. Fuel 2501	Lower Mainland: Other	Inland: S. T–Serv. Non–Captive 25	Inland: Large Industrial Sales & T–Service Captive 10/20/22	Inland: Large Industrial Sales & T–Service Non–Captive 10/12/22	Inland: Other	Columbia: Firm Large Industrial 22	Columbia: Byron Creek T–Service	Total Non–Core Customers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Total Cost to Serve w/o CoG	$1,618	$251	$3,632	$695	$3,216	$851	$7	$1,419	$138	$11,828
2	Adjustment Factor	1.0373									
3	Adjusted Cost to Serve w/o CoG	$1,679	$261	$3,768	$721	$3,336	$883	$7	$1,472	$143	$12,269
4	Cost of Gas	14,611	2,270	25,017	0	550	264	539	234	0	43,485
5	Adjusted Total Cost to Serve	$16,290	$2,531	$28,785	$721	$3,886	$1,147	$545	$1,706	$143	$55,754
6	Average Cost to Serve w/o CoG $/GJ	$0.092	$0.125	$0.081	$0.435	$0.313	$0.049	$0.013	$0.201	$0.000	$0.117
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.096	$0.129	$0.084	$0.451	$0.325	$0.051	$0.014	$0.208	$0.000	$0.121
8	Gross Margin	$20,971	$1,523	$10,161	$841	$3,603	$1,493	$358	$1,338	$138	$40,425
9	Base Rate Revenue	$35,582	$3,793	$35,178	$841	$4,153	$1,757	$896	$1,572	$138	$83,910
10	Gross Margin % Adj CoS, excl CoG	1249.23%	584.16%	269.66%	116.65%	108.00%	169.15%	5294.05%	90.89%	96.40%	329.49%
11	Revenue as a % of Cost of Service	218.43%	149.88%	122.21%	116.65%	106.87%	153.23%	164.33%	92.14%	96.40%	150.50%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas										
13	Per Unit COS x Adjustment Factor										
14	Demand Cost, $/GJ	$0.021	$0.062	$0.055	$0.405	$0.262	$0.017	$0.000	$0.161		
15	Commodity Cost, $/GJ	0.026	0.027	0.025	0.014	0.014	0.014	0.014	0.014		
16	Customer Cost, $/GJ	0.049	0.040	0.004	0.043	0.049	0.020	0.000	0.033		
17	Customer Cost, $/bill (Monthly)	597.733	1,350.900	7,414.292	577.558	2,999.704	3,565.202	0.000	3,245.717	$11,951.551	
18	Per Unit Cost of Gas by Class										
19	Demand Cost, $/GJ	$0.000	$0.000	$0.055	$0.000	$3.941	$0.015	$0.000	$0.007		
20	Commodity Cost, $/GJ	1.226	1.127	0.992	0.000	0.974	0.000	1.077	0.026		
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas										
22	Demand Cost, $/GJ	$0.021	$0.062	$0.110	$0.405	$4.203	$0.032	$0.000	$0.169		
23	Commodity Cost, $/GJ	1.252	1.154	1.017	0.014	0.988	0.014	1.091	0.040		
24	Customer Cost, $/GJ	0.049	0.040	0.004	0.043	0.049	0.020	0.000	0.033		
25	Customer Cost, $/bill (Monthly)	597.733	1,350.900	7,414.292	577.558	2,999.704	3,565.202	0.000	3,245.717	$11,951.551	

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates

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Non–Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Line		Total			Small/Medium Indust. Sales			Total Core stomers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Base Rate Revenue	$648,723	$330,460	$211,395	$18,197	$3,864	$897	$564,813
2	Cost of Gas Supply (PR)	$378,632	$193,403	$132,880	$6,893	$1,489	$482	$335,147
3	Total Functional Expenses (PR)	138,116	79,377	36,741	3,421	1,295	202	121,036
4		516,748	272,780	169,621	10,315	2,784	684	456,183
5	Operating Income before Taxes & Return	131,975	57,680	41,774	7,882	1,080	213	108,630
6	Income Tax @ 10.31% return on RB	14,445	10,039	3,192	224	590	18	14,064
7		107,878	64,401	27,229	2,117	1,172	116	95,035
8	Rate Base	$1,046,344	$624,647	$264,104	$20,541	$11,359	$1,120	$921,772
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.31%	10.32%	10.31%	10.31%
10	Total Cost to Serve	$639,072	$347,221	$200,042	$12,656	$4,547	$817	$565,282
11	Total Cost to Serve w/o COG	260,440	153,817	67,162	5,762	3,058	335	230,135
12	Aver. Cost of Gas, $/GJ	$2.395	$2.848	$2.805	$2.235	$1.559	$1.372	$2.801
13	Average Cost to Serve w/o COG, $/GJ	$1.158	$2.265	$1.418	$0.787	$3.201	$0.954	$1.857
14	Revenue less Total Cost to Serve	$9,651	($16,761)	$11,353	$5,541	($683)	$80	($469)
15	Revenue less Total Cost to Serve, $/GJ	$0.043	($0.247)	$0.240	$0.757	($0.715)	$0.228	($0.004)
16	Rate Incr. (Decr.) Cost Based Rates	–1.49%	5.07%	–5.37%	–30.45%	17.66%	–8.92%	0.08%
17		101.51%	95.17%	105.68%	143.79%	84.99%	109.79%	99.92%
18	Gross Margin	$270,091	$137,057	$78,515	$11,304	$2,375	$415	$229,666
19		$1.201	$2.018	$1.657	$1.544	$2.487	$1.182	$1.854
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas							
20			$1.111	$1.078	$0.692	$2.083	$0.560	
21	Commodity Cost, $/GJ		0.031	0.032	0.022	(0.113)	0.022	
22	Customer Cost, $/GJ		1.134	0.318	0.080	1.233	0.376	
23			11.173	18.834	112.091	530.469	177.466	
	Per Unit Cost of Gas by Class							
24			$1.847	$1.800	$1.197	$0.576	$0.365	
25	Commodity Cost, $/GJ		1.001	1.005	1.038	0.983	1.007	
26	Demand Cost, $/GJ		$2.957	$2.878	$1.889	$2.659	$0.926	
27	Commodity Cost, $/GJ		1.033	1.036	1.060	0.870	1.029	
28			1.134	0.318	0.080	1.233	0.376	
29	Customer Cost, $/bill		11.173	18.834	112.091	530.469	177.466	
30			89.10%	116.90%	196.16%	77.68%	123.87%	

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Fully Distributed Cost of Service
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Line No.	Description	Lower Mainland: Interrupt Sales & T–Serv 2501/2 22/10	Lower Mainland: Alt. Fuel 2501	Lower Mainland: Other	Inland: S. T–Serv. Non–Captive 25	Inland: Large Industrial Sales & T–Service Captive 10/20/22	Inland: Large Industrial Sales & T–Service Non–Captive 10/12/22	Inland: Other	Columbia: Firm Large Industrial 22	Columbia: Byron Creek T–Service	Total Non–Core Customers
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Base Rate Revenue		$35,582	$3,793	$35,178	$841	$4,153	$1,757	$896	$1,572	$138	$83,910
2	Cost of Gas Supply (PR)		$14,611	$2,270	$25,017	$0	$550	$264	$539	$234	$0	$43,485
3	Total Functional Expenses (PR)		6,604	1,581	3,521	566	2,807	646	414	871	71	17,080
4	Total Operating Revenue Deductions		21,215	3,851	28,538	566	3,357	910	952	1,105	71	60,565
5	Operating Income before Taxes & Return		14,367	(58)	6,640	275	796	847	(56)	467	67	23,345
6	Income Tax @ 10.31% return on RB		483	105	(648)	24	236	88	25	56	11	382
7	Return @ 10.31% return on RB		5,555	1,343	2,893	233	1,609	317	230	607	57	12,843
8	Rate Base		$53,878	$13,026	$28,051	$2,260	$15,605	$3,081	$2,228	$5,894	$550	$124,572
9	Rate of Return, Percent		10.31%	10.31%	10.31%	10.32%	10.31%	10.28%	10.31%	10.30%	10.36%	10.31%
10	Total Cost to Serve		$27,253	$5,299	$30,783	$823	$5,203	$1,315	$1,207	$1,769	$139	$73,790
11	Total Cost to Serve w/o COG		12,642	3,029	5,765	823	4,653	1,051	669	1,534	139	30,305
12	Aver. Cost of Gas, $/GJ		$1.226	$1.127	$1.048	$0.000	$4.915	$0.015	$1.077	$0.033		
13	Average Cost to Serve w/o COG, $/GJ		$0.722	$1.504	$0.129	$0.515	$0.453	$0.060	$1.338	$0.217		
14	Revenue less Total Cost to Serve		$8,329	($1,506)	$4,395	$18	($1,050)	$442	($311)	($197)	($1)	$10,120
15	Revenue less Total Cost to Serve, $/GJ		$0.476	($0.748)	$0.098	$0.011	($0.102)	$0.025	($0.623)	($0.028)		
16	Rate Incr. (Decr.) Cost Based Rates		–23.41%	39.70%	–12.49%	–2.12%	25.27%	–25.18%	34.75%	12.50%	0.72%	–12.06%
17	Revenue as a percent of Cost of Service		130.56%	71.58%	114.28%	102.16%	79.82%	133.65%	74.21%	88.89%	99.28%	113.71%
18	Gross Margin		$20,971	$1,523	$10,161	$841	$3,603	$1,493	$358	$1,338	$138	$40,425
19	Gross Margin, $/GJ		$1.198	$0.756	$0.227	$0.526	$0.351	$0.086	$0.715	$0.189		$0.400
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas											
20	Demand Cost, $/GJ		$0.650	$1.439	$0.101	$0.470	$0.392	$0.028	$1.325	$0.172		
21	Commodity Cost, $/GJ		0.025	0.026	0.024	0.013	0.013	0.013	0.013	0.013		
22	Customer Cost, $/GJ		0.047	0.039	0.004	0.042	0.047	0.019	0.000	0.032		
23	Customer Cost, $/bill (Monthly)		576.239	1,302.323	7,147.683	556.789	2,891.839	3,437.002	0.000	3,129.005	11,521.788	
	Per Unit Cost of Gas by Class											
24	Demand Cost, $/GJ		$0.000	$0.000	$0.055	$0.000	$3.941	$0.015	$0.000	$0.007	$0.000	
25	Commodity Cost, $/GJ		1.226	1.127	0.992	0.000	0.974	0.000	1.077	0.026	0.000	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas											
26	Demand Cost, $/GJ		$0.650	$1.439	$0.156	$0.470	$4.333	$0.043	$1.325	$0.179		
27	Commodity Cost, $/GJ		1.251	1.153	1.017	0.013	0.988	0.013	1.090	0.039		
28	Customer Cost, $/GJ		0.047	0.039	0.004	0.042	0.047	0.019	0.000	0.032		
29	Customer Cost, $/bill		576.239	1,302.323	7,147.683	556.789	2,891.839	3,437.002	0.000	3,129.005	11,521.788	
30	Revenue as a percentage of Cost of Servic		165.88%	50.28%	176.24%	102.16%	77.44%	142.11%	53.45%	87.19%	99.28%	

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
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Under Non–Coincident Demand Method
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Line No.	Description	Total Service	Residential	Gen. Serv.	Small/Medium Indust. Sales & T–Service	NGV/VRA	Seasonal	Total Core Customers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Total Cost to Serve w/o CoG	$260,440	$153,817	$67,162	$5,762	$3,058	$335	$230,135
2	Adjustment Factor	1.0373						
3	Adjusted Cost to Serve w/o CoG	$270,154	$159,555	$69,667	$5,977	$3,172	$348	$238,719
4	Cost of Gas	378,632	193,403	132,880	6,893	1,489	482	335,147
5	Adjusted Total Cost to Serve	$648,786	$352,958	$202,547	$12,871	$4,661	$829	$573,866
6	Average Cost to Serve w/o CoG $/GJ	$1.158	$2.265	$1.418	$0.787	$3.201	$0.954	$1.857
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.201	$2.350	$1.471	$0.816	$3.321	$0.990	$1.927
8	Gross Margin	$270,091	$137,057	$78,515	$11,304	$2,375	$415	$229,666
9	Base Rate Revenue	$648,723	$330,460	$211,395	$18,197	$3,864	$897	$564,813
10	Gross Margin % Adj CoS, excl CoG	99.98%	85.90%	112.70%	189.11%	74.89%	119.42%	96.21%
11	Revenue as a % of Cost of Service	99.99%	93.63%	104.37%	141.38%	82.91%	108.14%	98.42%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas							
13	Per Unit COS x Adjustment Factor							
14	Demand Cost, $/GJ		$1.152	$1.118	$0.718	$2.161	$0.581	
15	Commodity Cost, $/GJ		0.032	0.033	0.023	(0.117)	0.023	
16	Customer Cost, $/GJ		1.176	0.330	0.083	1.279	0.390	
17	Customer Cost, $/bill (Monthly)		11.589	19.536	116.272	550.255	184.085	
18	Per Unit Cost of Gas by Class							
19	Demand Cost, $/GJ		$1.847	$1.800	$1.197	$0.576	$0.365	
20	Commodity Cost, $/GJ		1.001	1.005	1.038	0.983	1.007	
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas							
22	Demand Cost, $/GJ		$2.999	$2.918	$1.915	$2.736	$0.947	
23	Commodity Cost, $/GJ		1.034	1.038	1.060	0.866	1.029	
24	Customer Cost, $/GJ		1.176	0.330	0.083	1.279	0.390	
25	Customer Cost, $/bill (Monthly)		11.589	19.536	116.272	550.255	184.085	

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Fully Distributed Cost of Service
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Line No.	Description	Lower Mainland: Interrupt Sales & T-Serv 2501 22/2/10	Lower Mainland: Alt. Fuel 2501	Lower Mainland: Other	Inland: S. T-Serv. Non-Captive 25	Inland: Large Industrial Sales & T-Service Captive 10/20/22	Inland: Large Industrial Sales & T-Service Non-Captive 10/12/22	Inland: Other	Columbia: Firm Large Industrial 22	Columbia: Byron Creek T-Service	Total Non-Core Customers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Total Cost to Serve w/o CoG	$12,642	$3,029	$5,765	$823	$4,653	$1,051	$669	$1,534	$139	$30,305
2	Adjustment Factor	1.0373									
3	Adjusted Cost to Serve w/o CoG	$13,114	$3,142	$5,981	$854	$4,826	$1,090	$694	$1,591	$144	$31,435
4	Cost of Gas	14,611	2,270	25,017	0	550	264	539	234	0	43,485
5	Adjusted Total Cost to Serve	$27,724	$5,412	$30,998	$854	$5,376	$1,354	$1,232	$1,826	$144	$74,920
6	Average Cost to Serve w/o CoG $/GJ	$0.722	$1.504	$0.129	$0.515	$0.453	$0.060	$1.338	$0.217		$0.000
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.749	$1.560	$0.134	$0.534	$0.470	$0.063	$1.388	$0.225		$0.000
8	Gross Margin	$20,971	$1,523	$10,161	$841	$3,603	$1,493	$358	$1,338	$138	$40,425
9	Base Rate Revenue	$35,582	$3,793	$35,178	$841	$4,153	$1,757	$896	$1,572	$138	$83,910
10	Gross Margin % Adj CoS, excl CoG	159.92%	48.47%	169.90%	98.49%	74.66%	137.00%	51.53%	84.05%	95.71%	128.60%
11	Revenue as a % of Cost of Service	128.34%	70.09%	113.49%	98.49%	77.25%	129.78%	72.71%	86.10%	95.71%	112.00%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas										
13	Per Unit COS x Adjustment Factor										
14	Demand Cost, $/GJ	$0.674	$1.492	$0.105	$0.488	$0.407	$0.029	$1.374	$0.178		
15	Commodity Cost, $/GJ	0.026	0.027	0.025	0.014	0.014	0.014	0.014	0.014		
16	Customer Cost, $/GJ	0.049	0.040	0.004	0.043	0.049	0.020	0.000	0.033		
17	Customer Cost, $/bill (Monthly)	597.733	1,350.900	7,414.292	577.558	2,999.704	3,565.202	0.000	3,245.717	$11,951.551	
18	Per Unit Cost of Gas by Class										
19	Demand Cost, $/GJ	$0.000	$0.000	$0.055	$0.000	$3.941	$0.015	$0.000	$0.007		
20	Commodity Cost, $/GJ	1.226	1.127	0.992	0.000	0.974	0.000	1.077	0.026		
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas										
22	Demand Cost, $/GJ	$0.674	$1.492	$0.160	$0.488	$4.348	$0.044	$1.374	$0.186		
23	Commodity Cost, $/GJ	1.252	1.154	1.017	0.014	0.988	0.014	1.091	0.040		
24	Customer Cost, $/GJ	0.049	0.040	0.004	0.043	0.049	0.020	0.000	0.033		
25	Customer Cost, $/bill (Monthly)	597.733	1,350.900	7,414.292	577.558	2,999.704	3,565.202	0.000	3,245.717	$11,951.551	

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Line No.	Description	Total Service	Residential	Gen. Serv.	Small/Medium Indust. Sales & T–Service	NGV/VRA	Seasonal	Total Core Customers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Base Rate Revenue	$648,723	$330,460	$211,395	$18,197	$3,864	$897	$564,813
2	Cost of Gas Supply (PR)	$378,632	$193,403	$132,880	$6,893	$1,489	$482	$335,147
3	Total Functional Expenses (PR)	138,116	78,637	36,413	3,707	1,365	219	120,341
4	Total Operating Revenue Deductions	516,748	272,040	169,293	10,600	2,854	701	455,488
5	Operating Income before Taxes & Return	131,975	58,420	42,102	7,597	1,010	196	109,325
6	Income Tax @ 10.31% return on RB	14,445	10,021	3,194	243	597	19	14,074
7	Return @ 10.31% return on RB	107,878	63,807	26,952	2,300	1,230	129	94,418
8	Rate Base	$1,046,344	$618,887	$261,418	$22,311	$11,920	$1,253	$915,789
9	Rate of Return, Percent	10.31%	10.31%	10.31%	10.31%	10.32%	10.31%	10.31%
10	Total Cost to Serve	$639,072	$345,868	$199,439	$13,143	$4,681	$850	$563,980
11	Total Cost to Serve w/o COG	260,440	152,465	66,559	6,250	3,192	368	228,833
12	Aver. Cost of Gas, $/GJ	$2.395	$2.848	$2.805	$2.235	$1.559	$1.372	$2.801
13	Average Cost to Serve w/o COG, $/GJ	$1.158	$2.245	$1.405	$0.854	$3.342	$1.047	$1.847
14	Revenue less Total Cost to Serve		($15,408)	$11,956	$5,054	($817)	$47	$833
15	Revenue less Total Cost to Serve, $/GJ		($0.227)	$0.252	$0.690	($0.855)	$0.135	$0.007
16	Rate Incr. (Decr.) Cost Based Rates		4.66%	–5.66%	–27.77%	21.14%	–5.29%	–0.15%
17	Revenue as a percent of Cost of Service		95.55%	106.00%	138.45%	82.55%	105.58%	100.15%
18	Gross Margin	$270,091	$137,057	$78,515	$11,304	$2,375	$415	$229,666
19	Gross Margin, $/GJ	$1.201	$2.018	$1.657	$1.544	$2.487	$1.182	$1.854
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas							
20	Demand Cost, $/GJ		$1.091	$1.065	$0.759	$2.223	$0.653	
21	Commodity Cost, $/GJ		0.031	0.032	0.022	(0.113)	0.022	
22	Customer Cost, $/GJ		1.134	0.318	0.080	1.233	0.376	
23	Customer Cost, $/bill (Monthly)		11.173	18.834	112.091	530.469	177.466	
	Per Unit Cost of Gas by Class							
24	Demand Cost, $/GJ		$1.847	$1.800	$1.197	$0.576	$0.365	
25	Commodity Cost, $/GJ		1.001	1.005	1.038	0.983	1.007	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas							
26	Demand Cost, $/GJ		$2.937	$2.865	$1.956	$2.799	$1.019	
27	Commodity Cost, $/GJ		1.033	1.036	1.060	0.870	1.029	
28	Customer Cost, $/GJ		1.134	0.318	0.080	1.233	0.376	
29	Customer Cost, $/bill		11.173	18.834	112.091	530.469	177.466	
30	Revenue as a percentage of Cost of Service, excluding gas c		89.89%	117.96%	180.86%	74.41%	112.89%	

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Line No.	Description	Lower Mainland: Interrupt Sales & T–Serv 2501/2 22/10	Lower Mainland: Alt. Fuel 2501	Lower Mainland: Other	Inland: S. T–Serv. Non–Captive 25	Inland: Large Industrial Sales & T–Service Captive 10/20/22	Inland: Large Industrial Sales & T–Service Non–Captive 10/12/22	Inland: Other	Columbia: Firm Large Industrial 22	Columbia: Byron Creek T–Service	Total Non–Core Customers
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Base Rate Revenue		$35,582	$3,793	$35,178	$841	$4,153	$1,757	$896	$1,572	$138	$83,910
2	Cost of Gas Supply	(PR)	$14,611	$2,270	$25,017	$0	$550	$264	$539	$234	$0	$43,485
3	Total Functional Expenses	(PR)	7,054	1,477	3,701	643	2,924	669	342	895	71	17,775
4	Total Operating Revenue Deductions		21,665	3,747	28,718	643	3,474	933	880	1,129	71	61,260
5	Operating Income before Taxes & Return		13,917	46	6,460	198	679	824	16	443	67	22,650
6	Income Tax @ 10.31% return on RB		533	98	(707)	26	244	90	21	57	11	371
7	Return @ 10.31% return on RB		5,971	1,245	3,104	263	1,675	330	189	627	57	13,460
8	Rate Base		$57,912	$12,075	$30,097	$2,553	$16,242	$3,208	$1,834	$6,085	$550	$130,555
9	Rate of Return, Percent		10.31%	10.31%	10.31%	10.32%	10.31%	10.29%	10.31%	10.30%	10.36%	10.31%
10	Total Cost to Serve		$28,169	$5,090	$31,114	$933	$5,392	$1,352	$1,090	$1,813	$139	$75,091
11	Total Cost to Serve w/o COG		13,558	2,820	6,097	933	4,842	1,088	552	1,578	139	31,606
12	Aver. Cost of Gas, $/GJ		$1.226	$1.127	$1.048	$0.000	$4.915	$0.015	$1.077	$0.033		$1.132
13	Average Cost to Serve w/o COG, $/GJ		$0.775	$1.400	$0.136	$0.583	$0.471	$0.063	$1.103	$0.223		$0.313
14	Revenue less Total Cost to Serve		$7,413	($1,297)	$4,064	($92)	($1,239)	$405	($194)	($241)	($1)	$8,819
15	Revenue less Total Cost to Serve, $/GJ		$0.424	($0.644)	$0.091	($0.057)	($0.121)	$0.023	($0.388)	($0.034)		$0.087
16	Rate Incr. (Decr.) Cost Based Rates		–20.83%	34.18%	–11.55%	10.89%	29.84%	–23.04%	21.68%	15.30%	0.72%	–10.51%
17	Revenue as a percent of Cost of Service		126.32%	74.53%	113.06%	90.18%	77.02%	129.94%	82.18%	86.73%	99.28%	111.74%
18	Gross Margin		$20,971	$1,523	$10,161	$841	$3,603	$1,493	$358	$1,338	$138	$40,425
19	Gross Margin, $/GJ		$1.198	$0.756	$0.227	$0.526	$0.351	$0.086	$0.715	$0.189		$0.400
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas											
20	Demand Cost, $/GJ		$0.702	$1.335	$0.109	$0.539	$0.411	$0.030	$1.090	$0.178		
21	Commodity Cost, $/GJ		0.025	0.026	0.024	0.013	0.013	0.013	0.013	0.013		
22	Customer Cost, $/GJ		0.047	0.039	0.004	0.042	0.047	0.019	0.000	0.032		
23	Customer Cost, $/bill (Monthly)		576.239	1,302.323	7,147.683	556.789	2,891.839	3,437.002	0.000	3,129.005	11,521.788	
	Per Unit Cost of Gas by Class											
24	Demand Cost, $/GJ		$0.000	$0.000	$0.055	$0.000	$3.941	$0.015	$0.000	$0.007	$0.000	
25	Commodity Cost, $/GJ		1.226	1.127	0.992	0.000	0.974	0.000	1.077	0.026	0.000	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas											
26	Demand Cost, $/GJ		$0.702	$1.335	$0.164	$0.539	$4.352	$0.045	$1.090	$0.186		
27	Commodity Cost, $/GJ		1.251	1.153	1.017	0.013	0.988	0.013	1.090	0.039		
28	Customer Cost, $/GJ		0.047	0.039	0.004	0.042	0.047	0.019	0.000	0.032		
29	Customer Cost, $/bill		576.239	1,302.323	7,147.683	556.789	2,891.839	3,437.002	0.000	3,129.005	11,521.788	
30	Revenue as a percentage of Cost of Servic		154.68%	54.02%	166.65%	90.18%	74.41%	137.20%	64.80%	84.76%	99.28%	

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REVISED
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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Lower Mainland / Inland / Columbia Combined
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

REVISED

Line No.	Description	Total Service	Residential	Gen. Serv.	Small/Medium Indust. Sales & T–Service	NGV/VRA	Seasonal	Total Core Customers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Total Cost to Serve w/o CoG	$260,440	$152,465	$66,559	$6,250	$3,192	$368	$228,833
2	Adjustment Factor	1.0373						
3	Adjusted Cost to Serve w/o CoG	$270,154	$158,152	$69,041	$6,483	$3,311	$381	$237,369
4	Cost of Gas	378,632	193,403	132,880	6,893	1,489	482	335,147
5	Adjusted Total Cost to Serve	$648,786	$351,555	$201,921	$13,376	$4,800	$863	$572,516
6	Average Cost to Serve w/o CoG $/GJ	$1.158	$2.245	$1.405	$0.854	$3.342	$1.047	$1.847
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.201	$2.329	$1.457	$0.885	$3.466	$1.086	$1.916
8	Gross Margin	$270,091	$137,057	$78,515	$11,304	$2,375	$415	$229,666
9	Base Rate Revenue	$648,723	$330,460	$211,395	$18,197	$3,864	$897	$564,813
10	Gross Margin % Adj CoS, excl CoG	99.98%	86.66%	113.72%	174.35%	71.74%	108.83%	96.75%
11	Revenue as a % of Cost of Service	99.99%	94.00%	104.69%	136.04%	80.50%	103.90%	98.65%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas							
13	Per Unit COS x Adjustment Factor							
14	Demand Cost, $/GJ		$1.131	$1.105	$0.787	$2.306	$0.678	
15	Commodity Cost, $/GJ		0.032	0.033	0.023	(0.117)	0.023	
16	Customer Cost, $/GJ		1.176	0.330	0.083	1.279	0.390	
17	Customer Cost, $/bill (Monthly)		11.589	19.536	116.272	550.255	184.085	
18	Per Unit Cost of Gas by Class							
19	Demand Cost, $/GJ		$1.847	$1.800	$1.197	$0.576	$0.365	
20	Commodity Cost, $/GJ		1.001	1.005	1.038	0.983	1.007	
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas							
22	Demand Cost, $/GJ		$2.978	$2.905	$1.984	$2.882	$1.043	
23	Commodity Cost, $/GJ		1.034	1.038	1.060	0.866	1.029	
24	Customer Cost, $/GJ		1.176	0.330	0.083	1.279	0.390	
25	Customer Cost, $/bill (Monthly)		11.589	19.536	116.272	550.255	184.085	

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Lower Mainland / Inland / Columbia Combined
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

REVISED

Consolidated
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Line No.	Description	Lower Mainland: Interrupt Sales & T–Serv 2501/2 22/10	Lower Mainland: Alt. Fuel 2501	Lower Mainland: Other	Inland: S. T–Serv. Non–Captive 25	Inland: Large Industrial Sales & T–Service Captive 10/20/22	Inland: Large Industrial Sales & T–Service Non–Captive 10/12/22	Inland: Other	Columbia: Firm Large Industrial 22	Columbia: Byron Creek T–Service	Total Non–Core Customers
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Total Cost to Serve w/o CoG	$13,558	$2,820	$6,097	$933	$4,842	$1,088	$552	$1,578	$139	$31,606
2	Adjustment Factor	1.0373									
3	Adjusted Cost to Serve w/o CoG	$14,064	$2,925	$6,324	$967	$5,023	$1,129	$572	$1,637	$144	$32,785
4	Cost of Gas	14,611	2,270	25,017	0	550	264	539	234	0	43,485
5	Adjusted Total Cost to Serve	$28,675	$5,195	$31,342	$967	$5,573	$1,393	$1,111	$1,871	$144	$76,270
6	Average Cost to Serve w/o CoG $/GJ	$0.775	$1.400	$0.136	$0.583	$0.471	$0.063	$1.103	$0.223		$0.313
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.803	$1.452	$0.142	$0.605	$0.489	$0.065	$1.145	$0.232		$0.324
8	Gross Margin	$20,971	$1,523	$10,161	$841	$3,603	$1,493	$358	$1,338	$138	$40,425
9	Base Rate Revenue	$35,582	$3,793	$35,178	$841	$4,153	$1,757	$896	$1,572	$138	$83,910
10	Gross Margin % Adj CoS, excl CoG	149.12%	52.07%	160.66%	86.93%	71.73%	132.27%	62.47%	81.71%	95.71%	123.30%
11	Revenue as a % of Cost of Service	124.09%	73.02%	112.24%	86.93%	74.52%	126.15%	80.66%	84.00%	95.71%	110.02%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas										
13	Per Unit COS x Adjustment Factor										
14	Demand Cost, $/GJ	$0.728	$1.384	$0.113	$0.559	$0.426	$0.031	$1.131	$0.185		
15	Commodity Cost, $/GJ	0.026	0.027	0.025	0.014	0.014	0.014	0.014	0.014		
16	Customer Cost, $/GJ	0.049	0.040	0.004	0.043	0.049	0.020	0.000	0.033		
17	Customer Cost, $/bill (Monthly)	597.733	1,350.900	7,414.292	577.558	2,999.704	3,565.202	0.000	3,245.717	$11,951.551	
18	Per Unit Cost of Gas by Class										
19	Demand Cost, $/GJ	$0.000	$0.000	$0.055	$0.000	$3.941	$0.015	$0.000	$0.007		
20	Commodity Cost, $/GJ	1.226	1.127	0.992	0.000	0.974	0.000	1.077	0.026		
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas										
22	Demand Cost, $/GJ	$0.728	$1.384	$0.168	$0.559	$4.367	$0.046	$1.131	$0.192		
23	Commodity Cost, $/GJ	1.252	1.154	1.017	0.014	0.988	0.014	1.091	0.040		
24	Customer Cost, $/GJ	0.049	0.040	0.004	0.043	0.049	0.020	0.000	0.033		
25	Customer Cost, $/bill (Monthly)	597.733	1,350.900	7,414.292	577.558	2,999.704	3,565.202	0.000	3,245.717	$11,951.551	

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Line Description	Existing Rate Groups: General Service 2207/8	Existing Rate Groups: Medium Ind. S. T–Service 2209/2007	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 2	Proforma Rate Groups: Large Commercial 3	Proforma Rate Groups: General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$161,494	$13,060	$174,554	$68,512	$91,560	$13,476
2	Cost of Gas Supply (PR)	105,147	5,340	110,487	$46,385	$58,262	$5,728
3	Total Functional Expenses (PR)	29,928	2,025	31,953	15,519	14,427	2,117
4	Total Operating Revenue Deductions	135,075	7,365	142,440	$61,904	$72,689	$7,845
5	Operating Income before Taxes & Return	26,419	5,695	32,114	6,608	18,871	5,631
6	Income Tax @ 10.31% return on class RB	2,463	155	2,619	1,314	1,136	168
7	Return @ 10.31% return on class RB	25,786	1,672	27,458	13,033	12,606	1,782
8	Rate Base	250,099	16,228	266,327	$126,412	$122,274	$17,290
9	Rate of Return, Percent	10.31%	10.30%	10.31%	10.31%	10.31%	10.31%
10	Total Cost to Serve	163,325	9,192	172,517	$76,252	$86,431	$9,794
11	Total Cost to Serve w/o CoG	58,178	3,852	62,029	29,867	28,169	4,066
12	Aver. Cost of Gas, $/GJ	$2.864	$2.280	$2.702	$3.084	$2.708	$1.321
13	Average Cost to Serve w/o COG, $/GJ	$1.585	$0.921	$1.517	$1.986	$1.309	$0.938
13.1	T–Service Ave. Cost incl. UAF $/GJ		$0.930	$1.526			
14	Revenue less Total Cost to Serve	($1,831)	$3,868	$2,037	($7,740)	$5,129	$3,682
15	Revenue less Total Cost to Serve, $/GJ	($0.050)	$0.925	$0.050	(0.515)	0.238	0.849
16	Rate Incr. (Decr.) Cost Based Rates	1.13%	−29.62%	−1.17%	11.30%	−5.60%	−27.32%
17	Revenue as a percent of Cost of Service	98.88%	142.08%	101.18%	89.85%	105.93%	137.59%
18	Gross Margin	$56,347	$7,720	$64,067	$22,127	$33,298	$7,748
19	Gross Margin, $/GJ	$1.535	$1.846	$1.567	$1.471	$1.548	$1.787
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas						
20	Demand Cost, $/GJ				$1.395	$1.156	$0.791
21	Commodity Cost, $/GJ				0.035	0.035	0.028
22	Customer Cost, $/GJ				0.556	0.118	0.119
23	Customer Cost, $/bill (Monthly)				15.710	47.150	205.217
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$2.095	$1.719	$0.748
25	Commodity Cost, $/GJ				0.989	0.989	0.573
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$3.524	$2.908	$1.518
27	Commodity Cost, $/GJ				0.990	0.991	0.582
28	Customer Cost, $/GJ				0.556	0.118	0.265
29	Customer Cost, $/bill				15.710	47.150	205.217
30	Revenue as a percentage of Cost of Service, excluding gas				74.09%	118.21%	190.55%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rates Interruptible L. T–Serv 2501/2 22/10	--Proforma Rate Groups--- Sales & T–Service Small Interrupt. 7/27	Large Industrial 10/13/22
	(a)	(b)	(c)	(d)
1	Base Rate Revenue	$35,582	$15,504	$20,139
2	Cost of Gas Supply (PR)	$14,611	$7,132	$7,479
3	Total Functional Expenses (PR)	1,134	428	705
4	Total Operating Revenue Deductions	$15,745	$7,560	$8,184
5	Operating Income before Taxes & Return	19,837	7,944	11,955
6	Income Tax @ 10.31% return on class RB	117	50	67
7	Return @ 10.31% return on class RB	367	191	176
8	Rate Base	$3,562	$1,853	$1,709
9	Rate of Return, Percent	10.31%	10.31%	10.30%
10	Total Cost to Serve	$16,229	$7,801	$8,427
11	Total Cost to Serve w/o CoG	1,618	669	948
12	Aver. Cost of Gas, $/GJ	$1.226	$1.256	$1.198
13	Average Cost to Serve w/o COG, $/GJ	$0.092	$0.118	$0.080
13	T–Service Ave. Cost incl. UAF $/GJ	$0.101	$0.127	$0.089
14	Revenue less Total Cost to Serve	$19,353	$7,703	$11,712
15	Revenue less Total Cost to Serve, $/GJ	$1.106	1.357	0.990
16	Rate Incr. (Decr.) Cost Based Rates	−54.39%	−49.68%	−58.16%
17	Revenue as a percent of Cost of Service	219.25%	198.75%	238.98%
18	Gross Margin	$20,971	$8,372	$12,660
19	Gross Margin, $/GJ	$1.198	$1.474	$1.070
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas			
20	Demand Cost, $/GJ		$0.020	$0.020
21	Commodity Cost, $/GJ		0.026	0.025
22	Customer Cost, $/GJ		0.071	0.036
23	Customer Cost, $/bill (Monthly)		372.863	1,206.774
	Per Unit Cost of Gas by Class			
24	Demand Cost, $/GJ		$0.000	$0.000
25	Commodity Cost, $/GJ		$1.256	$1.198
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas			
26	Demand Cost, $/GJ		$0.020	$0.020
27	Commodity Cost, $/GJ		1.282	1.223 C
28	Customer Cost, $/GJ		0.071	0.036
29	Customer Cost, $/bill		372.863	1,206.774
30	Revenue as a percentage of Cost of Service, excluding gas		1251.55%	1335.29%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

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Line No.	Description	Existing Rates Interruptible L. T-Serv 2501/2 22/10	--Proforma Rate Groups--- Sales & T-Service Small Interrupt. 7 / 27	Large Industrial 10 / 13 / 22
	(a)	(b)	(c)	(d)
1	Base Rate Revenue	$35,582	$15,504	$20,139
2	Cost of Gas Supply (PR)	$14,611	$7,132	$7,479
3	Total Functional Expenses (PR)	1,134	428	705
4	Total Operating Revenue Deductions	$15,745	$7,560	$8,184
5	Operating Income before Taxes & Return	19,837	7,944	11,955
6	Income Tax @ 10.31% return on class RB	117	50	67
7	Return @ 10.31% return on class RB	367	191	176
8	Rate Base	$3,562	$1,853	$1,709
9	Rate of Return, Percent	10.31%	10.31%	10.30%
10	Total Cost to Serve	$16,229	$7,801	$8,427
11	Total Cost to Serve w/o CoG	1,618	669	948
12	Aver. Cost of Gas, $/GJ	$1.226	$1.256	$1.198
13	Average Cost to Serve w/o COG, $/GJ	$0.092	$0.118	$0.080
13.1	T-Service Ave. Cost incl. UAF $/GJ	$0.101	$0.127	$0.089
14	Revenue less Total Cost to Serve	$19,353	$7,703	$11,712
15	Revenue less Total Cost to Serve, $/GJ	$1.106	1.357	0.990
16	Rate Incr. (Decr.) Cost Based Rates	-54.39%	-49.68%	-58.16%
17	Revenue as a percent of Cost of Service	219.25%	198.75%	238.98%
18	Gross Margin	$20,971	$8,372	$12,660
19	Gross Margin, $/GJ	$1.198	$1.474	$1.070
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas			
20	Demand Cost, $/GJ		$0.020	$0.020
21	Commodity Cost, $/GJ		0.026	0.025
22	Customer Cost, $/GJ		0.071	0.036
23	Customer Cost, $/bill (Monthly)		372.863	1,206.774
	Per Unit Cost of Gas by Class			
24	Demand Cost, $/GJ		$0.000	$0.000
25	Commodity Cost, $/GJ		$1.256	$1.198
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas			
26	Demand Cost, $/GJ		$0.020	$0.020
27	Commodity Cost, $/GJ		1.282	0.657
28	Customer Cost, $/GJ		0.071	0.036
29	Customer Cost, $/bill		372.863	1,206.774
30	Revenue as a percentage of Cost of Service, excluding gas		1251.55%	1335.29%

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Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rate Groups: General Service 2207/8	Existing Rate Groups: Medium Ind. S. T-Service 2209/2007	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 2	Proforma Rate Groups: Large Commercial 3	Proforma Rate Groups: General Service Sales & T-Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$58,178	$3,852	$62,029	$29,867	$28,169	$4,066
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$60,348	$3,996	$64,343	$30,981	$29,219	$4,218
4	Cost of Gas	105,147	5,340	110,487	46,385	58,262	5,728
5	Adjusted Total Cost to Serve	$165,495	$9,336	$174,830	$77,366	$87,481	$9,946
6	Average Cost to Serve w/o CoG $/GJ	$1.585	$0.921	$1.517	$1.986	$1.309	$0.938
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.644	$0.956	$1.574	$2.060	$1.358	$0.973
7.1	Adj. T-Service Ave. Cost incl. UAF $/GJ						$0.981
8	Gross Margin	$56,347	$7,720	$64,067	$22,127	$33,298	$7,748
9	Base Rate Revenue	$161,494	$13,060	$174,554	$68,512	$91,560	$13,476
10	Gross Margin % Adj CoS, excl CoG	93.37%	193.21%	99.57%	71.42%	113.96%	183.70%
11	Revenue as a % of Cost of Service	97.58%	139.89%	99.84%	88.56%	104.66%	135.49%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost, $/GJ				$1.447	$1.199	$0.820
15	Commodity Cost, $/GJ				0.036	0.037	0.029
16	Customer Cost, $/GJ				0.576	0.123	0.124
17	Customer Cost, $/bill (Monthly)				16.296	48.909	212.872
18	Per Unit Cost of Gas by Class						
19	Demand Cost, $/GJ				$2.095	$1.719	$0.748
20	Commodity Cost, $/GJ				0.989	0.989	0.573
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas						
22	Demand Cost, $/GJ				$3.543	$2.918	$1.568
23	Commodity Cost, $/GJ				1.025	1.026	0.602
24	Customer Cost, $/GJ				0.576	0.123	0.124
25	Customer Cost, $/bill (Monthly)				16.296	48.909	212.872

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rates Interruptible L. T–Serv 2501/2 22/10	–Proforma Rate Groups– Sales & T–Service Small Interrupt. 7 / 27	Large Industrial 10 / 13 / 22
	(a)	(b)	(c)	(d)
1	Total Cost to Serve w/o CoG	$1,618	$669	$948
2	Adjustment Factor	1.0373		
3	Adjusted Cost to Serve w/o CoG	$1,679	$694	$983
4	Cost of Gas	14,611	7,132	7,479
5	Adjusted Total Cost to Serve	$16,290	$7,826	$8,462
6	Average Cost to Serve w/o CoG $/GJ	$0.092	$0.118	$0.080
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.096	$0.122	$0.083
7.1	Adj. T–Service Ave. Cost incl. UAF $/GJ	$0.105	$0.131	$0.092
8	Gross Margin	$20,971	$8,372	$12,660
9	Base Rate Revenue	$35,582	$15,504	$20,139
10	Gross Margin % Adj CoS, excl CoG	1249.23%	1206.55%	1287.28%
11	Revenue as a % of Cost of Service	218.43%	198.11%	237.98%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas			
13	Per Unit COS x Adjustment Factor			
14	Demand Cost, $/GJ		$0.021	$0.021
15	Commodity Cost, $/GJ		0.027	0.026
16	Customer Cost, $/GJ		0.074	0.037
17	Customer Cost, $/bill (Monthly)		386.771	1,251.787
18	Per Unit Cost of Gas by Class			
19	Demand Cost, $/GJ		$0.000	$0.000
20	Commodity Cost, $/GJ		1.256	1.198
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas			
22	Demand Cost, $/GJ		$0.021	$0.021
23	Commodity Cost, $/GJ		1.283	1.224
24	Customer Cost, $/GJ		0.074	0.037
25	Customer Cost, $/bill (Monthly)		386.771	1,251.787

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Under Non–Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rate Groups: General Service 2207/8	Existing Rate Groups: Medium Ind. S. T–Service 2209/2007	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 2	Proforma Rate Groups: Large Commercial 3	Proforma Rate Groups: General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$161,494	$13,060	$174,554	$68,512	$91,560	$13,476
2	Cost of Gas Supply	$105,147	$5,340	$110,487	$46,385	$58,262	$5,728
3	Total Functional Expenses	26,728	1,796	28,524	14,053	12,701	1,882
4	Total Operating Revenue Deductions	131,875	7,136	139,011	60,438	70,963	7,610
5	Operating Income before Taxes & Return	29,619	5,924	35,543	8,074	20,597	5,866
6	Income Tax @ 10.31% return on class RB	2,432	153	2,585	1,300	1,119	165
7	Return @ 10.31% return on class RB	22,647	1,447	24,094	$11,596	$10,913	$1,552
8	Rate Base	219,653	14,051	233,704	$112,466	$105,852	$15,061
9	Rate of Return, Percent	10.31%	10.30%	10.31%	10.31%	10.31%	10.31%
10	Total Cost to Serve	$156,954	$8,737	$165,690	$73,334	$82,994	$9,328
11	Total Cost to Serve w/o CoG	51,807	3,396	55,203	26,949	24,732	3,600
12	Aver. Cost of Gas, $/GJ	$2.864	$2.280	$2.702	$3.084	$24.872	$2.445
13	Average Cost to Serve w/o COG, $/GJ	$1.411	$0.812	$1.350	$1.792	$1.150	$0.830
13.1	T–Service Ave. Cost incl. UAF $/GJ		$0.821	$1.359		$1.158	$0.839
14	Revenue less Total Cost to Serve	$4,540	$4,323	$8,864	($4,822)	$8,566	$4,148
15	Revenue less Total Cost to Serve, $/GJ	$0.124	$1.034	$0.217	($0.321)	$0.398	$0.957
16	Rate Incr. (Decr.) Cost Based Rates	–2.81%	–33.10%	–5.08%	7.04%	–9.36%	–30.78%
17	Revenue as a percent of Cost of Service	102.89%	149.49%	105.35%	93.42%	110.32%	144.47%
18	Gross Margin	$56,347	$7,720	$64,067	$22,127	$33,298	$7,748
19	Gross Margin, $/GJ	$1.535	$1.846	$1.567	$1.471	$1.548	$1.787
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding cost of gas						
20	Demand Cost, $/GJ				$1.201	$0.996	$0.683
21	Commodity Cost, $/GJ				0.035	0.035	0.028
22	Customer Cost, $/GJ				0.556	0.118	0.119
23	Customer Cost, $/bill				15.710	47.150	205.217
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$2.095	$15.789	$1.384
25	Commodity Cost, $/GJ				0.989	9.083	1.061
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$3.330	$2.748	$1.450
27	Commodity Cost, $/GJ				0.990	0.991	0.582
28	Customer Cost, $/GJ				0.556	0.118	0.119
29	Customer Cost, $/bill				15.710	47.150	205.217
30	Revenue as a percentage of Cost of Service, excluding gas				82.11%	134.63%	215.24%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Under Non–Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rates Interruptible L. T–Serv 2501/2 22/10	--Proforma Rate Groups--- Sales & T–Service Small Interrupt. 7/27	Large Industrial 10/13/22
	(a)	(b)	(c)	(d)
1	Base Rate Revenue	$35,582	$15,504	$20,139
2	Cost of Gas Supply	$14,611	$7,132	$7,479
3	Total Functional Expenses	6,604	1,945	4,658
4	Total Operating Revenue Deductions	21,215	9,077	12,136
5	Operating Income before Taxes & Return	14,367	6,427	8,002
6	Income Tax @ 10.31% return on class RB	483	151	332
7	Return @ 10.31% return on class RB	5,555	$1,630	$3,925
8	Rate Base	53,878	$15,807	$38,071
9	Rate of Return, Percent	10.31%	10.31%	10.31%
10	Total Cost to Serve	$27,253	$10,858	$16,393
11	Total Cost to Serve w/o CoG	12,642	3,726	8,915
12	Aver. Cost of Gas, $/GJ	$1.226	$3.045	$3.193
13	Average Cost to Serve w/o COG, $/GJ	$0.722	$0.656	$0.754
13	T–Service Ave. Cost incl. UAF $/GJ	$0.731	$0.665	$0.763
14	Revenue less Total Cost to Serve	$8,329	$4,646	$3,745
15	Revenue less Total Cost to Serve, $/GJ	$0.476	$0.818	$0.317
16	Rate Incr. (Decr.) Cost Based Rates	–23.41%	–29.97%	–18.60%
17	Revenue as a percent of Cost of Service	130.56%	142.79%	122.85%
18	Gross Margin	$20,971	$8,372	$12,660
19	Gross Margin, $/GJ	$1.198	$1.474	$1.070
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding cost of gas			
20	Demand Cost, $/GJ		$0.558	$0.694
21	Commodity Cost, $/GJ		0.026	0.025
22	Customer Cost, $/GJ		0.071	0.036
23	Customer Cost, $/bill		372.863	1,206.774
	Per Unit Cost of Gas by Class			
24	Demand Cost, $/GJ		$0.000	$0.000
25	Commodity Cost, $/GJ		1.256	1.198
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas			
26	Demand Cost, $/GJ		$0.558	$0.694
27	Commodity Cost, $/GJ		1.282	1.223 C
28	Customer Cost, $/GJ		0.071	0.036
29	Customer Cost, $/bill		372.863	1,206.774
30	Revenue as a percentage of Cost of Service, excluding gas		224.69%	142.01%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non–Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rate Groups: General Service 2207/8	Existing Rate Groups: Medium Ind. S. T–Service 2209/2007	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 2	Proforma Rate Groups: Large Commercial 3	Proforma Rate Groups: General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$51,807	$3,396	$55,203	$26,949	$24,732	$3,600
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$53,739	$3,523	$57,262	$27,954	$25,655	$3,734
4	Cost of Gas	105,147	5,340	110,487	46,385	58,262	5,728
5	Adjusted Total Cost to Serve	$158,886	$8,863	$167,749	$74,339	$83,917	$9,462
6	Average Cost to Serve w/o CoG $/GJ	$1.411	$0.812	$1.350	$1.792	$1.150	$0.830
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.464	$0.843	$1.400	$1.859	$1.192	$0.861
7.1	Adj. T–Service Ave. Cost incl. UAF $/GJ						$0.870
8	Gross Margin	$56,347	$7,720	$64,067	$22,127	$33,298	$7,748
9	Base Rate Revenue	$161,494	$13,060	$174,554	$68,512	$91,560	$13,476
10	Gross Margin % Adj CoS, excl CoG	104.85%	219.13%	111.88%	79.16%	129.79%	207.50%
11	Revenue as a % of Cost of Service	101.64%	147.35%	104.06%	92.16%	109.11%	142.42%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost, $/GJ				$1.246	$1.033	$0.708
15	Commodity Cost, $/GJ				0.036	0.037	0.029
16	Customer Cost, $/GJ				0.576	0.123	0.124
17	Customer Cost, $/bill (Monthly)				16.296	48.909	212.872
18	Per Unit Cost of Gas by Class						
19	Demand Cost, $/GJ				$2.095	$15.789	$1.384
20	Commodity Cost, $/GJ				0.989	9.083	1.061
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas						
22	Demand Cost, $/GJ				$3.342	$16.822	$2.092
23	Commodity Cost, $/GJ				1.025	9.120	1.090
24	Customer Cost, $/GJ				0.576	0.123	0.124
25	Customer Cost, $/bill (Monthly)				16.296	48.909	212.872

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non–Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rates Interruptible L. T–Serv 2501/2 22/10	--Proforma Rate Groups--- Sales & T–Service Small Interrupt. 7 / 27	Large Industrial 10 / 13 / 22
	(a)	(b)	(c)	(d)
1	Total Cost to Serve w/o CoG	$12,642	$3,726	$8,915
2	Adjustment Factor	1.0373		
3	Adjusted Cost to Serve w/o CoG	$13,114	$3,865	$9,247
4	Cost of Gas	14,611	7,132	7,479
5	Adjusted Total Cost to Serve	$27,724	$10,997	$16,726
6	Average Cost to Serve w/o CoG $/GJ	$0.722	$0.656	$0.754
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.749	$0.681	$0.782
7.1	Adj. T–Service Ave. Cost incl. UAF $/GJ	$0.758	$0.689	$0.791
8	Gross Margin	$20,971	$8,372	$12,660
9	Base Rate Revenue	$35,582	$15,504	$20,139
10	Gross Margin % Adj CoS, excl CoG	159.92%	216.61%	136.91%
11	Revenue as a % of Cost of Service	128.34%	140.99%	120.40%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas			
13	Per Unit COS x Adjustment Factor			
14	Demand Cost, $/GJ		$0.579	$0.720
15	Commodity Cost, $/GJ		0.027	0.026
16	Customer Cost, $/GJ		0.074	0.037
17	Customer Cost, $/bill (Monthly)		386.771	1,251.787
18	Per Unit Cost of Gas by Class			
19	Demand Cost, $/GJ		$0.000	$0.000
20	Commodity Cost, $/GJ		1.256	1.198
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas			
22	Demand Cost, $/GJ		$0.579	$0.720
23	Commodity Cost, $/GJ		1.283	1.224
24	Customer Cost, $/GJ		0.074	0.037
25	Customer Cost, $/bill (Monthly)		386.771	1,251.787

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Under Average & Excess Demand Method
Test Year 1992

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Line No.	Description	Existing Rate Groups: General Service 2207/8	Existing Rate Groups: Medium Ind. S. T-Service 2209/2007	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 2	Proforma Rate Groups: Large Commercial 3	Proforma Rate Groups: General Service Sales & T-Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$161,494	$13,060	$174,554	$68,512	$91,560	$13,476
2	Cost of Gas	$105,147	$5,340	$110,487	$46,385	$58,262	$5,728
3	Total Functional Expenses	26,498	1,929	28,427	13,768	12,754	2,029
4	Total Operating Revenue Deductions	131,645	7,269	138,914	60,153	71,016	7,757
5	Operating Income before Taxes & Return	29,849	5,791	35,640	8,359	20,544	5,719
6	Income Tax @ 10.38% return on class RB	2,437	168	2,605	1,284	1,139	182
7	Earned Retturn @ 10.38% on class RB	22,417	1,569	23,986	$11,325	$10,953	$1,685
8	Rate Base	217,422	15,235	232,657	$109,842	$106,235	$16,354
9	Rate of Return, Percent	10.31%	10.30%	10.31%	10.31%	10.31%	10.31%
10	Total Cost to Serve	$156,498	$9,007	$165,505	$72,762	$83,107	$9,624
11	Total Cost to Serve w/o CoG	51,351	3,667	55,018	26,377	24,845	3,896
12	Aver. Cost of Gas, $/GJ	$2.864	$2.280	$2.702	$3.084	$2.708	$1.321
13	Average Cost to Serve w/o COG, $/GJ	$1.399	$0.877	$1.346	$1.754	$1.155	$0.898
13.1	T-Service Ave. Cost incl. UAF $/GJ		$0.886	$1.354			
14	Revenue less Total Cost to Serve	$4,996	$4,053	$9,049	($4,250)	$8,453	$3,852
15	Revenue less Total Cost to Serve, $/GJ	$0.136	$0.969	$0.221	($0.283)	$0.393	$0.888
16	Rate Incr. (Decr.) Cost Based Rates	3.09%	31.03%	5.18%	-6.20%	9.23%	28.58%
17	Revenue as a percent of Cost of Service	103.19%	145.00%	105.47%	94.16%	110.17%	140.02%
18	Gross Margin	$56,347	$7,720	$64,067	$22,127	$33,298	$7,748
19	Gross Margin, $/GJ	$1.535	$1.846	$1.567	$1.471	$1.548	$1.787
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding cost of gas						
20	Demand Cost, $/GJ				$1.163	$1.001	$0.751
21	Commodity Cost, $/GJ				0.035	0.035	0.028
22	Customer Cost, $/GJ				0.556	0.118	0.119
23	Customer Cost, $/bill				15.710	47.150	205.217
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$2.095	$1.719	$0.748
25	Commodity Cost, $/GJ				$0.989	$0.989	$0.573
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$3.292	$2.754	$1.518
27	Commodity Cost, $/GJ				0.990	0.991	0.582
28	Customer Cost, $/GJ				0.556	0.118	0.119
29	Customer Cost, $/bill				15.710	47.150	205.217
30	Revenue as a percentage of Cost of Service, excluding gas				83.89%	134.02%	198.87%

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FDC-AED
REVISED
JUNE 7, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Under Average & Excess Demand Method
Test Year 1992

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Page 3.1 B

Line No.	Description	Existing Rates Interruptible L. T–Serv 2501/2 22/10	--Proforma Rate Groups--- Sales & T–Service Small Interrupt. 7/27	Large Industrial 10/13/22
	(a)	(b)	(c)	(d)
1	Base Rate Revenue	$35,582	$15,504	$20,139
2	Cost of Gas	$14,611	$7,132	$7,479
3	Total Functional Expenses	7,054	2,145	4,908
4	Total Operating Revenue Deductions	21,665	9,277	12,387
5	Operating Income before Taxes & Return	13,917	6,228	7,751
6	Income Tax @ 10.38% return on class RB	533	172	361
7	Earned Rettum @ 10.38% on class RB	5,971	$1,815	$4,156
8	Rate Base	57,912	$17,602	$40,310
9	Rate of Return, Percent	10.31%	10.31%	10.31%
10	Total Cost to Serve	$28,169	$11,263	$16,904
11	Total Cost to Serve w/o CoG	13,558	4,131	9,425
12	Aver. Cost of Gas, $/GJ	$1.226	$1.256	$0.632
13	Average Cost to Serve w/o COG, $/GJ	$0.775	$0.728	$0.797
13	T–Service Ave. Cost incl. UAF $/GJ	$0.783	$0.736	$0.806
14	Revenue less Total Cost to Serve	$7,413	$4,241	$3,235
15	Revenue less Total Cost to Serve, $/GJ	$0.424	$0.747	$0.274
16	Rate Incr. (Decr.) Cost Based Rates	20.83%	27.35%	16.06%
17	Revenue as a percent of Cost of Service	126.32%	137.65%	119.14%
18	Gross Margin	$20,971	$8,372	$12,660
19	Gross Margin, $/GJ	$1.198	$1.474	$1.070
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding cost of gas			
20	Demand Cost, $/GJ		$0.630	$0.737
21	Commodity Cost, $/GJ		0.026	0.025
22	Customer Cost, $/GJ		0.071	0.036
23	Customer Cost, $/bill		372.863	1,206.774
	Per Unit Cost of Gas by Class			
24	Demand Cost, $/GJ		$0.000	$0.000
25	Commodity Cost, $/GJ		$1.256	$1.198
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas			
26	Demand Cost, $/GJ		$0.630	$0.737
27	Commodity Cost, $/GJ		1.282	1.223 C
28	Customer Cost, $/GJ		0.071	0.036
29	Customer Cost, $/bill		368.234	1,221.142
30	Revenue as a percentage of Cost of Service, excluding gas		202.65%	134.32%

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FDC-PR
REVISED
July 12, 1993

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Under Average & Excess Demand Method
Test Year 1992

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Page 3.1 B

Line No.	Description	Existing Rates Interruptible L. T-Serv 2501/2 22/10	--Proforma Rate Groups--- Sales & T-Service Small Interrupt. 7 / 27	Large Industrial 10 / 13 / 22
	(a)	(b)	(c)	(d)
1	Base Rate Revenue	$35,582	$15,504	$20,139
2	Cost of Gas	$14,611	$7,132	$7,479
3	Total Functional Expenses	7,054	2,145	4,908
4	Total Operating Revenue Deductions	21,665	9,277	12,387
5	Operating Income before Taxes & Return	13,917	6,228	7,751
6	Income Tax @ 10.38% return on class RB	533	172	361
7	Earned Return @ 10.38% on class RB	5,971	$1,815	$4,156
8	Rate Base	57,912	$17,602	$40,310
9	Rate of Return, Percent	10.31%	10.31%	10.31%
10	Total Cost to Serve	$28,169	$11,263	$16,904
11	Total Cost to Serve w/o CoG	13,558	4,131	9,425
12	Aver. Cost of Gas, $/GJ	$1.226	$1.256	$0.632
13	Average Cost to Serve w/o COG, $/GJ	$0.775	$0.728	$0.797
13.1	T-Service Ave. Cost incl. UAF $/GJ	$0.783	$0.736	$0.806
14	Revenue less Total Cost to Serve	$7,413	$4,241	$3,235
15	Revenue less Total Cost to Serve, $/GJ	$0.424	$0.747	$0.274
16	Rate Incr. (Decr.) Cost Based Rates	20.83%	27.35%	16.06%
17	Revenue as a percent of Cost of Service	126.32%	137.65%	119.14%
18	Gross Margin	$20,971	$8,372	$12,660
19	Gross Margin, $/GJ	$1.198	$1.474	$1.070
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding cost of gas			
20	Demand Cost, $/GJ		$0.630	$0.737
21	Commodity Cost, $/GJ		0.026	0.025
22	Customer Cost, $/GJ		0.071	0.036
23	Customer Cost, $/bill		372.863	1,206.774
	Per Unit Cost of Gas by Class			
24	Demand Cost, $/GJ		$0.000	$0.000
25	Commodity Cost, $/GJ		$1.256	$1.198
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas			
26	Demand Cost, $/GJ		$0.630	$0.737
27	Commodity Cost, $/GJ		1.282	0.657
28	Customer Cost, $/GJ		0.071	0.036
29	Customer Cost, $/bill		368.234	1,221.142
30	Revenue as a percentage of Cost of Service, excluding gas		202.65%	134.32%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rate Groups: General Service 2207/8	Existing Rate Groups: Medium Ind. S. T–Service 2209/2007	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 2	Proforma Rate Groups: Large Commercial 3	Proforma Rate Groups: General Service Sales & T–Service 5 / 25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$51,351	$3,667	$55,018	$26,377	$24,845	$3,896
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$53,267	$3,804	$57,070	$27,361	$25,772	$4,041
4	Cost of Gas	105,147	5,340	110,487	46,385	58,262	5,728
5	Adjusted Total Cost to Serve	$158,414	$9,144	$167,558	$73,746	$84,034	$9,769
6	Average Cost to Serve w/o CoG $/GJ	$1.399	$0.877	$1.346	$1.754	$1.155	$0.898
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.451	$0.910	$1.396	$1.819	$1.198	$0.932
7.1	Adj. T–Service Ave. Cost incl. UAF $/GJ						$0.941
8	Gross Margin	$56,347	$7,720	$64,067	$22,127	$33,298	$7,748
9	Base Rate Revenue	$161,494	$13,060	$174,554	$68,512	$91,560	$13,476
10	Gross Margin % Adj CoS, excl CoG	105.78%	202.96%	112.26%	80.87%	129.20%	191.72%
11	Revenue as a % of Cost of Service	101.94%	142.83%	104.18%	92.90%	108.96%	137.94%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost, $/GJ				$1.207	$1.038	$0.779
15	Commodity Cost, $/GJ				0.036	0.037	0.029
16	Customer Cost, $/GJ				0.576	0.123	0.124
17	Customer Cost, $/bill (Monthly)				16.296	48.909	212.872
18	Per Unit Cost of Gas by Class						
19	Demand Cost, $/GJ				$2.095	$1.719	$0.748
20	Commodity Cost, $/GJ				0.989	0.989	0.573
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas						
22	Demand Cost, $/GJ				$3.302	$2.757	$1.527
23	Commodity Cost, $/GJ				1.025	1.026	0.602
24	Customer Cost, $/GJ				0.576	0.123	0.124
25	Customer Cost, $/bill (Monthly)				16.296	48.909	212.872

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rates Interruptible L. T–Serv 2501/2 22/10	--Proforma Rate Groups--- Sales & T–Service Small Interrupt. 7 / 27	Large Industrial 10 / 13 / 22
	(a)	(b)	(c)	(d)
1	Total Cost to Serve w/o CoG	$13,558	$4,131	$9,425
2	Adjustment Factor	1.0373		
3	Adjusted Cost to Serve w/o CoG	$14,064	$4,285	$9,777
4	Cost of Gas	14,611	7,132	7,479
5	Adjusted Total Cost to Serve	$28,675	$11,417	$17,256
6	Average Cost to Serve w/o CoG $/GJ	$0.775	$0.728	$0.797
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$0.803	$0.755	$0.827
7.1	Adj. T–Service Ave. Cost incl. UAF $/GJ	$0.812	$0.764	$0.836
8	Gross Margin	$20,971	$8,372	$12,660
9	Base Rate Revenue	$35,582	$15,504	$20,139
10	Gross Margin % Adj CoS, excl CoG	149.12%	195.36%	129.49%
11	Revenue as a % of Cost of Service	124.09%	135.79%	116.71%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas			
13	Per Unit COS x Adjustment Factor			
14	Demand Cost, $/GJ		$0.653	$0.764
15	Commodity Cost, $/GJ		0.027	0.026
16	Customer Cost, $/GJ		0.074	0.037
17	Customer Cost, $/bill (Monthly)		386.771	1,251.787
18	Per Unit Cost of Gas by Class			
19	Demand Cost, $/GJ		$0.000	$0.000
20	Commodity Cost, $/GJ		1.256	1.198
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas			
22	Demand Cost, $/GJ		$0.653	$0.764
23	Commodity Cost, $/GJ		1.283	1.224
24	Customer Cost, $/GJ		0.074	0.037
25	Customer Cost, $/bill (Monthly)		386.771	1,251.787

Fully Distributed Cost of Service
Lower Mainland
Development of Capacity Allocation Factors
Test Year 1992

Line No.	Description (a)	General Service (b)	Small/Medium Industrial Sales & T–Service (c)	Total (d)	Small Commercial 2 (e)	Large Commercial 3 (f)	General Service Sales & T–Service 5 / 25 (g)
	Peak Responsibility (PR) 10^3 m^3						
1	Peak Demand, (Throughput)				3,989.1	4,697.4	637.5
2	Peak Responsibility Factor: DE1G	36.11%	2.58%	38.70%	16.52%	19.46%	2.64%
3	Peak Demand, (Distribution)				3,989.1	4,697.4	637.5
4	Peak Responsibility Factor: DE1D	39.93%	2.86%	42.79%	18.27%	21.52%	2.92%
5	Peak Demand (Sales)				3,989.1	4,697.4	637.5
6	Peak Responsibility Factor: DE1S	40.11%	2.43%	42.54%	18.27%	21.52%	2.92%
	Non–Concident Demand (NCD) 10^3 m^3						
7	Non–Coincident Demand, (Throughput)				3,989.1	4,697.4	637.5
8	Non–Coincident Demand Factor: DE2G	27.97%	2.00%	29.97%	12.791%	15.063%	2.044%
9	Non–Coincident Demand, (Distribution)				3,989.1	4,697.4	637.5
10	Non–Coincident Demand Factor: DE2D	34.56%	2.47%	37.03%	15.81%	18.62%	2.53%
11	Non–Coincident Demand (Sales)				3,989.1	4,697.4	637.5
12	Non–Coincident Demand Factor: DE2S	40.10%	2.43%	42.53%	18.267%	21.511%	2.919%
	Average & Excess Demand (AED): Throughput DE3G						
13	Aver Load, Annual GJ/(365*38.56) 10^3M^3				1,112.9	1,592.2	316.8
14	Average Load, as a Percent of Total				9.73%	13.92%	2.77%
15	Annual System Load Factor				47.26%	47.26%	47.26%
16	Average Load % * System Load Factor %				4.60%	6.58%	1.31%
17	Excess Demand (line 7–13)				2,876.2	3,105.2	320.7
18	Percent of Total				14.563%	15.723%	1.624%
19	100% – Annual System LF %				52.742%	52.742%	52.742%
20	%Excess Demand (line 18x19)				7.681%	8.293%	0.856%
21	AED Factor (line 16+20) DE3G				12.280%	14.872%	2.166%
	Average & Excess Demand (AED): Distribution DE3D						
22	Aver Load, Annual GJ/(365*38.56) 10^3M^3				1,111.8	1,590.5	316.5
23	Average Load, as a Percent of Total				13.50%	19.31%	3.84%
24	Annual System Load Factor				47.26%	47.26%	47.26%
25	Average Load % * System Load Factor %				6.38%	9.13%	1.82%
26	Excess Demand (line 9–22)				2,877.3	3,106.9	321.0
27	Percent of Total				16.93%	18.28%	1.89%
28	100% – Annual System LF %				52.74%	52.74%	52.74%
29	%Excess Demand (line 27x28)				8.93%	9.64%	1.00%
30	AED Factor (line 25+29) DE3D				15.31%	18.77%	2.81%
	Average & Excess Demand (AED): Sales DE3S						
31	Aver Load, Annual GJ/(365*38.56) 10^3M^3				1,112.9	1,592.2	316.8
32	Average Load, as a Percent of Total				16.26%	23.26%	4.63%
33	Annual System Load Factor				47.26%	47.26%	47.26%
34	Average Load % * System Load Factor %				7.68%	10.99%	2.19%
35	Excess Demand (line 11–31)				2,876.2	3,105.2	320.7
36	Percent of Total				19.18%	20.71%	2.14%
37	100% – Annual System LF %				52.742%	52.742%	52.742%
38	%Excess Demand (line 36x37)				10.118%	10.923%	1.128%
39	AED Factor (line 34+38): DE3S				17.802%	21.917%	3.316%

Fully Distributed Cost of Service
Lower Mainland
Development of Capacity Allocation Factors
Test Year 1992

Line No.	Description	Existing Rates Interruptible L. T–Serv 2501/2 22/10	Proform a Rate Groups Sales & T–Service Small Interrupt. 7 / 27	Large Industrial 10 / 13 / 22
	(a)	(b)	(c)	(d)
	Peak Responsibility (PR) $10^3 m^3$			
1	Peak Demand, (Throughput)		0.0	0.0
2	Peak Responsibility Factor: DE1G		0.00%	0.00%
3	Peak Demand, (Distribution)		0.0	0.0
4	Peak Responsibility Factor: DE1D		0.00%	0.00%
5	Peak Demand (Sales)		0.0	0.0
6	Peak Responsibility Factor: DE1S		0.00%	0.00%
	Non–Concident Demand (NCD) $10^3 m^3$			
7	Non–Coincident Demand, (Throughput)		751.5	1,958.4
8	Non–Coincident Demand Factor: DE2G	8.681%	2.41%	6.27%
9	Non–Coincident Demand, (Distribution)		751.5	1,958.4
10	Non–Coincident Demand Factor: DE2D	10.73%	2.97%	7.75%
11	Non–Coincident Demand (Sales)		0.0	0.0
12	Non–Coincident Demand Factor: DE2S	0.000%	0.00%	0.00%
	Average & Excess Demand (AED): Throughput DE3G			
13	Aver Load, Annual GJ/(365*38.56) 10^3M^3		407.5	848.7
14	Average Load, as a Percent of Total		3.56%	7.42%
15	Annual System Load Factor		47.26%	47.26%
16	Average Load % * System Load Factor %		1.68%	3.51%
17	Excess Demand (line 7–13)		344.0	1,109.7
18	Percent of Total		1.739%	5.610%
19	100% – Annual System LF %		52.742%	52.742%
20	%Excess Demand (line 18x19)		0.917%	2.959%
21	AED Factor (line 16+20) DE3G		2.601%	6.466%
	Average & Excess Demand (AED): Distribution DE3D			
22	Aver Load, Annual GJ/(365*38.56) 10^3M^3		407.1	847.8
23	Average Load, as a Percent of Total		4.94%	10.29%
24	Annual System Load Factor		47.26%	47.26%
25	Average Load % * System Load Factor %		2.34%	4.86%
26	Excess Demand (line 9–22)		344.4	1,110.6
27	Percent of Total		2.02%	6.52%
28	100% – Annual System LF %		52.74%	52.74%
29	%Excess Demand (line 27x28)		1.07%	3.44%
30	AED Factor (line 25+29) DE3D		3.40%	8.31%
	Average & Excess Demand (AED): Sales DE3S			
31	Aver Load, Annual GJ/(365*38.56) 10^3M^3		0.0	0.0
32	Average Load, as a Percent of Total		0.00%	0.00%
33	Annual System Load Factor		47.26%	47.26%
34	Average Load % * System Load Factor %		0.00%	0.00%
35	Excess Demand (line 11–31)		0.0	0.0
36	Percent of Total		0.000%	0.000%
37	100% – Annual System LF %		52.742%	52.742%
38	%Excess Demand (line 36x37)		0.000%	0.000%
39	AED Factor (line 34+38): DE3S		0.000%	0.000%

Fully Distributed Cost of Service
Lower Mainland
Development of Commodity Allocation Factors
Test Year 1992

Line No.	Description (a)	General Service (b)	Small/Medium Industrial Sales & T–Service (c)	Total (d)	Small Commercial 2 (e)	Large Commercial 3 (f)	General Service Sales & T–Service 5 / 25 (g)
1	Sales & T–Service Volumes, GJ	36,708,900	4,181,400	40,890,300	15,038,642	21,515,165	4,336,493
2	Commodity Factor–Thruput: CO1G	23.42%	2.67%		9.59%	13.73%	2.77%
3	Sales & T–Service Volumes, GJ	36,708,900	4,181,400	40,890,300	15,038,642	21,515,165	4,336,493
4	Commodity Factor–Distrib: CO2D	32.76%	3.73%		13.42%	19.20%	3.87%
5	Sales Commodity	36,708,900	2,342,500	39,051,400	15,038,642	21,515,165	2,497,593
6	Commodity Factor–Sales: CO3S	28.56%	1.82%		11.70%	16.74%	1.94%
7	Average Customers	48,641	389	49,030	44,320	4,500	210
8	Weighting Factor				1.3	3.65	18.76
9	Weighted Customers	73,934	2,272	76,206	57,616	16,425	3,940
10	Customer Factor CU1			15.29%	11.30%	3.22%	0.77%
11	Weighted Customers	73,934	2,272	76,206	57,616	16,425	3,940
12	Customer Factor CU2			15.37%	11.43%	3.24%	0.70%

Fully Distributed Cost of Service
Lower Mainland
Development of Commodity Allocation Factors
Test Year 1992

Line No.	Description	Existing Rates Interruptible L. T–Serv 2501\2\2008\9	--Proforma Rate Groups--- Sales & T–Service Small Interrupt. 7 / 27	Large Industrial 10 \ 13 \22
	(a)	(b)	(c)	(d)
1	Sales & T–Service Volumes, GJ	17,504,500	5,678,250	11,826,250
2	Commodity Factor–Thruput: CO1G	11.17%	3.62%	7.55%
3	Sales & T–Service Volumes, GJ	17,504,500	5,678,250	11,826,250
4	Commodity Factor–Distrib: CO2D	15.62%	5.07%	10.55%
5	Sales Commodity	11,921,100	5,678,250	6,242,850
6	Commodity Factor–Sales: CO3S	9.276%	4.418%	4.858%
7	Average Customers	119	90	29
8	Weighting Factor	37.21	31.74	69.27
9	Weighted Customers	4,428	2,857	2,009
10	Customer Factor CU1	0.89%	0.52%	0.37%
11	Weighted Customers	4,428	2,857	2,009
12	Customer Factor CU2	0.89%	0.52%	0.37%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Particulars	Existing Rate Groups: Commercial 2	Existing Rate Groups: Small Industrial Sales & T-Service Captive 5/25	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 0-2 TJ 2	Proforma Rate Groups: Large Commercial >2 TJ 3	Proforma Rate Groups: General Service Sales & T Service 5/25	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
1	Base Rate Revenue	$46,073	$4,306	$50,379	$27,897	$17,048	$5,498	
2	Cost of Gas Supply (PR)	25,341	1,070	26,411	$14,960	$9,891	$1,678	
3	Total Functional Expenses (PR)	9,574	1,461	11,036	6,077	3,133	1,777	
4	Total Operating Revenue Deductions	$34,915	$2,532	$37,447	$21,037	$13,024	$3,455	
5	Operating Income before Taxes & Return	11,158	1,774	12,932	6,860	4,024	2,043	
6	Income Tax @ 10.31% return on RB	743	68	812	514	180	97	
7	Return @ 10.31% return on RB	4,457	613	5,071	2,890	1,384	758	
8	Rate Base	43,233	5,942	49,175	$28,023	$13,418	$7,355	
9	Rate of Return, Percent	10.31%	10.32%	10.31%	10.31%	10.31%	10.31%	
10	Total Cost to Serve	$40,116	$3,213	$43,329	$24,441	$14,587	$4,310	
11	Total Cost to Serve w/o COG	$14,775	$2,143	$16,918	9,481	4,697	2,632	
12	Aver. Cost of Gas, $/GJ	$2.640	$2.083	$2.159	$2.808	$2.484	$2.094	
13	Average Cost to Serve w/o COG, $/GJ	$1.540	$0.814	$1.383	$1.780	$1.179	$0.901	C
13.1	T-Service Avg. Cost incl. UAF, $/GJ		$0.814				$0.901	C
14	Revenue less Total Cost to Serve	$5,957	$1,093	$7,050	$3,456	$2,461	$1,188	
15	Revenue less Total Cost to Serve, $/GJ	$0.621	$0.415	$0.576	0.649	0.618	0.406	
16	Rate Incr. (Decr.) Cost Based Rates	-12.93%	-25.38%	-13.99%	-12.39%	-14.43%	-21.60%	
17	Revenue as a percent of Cost of Service	114.85%	134.01%	116.27%	114.14%	116.87%	127.55%	
18	Gross Margin	$20,732	$3,236	$23,968	$12,937	$7,157	$3,820	
19	Gross Margin, $/GJ	$2.160	$1.228	$1.960	$2.428	$1.797	$1.307	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas							
20	Demand Cost, $/GJ				$1.227	$1.006	$0.773	C
21	Commodity Cost, $/GJ				0.021	0.019	0.014	C
22	Customer Cost, $/GJ				0.531	0.154	0.114	C
23	Customer Cost, $/bill (Monthly)				15.398	58.746	398.564	
	Per Unit Cost of Gas by Class							
24	Demand Cost, $/GJ				$1.839	$1.514	$1.161	
25	Commodity Cost, $/GJ				0.969	0.970	0.933	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas							
26	Demand Cost, $/GJ				$3.066	$2.520	$1.935	C
27	Commodity Cost, $/GJ				0.991	0.989	0.946	C
28	Customer Cost, $/GJ				0.531	0.154	0.114	C
29	Customer Cost, $/bill				15.398	58.746	398.564	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of T-Service volumes only							
30	Demand Cost, $/GJ							
31	Commodity Cost, $/GJ							
32	Customer Cost, $/GJ							
33	Revenue as a percentage of Cost of Service, excluding gas costs				136.45%	152.39%	145.12%	

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Particulars	Existing Rate Groups: Commercial 2	Existing Rate Groups: Small Industrial Sales & T-Service Captive 5/25	Total	Proforma Rate Groups: Small Commercial 0-2 TJ 2	Proforma Rate Groups: Large Commercial >2 TJ 3	Proforma Rate Groups: General Service Sales & T Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$46,073	$4,306	$50,379	$27,897	$17,048	$5,498
2	Cost of Gas Supply (PR)	25,341	1,070	26,411	$14,960	$9,891	$1,678
3	Total Functional Expenses (PR)	9,574	1,461	11,036	6,077	3,133	1,777
4	Total Operating Revenue Deductions	$34,915	$2,532	$37,447	$21,037	$13,024	$3,455
5	Operating Income before Taxes & Return	11,158	1,774	12,932	6,860	4,024	2,043
6	Income Tax @ 10.31% return on RB	743	68	812	514	180	97
7	Return @ 10.31% return on RB	4,457	613	5,071	2,890	1,384	758
8	Rate Base	43,233	5,942	49,175	$28,023	$13,418	$7,355
9	Rate of Return, Percent	10.31%	10.32%	10.31%	10.31%	10.31%	10.31%
10	Total Cost to Serve	$40,116	$3,213	$43,329	$24,441	$14,587	$4,310
11	Total Cost to Serve w/o COG	$14,775	$2,143	$16,918	9,481	4,697	2,632
12	Aver. Cost of Gas, $/GJ	$2.640	$2.083	$2.159	$2.808	$2.484	$2.094
13	Average Cost to Serve w/o COG, $/GJ	$1.540	$0.814	$1.383	$1.780	$1.179	$3.285
13.1	T-Service Avg. Cost incl. UAF, $/GJ		$0.814				$3.285
14	Revenue less Total Cost to Serve	$5,957	$1,093	$7,050	$3,456	$2,461	$1,188
15	Revenue less Total Cost to Serve, $/GJ	$0.621	$0.415	$0.576	0.649	0.618	1.482
16	Rate Incr. (Decr.) Cost Based Rates	-12.93%	-25.38%	-13.99%	-12.39%	-14.43%	-21.60%
17	Revenue as a percent of Cost of Service	114.85%	134.01%	116.27%	114.14%	116.87%	127.55%
18	Gross Margin	$20,732	$3,236	$23,968	$12,937	$7,157	$3,820
19	Gross Margin, $/GJ	$2.160	$1.228	$1.960	$2.428	$1.797	$1.307
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas						
20	Demand Cost, $/GJ				$1.227	$1.006	$2.820
21	Commodity Cost, $/GJ				0.021	0.019	0.050
22	Customer Cost, $/GJ				0.531	0.154	0.417
23	Customer Cost, $/bill (Monthly)				15.398	58.746	398.564
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$1.839	$1.514	$1.161
25	Commodity Cost, $/GJ				0.969	0.970	0.933
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$3.066	$2.520	$3.981
27	Commodity Cost, $/GJ				0.991	0.989	0.982
28	Customer Cost, $/GJ				0.531	0.154	0.417
29	Customer Cost, $/bill				15.398	58.746	398.564
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of T-Service volumes only						
30	Demand Cost, $/GJ						
31	Commodity Cost, $/GJ						
32	Customer Cost, $/GJ						
33	Revenue as a percentage of Cost of Service, excluding gas costs				136.45%	152.39%	145.12%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Particulars	Existing Rate Groups: Commercial 2	Existing Rate Groups: Small Industrial Sales & T–Service Captive 5/25	Total	Proforma Rate Groups: Small Commercial 0–2 TJ 2	Proforma Rate Groups: Large Commercial >2 TJ 3	Proforma Rate Groups: General Service Sales & T Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$14,775	$2,143	$16,918	$9,481	$4,697	$2,632
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$15,326	$2,223	$17,549	$9,834	$4,872	$2,730
4	Cost of Gas	25,341	1,070	26,411	14,960	9,891	1,678
5	Adjusted Total Cost to Serve	$40,667	$3,293	$43,960	$24,794	$14,762	$4,409
6	Average Cost to Serve w/o CoG $/GJ	$1.540	$0.814	$1.383	$1.780	$1.179	$0.901[C]
7	Adj Ave. Cost to Serve w/o COG $/GJ	$1.597	$0.844	$1.435	$1.846	$1.223	$0.934[C]
8	Adj T–Service Ave. Cost incl. UAF $/GJ		$0.844				$0.934[C]
9	Gross Margin	$20,732	$3,236	$23,968	$12,937	$7,157	$3,820
10	Base Rate Revenue	$46,073	$4,306	$50,379	$27,897	$17,048	$5,498
11	Gross Margin % of COS excl. COG	135.27%	145.56%	136.58%	131.54%	146.91%	139.90%
12	Revenue as a % of cost of Service	113.29%	130.76%	114.60%	112.51%	115.48%	124.71%
13	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
14	Per Unit COS x Adjustment Factor						
15	Demand Cost, $/GJ				$1.272	$1.044	$0.802[C]
16	Commodity Cost, $/GJ				0.022	0.019	0.014[C]
17	Customer Cost, $/GJ				0.551	0.160	0.119[C]
18	Customer Cost, $/bill (Monthly)				15.972	60.937	413.431
19	Per Unit Cost of Gas by Class						
20	Demand Cost, $/GJ				$1.839	$1.514	$1.161
21	Commodity Cost, $/GJ				0.969	0.970	0.933
22	Adjusted Per Unit COS @ Uniform Rate of Return by Class, Incl. Cost of Gas						
23	Demand Cost, $/GJ				$3.111	$2.557	$1.964C
24	Commodity Cost, $/GJ				0.992	0.989	0.947[C]
25	Customer Cost, $/GJ				0.551	0.160	0.119[C]
26	Customer Cost, $/bill (Monthly)				15.972	60.937	413.431

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Under Non-Coincident Demand Method
Test Year 1992

Line No.	Particulars	Existing Rate Groups: Commercial 2	Existing Rate Groups: Small Industrial Sales & T-Service Captive 5/25	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 0-2 TJ 2	Proforma Rate Groups: Large Commercial >2 TJ 3	Proforma Rate Groups: General Service Sales & T Service 5/25	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
1	Base Rate Revenue	$46,073	$4,306	$50,379	$27,897	$17,048	$5,498	
2	Cost of Gas Supply	25,341	1,070	26,411	$14,960	$9,891	$1,678	
3	Total Functional Expenses	9,021	1,358	10,379	5,698	2,900	1,648	
4	Total Operating Revenue Deductions	34,362	2,429	36,790	20,658	12,791	3,326	
5	Operating Income before Taxes & Return	11,711	1,877	13,589	7,239	4,257	2,172	
6	Income Tax @ 10.31% return on RB	711	62	773	483	160	87	
7	Return @ 10.31% return on RB	$4,154	$557	$4,711	$2,677	$1,253	$686	
8	Rate Base	40,295	5,394	45,689	$25,963	$12,150	$6,655	
9	Rate of Return, Percent	10.31%	10.32%	10.31%	10.31%	10.31%	10.31%	
10	Total Cost to Serve	$39,227	$3,048	$42,274	$23,818	$14,204	$4,099	
11	Total Cost to Serve w/o COG	$13,886	$1,978	$15,863	8,858	4,313	2,421	
12	Aver. Cost of Gas, $/GJ	$2.640	$2.083	$2.159	$2.808	$2.484	$2.094	
13	Average Cost to Serve w/o COG, $/GJ	$1.447	$0.751	$1.297	$1.663	$1.083	$0.828	C
13.1	T-Service Avg. Cost Incl. UAF, $/GJ		$0.751				$0.828	C
14	Revenue less Total Cost to Serve	$6,846	$1,258	$8,105	$4,079	$2,844	$1,399	
15	Revenue less Total Cost to Serve, $/GJ	$0.713	$0.478	$0.663	$0.766	$0.714	$0.479	
16	Rate Incr. (Decr.) Cost Based Rates	-14.86%	-29.22%	-16.09%	-14.62%	-16.68%	-25.45%	
17	Revenue as a percent of Cost of Service	117.45%	141.29%	119.17%	117.13%	120.02%	134.14%	
18	Gross Margin	$20,732	$3,236	$23,968	$12,937	$7,157	$3,820	
19	Gross Margin, $/GJ	$2.160	$1.228	$1.960	$2.428	$1.797	$1.307	
	Per Unit C.O.S. @ Uniform Rate of Return by Class							
20	Demand Cost, $/GJ				$1.110	$0.910	$0.701	C
21	Commodity Cost, $/GJ				0.021	0.019	0.014	C
22	Customer Cost, $/GJ				0.531	0.154	0.114	C
23	Customer Cost, $/bill				15.626	58.746	398.564	
	Per Unit Cost of Gas by Class							
24	Demand Cost, $/GJ				$1.839	$1.514	$1.161	
25	Commodity Cost, $/GJ				0.969	0.970	0.933	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas							
26	Demand Cost, $/GJ				$2.949	$2.424	$1.862	C
27	Commodity Cost, $/GJ				0.991	0.989	0.946	C
28	Customer Cost, $/GJ				0.531	0.154	0.114	C
29	Customer Cost, $/bill				15.626	58.746	398.564	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of T-Service volumes only							
30	Demand Cost, $/GJ							
31	Commodity Cost, $/GJ							
32	Customer Cost, $/GJ							
33	Revenue as a percentage of Cost of Service, excluding gas costs				146.05%	165.94%	157.81%	

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non–Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Particulars	Existing Rate Groups: Commercial 2	Small Industrial Sales & T–Service Captive 5/25	Total	Proforma Rate Groups: Small Commercial 0–2 TJ 2	Large Commercial >2 TJ 3	General Service Sales & T Service 5/25	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
1	Total Cost to Serve w/o CoG	$13,886	$1,978	$15,863	$8,858	$4,313	$2,421	
2	Adjustment Factor	1.0373						
3	Adjusted Cost to Serve w/o CoG	$14,404	$2,051	$16,455	$9,188	$4,474	$2,511	
4	Cost of Gas	25,341	1,070	26,411	14,960	9,891	1,678	
5	Adjusted Total Cost to Serve	$39,745	$3,121	$42,866	$24,148	$14,365	$4,189	
6	Average Cost to Serve w/o CoG $/GJ	$1.447	$0.751	$1.297	$1.663	$1.083	$0.828	C
7	Adj Ave. Cost to Serve w/o COG $/GJ	$1.501	$0.779	$1.345	$1.725	$1.123	$0.859	C
7	Adj T–Service Ave. Cost Incl. UAF $/GJ		$0.779				$0.859	C
8	Gross Margin	$20,732	$3,236	$23,968	$12,937	$7,157	$3,820	
9	Base Rate Revenue	$46,073	$4,306	$50,379	$27,897	$17,048	$5,498	
10	Gross Margin % of COS excl. COG	143.93%	157.75%	145.66%	140.80%	159.97%	152.13%	
11	Revenue as a % of cost of Service	115.92%	137.95%	117.53%	115.52%	118.68%	131.25%	
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas							
13	Per Unit COS x Adjustment Factor							
14	Demand Cost, $/GJ				$1.151	$0.944	$0.727	C
15	Commodity Cost, $/GJ				0.022	0.019	0.014	C
16	Customer Cost, $/GJ				0.551	0.160	0.119	C
17	Customer Cost, $/bill (Monthly)				16.209	60.937	413.431	
18	Per Unit Cost of Gas by Class							
19	Demand Cost, $/GJ				$1.839	$1.514	$1.161	
20	Commodity Cost, $/GJ				0.969	0.970	0.933	
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, Incl. Cost of Gas							
22	Demand Cost, $/GJ				$2.990	$2.458	$1.888	C
23	Commodity Cost, $/GJ				0.992	0.989	0.947	C
24	Customer Cost, $/GJ				0.551	0.160	0.119	C
25	Customer Cost, $/bill (Monthly)				16.209	60.937	413.431	

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non-Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Particulars	Existing Rate Groups: Commercial 2	Existing Rate Groups: Small Industrial Sales & T-Service Captive 5/25	Total	Proforma Rate Groups: Small Commercial 0-2 TJ 2	Proforma Rate Groups: Large Commercial >2 TJ 3	Proforma Rate Groups: General Service Sales & T Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$13,886	$1,978	$15,863	$8,858	$4,313	$2,421
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$14,404	$2,051	$16,455	$9,188	$4,474	$2,511
4	Cost of Gas	25,341	1,070	26,411	14,960	9,891	1,678
5	Adjusted Total Cost to Serve	$39,745	$3,121	$42,866	$24,148	$14,365	$4,189
6	Average Cost to Serve w/o CoG $/GJ	$1.447	$0.751	$1.297	$1.663	$1.083	$3.020
7	Adj Ave. Cost to Serve w/o COG $/GJ	$1.501	$0.779	$1.345	$1.725	$1.123	$3.133
7	Adj T-Service Ave. Cost incl. UAF $/GJ		$0.779				$3.133
8	Gross Margin	$20,732	$3,236	$23,968	$12,937	$7,157	$3,820
9	Base Rate Revenue	$46,073	$4,306	$50,379	$27,897	$17,048	$5,498
10	Gross Margin % of COS excl. COG	143.93%	157.75%	145.66%	140.80%	159.97%	152.13%
11	Revenue as a % of cost of Service	115.92%	137.95%	117.53%	115.52%	118.68%	131.25%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost, $/GJ				$1.151	$0.944	$2.651
15	Commodity Cost, $/GJ				0.022	0.019	0.052
16	Customer Cost, $/GJ				0.551	0.160	0.432
17	Customer Cost, $/bill (Monthly)				16.209	60.937	413.431
18	Per Unit Cost of Gas by Class						
19	Demand Cost, $/GJ				$1.839	$1.514	$1.161
20	Commodity Cost, $/GJ				0.969	0.970	0.933
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas						
22	Demand Cost, $/GJ				$2.990	$2.458	$3.812
23	Commodity Cost, $/GJ				0.992	0.989	0.984
24	Customer Cost, $/GJ				0.551	0.160	0.432
25	Customer Cost, $/bill (Monthly)				16.209	60.937	413.431

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Average & Excess Demand Method
Test Year 1992

Line No.	Particulars	Existing Rate Groups: Commercial 2	Existing Rate Groups: Small Industrial Sales & T-Service Captive 5/25	Existing Rate Groups: Total	Proforma Rate Groups: Small Commercial 0-2 TJ 2	Proforma Rate Groups: Large Commercial >2 TJ 3	Proforma Rate Groups: General Service Sales & T Service 5/25	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
1	Base Rate Revenue	$46,073	$4,306	$50,379	$27,897	$17,048	$5,498	
2	Cost of Gas	25,341	1,070	26,411	$14,960	$9,891	$1,678	
3	Total Functional Expenses	8,926	1,488	10,414	5,552	2,978	1,789	
4	Total Operating Revenue Deductions	34,267	2,558	36,825	20,512	12,869	3,467	
5	Operating Income before Taxes & Return	11,806	1,748	13,554	7,384	4,179	2,031	
6	Income Tax @ 10.31% return on RB	707	66	773	475	177	91	
7	Return @ 10.31% return on RB	$4,112	$611	$4,723	$2,612	$1,298	$745	
8	Rate Base	39,884	5,916	45,800	$25,327	$12,592	$7,224	
9	Rate of Return, Percent	10.31%	10.32%	10.31%	10.31%	10.31%	10.31%	
10	Total Cost to Serve	$39,086	$3,235	$42,321	$23,599	$14,344	$4,303	
11	Total Cost to Serve w/o COG	$13,745	$2,165	$15,910	8,639	4,453	2,625	
12	Aver. Cost of Gas, $/GJ	$2.640	$0.406	$2.159	$2.808	$2.484	$2.094	
13	Average Cost to Serve w/o COG, $/GJ	$1.432	$0.822	$1.301	$1.622	$1.118	$0.898	C
13.1	T-Service Avg. Cost incl. UAF, $/GJ		$0.822				$0.898	C
14	Revenue less Total Cost to Serve	$6,987	$1,071	$8,058	$4,298	$2,704	$1,195	
15	Revenue less Total Cost to Serve, $/GJ	$0.728	$0.407	$0.659	$0.807	$0.679	$0.409	
16	Rate Incr. (Decr.) Cost Based Rates	15.17%	24.88%	16.00%	15.41%	15.86%	21.73%	
17	Revenue as a percent of Cost of Service	117.88%	133.12%	119.04%	118.21%	118.85%	127.77%	
18	Gross Margin	$20,732	$3,236	$23,968	$12,937	$7,157	$3,820	
19	Gross Margin, $/GJ	$2.160	$1.228	$1.960	$2.428	$1.797	$1.307	
	Per Unit C.O.S. @ Uniform Rate of Return by Class excluding cost of gas							
20	Demand Cost, $/GJ				$1.069	$0.945	$0.771	C
21	Commodity Cost, $/GJ				0.021	0.019	0.014	C
22	Customer Cost, $/GJ				0.531	0.154	0.114	C
23	Customer Cost, $/bill				15.398	58.746	398.564	
	Per Unit Cost of Gas by Class							
24	Demand Cost, $/GJ				$1.839	$1.514	$1.161	
25	Commodity Cost, $/GJ				$0.969	$0.970	$0.933	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas							
26	Demand Cost, $/GJ				$2.907	$2.459	$1.932	C
27	Commodity Cost, $/GJ				0.991	0.989	0.946	C
28	Customer Cost, $/GJ				0.531	0.154	0.114	C
29	Customer Cost, $/bill				15.398	58.746	398.564	
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas Calculated on basis of T-Service volumes only							
30	Demand Cost, $/GJ							
31	Commodity Cost, $/GJ							
32	Customer Cost, $/GJ							
33	Revenue as a percentage of Cost of Service, excluding gas costs				149.75%	160.73%	145.52%	

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Particulars	Existing Rate Groups: Commercial 2	Existing Rate Groups: Small Industrial Sales & T–Service Captive 5/25	Total	Proforma Rate Groups: Small Commercial 0–2 TJ 2	Proforma Rate Groups: Large Commercial >2 TJ 3	Proforma Rate Groups: General Service Sales & T Service 5/25	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	
1	Total Cost to Serve w/o CoG	$13,745	$2,165	$15,910	$8,639	$4,453	$2,625	
2	Adjustment Factor	1.0373						
3	Adjusted Cost to Serve w/o CoG.	$14,258	$2,245	$16,503	$8,961	$4,619	$2,723	
4	Cost of Gas	25,341	1,070	26,411	14,960	9,891	1,678	
5	Adjusted Total Cost to Serve	$39,599	$3,315	$42,914	$23,921	$14,510	$4,401	
6	Average Cost to Serve w/o CoG $/GJ	$1.432	$0.822	$1.301	$1.622	$1.118	$0.898	C
7	Adj Ave. Cost to Serve w/o COG $/GJ	$1.486	$0.852	$1.349	$1.682	$1.160	$0.932	C
7	Adj T–Service Ave. Cost incl. UAF $/GJ		$0.852				$0.932	C
8	Gross Margin	$20,732	$3,236	$23,968	$12,937	$7,157	$3,820	
9	Base Rate Revenue	$46,073	$4,306	$50,379	$27,897	$17,048	$5,498	
10	Gross Margin % of COS excl. COG	145.41%	144.11%	145.23%	144.37%	154.95%	140.29%	
11	Revenue as a % of cost of Service	116.35%	129.88%	117.39%	116.62%	117.49%	124.93%	
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas							
13	Per Unit COS x Adjustment Factor							
14	Demand Cost, $/GJ				$1.108	$0.980	$0.800	C
15	Commodity Cost, $/GJ				0.022	0.019	0.014	C
16	Customer Cost, $/GJ				0.551	0.160	0.119	C
17	Customer Cost, $/bill (Monthly)				15.972	60.937	413.431	
18	Per Unit Cost of Gas by Class							
19	Demand Cost, $/GJ				$1.839	$1.514	$1.161	
20	Commodity Cost, $/GJ				0.969	0.970	0.933	
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class, incl. Cost of Gas							
22	Demand Cost, $/GJ				$2.947	$2.494	$1.961	C
23	Commodity Cost, $/GJ				0.992	0.989	0.947	C
24	Customer Cost, $/GJ				0.551	0.160	0.119	C
25	Customer Cost, $/bill (Monthly)				15.972	60.937	413.431	

Fully Distributed Cost of Service
Inland
Development of Capacity Allocation Factors
Test Year 1992

INGCOS
Allocation Factors
Page 1A

Line No.	Description	Commercial 2	S. T–Serv Captive 5/25	Total	Small Commercial 0–2 TJ 2	Large Commercial >2 TJ 3	General Service Sales & T Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Peak Responsibility (PR)						
1	Peak Demand, On–Peak Loads, 10^3M^3				1,356.7	834.8	425.7
2	Peak Responsibility Factor: DE 1G				16.04%	9.87%	5.03%
3	Peak Demand, On–Peak Loads, 10^3M^3				1,356.7	834.8	540.2
4	Peak Responsibility Factor: DE 1T				16.02%	9.86%	6.38%
5	Peak Demand, 10^3M^3				1,356.7	834.8	425.7
6	Peak Responsibility Factor: DE 1D				21.00%	12.93%	6.59%
7	Peak Demand, 10^3M^3				1,356.7	834.8	127.7
8	Peak Responsibility Factor: DE 1S				22.64%	13.93%	2.13%
9	Non–Coincident Demand (NCD)						
10	Non–Coincident Demand, 10^3M^3				1,356.7	834.8	425.7
11	Non–Coincident Demand Factor: DE 2G				11.88%	7.31%	3.73%
12	Non–Coincident Demand, 10^3M^3				1,356.7	834.8	564.9
13	Non–Coincident Demand Factor: DE 2T				11.86%	7.30%	4.94%
14	Non–Coincident Demand				1,356.7	834.8	425.7
15	Non–Coincident Demand Factor: DE 2D				20.79%	12.80%	6.52%
16	Non–Coincident Demand				1,356.7	834.8	127.7
17	Non–Coincident Demand Factor: DE 2S				22.56%	15.20%	2.67%
18	Average & Excess Demand (AED): DE 3G						
19	Aver Load, Annual GJ/(365*38.56) 10^3M^3				378.1	282.7	207.4
20	Average Load, as a Percent of Total				9.22%	6.89%	5.05%
21	Annual System Load Factor				48.59%	48.59%	48.59%
22	Average Load % * System Load Factor %				4.48%	3.35%	2.46%
23	Excess Demand (line 10–19)				978.6	1,543.2	192.0
24	Percent of Total				11.81%	18.63%	2.32%
25	100% – Annual System LF %				51.41%	51.41%	51.41%
26	%Excess Demand (line 24x25)				6.07%	9.57%	1.19%
27	AED Factor (line 22+26) DE 3G				10.55%	12.92%	3.65%
28	Average & Excess Demand (AED): DE 3T						
29	Weighting Factor						1.327
30	Aver Load, Annual GJ/(365*38.56) 10^3M^3				378.1	282.7	207.4
31	Aver Load Weighted				378.1	282.7	275.2
32	Average Load, as a Percent of Total				9.48%	7.09%	6.90%
33	Annual System Load Factor				48.59%	48.59%	48.59%
34	Average Load % * System Load Factor %				4.61%	3.45%	3.35%
35	Excess Demand (line 12–31)				978.6	552.1	289.7
36	Percent of Total				13.14%	7.41%	3.89%
37	100% – Annual System LF %				51.39%	51.39%	51.39%
38	%Excess Demand (line 36x37)				6.75%	3.81%	2.00%
39	AED Factor (line 34+38) DE 3T				11.36%	7.25%	5.35%
40	Average & Excess Demand (AED): DE 3D						
41	Aver Load, Annual GJ/(365*38.56) 10^3M^3				378.1	282.7	207.4
42	Average Load, as a Percent of Total				17.98%	13.44%	9.86%
43	Annual System Load Factor				48.17%	48.17%	48.17%
44	Average Load % * System Load Factor %				8.66%	6.48%	4.75%
45	Excess Demand (line 14–41)				978.6	552.1	218.3
46	Percent of Total				22.13%	12.49%	4.94%
47	100% – Annual System LF %				51.83%	51.83%	51.83%
48	%Excess Demand (line 46x47)				11.471%	6.472%	2.559%
49	AED Factor (line 44+48): DE 3D				20.133%	12.948%	7.310%
50	Average & Excess Demand (AED): DE 3S						
51	Aver Load, Annual GJ/(365*38.56) 10^3M^3				378.1	282.7	56.9
52	Average Load, as a Percent of Total				20.56%	15.37%	3.09%
53	Annual System Load Factor				48.20%	48.20%	48.20%
54	Average Load % * System Load Factor %				9.91%	7.41%	1.49%
55	Excess Demand (line 16–51)				978.6	552.1	24.1
56	Percent of Total				23.71%	13.38%	0.58%
57	100% – Annual System LF %				51.80%	51.80%	51.80%
58	%Excess Demand (line 56x57)				12.28%	6.93%	0.30%
59	AED Factor (line 54+58): DE 3S				22.19%	14.34%	1.79%

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ALLOCATION FACTORS

REVISED
JUNE 14, 1993

Fully Distributed Cost of Service
Inland
Development of Commodity Allocation Factors
Test Year 1992

Line No.	Description	Commercial 2	S. T–Serv Captive 5/25	Total	Small Commercial 0–2 TJ 2	Large Commercial >2 TJ 3	General Service Sales & T Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Sales & T–Service Volumes, GJ	9,597,200	2,634,200	12,231,400	5,327,077	3,982,503	2,921,820
2	Commodity Factor–Thruput: CO 1G				9.215%	6.889%	5.055%
3	Commodity excl. L. Indust.	9,597,200	2,634,200	12,231,400	5,327,077	3,982,503	2,921,820
4	Commodity Factor–Thruput CO 2D				17.981%	13.443%	9.862%
5	Commodity – Sales	9,597,200	513,800	10,111,000	5,327,077	3,982,503	801,400
6	Commodity Factor–Thruput CO 3S				20.474%	15.307%	3.080%
7	Average Customers	16,223	40	16,263	15,321	872	70
8	Weighting Factor	1.6	26.9	2.7	1.3	5.5	33.1
9	Weighted Customers:	23,787	1,075	24,862	20,530	4,829	2,309
10	Customer Factor CU 1G	13.29%	0.60%	13.89%	10.31%	2.42%	1.16%
11	Weighted Customers:	23,787	1,075	24,862	20,530	4,829	2,309
12	Customer Factor CU 2D	13.87%	0.63%	14.49%	10.75%	2.53%	1.21%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rate Groups: General Serv. 2.1/2.2	Small Ind. 3	Total	Proforma Rate Groups: Commercial 0 – 2 TJ 2		General Service Sales & T – Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$3,828	$831	$4,659	$3,291		$1,357
2	Cost of Gas Supply (PR)	$2,392	$483	$2,875	$2,037		$838
3	Total Functional Expenses (PR)	1,009	281	1,290	970		384
4	Total Operating Revenue Deductions	3,401	764	4,165	3,006		1,222
5	Operating Income before Taxes & Return						
6	Income Tax @ 10.31% return on RB	50	9	59	48		13
7	Return @ 10.31% return on RB	443	122	565	436		163
8	Rate Base	$4,305	$1,180	$5,486	4,236		$1,585
9	Rate of Return, Percent	10.29%	10.31%	10.30%	10.30%		10.30%
10	Total Cost to Serve	$3,895	$894	$4,789	$3,490		$1,399
11	Total Cost to Serve w/o COG	1,503	411	1,914	1,454		560
12	Aver. Cost of Gas, $/GJ	$2.239	$2.114	$1.825	$2.239		$2.167
13	Average Cost to Serve w/o COG, $/GJ	$1.406	$0.811	$1.215	$1.598		$0.842
13	T–Service Ave. Cost incl. UAF $/GJ						$0.875
14	Revenue less Total Cost to Serve	($67)	($63)	($130)	($199)		($42)
15	Revenue less Total Cost to Serve, $/GJ	($0.062)	($0.125)	($0.082)	($0.219)		($0.063)
16	Rate Incr. (Decr.) Cost Based Rates	1.74%	7.60%	2.78%	6.06%		3.07%
17	Revenue as a percent of Cost of Service	98.29%	92.94%	97.29%	94.29%		97.02%
18	Gross Margin	$1,436	$348	$1,784	$1,254		$519
19	Gross Margin, $/GJ	$1.344	$0.687	$1.133	$1.379		$0.780
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas						
20	Demand Cost, $/GJ				$1.158		$0.732
21	Commodity Cost, $/GJ				0.013		0.013
22	Customer Cost, $/GJ				0.428		0.097
23	Customer Cost, $/bill (Monthly)				$18.288		$414.981
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$0.365		$0.392
25	Commodity Cost, $/GJ				1.874		1.773
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$1.523		$1.124
27	Commodity Cost, $/GJ				1.886		1.786
28	Customer Cost, $/GJ				0.428		0.097
29	Customer Cost, $/bill				18.288		414.981
30	Revenue as a percentage of Cost of Service , excluding gas costs				86.29%		92.57%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Peak Demand Responsibility Method with Gas Cost
Test Year 1992, Uniform Rate of Return

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Line No.	Description	Existing Rate Groups: General Serv. 2.1/2.2	Existing Rate Groups: Small Ind. 3	Existing Rate Groups: Total	Proforma Rate Groups: Commercial 0 – 2 TJ 2		Proforma Rate Groups: General Service Sales T – Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$1,503	$411	$1,914	$1,454		$560
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$1,559	$427	$1,985	$1,508		$581
4	Cost of Gas	2,392	483	2,875	2,037		838
5	Adjusted Total Cost to Serve	$3,951	$909	$4,860	$3,545		$1,420
6	Average Cost to Serve w/o CoG $/GJ	$1.406	$0.811	$1.215	$1.598		$0.842
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.459	$0.842	$1.260	$1.657		$0.874
7	Adj. T–Service Ave. Cost Incl. UAF $/GJ						$0.912
8	Gross Margin	$1,436	$348	$1,784	$1,254		$519
9	Base Rate Revenue	$3,828	$831	$4,659	$3,291		$1,357
10	Gross Margin % of Adj CoS, excl CoG	92.13%	81.61%	89.87%	83.19%		89.25%
11	Revenue as a % of Adj Cost of Service	96.90%	91.37%	95.86%	92.85%		95.60%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost $/GJ				$1.201		$0.759
15	Commodity Cost $/GJ				0.013		0.013
16	Customer Cost $/GJ				0.444		0.101
17	Customer Cost $/bill (Monthly)				18.970		430.459
18	Per Unit Cost of Gas by Class						
19	Demand Cost $/GJ				$0.365		$0.392
20	Commodity Cost $/GJ				1.874		1.773
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class Incl. Cost of Gas						
22	Demand Cost $/GJ				$1.566		$1.152
23	Commodity Cost $/GJ				1.887		1.786
24	Customer Cost $/GJ				0.444		0.101
25	Customer Cost $/bill (Monthly)				18.970		430.459

Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Under Non-Coincident Demand Method
Test Year 1992

Line No.	Description	Existing Rate Groups: General Serv. 2.1/2.2	Existing Rate Groups: Small Ind. 3	Existing Rate Groups: Total	Proforma Rate Groups: Commercial 0 – 2 TJ 2		Proforma Rate Groups: General Service Sales T – Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$3,828	$831	$4,659	$3,291		$1,357
2	Cost of Gas Supply	$2,392	$483	$2,875	$2,037		$838
3	Total Functional Expenses	990	274	1,264	950		375
4	Total Operating Revenue Deductions	3,382	757	4,138	2,987		1,213
5	Operating Income before Taxes & Return						
6	Income Tax @ 10.31% return on RB	50	9	58	42		10
7	Return @ 10.31% return on RB	427	116	543	424		157
8	Rate Base	$4,148	$1,124	$5,272	4,121		$1,526
9	Rate of Return, Percent	10.29%	10.31%	10.29%	10.29%		10.30%
10	Total Cost to Serve	$3,858	$881	$4,739	$3,453		$1,381
11	Total Cost to Serve w/o COG	1,466	398	1,865	1,416		542
12	Aver. Cost of Gas, $/GJ	$2.239	$2.114	$1.825	$2.239		$2.167
13	Average Cost to Serve w/o COG, $/GJ	$1.373	$0.786	$1.184	$1.557		$0.815
13	T-Service Ave. Cost incl. UAF $/GJ						$0.848
14	Revenue less Total Cost to Serve	($30.400)	($50.086)	($4,739.486)	($162)		($24)
15	Revenue less Total Cost to Serve, $/GJ	($0.028)	($0.099)	($3.009)	($0.178)		($0.036)
16	Rate Incr. (Decr.) Cost Based Rates	0.79%	6.03%	1.73%	4.92%		1.74%
17	Revenue as a percent of Cost of Service	99.21%	94.32%	98.30%	95.31%		98.29%
18	Gross Margin	$1,436	$348	$1,784	$1,254		$519
19	Gross Margin, $/GJ	$1.344	$0.687	$1.133	$1.379		$0.780
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas						
20	Demand Cost, $/GJ				$1.116		$0.706
21	Commodity Cost, $/GJ				0.013		0.013
22	Customer Cost, $/GJ				0.428		0.097
23	Customer Cost, $/bill (Monthly)				$18.288		$414.981
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$0.365		$0.392
25	Commodity Cost, $/GJ				1.874		1.773
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$1.481		$1.098
27	Commodity Cost, $/GJ				1.886		1.786
28	Customer Cost, $/GJ				0.428		0.097
29	Customer Cost, $/bill				18.288		414.981
30	Revenue as a percentage of Cost of Service , excluding gas costs				88.58%		95.64%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Non-Coincident Demand Method
Test Year 1992, Uniform Rate of Return

Line No.	Description	Existing Rate Groups: General Serv. 2.1/2.2	Existing Rate Groups: Small Ind. 3	Existing Rate Groups: Total	Proforma Rate Groups: Commercial 0 - 2 TJ 2		Proforma Rate Groups: General Service Sales T - Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$1,466	$398	$1,865	$1,416		$542
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$1,521	$413	$1,934	$1,469		$563
4	Cost of Gas	2,392	483	2,875	2,037		838
5	Adjusted Total Cost to Serve	$3,913	$896	$4,809	$3,506		$1,401
6	Average Cost to Serve w/o CoG $/GJ	$1.373	$0.786	$1.184	$1.557		$0.815
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.424	$0.815	$1.228	$1.615		$0.846
7	Adj. T-Service Ave. Cost Incl. UAF $/GJ						$0.884
8	Gross Margin	$1,436	$348	$1,784	$1,254		$519
9	Base Rate Revenue	$3,828	$831	$4,659	$3,291		$1,357
10	Gross Margin % of Adj CoS, excl CoG	94.41%	84.28%	92.24%	85.39%		92.20%
11	Revenue as a % of Adj Cost of Service	97.83%	92.75%	96.88%	93.88%		96.87%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost $/GJ				$1.157		$0.732
15	Commodity Cost $/GJ				0.013		0.013
16	Customer Cost $/GJ				0.444		0.101
17	Customer Cost $/bill (Monthly)				18.970		430.459
18	Per Unit Cost of Gas by Class						
19	Demand Cost $/GJ				$0.365		$0.392
20	Commodity Cost $/GJ				1.874		1.773
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class Incl. Cost of Gas						
22	Demand Cost $/GJ				$1.523		$1.125
23	Commodity Cost $/GJ				1.887		1.786
24	Customer Cost $/GJ				0.444		0.101
25	Customer Cost $/bill (Monthly)				18.970		430.459

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
For Proforma Rate Groups
Under Average & Excess Demand Method
Test Year 1992

Line No.	Description	Existing Rate Groups: General Serv. 2.1/2.2	Existing Rate Groups: Small Ind. 3	Existing Rate Groups: Total	Proforma Rate Groups: Commercial 0 – 2 TJ 2		Proforma Rate Groups: General Service Sales T – Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Base Rate Revenue	$3,828	$831	$4,659	$3,291		$1,357
2	Cost of Gas	$2,392	$483	$2,875	$2,037		$838
3	Total Functional Expenses	988	295	1,283	922		409
4	Total Operating Revenue Deductions	3,380	778	4,158	2,959		1,247
5	Operating Income before Taxes & Return						
6	Income Tax @ 10.31% return on RB	50	9	59	47		14
7	Return @ 10.31% return on RB	423	122	544	406		166
8	Rate Base	$4,107	$1,182	$5,289	3,945		$1,612
9	Rate of Return, Percent	10.29%	10.31%	10.29%	10.30%		10.30%
10	Total Cost to Serve	$3,852	$909	$4,761	$3,412		$1,427
11	Total Cost to Serve w/o COG	1,460	426	1,886	1,375		589
12	Aver. Cost of Gas, $/GJ	$2.239	$2.114	$1.825	$2.239		$2.167
13	Average Cost to Serve w/o COG, $/GJ	$1.367	$0.840	$1.197	$1.511		$0.885
13	T–Service Ave. Cost incl. UAF $/GJ						$0.918
14	Revenue less Total Cost to Serve	($24)	($78)	($102)	($121)		($70)
15	Revenue less Total Cost to Serve, $/GJ	($0.022)	($0.153)	($0.065)	($0.132)		($0.105)
16	Rate Incr. (Decr.) Cost Based Rates	0.63%	9.35%	2.18%	3.66%		5.16%
17	Revenue as a percent of Cost of Service	99.38%	91.45%	97.86%	96.47%		95.09%
18	Gross Margin	$1,436	$348	$1,784	$1,254		$519
19	Gross Margin, $/GJ	$1.344	$0.687	$1.133	$1.379		$0.780
	Per Unit C.O.S. @ Uniform Rate of Return by Class, excluding Cost of Gas						
20	Demand Cost, $/GJ				$1.071		$0.775
21	Commodity Cost, $/GJ				0.013		0.013
22	Customer Cost, $/GJ				0.428		0.097
23	Customer Cost, $/bill (Monthly)				$18.288		$414.981
	Per Unit Cost of Gas by Class						
24	Demand Cost, $/GJ				$0.365		$0.392
25	Commodity Cost, $/GJ				1.874		1.773
	Per Unit C.O.S. @ Uniform Rate of Return by Class, including Cost of Gas						
26	Demand Cost, $/GJ				$1.436		$1.167
27	Commodity Cost, $/GJ				1.886		1.786
28	Customer Cost, $/GJ				0.428		0.097
29	Customer Cost, $/bill				18.288		414.981
30	Revenue as a percentage of Cost of Service , excluding gas costs				91.23%		88.10%

Fully Distributed Cost of Service
Summary of Cost and Rate of Return at Present Rates
Under Average & Excess Demand Method
Test Year 1992, Uniform Rate of Return

C COS
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Page 3.2 A

Line No.	Description	Existing Rate Groups: General Serv. 2.1/2.2	Existing Rate Groups: Small Ind. 3	Existing Rate Groups: Total	Proforma Rate Groups: Commercial 0 – 2 TJ 2		Proforma Rate Groups: General Service Sales T – Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Total Cost to Serve w/o CoG	$1,460	$426	$1,886	$1,375		$589
2	Adjustment Factor	1.0373					
3	Adjusted Cost to Serve w/o CoG	$1,514	$442	$1,956	$1,426		$611
4	Cost of Gas	2,392	483	2,875	2,037		838
5	Adjusted Total Cost to Serve	$3,906	$925	$4,831	$3,463		$1,449
6	Average Cost to Serve w/o CoG $/GJ	$1.367	$0.840	$1.197	$1.511		$0.885
7	Adj. Ave. Cost to Serve w/o CoG $/GJ	$1.418	$0.871	$1.242	$1.568		$0.918
7	Adj. T–Service Ave. Cost Incl. UAF $/GJ						$0.956
8	Gross Margin	$1,436	$348	$1,784	$1,254		$519
9	Base Rate Revenue	$3,828	$831	$4,659	$3,291		$1,357
10	Gross Margin % of Adj CoS, excl CoG	94.82%	78.81%	91.20%	87.95%		84.94%
11	Revenue as a % of Adj Cost of Service	97.99%	89.88%	96.44%	95.04%		93.65%
12	Adjusted Per Unit COS @ Uniform Rate of Return by Class, excl. Cost of Gas						
13	Per Unit COS x Adjustment Factor						
14	Demand Cost $/GJ				$1.111		$0.804
15	Commodity Cost $/GJ				0.013		0.013
16	Customer Cost $/GJ				0.444		0.101
17	Customer Cost $/bill (Monthly)				18.970		430.459
18	Per Unit Cost of Gas by Class						
19	Demand Cost $/GJ				$0.365		$0.392
20	Commodity Cost $/GJ				$1.874		$1.773
21	Adjusted Per Unit COS @ Uniform Rate of Return by Class Incl. Cost of Gas						
22	Demand Cost $/GJ				$1.476		$1.196
23	Commodity Cost $/GJ				1.887		1.786
24	Customer Cost $/GJ				0.444		0.101
25	Customer Cost $/bill (Monthly)				18.970		430.459

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TAB 2D
SECTION 5
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FDC-AED
REVISED
JUNE 14, 1993

Fully Distributed Cost of Service
Columbia
Development of Capacity Allocation Factors
Test Year 1992

Line No.	Description	Existing Rate Groups: General Serv. 2.1/2.2	Small Ind. 3	Total	Small Commercial 0 – 2 TJ 2		General Service Sales & T – Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Peak Responsibility (PR)						
1	Peak Demand, Throughput, 10^3M^3				241.7		110.6
2	Peak Responsibility Factor: DE1G				16.44%		7.52%
3	Peak Demand, Distribution 10^3M^3				241.7		110.6
4	Peak Responsibility Factor: DE1D				30.73%		14.06%
	Non–Concident Demand (NCD)						
5	Non–Coincident Demand, 10^3M^3				241.7		110.6
6	Non–Coincident Demand Factor: DE2G				14.78%		6.76%
7	Non–Coincident Demand				241.7		110.6
8	Non–Coincident Demand Factor: DE2D				30.73%		14.06%
	Average & Excess Demand (AED): DE3G						
9	Aver Load, Annual GJ/(365*37.70) 10^3M^3				67.4		49.3
10	Average Load, as a Percent of Total				8.91%		6.52%
11	Annual System Load Factor				54.42%		54.42%
12	Average Load % * System Load Factor %				4.85%		3.55%
13	Excess Demand (line 5–9)				174.4		61.3
14	Percent of Total				19.82%		6.97%
15	100% – Annual System LF %				45.58%		45.58%
16	%Excess Demand (line 14x15)				9.03%		3.18%
17	AED Factor (line 12+16): DE3G				13.88%		6.72%
	Average & Excess Demand (AED): DE3D						
18	Aver Load, Annual GJ/(365*37.70) 10^3M^3				67.4		49.3
19	Average Load, as a Percent of Total				27.56%		20.15%
20	Annual System Load Factor				54.42%		54.42%
21	Average Load % * System Load Factor %				15.00%		10.97%
22	Excess Demand (line 7–18)				174.4		61.3
23	Percent of Total				32.17%		11.31%
24	100% – Annual System LF %				45.58%		45.58%
25	%Excess Demand (line 23x24)				14.66%		5.15%
26	AED Factor (line 21+25): DE3D				29.66%		16.12%

Fully Distributed Cost of Service
Columbia
Development of Commodity Allocation Factors
Test Year 1992

C COS
Allocation Factors
Page 2 A

Line No.	Description	Existing Rate Groups: General Serv. 2.1/2.2	Small Ind. 3	Total	Small Commercial 0 – 2 TJ 2		General Service Sales & T – Service 5/25
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Sales & T–Service Volumes, GJ	1,068,300	506,900	1,575,200	909,753		665,387
2	Commodity Factor–Thruput: CO1G				8.74%		6.39%
3	Sales Commodity	1,068,300	228,400	1,296,700	909,753		386,887
4	Commodity Factor: CO2D				29.71%		12.63%
5	Average Customers	1,780	6	1,786	1,773		13
6	Weighting Factor				2		30
7	Weighted Customers				2,731		390
8	Customer Factor CU1			15.33%	13.84%		1.98%
9	Weighted Customers for Dist.				2,731		390
10	Customer Factor CU2			16.96%	15.31%		2.19%

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CNG COS
TAB 2D
SECTION 5
PAGE 2A
ALLOCATION FACTORS
REVISED
JUNE 14, 1993

LONG RUN INCREMENTAL COST STUDIES

1.0 INTRODUCTION

Utility regulators have shown interest in the extent to which techniques of marginal (or incremental) cost pricing can be applied to assist in determining appropriate rates for utility services.

The analysis which follows attempts to provide information on incremental costs associated with supplying additional natural gas service among various types of customers served by BC Gas. The term 'attempt' is used since estimating gas utility marginal costs represents a relatively new development for the industry. The underlying data and concepts are not always transparent and the prevalence of joint costs can obscure cost allocation among different customers. The term 'incremental cost' is used as a proxy for 'marginal cost', for reasons discussed later.

The focus of the analysis is mainly on the costs associated with serving new customers rather than with costs associated with additional consumption by existing customers. This approach more properly identifies the costs of system expansion, as opposed to more intensive use of gas in areas already saturated. The focus is also on long run rather than short run costs. The long run is the appropriate time frame to recoup all investment and other expenditures entailed by system expansion.

The analysis is presented in three main sections. Section 2 discusses the concepts of marginal cost, replacement cost and long run incremental costs (LRIC) in the context of utility operations. Section 3 deals with the methodology used to

estimate the LRIC for BC Gas. Section 4 details the results of the analysis, distinguishing among the Lower Mainland, Inland and Columbia divisions of BC Gas. Tables detailing the estimation process and results are given at the end of the report under Tabs A (Lower Mainland), B (Inland) and C (Columbia). Tab D provides results for the proposed new rate categories.

Additional information is provided in Appendices. Appendix A concerns capital carrying charges. Appendix B summarizes salient aspects of some LRIC studies reviewed by BC Gas as background in preparing its own study.

2.0 COST CONCEPTS

The ideal cost allocation method would be one which assigns the cost of providing gas to a customer based only on the costs incurred in providing that service. The difficulty lies in determining a cost allocation procedure for a utility distribution system with many customers and types of service which is both equitable and efficient. While the efficient allocation of resources is the domain of economics, equity considerations encompass aspects beyond the economic context and will not be considered in the following discussion.

2.1 Marginal Cost

As derived from economic theory, marginal cost is defined as the increase in cost associated with a one unit increase in output. Marginal cost is further defined as long run, where all factors become variable, or short-run, where some factors are fixed. Gas utility rates based on marginal cost would reflect the current and future costs of supplying gas service and would thus send the correct pricing signals to gas consumers. However, there are problems with marginal cost

One barrier concerns the revenue requirement. The overall utility revenue requirement is normally determined by calculating embedded costs. However, since a utility's marginal cost is generally not equal to average cost, setting rates at marginal cost would result in a revenue deficiency or revenue surplus. Yet even if it is impractical to set all rates at marginal cost, marginal cost information can provide insights into rate determination. And marginal cost should play a significant role in any rate determination process which has as one of its objectives the efficient allocation of resources.

The second problem with the marginal cost approach concerns measurement. Additions to utility capacity are generally in larger than one-unit increments. This "lumpiness" means that attributing costs to a single unit of output is not straightforward. The problem is overcome by dividing incremental costs by incremental volumes to approximate the continuous function.

The third and most important problem in estimating marginal cost, and one that arises with all cost studies, concerns cost allocation. For certain costs, such as those associated with new transmission facilities, cost allocation among customer groups (residential, commercial, industrial) is not always obvious. Procedures for allocating these "joint costs" are usually based on peak day, total throughput or customer account data. If costs were truly joint, they would be indivisible and thus not attributable other than in a very general fashion.

Straying from strictly defined marginal cost in order to accommodate the "lumpy" growth and contraction of utilities necessitates the adoption of alternative methods for approximating utility marginal cost. Two approaches which approximate marginal cost are replacement cost and incremental cost, as discussed below.

2.2 Replacement Cost

Long run marginal cost pertains to the design of a gas distribution system at a single point in time. Replacement cost methods, which determine the cost of replacing a distribution system in an optimal manner using current technology and disregarding future capacity requirements, are consistent[1] with this view of long run marginal cost. Recent replacement cost studies have been conducted by gas utilities[2]. However, their value in providing guidance for utility expansion is limited to the extent that they do not address incremental utility growth.

2.3 Incremental Cost

Incremental cost is the cost associated with adding an additional unit or customer. Incremental cost methodology recognizes that capacity additions are made in large increments. To determine an annual cost associated with facilities additions, costs are "annualized" or "levelized" using a capital carrying charge (CCC) factor (see Appendix A) for one-time expenditures, or a net present valuation procedure for stream of investment costs. This is referred to as vintaging. Since utility investment in facilities is often "lumpy", measuring the incremental costs of providing new and existing customers with additional gas service provides a more appropriate method for determining marginal costs than trying to measure costs associated with unit increments. Long run incremental cost (LRIC) methodology combines long run marginal cost concepts with vintage capital theory.

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[1] Consistent though not identical.

[2] For example, Southern California Gas Co. and Pacific Gas & Electric have provided the California Public Utilities Commission with replacement cost studies.

In Summary: because a utility's cost function is not continuous, utility marginal cost cannot be precisely determined. Because it is consistent with the actual growth of a gas utility, LRIC represents the most reasonable approximation to marginal cost. For this reason, BC Gas has chosen the LRIC method for estimating marginal cost.

2.4 Incremental Cost vs. Average Cost

As previously defined, incremental costs are restricted to those costs which can be associated with the addition of new customers. This criteria results in significant costs involved in utility operations being excluded from the analysis. Such costs as those related to administration, training, and generally maintaining the utility are either entirely or partially excluded based on the incremental criteria.

Exclusion of such costs results in estimated LRIC which are generally below average costs. A comparison of the revenue impact of setting rates equal to LRIC is provided in Table BCG-2 (page 14). Two scenarios for adjusting rates set equal to LRIC up to the revenue requirement are also provided. The first pro-rates (%) the ratio of total LRIC revenue to actual revenue across all rate classes. The second ramps up each rate class equally ($/GJ) to meet the revenue requirement.

3.0 BC GAS LONG RUN INCREMENTAL COST METHODOLOGY

The following discussion provides detailed information on the methods and assumptions used in estimating long run incremental costs (LRIC) for BC Gas. Table BCG-1 (Page 13) provides a summary of results by division.

3.1 Overview of Methodology

To determine total incremental costs, incremental distribution, transmission, and operation and maintenance costs were estimated.

Incremental distribution meter and service costs were determined for each customer class using typical materials and installation costs. These investment costs were annualized and expressed in real terms.

Incremental costs associated with new distribution mains were determined by reviewing information from work orders which enable costs to be assigned to specific types of customers. As with meters and services, these costs were annualized and expressed in real terms.

Levelized system improvement costs associated with increasing capacity to serve additional customers were estimated using the BC Gas Five Year System Plan. Divisional forecasts for large transmission projects through the year 2011 were used to estimate levelized unit peak day costs associated with large capacity additions. Both the system improvement and large transmission project facilities projections were based on BC Gas System Planning divisional long term peak day demand forecasts. The unit peak day incremental cost estimates for

these capital projects were assigned to specific customer classes using each customer class's load factor.[3]

Incremental operation and maintenance expenditures were derived from 1992 Test Year operation and maintenance (O&M) costs. From these total O&M costs, evaluation of individual account items was undertaken to determine those costs associated with adding customers. These costs were then grouped into plant-related (peaking, distribution, transmission), customer related (customer accounting, marketing or specifically to NGV), and volume related categories based on the account to which costs were budgeted. These categories were then assigned to customer classes.

Incremental gas supply costs for 1992 through 2006 were derived using the Gas Supply Planning model.[4]

Most of this cost information was based on what can be termed engineering estimates using current technology. Earlier work had been pursued to derive information from time series data on actual costs incurred, adjusted for inflation. The results of this exercise were bedeviled by lack of sufficient and consistent data. As such they were not used in the eventual cost estimation results reported on below.

The following parts provide detailed discussion of the methodology used in the incremental cost calculations. The tables referred to in the discussion can be found in Tabs A, B and C.

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[3]The load factor is defined as the ratio of average use to peak day use.

[4]A description of the Gas Supply Planning Model is contained in the BC Gas Draft LCIRP, June 1992.

3.2 Meters and Services

Meter and service costs are assignable to specific types of customers. The estimates derived are expressed on a per customer basis. Costs shown in Tables LM-2 (Lower Mainland, Page 3A-2), INL-2 (Inland, Page 3B-2), and COL-2 (Columbia, Page 3C-2), were estimated using typical material and installation costs for meter and service components associated with incremental customers in each rate class. These costs are expressed in 1992 dollars.

3.3 Distribution Mains

Metres of main and costs per metre associated with residential and commercial (general service) customers in the Lower Mainland (Table LM-3, Page 3A-3), Inland (Table INL-3, Page 3B-3), and Columbia (Table COL-3, Page 3C-3) Divisions were determined using work order information. From analyzing actual work orders related to specific projects, a relationship between the length of main and the customer class served was determined. The product of the length of main and a cost per metre of main - based on BC Gas staff information - provided an estimated total cost per customer.

Distribution main cost estimates for industrial customers were predicated on costs associated with recent and expected customer additions.

Large industrial customers on the Inland system are generally served directly from the transmission system at high pressure and so have not been assigned a distribution main cost. However, there are costs associated with laterals from transmission lines used to serve Inland industrial customers. Estimated lateral costs were based on the cost associated with a recent service lateral to a large Inland customer (Table

INL-3, Page 3B-3). If no lateral is required, the cost would be reduced.

3.4 System Improvements

System Improvements comprise those capital expenditures related to increasing the capacity of the existing system to handle the forecast increased peak day demand. Excluded from the System Improvements costs are those costs associated with large transmission projects, which are addressed below, and expenditures not associated with incremental load, such as facility upgrades. The System Improvements costs (Tables LM-4, Page 3A-4, INL-4, Page 3B-4, and COL-4, Page 3C-4) were derived from the BC Gas Five Year System Plan. Because the System Improvement capital costs incurred over the 5 years are related to forecast increases in peak day demand on the system, these costs were levelized using the associated forecast of peak day demand. The incremental system improvement costs, in $ per GJ peak day, were assigned to customer classes based on the respective load factors.

3.5 Large Transmission Projects

Incremental capital costs associated with large transmission projects (Tables LM-5, Page 3A-5 and INL-5, Page 3B-5) were determined using the BC Gas System Planning long term forecasts for system expansion to meet forecast peak day demand through to 2005. The first major projects in each of the Lower Mainland and Interior regions associated with a large increase in capacity were selected. The determination of the time frames involved for each of these estimates was the period over which an expansion in capacity meets the forecast system peak day demand requirements. Costs were assigned to specific customer classes in a manner similar to that used for System Improvements.

3.6 Operation and Maintenance

Tables LM-6, Page 3A-6, INL-6, Page 3B-6, and COL-6, Page 3C-6 provide detailed O&M expenses by type of expense. Ratios (in percent terms) of costs incurred were assigned for new customers relative to existing customers on a per customer basis.[5] The percentages were derived through consultation with BC Gas staff working in the various areas defined by the cost categories. Thus, for 1992, the incremental O&M cost is determined for each category under column (1) by multiplying the costs listed in column (3) by the percentage in column (4).

These incremental costs were then grouped into:

- Peaking;
- Distribution Related;
- Transmission Related;
- Account Related;
- Throughput Related; and
- Direct Assignment (NGV).

Each line item listed under column (1) is assigned to one of the groups, and this is indicated by an "x" in columns (5) through (10). The total incremental costs for each group are given at the bottom of page 3 of Tables LM-6, INL-6 and COL-6 (see Tabs A, B and C).

To assign the incremental portions of O&M to customer rate classes, the procedures described below were carried out.

Referring to the incremental O&M groups: peaking related and transmission related costs are assumed to be a function of

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[5]These ratios indicate how per customer O&M costs would vary if all customers were assumed to be incremental.

capacity (they are demand related charges), and thus can be assigned to specific customer categories via load factors.

Distribution related O&M costs were assigned to specific customer categories based on the level of incremental distribution capital investment. Apart from the directly assignable NGV portion, the remaining O&M expenses are associated with customers and throughput. Part of the incremental O&M customer related costs are from customer accounting. For these expenses, it was recognized that residential and commercial customers are billed similarly and thus should bear similar costs. Larger industrial customers require more labour intensive billing and were assigned a higher per account cost. The per customer cost assigned to these larger customers, multiplied by the number of customers, was subtracted from the total customer accounting O&M cost, and the residual was allocated by customer to the residential and commercial rate classes.

3.7 Assumed Annual Incremental Gas Use Rates

Distribution facilities and related O&M costs, and account related O&M cost components are estimated on a per customer basis. To arrive at a per GJ cost for these items involves division by annual use rates for each customer class. The annual use rate is thus a key component in estimating per unit LRIC. The appropriate annual use rates are those which are associated with new customers added to the system. The assumption made for the purposes of this study is that the long run incremental use rates associated with typical customers added in each of the three divisions will converge. In the residential sector, this is expected to occur with increased energy efficiency and standardized building codes. For commercial, small/medium industrial and seasonal customers, similarities in incremental customer size are assumed across divisions, resulting in similar annual use rates. The use rate for incremental large industrial

interruptible customers on the Lower Mainland was based on current average use rates. Use rates for large captive and non-captive customers in the Interior divisions were based on recent representative customer additions.

The following annual use rates were assumed for each division:

Customer Class	Annual Use Rate (GJ)
Residential	100
Commercial	600
Small Industrial	12,000
Interruptible	160,000
Large Industrial Captive	300,000
Large Industrial Non-captive	400,000

TABLE BCG–1: LONG RUN INCREMENTAL COSTS BY DIVISION

LOWER MAINLAND

	($1992/GJ)	RESIDENTIAL	GENERAL SERVICE	MEDIUM INDUSTRIAL	SEASONAL	INTERR LARGE T–SERVICE	ALTERNATIVE FUEL
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
(1)	DISTRIBUTION	$1.78	$0.33	$0.25	$0.25	$0.04	$0.04
(2)	TRANSMISSION	$0.35	$0.34	$0.22	$0.07	$0.00	$0.00
(3)	O&M	$0.56	$0.15	$0.12	$0.11	$0.06	$0.06
(4)	**TOTAL NON–GAS LRIC**	**$2.69**	**$0.82**	**$0.59**	**$0.43**	**$0.10**	**$0.10**

INLAND

	($1992/GJ)	RESIDENTIAL	COMMERCIAL	SMALL INDUSTRIAL	SEASONAL	SMALL T–SERVICE NON–CAPTIVE	LARGE INDUSTRIAL CAPTIVE	LARGE INDUSTRIAL NON–CAPTIVE
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
(1)	DISTRIBUTION	$1.56	$0.27	$0.22	$0.22	$0.03	$0.22	$0.17
(2)	TRANSMISSION	$0.52	$0.51	$0.32	$0.11	$0.23	$0.27	$0.08
(3)	O&M	$0.66	$0.15	$0.11	$0.11	$0.04	$0.06	$0.05
(4)	**TOTAL NON–GAS LRIC**	**$2.74**	**$0.93**	**$0.65**	**$0.44**	**$0.30**	**$0.55**	**$0.30**

COLUMBIA

	($1992/GJ)	RESIDENTIAL	COMMERCIAL	SMALL INDUSTRIAL	LARGE FIRM INDUSTRIAL
	(a)	(b)	(c)	(d)	(e)
(1)	DISTRIBUTION	$1.99	$0.37	$0.21	$0.17
(2)	TRANSMISSION	$0.35	$0.31	$0.24	$0.18
(3)	O&M	$0.89	$0.19	$0.11	$0.06
(4)	**TOTAL NON–GAS LRIC**	**$3.23**	**$0.87**	**$0.56**	**$0.41**

TABLE BCG–2: REVENUE IMPACTS OF LRIC RATES

LOWER MAINLAND

	(a)	RESIDENTIAL (b)	GENERAL SERVICE (c)	MEDIUM INDUSTRIAL (d)	SEASONAL (e)	INTERR LARGE T–SERVICE (f)	ALTERNATIVE FUEL (g)	TOTAL
(1)	LRIC ($/GJ)	$2.69	$0.82	$0.59	$0.43	$0.10	$0.10	
(2)	VOLUME (GJ)	48,962,800	35,650,300	4,875,200	238,000	17,308,600	2,947,400	109,982,300
(3)	LRIC REVENUE ($000)	$131,710	$29,233	$2,876	$102	$1,731	$295	$165,947
(4)	GROSS MARGIN ($000)	$88,551	$50,407	$8,198	$195	$19,756	$2,894	$170,001
(5)	DIFFERENCE ($000)	$43,159	($21,174)	($5,322)	($93)	($18,025)	($2,599)	($4,054)
	REVENUE–NEUTRAL LRIC:							
(6)	PRO–RATED	$2.76	$0.84	$0.60	$0.44	$0.10	$0.10	
(7)	$/GJ ADJUSTMENT	$2.73	$0.86	$0.63	$0.47	$0.14	$0.14	

INLAND

	(a)	RESIDENTIAL (b)	COMMERCIAL (c)	SMALL INDUSTRIAL (d)	SEASONAL (e)	SMALL T–SERVICE NON–CAPTIVE (f)	LARGE INDUSTRIAL CAPTIVE (g)	LARGE INDUSTRIAL NON–CAPTIVE (h)	TOTAL
(1)	LRIC ($/GJ)	$2.74	$0.93	$0.65	$0.44	$0.30	$0.55	$0.30	
(2)	VOLUME (GJ)	14,088,200	9,528,200	2,695,000	185,300	1,642,200	10,112,800	16,376,300	54,628,000
(3)	LRIC REVENUE ($000)	$38,602	$8,861	$1,752	$82	$493	$5,562	$4,913	$60,264
(4)	GROSS MARGIN ($000)	$31,894	$19,371	$3,081	$250	$843	$3,498	$2,102	$61,039
(5)	DIFFERENCE ($000)	$6,708	($10,510)	($1,329)	($168)	($350)	$2,064	$2,811	($775)
	REVENUE–NEUTRAL LRIC:								
(6)	PRO–RATED	$2.78	$0.94	$0.66	$0.45	$0.30	$0.56	$0.30	
(7)	$/GJ ADJUSTMENT	$2.75	$0.94	$0.66	$0.45	$0.31	$0.56	$0.31	

COLUMBIA

	(a)	RESIDENTIAL (b)	COMMERCIAL (c)	SMALL INDUSTRIAL (d)	LARGE FIRM INDUSTRIAL (e)	TOTAL
(1)	LRIC ($/GJ)	$3.23	$0.87	$0.56	$0.41	
(2)	VOLUME (GJ)	1,698,200	1,148,300	440,000	6,780,700	10,067,200
(3)	LRIC REVENUE ($000)	$5,485	$999	$246	$2,780	$9,511
(4)	GROSS MARGIN ($000)	$2,991	$1,390	$166	$1,232	$5,779
(5)	DIFFERENCE ($000)	$2,494	($391)	$80	$1,548	$3,732
	REVENUE–NEUTRAL LRIC:					
(6)	PRO–RATED	$1.96	$0.53	$0.34	$0.25	
(7)	$/GJ ADJUSTMENT	$2.86	$0.50	$0.19	$0.04	

4.0 DISCUSSION OF RESULTS

Estimates of Long Run Incremental Costs (LRIC), excluding the cost of gas supply, are developed for the three major divisions of the BC Gas system:

- Lower Mainland;
- Inland; and
- Columbia.

The estimates for each division are presented in a sequence of tables, parallel in form. Each set consists of a detailed summary table that brings together the results, followed by a series of backup tables dealing with the various cost elements:

- meter and service costs;
- distribution mains and laterals costs;
- system improvement costs;
- large transmission project costs; and
- operation and maintenance expenses.

The discussion which follows refers to tables for the Lower Mainland (Tab A), Inland (Tab B) and Columbia (Tab C) divisions. The tables are coded, by division, as LM (Lower Mainland), INL (Inland) and COL (Columbia).

4.1 Detailed LRIC Summary

Each Detailed LRIC Summary table (LM-1, Page 3A-1, INL-1, Page 3B-1, and COL-1, Page 3C-1) breaks down the LRIC estimates among transmission, distribution, and operation and maintenance (O&M). The customer classes identified are not identical for each division, reflecting the current situation of differing divisional rate classifications. However, cross-divisional comparisons are possible.

Customers in all three divisions can be grouped into the following categories:

- Residential;
- Commercial (General Service in existing LM tariffs);
- Small/Medium Industrial;
- Large Interruptible; and,
- Large Firm.

The bottom line results (line 20) are presented on a cost per unit of consumption basis. This means that all capital costs are expressed on an annual basis and divided by the relevant annual consumption in each customer class. Costs are defined in 1992 dollars (real dollars). Future inflation would increase costs in terms of nominal dollars.

In each of the divisions, the LRICs are highest for the residential sector and lowest for large industrial, particularly the large interruptible customers. The descending order of costs from residential, to commercial/general service, to industrial is heavily influenced by incremental consumption per (incremental) customer. Incremental consumption is lowest for residential and highest for larger industrial customers. Thus the ranking of LRIC is inversely related to annual consumption.

The majority of LRIC for the residential sector is contained in the distribution and O&M elements. However, transmission costs become relatively more significant for larger customers.

4.2 Meter and Service Costs

Tables LM-2, Page 3A-2, INL-2, Page 3B-2, and COL-2, Page 3C-2 show meter and service costs for the Lower Mainland, Inland and Columbia divisions respectively, as likely to be

representative of new customers added to the system. The large industrial cost estimate for the Inland system is based on the cost for a recently added large industrial customer. The table indicates that annual capital costs per customer are lowest for the residential sector and highest for the industrial sectors. It is after expression on a unit of consumption basis that this ordering is reversed (see Tables LM-1, INL-1 and COL-1).

4.3 Distribution Mains and Laterals Costs

Tables LM-3, Page 3A-3, INL-3, Page 3B-3, and COL-3, Page 3C-3 provide cost estimates for distribution mains associated with customer classes based on analysis of work orders, and a lateral cost estimate based on providing service for a large industrial customer (Inland and Columbia). Per customer costs are highest in the industrial categories, though as was the case for meters and services, this cost ordering reverses itself when expressed on a per unit basis.

4.4 System Improvement Costs

System Improvements are defined here as smaller transmission projects associated with providing service to incremental customers. These costs are given in Tables LM-4, Page 3A-4, INL-4, Page 3B-4, and COL-4, Page 3C-4. Because these costs are lumpy and thus cannot be finely tuned with required capacity increases, the analysis was conducted over a five year period sufficient to match design capacity with forecast demand. Recall that lumpiness of investment is the rationale for using LRIC methodology as a proxy for marginal cost. The Tables show the investment stream and capacity demand forecast over the next five years. A levelized cost approach is used to determine an annual investment in GJ per peak day, which then can be assigned to specific customer groups within each division on the basis of each group's load factor. This latter assignment is undertaken in Tables LM-1, INL-1 and COL-1.

4.5 Large Transmission Project Costs

New Large Transmission projects associated with serving incremental customers are detailed in Tables LM-5, Page 3A-5, and INL-5, Page 3B-5. The analysis is similar to that undertaken for System Improvements, however the time frame involved is longer reflecting larger capacity increments. For the Lower Mainland system, the Surrey-Langley pipeline project provides incremental capacity to meet forecast demand requirements through 2004. For the Interior, the Southern Interior System Transmission Reinforcement project and several smaller projects provide incremental system capacity to meet demand through 2005. Levelized large transmission costs are estimated to be some $27 per GJ peak day for the Lower Mainland and $41 for Inland.

4.6 Operation and Maintenance Costs

Tables LM-6, Page 3A-6, INL-6, Page 3B-6, and COL-6, Page 3C-6 detail O&M costs for the three divisions. O&M costs are grouped into six categories:

- peaking (i.e capacity) related;
- account related;
- throughput (i.e. volume) related;
- directly assigned NGV related;
- distribution plant related; and,
- transmission plant (i.e. capacity) related.

Capacity related costs (peaking and transmission) are treated as annualized costs affected by customer class load factors. Distribution plant related costs are assigned to customer classes based on the incremental capital expenditure in each class. Treatment of the other cost categories is straightforward.

The question posed with respect to recorded 1992 costs which relate to all customers is how they would be affected by new customers - the objective of the LRIC estimation. The relationship between average and incremental unit costs is shown in column (4). In many instances, incremental costs are below average costs over the long run. But in some cases, such as distribution sales promotion, the burden of effort is directed to new rather than existing customers, indicating incremental customer costs exceed average costs.

4.7 Cross-Divisional Comparison

Table BCG-1 provides a summary of total non-gas LRIC for the three divisions. While customer classes vary among the divisions, mitigating against direct comparisons, some clear relationships emerge. Generally, incremental unit costs are lowest in the Lower Mainland and Inland, and highest in Columbia.

In the residential sector, the differences in incremental costs are mainly attributable to O&M and distribution facilities costs, with less clear relationships between transmission[6] and facilities costs. Lower Mainland and Inland costs are very similar while Columbia costs are significantly higher. This is attributable to higher distribution and O&M costs. A higher metres of main per customer figure results in higher distribution costs. For O&M, higher costs are attributable to higher per customer costs for customer accounting and marketing.

For the general service/commercial customer class, Lower Mainland and Inland are again fairly close in total LRIC. The low transmission cost estimate for Columbia results in a much lower LRIC for commercial as compared to residential.

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[6]Columbia was not assigned a large transmission cost as there was no suitable project to facilitate a cost estimate.

For the larger customer classes, the predominance of Interruptible class customers on the Lower Mainland system makes comparisons across divisions difficult.

LRIC estimates for distribution mains (Tables LM-3, INL-3 and COL-3) have been revised. In addition, changes have been made to the direct allocation of O&M expenditures reflecting revised estimates for account specific costs for large industrial customers. These new estimates are reflected in the revised Table BCG-1 "Long Run Incremental Costs By Division" and Table BCG-2 "Revenue Impacts Of LRIC Rates" as well as in the detailed LRIC results Tables LM-1, INL-1 and COL-1.

APPENDIX A: CAPITAL CARRYING CHARGES

The cost of fixed assets yielding a flow of services over time needs to be expressed in annual terms. This Appendix concerns the calculation of such charges, termed capital carrying charges (CCC). In the context of the LRIC study they are defined in levelized terms, analogous to an annuity.[7]

The CCC embraces two aspects: return of capital; and return on capital. The former is dependent on the asset life (the depreciation rate). The latter is dependent on the utility's cost of capital.

Depreciation is treated as straightline, in conformity with normal utility practice. The rate of return reflects an assumed capital structure. It is also expressed on a gross of tax basis to capture the income tax component of the cost of equity capital. However, an adjustment is made to accommodate income tax savings enjoyed by virtue of capital cost allowances (CCA). Under the prevailing flowthrough tax regime, such savings are channelled to utility customers.[8]

The LRIC study capital costs are defined in real terms, that is, without incorporating further inflation. For consistency, this entails that the cost of capital also be defined in real terms. Hence the nominal return on capital is converted to a real return.

The development of capital carrying charges for assets of varying lives is detailed in Table A-1. The Table is broken down into three segments. The first concerns basic parameters: the capital structure and nominal returns. In the utility context debt interest costs are not effectively tax

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[7] Under cost-of-service regulation, capital charges generally decline over time as the rate base attenuates. The LRIC study seeks to define a single unit cost, not a time dependent stream of costs. Hence the levelized approach.

[8] These income tax savings relate to differences in the timing of tax incidence, not in undiscounted tax savings.

deductible. The inflation rate of four per cent is that level assumed to be embedded in the cost of capital. The second segment concerns real CCC's in what can be called the pure utility case, one where there are no tax savings from debt interest. The third segment makes the adjustment for accelerated tax depreciation.

It is the CCC's from the third segment that have been applied in the LRIC study beforehand.

APPENDIX A–1: CAPITAL CARRYING CHARGES

	BASIC PARAMETERS:	VALUE	SOURCE
(1)	TARGET SHARE OF SHORT & LONG TERM DEBT	59.59%	BC GAS
(2)	TARGET SHARE OF EQUITY	35.00%	BC GAS
(3)	TARGET SHARE OF PREFERRED STOCK	5.41%	BC GAS
(4)	INFLATION RATE	4.00%	BC GAS
(5)	NOMINAL COST OF DEBT	8.75%	BC GAS
(6)	NOMINAL AFTER TAX COST OF EQUITY	13.00%	BC GAS
(7)	NOMINAL AFTER TAX COST OF PREFERRED STOCK	8.85%	BC GAS
(8)	CORPORATE INCOME TAX RATE	44.84%	BC GAS
(9)	NET OF TAX FACTOR	55.16%	1 – (8)
(10)	**NOMINAL AFTER TAX WEIGHTED COST OF MONEY**	**10.25%**	(1)*(5)+(2)*(6)+(3)*(7)
(11)	REAL COST OF DEBT	4.57%	[1+(5)]/[1+(4)]–1
(12)	REAL AFTER TAX COST OF EQUITY	8.65%	[1+(6)]/[1+(4)]–1
(13)	REAL AFTER TAX COST OF PREFERRED STOCK	4.66%	[1+(7)]/[1+(4)]–1
(14)	**REAL AFTER TAX WEIGHTED COST OF MONEY**	**6.01%**	(1)*(11)+(2)*(12)+(3)*(13)
(15)	STRAIGHT LINE (SL) DEPRECIATION FOR TELEMETERING	10.00%	BC GAS
(16)	SL DEPRECIATION FOR METERS	3.00%	BC GAS
(17)	SL DEPRECIATION FOR OTHER FACILITIES & EQUIPMENT	2.00%	BC GAS
(18)	ASSET LIFE IN YEARS, 10% SL DEPRECIATION	10.0	1 / (15)
(19)	ASSET LIFE IN YEARS, 3.0% SL DEPRECIATION	33.3	1 / (16)
(20)	ASSET LIFE IN YEARS, 2.0% SL DEPRECIATION	50.0	1 / (17)
(21)	NOMINAL EQUITY RETURN INCLUDING TAX	23.57%	(6) / (9)
(22)	NOMINAL PREFERRED RATE OF RETURN INCLUDING TAX	16.04%	(7) / (9)

REAL CCC FOR PURE UTILITY CASE (NO TAX SAVINGS FROM DEBT) ASSUMING CCA = S.L. DEPRECIATION

(23)	NOMINAL EQUITY RETURN INCLUDING TAX	23.57%	(6)/(9)
(24)	NOMINAL PREFERRED RETURN INCLUDING TAX	16.04%	(7)/(9)
(25)	**NOMINAL COST OF MONEY INCLUDING TAX**	**14.33%**	(1)*(5)+(2)*(23)+(3)*(24)
(26)	REAL EQUITY RETURN INCLUDING TAX	18.82%	[1+(21)]/[1+(4)]–1
(27)	REAL PREFERRED RETURN INCLUDING TAX	11.58%	[1+(22)]/[1+(4)]–1
(28)	**REAL WEIGHTED COST OF MONEY INCLUDING TAX**	**9.94%**	(1)*(11)+(2)*(26)+(3)*(27)
(29)	ANNUITY FACTOR FOR (46) AND (20)	6.16	[1–(1+(28) ^ –(18))]/(28)
(30)	ANNUITY FACTOR FOR (46) AND (21)	9.64	[1–(1+(28) ^ –(19))]/(28)
(31)	ANNUITY FACTOR FOR (46) AND (22)	9.98	[1–(1+(28) ^ –(20))]/(28)
(32)	**REAL CCC INCLUDING TAX (10 YEARS, 10%)**	**16.23%**	1/(29)
(33)	**REAL CCC INCLUDING TAX (33.3 YEARS, 3%)**	**10.38%**	1/(30)
(34)	**REAL CCC INCLUDING TAX (50 YEARS, 2%)**	**10.02%**	1/(31)

REAL CCC USING CAPITAL COST ALLOWANCE TAX DEPRECIATION

(35)	FIXED TAX DEPRECIATION COEFFICIENT FOR 10%	0.100	SET EQUAL TO SL DEPRECIATION
(36)	FIXED TAX DEPRECIATION COEFFICIENT FOR 3%	0.040	BC GAS
(37)	FIXED TAX DEPRECIATION COEFFICIENT FOR 2%	0.040	BC GAS
(38)	ANNUITY FACTOR FOR (43) AND (20)	5.15	[1–(1+(25) ^ –(18))]/(25)
(39)	ANNUITY FACTOR FOR (43) AND (21)	6.90	[1–(1+(25) ^ –(19))]/(25)
(40)	ANNUITY FACTOR FOR (43) AND (22)	6.97	[1–(1+(25) ^ –(20))]/(25)
(41)	CCA ADJUSTMENT FACTOR FOR 10 YRS, 10%	1.000	1–[[(8)/[1–(8)]]*[[(35)/[(25)+(35)]]–[(38)/(18)]]
(42)	CCA ADJUSTMENT FACTOR FOR 33.3 YRS, 3%	0.991	1–[[(8)/[1–(8)]]*[[(36)/[(25)+(36)]]–[(39)/(19)]]
(43)	CCA ADJUSTMENT FACTOR FOR 50 YRS, 2%	0.936	1–[[(8)/[1–(8)]]*[[(37)/[(25)+(37)]]–[(40)/(20)]]
(44)	**REAL CCC INCL TAX & USING CCA (10 YEARS, 10%)**	**16.23%**	(32)*(41)
(45)	**REAL CCC INCL TAX & USING CCA (33.3 YEARS, 3%)**	**10.28%**	(33)*(42)
(46)	**REAL CCC INCL TAX & USING CCA (50 YEARS, 2%)**	**9.38%**	(34)*(43)

APPENDIX B: SALIENT ASPECTS OF OTHER LRIC STUDIES

Several studies of Long Run Incremental Costs (LRIC) are in the public domain. This appendix lists methodological aspects of five such studies. These are:

- BC Hydro, "Long Run Incremental Cost of Service Study", Rate Design Application, January, 1991.

- Reed Consulting Group, "Marginal Cost of Service Study", prepared for EnergyNorth Natural Gas, Inc., January 23, 1990.

- Hanson, John A., Prepared Testimony and Prepared Exhibit, "Long Run Incremental Cost Study", Before the Public Utility Commission of Oregon, Northwest Natural Gas Company, January, 1989.

- Foster Associates Inc., Direct Testimony of Robert H. Sarikas, "Long Run Incremental Cost of Service Study - Gas", Before the Public Service Commission, Niagara Mohawk Power Corporation, 1980.

- Foster Associates Inc., Additional Prehearing Testimony of Robert H. Sarikas, "Incremental Cost Study", Before the Ontario Energy Board in the Matter of Certain Application by the Consumers' Gas Company for Orders Approving Rates to be Charged by the Company for the Sale of Gas, June, 1978.

Details are shown in Table B-1. That information shows a broad commonality of approach among the studies. And the principal features of these approaches are consistent with those adopted in the BC Gas LRIC study.

Table B-1

Salient Features of LRIC Studies

	BC Hydro 1991 (Electricity)	Reed 1990 (Gas)	Hanson 1989 (Gas)	Foster 1980 (Gas)	Foster 1978 (Gas)
1. Study Focus	New cust, and added load for exist cust	New cust	New cust	Ambiguous but mainly new cust	New cust
2. Customer Classes Identified	R; Gen; Irrig; transm; regional	R;C;I; PA	R; sm C&I; lg FS; lg FS (hlf); FS (hlf); IS	R (h,nh); sm GS (h,nh); lg GS; (4 sizes)	R, sm C & I, IP (4lf) Cop, Iop
3. Capital Cost Methodology	Levl; 20 yr 1990$ (GEN); 10 yr (transm); oth costs = eng costs per KW.	Levl; distr costs, 7 yr outlook.	Recorded investment costs for 1987	Eng est, no proj.	Levl distr, (6 yr term) other: eng costs and time series regr.
4. Distribution Costs					
a - Mains	Primary line cost - hist.	Not identified	Eng est; ft. & cost/ft of extension	Reinforce. inv; eng est.	Reinforce inv, ft& cost/ft of extension
b - Service Lines	Est from siml program	Eng estimates	Eng est; ft & cost/ft of extension	Eng est based on work orders	Eng est based on work orders
c - Meters and Regulators	Eng est (by load size)	Eng est (note 25 yr life)	Eng est by cust class	Eng est, based on work orders	Eng est
5. Transmission Costs	Levl costs, 10 yr proj (real terms)	Not identified	Not identified	Not identified	Not identified

Table B-1 (continued)

Salient Features of LRIC Studies

	BC Hydro 1991 (Electricity)	Reed 1990 (Gas)	Hanson 1989 (Gas)	Foster 1980 (Gas)	Foster 1978 (Gas)
6. O & M Expenses					
a - Customer related	} Allocation of expense accounts	based only on cust accounts	Accounting estimate	Judgmental allocation of expenses	} Annual expenses, eng est
b - Volume Related		none	Accounting estimate, incl tax	Judgmental allocation of expenses	
7. City Gate Gas Costs	not applicable	av short run hist cost (incl O & M for 1990)	prevailing 1987 rates	prevailing 1978 rates	levl costs, 5 yr projection
8. Capital Carrying Charges	formula approach, gross of tax, varying depr rates ambiguous on real or nom$	annuity factors, (ambiguous on real or nom$), varying depr rates	formula approach, real$, one depr rate	derived from revenue siml, varying depr rates, nom$	derived from rev siml, varying depr rates, nom$

Legend:

Cop	= Commerical off peak	ft	= foot	R	= residential
Iop	= Industrial off peak	lg	= large	C	= commercial
eng	= engineering	sm	= small	I	= industrial
est	= estimated	nh	= non-heating	h	= heating
gen	= general	PA	= public authority	hist	= historical
hlf	= high load factor	GS	= general service	levl	= levelized
		IS	= interruptible service	siml	= simulated
		FS	= firm service	distr	= distribution
		IP	= industrial process	irrig	= irrigation
				transm	= transmission

SOURCES: TABLE B-1

Row 1 - Study Focus

Column 1 - BC Hydro [1991, p.I-C-1].

Column 2 - Reed [1990, pp.6,10].

Column 3 - Hanson [1989, p.2].

Column 4 - Foster [1980, p.13], and rest of document. Text says total load; calculations indicate new customers.

Column 5 - Foster [1978, p.7].

Row 2 - Customer Classes Identified

Column 1 - BC Hydro [1991, Table 1].

Column 2 - Reed [1990, Exhibit 10].

Column 3 - Hanson [1989, Exhibit 10, p.1 of 7].

Column 4 - Foster [1980, pp.17,18].

Column 5 - Foster [1978, Schedule 1].

Row 3 - Capital Costs Methodology

Column 1 - BC Hydro [1991, p. I-C-6, I-C-7].

Column 2 - Reed [1990, Exhibit 7 and p.9].

Column 3 - Hanson [1989, p.2].

Column 4 - Foster [1980, Exhibit 58].

Column 5 - Foster [1978, Schedule 4, p.1] and Foster [1978].

Row 4a - Distribution Costs, Mains

Column 1 - BC Hydro [1991, p. I-C-8 and Schedule 8].

Column 2 - Reed [1990]. Not identified.

Column 3 - Hanson [1989, Exhibit 10. pp.2 to 6 of 7].

Column 4 - Foster [1980, Exhibit 58, Schedule 5].

Column 5 - Foster [1978, Schedule 4, p.4 and Schedule 5].

Row 4b - Distribution Costs, Services

Column 1 - BC Hydro [1991, Schedule 11].

Column 2 - Reed [1990, Exhibit 6].

Column 3 - Hanson [1989, Exhibit 10, pp.2 to 6 of 7].

Column 4 - Foster [1980, p.25].

Column 5 - Foster [1978, p.11].

Row 4c - Distribution Costs, Meter and Regulators

Column 1 - BC Hydro [1991, Schedule 11].

Column 2 - Reed [1990, Exhibit 6].

Column 3 - Hanson [1989, Exhibit 10, pp.2 to 6 of 7].

Column 4 - Foster [1980, p.25].

Column 5 - Foster [1978, p.11].

Row 5 - Transmission Costs

Column 1 - BC Hydro [1991, Schedule 6 and p.I-C-7].

Column 2 - Reed [1990]. Not identified.

Column 3 - Hanson [1989]. Not identified.

Column 4 - Foster [1980]. Not identified.

Column 5 - Foster [1978]. Not identified.

Row 6a - O&M Expenses - Customer Related

Column 1 - BC Hydro [1991, Schedule 11, and p. I-C-8].

Column 2 - Reed [1990, pp.7,8].

Column 3 - Hanson [1989, p.11].

Column 4 - Foster [1980, pp.26,27].

Column 5 - Foster [1978, Schedules 1 & 7, pp.4,5].

Row 6b - O&M Expenses - Volume Related

Column 1 - BC Hydro [1991, Schedule 11 and p. I-C-8].

Column 2 - Reed [1990]. Not applicable.

Column 3 - Hanson [1989, Exhibit 10, Worksheet 5].

Column 4 - Foster [1980, pp.26,27].

Column 5 - Foster [1978, Schedules 1 & 7, pp.4,5].

Row 7 - City Gate Gas Costs

Column 1 - BC Hydro - Not applicable.

Column 2 - Reed [1990, p.3].

Column 3 - Hanson [1989, p.12].

Column 4 - Foster [1980, p.13].

Column 5 - Foster [1978, p.11 and Schdedule 3].

Row 8 - Capital Carrying Charges

Column 1 - BC Hydro [1991, Schedule 12, and p.I-C-9].

Column 2 - Reed [1990, Exhibit 6].

Column 3 - Hanson [1989, Exhibit 10, p.7 of 7].

Column 4 - Foster [1980, Exhibit 58, Schedule 8].

Column 5 - Foster [1978, Schedule 6].

References

BC Hydro [1991], "Long Run Incremental Cost of Service Study", Rate Design Application, January.

Foster Associates Inc. [1980], Direct Testimony of Robert H. Sarikas, Before the Public Service Commission, Niagara Mohawk Power Corporation.

Foster Associates Inc. [1978], "Incremental Cost Study", Ontario Energy Board in the matter of Certain Application by the Consumers' Gas Company for Orders Approving Rates to be Charged by the Company for the Sale of Gas, June.

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Energy Board in the matter of Certain Application by the Consumers' Gas Company for Orders Approving Rates to be Charged by the Company for the Sale of Gas, June.

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Reed Consulting Group [1990], "Marginal Cost of Service Study", prepared for EnergyNorth Natural Gas, Inc., January 23.

TABLE LM–1: DETAILED LRIC SUMMARY – LOWER MAINLAND

*	(a)	RESIDENTIAL (b)	GENERAL SERVICE (c)	MEDIUM INDUSTRIAL (d)	SEASONAL (e)	INTERR LARGE T–SERVICE (f)	ALTERNATIVE FUEL (g)
(1)	PEAK DAY LOAD (10^3 M^3)	11,823	8,334	738	12	0	0
(2)	PEAK DAY LOAD (GJ)	455,887	321,355	28,442	455	0	0
(3)	LOAD FACTOR	30.68%	31.69%	48.47%	149.43%	0	0
(4)	NO. OF CUSTOMERS (1992)	402,048	45,250	398	48	115	5
(5)	VOLUME (GJ 1992)	51,055,323	37,173,887	5,031,385	248,171	17,481,686	2,976,874
(6)	AVERAGE USE (GJ/YR)	122	822	12,602	14,236	160,378	296,876
(7)	INCREMENTAL USE (GJ/YR)	100	600	12,000	12,000	160,000	300,000
(8)	**TRANSMISSION ($/GJ)**	**$0.35**	**$0.34**	**$0.22**	**$0.07**	**$0.00**	**$0.00**
	DISTRIBUTION (ANNUALIZED $/CUSTOMER)						
(9)	MAINS & LATERALS	$52	$52	$251	$251	$251	$251
(10)	METERS & SERVICES	$126	$146	$2,689	$2,689	$5,896	$10,373
(11)	TOTAL DISTRIBUTION	$178	$198	$2,940	$2,940	$6,147	$10,624
(12)	**DISTRIBUTION ($/GJ)**	**$1.78**	**$0.33**	**$0.25**	**$0.25**	**$0.04**	**$0.04**
	O & M COSTS ($/GJ)						
(13)	PEAKING	$0.01	$0.01	$0.00	$0.00	$0.00	$0.00
(14)	DISTRIBUTION RELATED	$0.07	$0.01	$0.01	$0.01	$0.00	$0.00
(15)	TRANSMISSION RELATED	$0.01	$0.01	$0.01	$0.00	$0.00	$0.00
(16)	ACCOUNT RELATED	$0.41	$0.07	$0.00	$0.00	$0.00	$0.00
(17)	THROUGHPUT RELATED	$0.05	$0.05	$0.05	$0.05	$0.05	$0.05
(18)	DIRECT ASSIGNMENT**			$0.05	$0.05	$0.00	$0.00
(19)	**TOTAL O&M**	**$0.56**	**$0.15**	**$0.12**	**$0.11**	**$0.06**	**$0.06**
(20)	**TOTAL NON–GAS COST**	**$2.68**	**$0.82**	**$0.59**	**$0.43**	**$0.10**	**$0.09**

* SEE ATTACHED NOTES.
** EXCLUDES ACCOUNT–RELATED INCREMENTAL T–SERVICE COSTS

NOTES TO TABLE 1: DETAILED LRIC SUMMARY

1	BC GAS
2	BC GAS
3	BC GAS
4	BC GAS
5	BC GAS
6	BC GAS (1992)
7	BC GAS
8	[SYSTEM IMPROVEMENTS (TABLE 4) + LARGE TRANSMISSION (TABLE 5)]/[(3)*365]
9	TABLE 3
10	TABLE 2
11	(9)+(10)
12	(11)/[(7)*(4)]
13	[O&M PEAKING COSTS (TABLE 6)]/[365*(3)]
14	[O&M DIST COST (TABLE 6)]*[RATIO OF CLASS DIST. CAPITAL TO TOTAL DIST. CAPITAL]/[(7)*(4)]
15	[O&M TRANS COSTS (TABLE 6)]/[365*(3)]
16	[O&M ACCOUNT COST (TABLE 6)]/(7)
17	[O&M THROUGHPUT COST (TABLE 6)]/[TOTAL VOLUME THROUGHPUT]
18	BILLING AND ACCOUNT RELATED COSTS SPECIFIC TO CUSTOMERS NOT CYCLE BILLED.
19	(13)+(14)+(15)+(16)+(17)+(18)
20	(8)+(12)+(19)

TABLE LM–2: INCREMENTAL METER AND SERVICE COSTS* – LOWER MAINLAND

($1992)

	(a)	RES (b)	COMM (c)	SEASONAL MED IND (d)	LARGE T–SERV (e)	INTERR (f)
(1)	TYPE OF METER	200	400	5MID	T60	T30
(2)	METER SET	$130	$273	$2,767	$12,400	$7,750
(3)	METER SET W/O METER	$62	$109	$775	$51,150	$25,575
(4)	INSTRUMENTS	$0	$0	$5,813	$5,813	$5,813
(5)	TELEMETER	$0	$0	$9,300	$15,500	$9,300
(6)	CUSTOMER SERVICE	$0	$101	$240	$10,385	$5,115
(7)	SERVICE LATERAL	$1,138	$1,138	$2,325	$7,750	$3,875
(8)	TOTAL	$1,330	$1,620	$21,220	$102,998	$57,428
(9)	**COST PER CUSTOMER****	**$126**	**$146**	**$2,689**	**$10,373**	**$5,896**

(10)	ANNUAL CAPITAL CARRYING CHARGE FOR TELEMETERING (10% DEPR.) =	16.23%
(11)	ANNUAL CAPITAL CARRYING CHARGE FOR STANDARD METERS (3% DEPR.) =	10.28%
(12)	ANNUAL CAPITAL CARRYING CHARGE FOR SERVICES (2% DEPR.) =	9.38%

* TYPICAL (MOST COMMON) COSTS FOR METERS AND SERVICES BY CUSTOMER CLASS

** [[(2)+(3)+(4)]*(11)+(5)*(10)+[(6)+(7)]*(12)]

TABLE LM–3: DISTRIBUTION MAINS AND LATERALS COSTS – LOWER MAINLAND

($1992)

	(a)	METRES OF MAIN PER CUSTOMER (b)	$/METRE** (c)	DOLLARS/ CUSTOMER (d)	DOLLARS/ CUSTOMER ANNUALIZED (e)
(1)	RESIDENTIAL	18	$31	$558	**$52**
(2)	COMMERCIAL	18	$31	$558	**$52**
(3)	INDUSTRIAL*	48	$56	$2,678	**$251**

(4) CAPITAL RECOVERY FACTOR = 9.38%

* COST PER METRE CALCULATED AS 1.8 * RESIDENTIAL/COMMERCIAL COST PER METRE
** INCLUDING 55% OVERHEAD

TABLE LM–4: SYSTEM IMPROVEMENTS – LOWER MAINLAND

(1992 $000)

	(a)	(b)	1993 (c)	1994 (d)	1995 (e)	1996 (f)	1997 (g)
(1)	METRO		$1,054.5	$500.6	$2,300.2	$3,196.6	$5,028.0
(2)	FRASER VALLEY		$499.1	$1,081.9	$1,128.3	$1,242.3	$439.0
(3)	**TOTAL LOWER MAINLAND**		**$1,942.0**	**$1,978.1**	**$4,285.6**	**$5,548.6**	**$6,833.8**

PEAK HOUR DESIGN LOAD (10^3 M^3)*

		1992	1993	1994	1995	1996	1997
	LOWER MAINLAND:						
(4)	BASE LOAD	1184	1216	1249	1280	1312	1345
(5)	PCEC LOAD	83	94	102	103	103	127
(6)	TOTAL COASTAL:	1267	1310	1351	1383	1415	1472
(7)	INCREMENTAL		43	41	32	32	57
(8)	CUMULATIVE INCREMENTAL		43	84	116	148	205
(9)	PEAK DAY CUMM INCR**		826	1,613	2,227	2,842	3,936
(10)	**PEAK DAY CUMM INCR (GJ)**		**31,835**	**62,190**	**85,881**	**109,572**	**151,772**

(11) DISCOUNT RATE = 9.94%

(12) CAPITAL COST ALLOWANCE ADJ FACTOR = 0.936

(13) LEVELIZED COSTS ($1992/GJ DAY) = $12.06

(14) GJ PER 10^3 M^3 = 38.56

* COASTAL TRANSMISSION SYSTEM REVIEW, APPENDIX B.

** HOURLY PEAK LOAD / 1.25 * 24 = DAILY PEAK LOAD

TABLE LM-5: LARGE TRANSMISSION PROJECTS* – LOWER MAINLAND

	CAPITAL EXPENDITURES ($1992 MIL):	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
(1)														
(2)	**SURREY–LANGLEY****	**$54.80**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
(3)														
(4)														
(5)	DESIGN LOAD (10^3 M^3 / HR)***	1,267	1,310	1,351	1,383	1,415	1,472	1,505	1,539	1,570	1,605	1,637	1,671	1,724
(6)	INCREASE IN DEMAND (GJ/DAY)		31,835	30,354	23,691	23,691	42,200	24,432	25,172	22,951	25,912	23,691	25,172	39,239
(7)	PERCENT CHANGE IN DEMAND		3.39%	3.13%	2.37%	2.31%	4.03%	2.24%	2.26%	2.01%	2.23%	1.99%	2.08%	3.17%
(8)	**CUMMULATIVE INCR DEMAND**	**0**	**31,835**	**62,190**	**85,881**	**109,572**	**151,772**	**176,204**	**201,376**	**224,327**	**250,239**	**273,930**	**299,102**	**338,341**

$1992/GJ PEAK DAY

(9)	LEVELIZED COST 1993–2004	$27.11
(10)	DISCOUNT RATE***** =	9.94%
(11)	CAPITAL COST ALLOWANCE ADJUSTMENT FACTOR***** =	0.936

* SOURCE: SURREY–LANGLEY PROJECT CPCN APPLICATION, VOLUME 1 OPTION B – PIPING OPTION 42 INCH
** ADJUSTED TO REFLECT PROJECT COST CONTROL REPORT UPDATED 15 JANUARY 1993.
*** SYSTEM PLANNING PEAK HOUR DESIGN LOAD FORECAST
**** PEAK HOUR TO PEAK DAY CONVERSION = 24HRS * 38.56 GJ PER 10^3M^3 / 1.25 = 740.352
***** FROM CAPITAL RECOVERY FACTOR DERIVATION.

TABLE LM-6: OPERATION AND MAINTENANCE EXPENDITURES – LOWER MAINLAND

Line No.	Particulars	BCUC	($000) 12/31/92 Test Year	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU-PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	MANUFACTURED GAS									
2	Propane Air Plant	639	$0	50.00%	x					
3	Liquid Natural Gas – Supervision	640	115	50.00%	x					
4	Liquid Natural Gas Oprn. – Plant	649	677	50.00%	x					
5	O&M Charged to Construction	649. 198	0	50.00%	x					
6										
7			792							
8										
9	TRANSMISSION									
10	Supervision	660	1,010	50.00%						x
11	Mains	665	679	50.00%						x
12	Compressor	666	151	50.00%						x
13	Measuring and Regulating	667	12	50.00%						x
14	Telemetry	668	19	50.00%						x
15	Gas Load – Supervision	669	756	50.00%						x
16	O&M Charged to Construction	669. 198	(231)	50.00%						x
17	Cross Charges	669. 199	(233)	50.00%						x
18										
19			2,163							
20										
21	DISTRIBUTION									
22	Supervision	670	14,281	50.00%					x	
23	Load Dispatching	671	394	50.00%					x	
24	Remove & Reset Meters and Regs.	673	1,494	50.00%		x				
25	Premise Calls	674	4,348	100.00%		x				
26	Mains and Services	675	1,205	50.00%					x	
27	Measuring and Regulating	677	1,185	50.00%		x				
28	Muster Points	679.001	124	50.00%					x	
29	O&M Charged to Construction	679. 198	(9,071)	50.00%					x	
30	Cross Charges	679. 199	(272)	50.00%					x	
31										
32			13,688							
33										
34	GENERAL									
35	System Operation – Communication	684	117	50.00%			x			
36	System Operation and Engineering	685	9,835	50.00%			x			
37	General Operations	688	988	100.00%			x			
38	Charged to Construction/Transfers	689. 198	(3,234)	50.00%			x			
39	Cross Charges	689.199	(1,492)	50.00%			x			
40										
41			6,214							
42										
43										
44	Total Operating Expenses		22,857							
45										
46										

TABLE LM-6: OPERATION AND MAINTENANCE EXPENDITURES – LOWER MAINLAND (CONTINUED)

Line No.	Particulars	BCUC	($000) 1992 Test Year Ex. 171	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU-PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	DISTRIBUTION SALES PROMOTION									
2	Marketing	700	$2,364	130.00%		x				
3	O&M Charged to Construction	700. 198	(481)	130.00%		x				
4	Advertising	701	647	130.00%		x				
5	Demonstration & Selling	702	1,354	130.00%		x				
6	Merchandising Revenue	703	0	130.00%		x				
7	Merchandising Cost of Goods	704	57	130.00%		x				
8	Other Sales Promotion	709	71	130.00%		x				
9										
10	Total Marketing		4,012							
11										
12	DISTRIBUTION CUSTOMER ACCOUNTING									
13	Supervision	710	1,477	10.00%		x				
14	Contracts and Orders	711	0	100.00%		x				
15	Meter Reading	712	947	100.00%		x				
16	Customers Billing and Accounting	713	906	100.00%		x				
17	Credit and Collection	714	2,498	100.00%		x				
18	Uncollectible Accounts	718	1,290	100.00%		x				
19										
20	Total Customer Accounting		7,118							
21										
22	MANUFACTURED GAS									
23	Man. Gas Production – Mtnce.	832	0	50.00%	x					
24	Local Storage	840	0	50.00%	x					
25	LNG – Plant Maintenance	849	335	50.00%	x					
26										
27			335							
28										
29	TRANSMISSION									
30	Structs. & Improvements – Mtnce.	862	0	50.00%			x			
31	Mains – Maintenance	865	367	50.00%			x			
32	Compressors – Maintenance	866	60	50.00%			x			
33	Measuring and Regulating – Mtnce.	867	3	50.00%			x			
34	Telemetry – Maintenance	868	15	50.00%			x			
35										
36			445							
37										
38	DISTRIBUTION									
39	Supervision	870	0	50.00%			x			
40	Structs. & Improvements – Mtnce.	872	0	50.00%			x			
41	Mains and Services – Mtnce.	875	1,833	50.00%			x			
42	Measuring and Regulating – Mtnce.	877	130	50.00%		x				
43	Meters – Mtnce.	878	2,044	100.00%		x				
44	Muster Points – Mtnce.	879	31	50.00%			x			
45										
46			4,038							
47										

TABLE LM-6: OPERATION AND MAINTENANCE EXPENDITURES – LOWER MAINLAND (CONTINUED)

Line No.	Particulars	BCUC	($000) 12/31/92 Test Year	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU-PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	GENERAL									
2	Communication – Mtnce.	884	$40	0.00%			x			
3	System Mtnce. – Eng./Bldgs./Yards	885	375	50.00%			x			
4	General Operations	888	1,010	100.00%			x			
5	Cross Charges	889. 199	(22)	0.00%			x			
6										
7			1,403							
8										
9	Total Maintenance		6,221							
10										
11	NGV									
12	Operations – Compressors	690	0	50.00%				x		
13	Training	691	0	10.00%				x		
14	Administration / Operations	790	521	10.00%				x		
15	O&M Charged to Construction	790. 198	(162)	10.00%				x		
16	Advertising	791	0	130.00%				x		
17	Demonstration & Selling	792	0	130.00%				x		
18	Revenue from Merchandising	793	0	130.00%				x		
19	Expense of Merchandising	794	0	130.00%				x		
20	Maintenance	890	84	50.00%				x		
21										
22	Total NGV Expenses		443							
23										
24	ADMINISTRATIVE									
25	Administrative Expenses	721	30,652	0.00%						
26	Special Services	722	763	0.00%						
27	Insurance – General	723	1,032	0.00%						
28	Injuries and Damages	724	123	0.00%						
29	Other Admin. and General Exp.	728	2,277	0.00%						
30	Charged to Construction/Transfers	729. 198	(10,164)	0.00%						
31	Cross Charges	729. 199	(1,265)	0.00%						
32										
33	Total Administrative Expenses		23,418							
34										
35	Subtotal		64,069							
36										
37	Less – Vehicle Dep'n. Included Above		(435)	0.00%						
38	Less – Other 1992 Adjustments		(748)	0.00%						
39	Less – Lower Mainland Vehicle Lease		0	0.00%						
40	Less – 1992 Commission Adjustment		(2,595)	0.00%						
41										
42	TOTAL OPERATION AND MAINTENANCE EXPENSES		$60,291							
43										
44										
45	INCREMENTAL COSTS ASSOCIATED WITH:									
46	PEAKING FACILITIES		$564							
47	ACCOUNT RELATED		$18,800							
48	THROUGHPUT RELATED		$5,953							
49	NGV		$78							
50	DISTRIBUTION PLANT RELATED		$3,331							
51	TRANSMISSION PLANT RELATED		$1,082							
52	TOTAL INCREMENTAL COSTS		$29,807							

TABLE INL-1: DETAILED LRIC SUMMARY - INLAND

	(a)	RESIDENTIAL (b)	COMMERCIAL (c)	SMALL INDUSTRIAL (d)	SEASONAL (e)	SMALL T-SERVICE NON-CAPTIVE (f)	LARGE INDUSTRIAL CAPTIVE (g)	LARGE INDUSTRIAL NON-CAPTIVE (h)
(1)	PEAK DAY LOAD (10^3 M^3)	3,264	2,171	388	9	169	821	589
(2)	PEAK DAY LOAD (GJ)	125,871	83,706	14,973	339	6,517	31,650	22,706
(3)	LOAD FACTOR	30.68%	31.20%	49.34%	149.69%	69.08%	60.00%	190.00%
(4)	NO. OF CUSTOMERS (1992)	133,926	15,956	40	14	9	13	6
(5)	VOLUME (GJ 1992)	14,095,244	9,532,964	2,696,348	185,393	1,643,021	10,117,856	16,384,488
(6)	AVERAGE USE (GJ/YR)	105	597	67,409	13,289	118,244	778,297	2,730,748
(7)	INCREMENTAL USE (GJ/YR)	100	600	12,000	12,000	160,000	300,000	400,000
(8)	**TRANSMISSION ($/GJ)**	**$0.52**	**$0.51**	**$0.32**	**$0.11**	**$0.23**	**$0.27**	**$0.08**
	DISTRIBUTION (ANNUALIZED $/CUSTOMER)							
(9)	MAINS & LATERALS	$42	$27	$193	$193	$193	$39,396	$39,396
(10)	METERS & SERVICES	$114	$132	$2,429	$2,429	$5,326	$27,593	$27,593
(11)	TOTAL DISTRIBUTION	$156	$159	$2,622	$2,622	$5,519	$66,989	$66,989
(12)	**DISTRIBUTION ($/GJ)**	**$1.56**	**$0.27**	**$0.22**	**$0.22**	**$0.03**	**$0.22**	**$0.17**
	O & M COSTS ($/GJ)							
(13)	PEAKING	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
(14)	DISTRIBUTION RELATED	$0.17	$0.03	$0.02	$0.02	$0.00	$0.02	$0.02
(15)	TRANSMISSION RELATED	$0.01	$0.01	$0.01	$0.00	$0.01	$0.01	$0.00
(16)	ACCOUNT RELATED	$0.45	$0.07	$0.00	$0.00	$0.00	$0.00	$0.00
(17)	THROUGHPUT RELATED	$0.03	$0.03	$0.03	$0.03	$0.03	$0.03	$0.03
(18)	DIRECT ASSIGNMENT**			$0.05	$0.05	$0.00	$0.00	$0.00
(19)	**TOTAL O&M**	**$0.66**	**$0.15**	**$0.11**	**$0.11**	**$0.04**	**$0.06**	**$0.05**
(20)	**TOTAL NON-GAS COST**	**$2.74**	**$0.92**	**$0.65**	**$0.43**	**$0.31**	**$0.55**	**$0.30**

* SEE ATTACHED NOTES.
** EXCLUDES ACCOUNT-RELATED INCREMENTAL T-SERVICE COSTS

NOTES TO TABLE 1: DETAILED LRIC SUMMARY

1 BC GAS
2 BC GAS
3 BC GAS
4 BC GAS
5 BC GAS
6 BC GAS (1992)
7 BC GAS
8 [SYSTEM IMPROVEMENTS (TABLE 4) + LARGE TRANSMISSION (TABLE 5)]/[(3)*365]
9 TABLE 3
10 TABLE 2
11 (9)+(10)
12 (11)/[(7)*(4)]
13 [O&M PEAKING COSTS (TABLE 6)]/[365*(3)]
14 [O&M DIST COST (TABLE 6)]*[RATIO OF CLASS DIST. CAPITAL TO TOTAL DIST. CAPITAL]/[(7)*(4)]
15 [O&M TRANS COSTS (TABLE 6)]/[365*(3)]
16 [O&M ACCOUNT COST (TABLE 6)]/(7)
17 [O&M THROUGHPUT COST (TABLE 6)]/[TOTAL VOLUME THROUGHPUT]
18 BILLING AND ACCOUNT RELATED COSTS SPECIFIC TO CUSTOMERS NOT CYCLE BILLED.
19 (13)+(14)+(15)+(16)+(17)+(18)
20 (8)+(12)+(19)

TABLE INL–2: INCREMENTAL METER AND SERVICE COSTS* – INLAND

($1992)

	(a)	RES (b)	COMM (c)	SEASONAL SM IND (d)	SMALL T–SERV (e)	LARGE INDUST*** (f)
(1)	TYPE OF METER	200	400	5MID	T30	--
(2)	METER SET	$118	$246	$2,499	$7,000	--
(3)	METER SET W/O METER	$56	$98	$700	$23,100	--
(4)	INSTRUMENTS	$0	$0	$5,250	$5,250	$240,000
(5)	TELEMETER	$0	$0	$8,400	$8,400	$18,000
(6)	CUSTOMER SERVICE	$0	$78	$217	$4,620	--
(7)	SERVICE LATERAL	$1,028	$1,028	$2,100	$3,500	--
(8)	TOTAL	$1,201	$1,450	$19,166	$51,870	$258,000
(9)	**COST PER CUSTOMER****	**$114**	**$132**	**$2,429**	**$5,326**	**$27,593**

(10)	ANNUAL CAPITAL CARRYING CHARGE FOR TELEMETERING (10% DEPR.) =	16.23%
(11)	ANNUAL CAPITAL CARRYING CHARGE FOR STANDARD METERS (3% DEPR.) =	10.28%
(12)	ANNUAL CAPITAL CARRYING CHARGE FOR INLAND SERVICES (2% DEPR.) =	9.38%

* TYPICAL (MOST COMMON) COSTS FOR METERS AND SERVICES BY CUSTOMER CLASS

** [[(2)+(3)+(4)]*(11)+(5)*(10)+[(6)+(7)]*(12)]

*** REPRESENTATIVE COST FOR LARGE INDUSTRIAL METERING.

TABLE INL–3: DISTRIBUTION MAINS AND LATERALS COSTS – INLAND

($1992)

	(a)	METRES OF MAIN PER CUSTOMER (b)	$/METRE*** (c)	DOLLARS/ CUSTOMER (d)	DOLLARS/ CUSTOMER ANNUALIZED (e)
(1)	RESIDENTIAL	19	$24	$452	**$42**
(2)	COMMERCIAL	12	$24	$286	**$27**
(3)	MEDIUM INDUSTRIAL*	48	$43	$2,056	**$193**
(4)	LARGE INDUSTRIAL**			$420,000	**$39,396**

(5) CAPTIAL RECOVERY FACTOR = 9.38%

* COST PER METRE CALCULATED AS 1.8 * RESIDENTIAL/COMMERCIAL COST PER METRE
** LARGE INDUSTRIAL LATERAL COST ESTIMATE, FEB. 1991.
*** INCLUDING 40% OVERHEAD

TABLE INL–4: SYSTEM IMPROVEMENTS – INLAND

(1992 $000)

	(a)	(b)	1993 (c)	1994 (d)	1995 (e)	1996 (f)	1997 (g)
(1)	INTERIOR		$18,841.4	$42,661.4	$2,340.4	$2,677.4	$853.3
(2)	LESS MAJOR PROJECTS*		$15,510.0	$41,620.0	$1,450.0	$0.0	$670.0
(3)	LESS E. KOOTENAY		$83.1	$176.0	$625.0	$0.0	$0.0
(4)	**TOTAL INLAND**		**$3,735.5**	**$995.2**	**$305.2**	**$3,079.0**	**$210.8**

PEAK DAY DESIGN LOAD**

	INLAND:	1992	1993	1994	1995	1996	1997
(5)	PEAK DAY (10^3^M^3)	7014	7,456	7,657	7,841	8,013	8,182
(6)	GROWTH RATE (%)***		6.30%	2.70%	2.40%	2.20%	2.10%
(7)	TOTAL (GJ/DAY)	270,460	287,499	295,261	302,348	308,999	315,488
(8)	INCREMENTAL (GJ/DAY)		17,039	7,762	7,086	6,652	6,489
(9)	**PEAK DAY CUMM INCR (GJ)**		**17,039**	**24,801**	**31,888**	**38,539**	**45,028**

(10)	DISCOUNT RATE =	9.94%
(11)	CAPITAL COST ALLOWANCE ADJ FACTOR =	0.936
(12)	LEVELIZED COSTS ($1992/GJ DAY) =	$17.52
(13)	GJ PER 10^3M^3 =	38.56

* EXCLUDES COSTS RELATED TO COMPRESSOR UPGRADES AND SOUTHERN INTERIOR SYSTEM REINFORCEMENT.
** INTERIOR TRANSMISSION SYSTEM REVIEW.
*** FROM BC GAS FIVE YEAR FORECAST, 1992 REVISION #3.

TABLE INL-5: LARGE TRANSMISSION PROJECTS* – INLAND

	CAPITAL EXPENDITURES ($1992 MIL):	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
(1)	YAK COMP STN		$0.47	$8.02	$0.01										
(2)	MIDWAY COMP STN		$0.44	$5.29	$0.10										
(3)	SISTR REINFORCE		$3.57	$23.39	$1.00										
(4)	12" LOOP SAVONA					$1.50									
(5)	KINGSVALE COMP STN ADD							$3.50							
(6)	SAVONA COMP STN ADD										$1.90				
(7)	ML4 COMP STN											$8.00			
(8)	SAVONA COMP STN ADD														
(9)	12" LOOP SAVONA														
(10)	LESS GAS SUPPLY BENEFIT				$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00
(11)	**TOTAL**	**$0.00**	**$4.48**	**$36.70**	**($1.89)**	**($1.50)**	**($3.00)**	**$0.50**	**($3.00)**	**($3.00)**	**($1.10)**	**$5.00**	**($3.00)**	**($3.00)**	**($3.00)**
(12)	INTERIOR SYSTEM DEMAND (MMCFD)**	210	213	217.0	223.0	229.0	235.0	240.0	246.0	252.0	257.0	262.0	267.0	273.0	279.0
(13)	INCREASE IN DEMAND INTERIOR (GJ/DAY)		3,279	4,372	6,558	6,558	6,558	5,465	6,558	6,558	5,465	5,465	5,465	6,558	6,558
(14)	INCREASE IN DEMAND FOR SYSTEM (GJ/DAY)	0	35,114	34,726	30,249	30,249	48,758	29,897	31,730	29,509	31,377	29,156	30,637	45,797	31,730
(15)	**CUMMULATIVE INCR DEMAND**	**0**	**3,279**	**7,651**	**14,209**	**20,767**	**27,325**	**32,790**	**39,348**	**45,906**	**51,371**	**56,836**	**62,301**	**68,859**	**75,417**

$1992/GJ PEAK DAY

(16)	LEVELIZED COST 1993–2005	$40.54
(17)	DISCOUNT RATE*** =	9.94%
(18)	CAPITAL COST ALLOWANCE ADJUSTMENT FACTOR*** =	0.936
(19)	GJ/MMCF =	1093

* INTERIOR TRANSMISSION SYSTEM 20 YEAR PROFORMA, ASSUMING ANG SUPPLY VOLUME = 80MMCFD AND NO BACKUP COMPRESSOR UNIT. 1993–95 COSTS UPDATED USING 5 YEAR GAS SUPPLY PLAN.
** SYSTEM PLANNING INTERIOR DESIGN LOAD FORECAST
*** FROM CAPITAL RECOVERY FACTOR DERIVATION.

TABLE INL-6: OPERATION AND MAINTENANCE EXPENDITURES – INLAND

Line No.	Particulars	BCUC	($000) 12/31/92 Test Year	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU-PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	MANUFACTURED GAS									
2	Propane Air Plant	639	$18	50.00%	x					
3	Liquid Natural Gas – Supervision	640	11	50.00%	x					
4	Liquid Natural Gas Oprn. – Plant	649	0	50.00%	x					
6										
7			29							
8										
9	TRANSMISSION									
10	Supervision	660	230	50.00%						
11	Mains	665	442	50.00%						x
12	Compressor	666	94	50.00%						x
13	Measuring and Regulating	667	32	50.00%						x
14	Telemetry	668	37	50.00%						x
15	Gas Load – Supervision	669	172	50.00%						x
16	O&M Charged to Construction	669. 198	(53)	50.00%						x
17	Cross Charges	669. 199	(53)	50.00%						x
18										x
19			901							
20										
21	DISTRIBUTION									
22	Supervision	670	7,334	50.00%						
23	Load Dispatching	671	90	50.00%					x	
24	Remove & Reset Meters and Regs.	673	910	50.00%					x	
25	Premise Calls	674	427	100.00%		x				
26	Mains and Services	675	885	50.00%		x				
27	Measuring and Regulating	677	712	50.00%					x	
28	Muster Points	679.001	0	50.00%		x				
29	O&M Charged to Construction	679. 198	(2,761)	50.00%					x	
30	Cross Charges	679. 199	(16)	50.00%					x	
31									x	
32			7,581							
33										
34	GENERAL									
35	System Operation – Communication	684	70	50.00%			x			
36	System Operation and Engineering	685	2,500	50.00%			x			
37	General Operations	688	192	100.00%			x			
38	Charged to Construction/Transfers	689. 198	(696)	50.00%			x			
39	Cross Charges	689.199	(360)	50.00%			x			
40										
41			1,706							
42										
43										
44	Total Operating Expenses		10,217							
45										
46										

TABLE INL-6: OPERATION AND MAINTENANCE EXPENDITURES – INLAND (CONTINUED)

Line No.	Particulars	BCUC	($000) 1992 Test Year Ex. 171	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU-PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	DISTRIBUTION SALES PROMOTION									
2	Marketing	700	$626	130.00%		x				
3	O&M Charged to Construction	700. 198	(68)	130.00%		x				
4	Advertising	701	184	130.00%		x				
5	Demonstration & Selling	702	1,264	130.00%		x				
6	Merchandising Revenue	703	(3,836)	130.00%		x				
7	Merchandising Cost of Goods	704	2,817	130.00%		x				
8	Other Sales Promotion	709	67	130.00%		x				
9										
10	Total Marketing		1,054							
11										
12	DISTRIBUTION CUSTOMER ACCOUNTING									
13	Supervision	710	411	10.00%		x				
14	Contracts and Orders	711	980	100.00%		x				
15	Meter Reading	712	830	100.00%		x				
16	Customers Billing and Accounting	713	555	100.00%		x				
17	Credit and Collection	714	895	100.00%		x				
18	Uncollectible Accounts	718	479	100.00%		x				
19										
20	Total Customer Accounting		4,150							
21										
22	MANUFACTURED GAS									
23	Man. Gas Production – Mtnce.	832	1	50.00%	x					
24	Local Storage	840	0	50.00%	x					
25	LNG – Plant Maintenance	849	0	50.00%	x					
26										
27			1							
28										
29	TRANSMISSION									
30	Structs. & Improvements – Mtnce.	862	16	50.00%			x			
31	Mains – Maintenance	865	148	50.00%			x			
32	Compressors – Maintenance	866	86	50.00%			x			
33	Measuring and Regulating – Mtnce.	867	9	50.00%			x			
34	Telemetry – Maintenance	868	25	50.00%			x			
35										
36			284							
37										
38	DISTRIBUTION									
39	Supervision	870	0	50.00%			x			
40	Structs. & Improvements – Mtnce.	872	83	50.00%			x			
41	Mains and Services – Mtnce.	875	336	50.00%			x			
42	Measuring and Regulating – Mtnce.	877	105	50.00%		x				
43	Meters – Mtnce.	878	299	100.00%		x				
44	Muster Points – Mtnce.	879	0	50.00%			x			
45										
46			823							
47										

...BLE INL-6: OPERATION AND MAINTENANCE EXPENDITURES – INLAND (CONTINU...

Line No.	Particulars	BCUC	($000) 12/31/92 Test Year	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU-PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	GENERAL									
2	Communication – Mtnce.	884	$16	0.00%			x			
3	System Mtnce. – Eng./Bldgs./Yards	885	121	50.00%			x			
4	General Operations	888	266	100.00%			x			
5	Cross Charges	889. 199	(5)	0.00%			x			
6										
7			398							
8										
9	Total Maintenance		1,506							
10										
11	NGV									
12	Operations – Compressors	690	0	50.00%				x		
13	Training	691	0	10.00%				x		
14	Administration / Operations	790	142	10.00%				x		
15	O&M Charged to Construction	790. 198	(25)	10.00%				x		
16	Advertising	791	0	130.00%				x		
17	Demonstration & Selling	792	0	130.00%				x		
18	Revenue from Merchandising	793	0	130.00%				x		
19	Expense of Merchandising	794	0	130.00%				x		
20	Maintenance	890	193	50.00%				x		
21										
22	Total NGV Expenses		310							
23										
24	ADMINISTRATIVE									
25	Administrative Expenses	721	6,827	0.00%						
26	Special Services	722	174	0.00%						
27	Insurance – General	723	235	0.00%						
28	Injuries and Damages	724	28	0.00%						
29	Other Admin. and General Exp.	728	518	0.00%						
30	Charged to Construction/Transfers	729. 198	(1,634)	0.00%						
31	Cross Charges	729. 199	(288)	0.00%						
32										
33	Total Administrative Expenses		5,860							
34										
35	Subtotal		23,097							
36										
37	Less – Vehicle Dep'n. Included Above		(345)	0.00%						
38	Less – Other 1992 Adjustments		(101)	0.00%						
39	Less – Lower Mainland Vehicle Lease			0.00%						
40	Less – 1992 Commission Adjustment		(590)	0.00%						
41										
42	TOTAL OPERATION AND MAINTENANCE EXPENSES		$22,061							
43										
44										
45	INCREMENTAL COSTS ASSOCIATED WITH:									
46	PEAKING FACILITIES		$15							
47	ACCOUNT RELATED		$6,740							
48	THROUGHPUT RELATED		$1,627							
49	NGV		$108							
50	DISTRIBUTION PLANT RELATED		$2,766							
51	TRANSMISSION PLANT RELATED		$451							
52	TOTAL INCREMENTAL COSTS		$11,707							

TABLE COL–1: DETAILED LRIC SUMMARY – COLUMBIA

	(a)	RESIDENTIAL (b)	COMMERCIAL (c)	SMALL INDUSTRIAL (d)	LARGE FIRM INDUSTRIAL (e)
(1)	PEAK DAY LOAD (10^3 M^3)	410	246	71	684
(2)	PEAK DAY LOAD (GJ)	15,453	9,267	2,677	25,791
(3)	LOAD FACTOR	30.68%	34.60%	45.89%	60.29%
(4)	NO. OF CUSTOMERS (1992)	14,325	1,766	6	6
(5)	VOLUME (GJ 1992)	1,730,466	1,170,118	448,360	6,909,431
(6)	AVERAGE USE (GJ/YR)	117.8	598	69,679	1,151,572
(7)	INCREMENTAL USE (GJ/YR)	100	600	12,000	300,000
(8)	**TRANSMISSION ($/GJ)**	**$0.35**	**$0.31**	**$0.24**	**$0.18**
	DISTRIBUTION (ANNUALIZED $/CUSTOMER)				
(9)	MAINS & LATERALS	$68	$68	$195	$39,396
(10)	METERS & SERVICES	$131	$151	$2,276	$10,708
(11)	TOTAL DISTRIBUTION	$199	$219	$2,471	$50,104
(12)	**DISTRIBUTION ($/GJ)**	**$1.99**	**$0.37**	**$0.21**	**$0.17**
	O & M COSTS ($/GJ)				
(13)	PEAKING	$0.00	$0.00	$0.00	$0.00
(14)	DISTRIBUTION RELATED	$0.23	$0.04	$0.02	$0.02
(15)	TRANSMISSION RELATED	$0.01	$0.01	$0.01	$0.01
(16)	ACCOUNT RELATED	$0.63	$0.10	$0.01	$0.00
(17)	THROUGHPUT RELATED	$0.03	$0.03	$0.03	$0.03
(18)	DIRECT ASSIGNMENT**			$0.05	$0.00
(19)	**TOTAL O&M**	**$0.89**	**$0.19**	**$0.11**	**$0.06**
(20)	**TOTAL NON–GAS COST**	**$3.24**	**$0.86**	**$0.55**	**$0.40**

* SEE ATTACHED NOTES.
** EXCLUDES ACCOUNT–RELATED INCREMENTAL T–SERVICE COSTS

NOTES TO TABLE 1: DETAILED LRIC SUMMARY

1 BC GAS
2 BC GAS
3 BC GAS
4 BC GAS
5 BC GAS
6 BC GAS (1992)
7 BC GAS
8 [SYSTEM IMPROVEMENTS (TABLE 4) + LARGE TRANSMISSION (TABLE 5)]/[(3)*365]
9 TABLE 3
10 TABLE 2
11 (9)+(10)
12 (11)/[(7)*(4)]
13 [O&M PEAKING COSTS (TABLE 6)]/[365*(3)]
14 [O&M DIST COST (TABLE 6)]*[RATIO OF CLASS DIST. CAPITAL TO TOTAL DIST. CAPITAL]/[(7)*(4)]
15 [O&M TRANS COSTS (TABLE 6)]/[365*(3)]
16 [O&M ACCOUNT COST (TABLE 6)]/(7)
17 [O&M THROUGHPUT COST (TABLE 6)]/[TOTAL VOLUME THROUGHPUT]
18 BILLING AND ACCOUNT RELATED COSTS SPECIFIC TO CUSTOMERS NOT CYCLE BILLED.
19 (13)+(14)+(15)+(16)+(17)+(18)
20 (8)+(12)+(19)

TABLE COL–2: INCREMENTAL METER AND SERVICE COSTS* – COLUMBIA

($1992)

	(a)	RES (b)	COMM (c)	SMALL INDUST (d)	LARGE INDUST (e)
(1)	TYPE OF METER	200	400	5MID	T60
(2)	METER SET	$134	$282	$2,856	$12,800
(3)	METER SET W/O METER	$64	$112	$800	$52,800
(4)	INSTRUMENTS	$0	$0	$6,000	$6,000
(5)	TELEMETER	$0	$0	$9,600	$16,000
(6)	CUSTOMER SERVICE	$0	$104	$248	$10,720
(7)	SERVICE LATERAL	$1,174	$1,174	$2,400	$8,000
(8)	TOTAL	$1,373	$1,672	$21,904	$106,320
(9)	**COST PER CUSTOMER****	**$131**	**$151**	**$2,776**	**$10,708**

(10)	ANNUAL CAPITAL CARRYING CHARGE FOR TELEMETERING (10% DEPR.) =	16.23%
(11)	ANNUAL CAPITAL CARRYING CHARGE FOR STANDARD METERS (3% DEPR.) =	10.28%
(12)	ANNUAL CAPITAL CARRYING CHARGE FOR INLAND SERVICES (2% DEPR.) =	9.38%

* TYPICAL (MOST COMMON) COSTS FOR METERS AND SERVICES BY CUSTOMER CLASS

** [[(2)+(3)+(4)]*(11)+(5)*(10)+[(6)+(7)]*(12)]

TABLE COL–3: DISTRIBUTION MAINS AND LATERALS COSTS – COLUMBIA

($1992)

	(a)	METRES OF MAIN PER CUSTOMER (b)	$/METRE*** (c)	DOLLARS/ CUSTOMER (d)	DOLLARS/ CUSTOMER ANNUALIZED (e)
(1)	RESIDENTIAL	30	$24	$720	**$68**
(2)	COMMERCIAL	30	$24	$720	**$68**
(3)	MEDIUM INDUSTRIAL*	48	$43	$2,074	**$195**
(4)	LARGE INDUSTRIAL**			$420,000	**$39,396**

(5) CAPTIAL RECOVERY FACTOR = 9.38%

* COST PER METRE CALCULATED AS 1.8 * RESIDENTIAL/COMMERCIAL COST PER METRE
** LARGE INDUSTRIAL LATERAL COST ESTIMATE, FEB. 1991.
*** INCLUDING 60% OVERHEAD

TABLE COL–4: SYSTEM IMPROVEMENTS – COLUMBIA

(1992 $000)

	(a)	(b)	1993 (c)	1994 (d)	1995 (e)	1996 (f)	1997 (g)
(1)	**COLUMBIA**		**$83.1**	**$176.0**	**$625.0**	**$0.0**	**$0.0**

PEAK DAY DESIGN LOAD*

	COLUMBIA:	1992	1993	1994	1995	1996	1997
(2)	PEAK DAY (10^3^M^3)	1460	1,524	1,591	1,595	1,596	1,598
(3)	GROWTH RATE (%)**		4.39%	4.39%	0.25%	0.08%	0.12%
(4)	TOTAL (GJ/DAY)	55,042	57,458	59,981	60,131	60,179	60,251
(5)	INCREMENTAL (GJ/DAY)		2,416	2,522	150	48	72
(6)	**PEAK DAY CUMM INCR (GJ)**		**2,416**	**4,939**	**5,089**	**5,137**	**5,209**

(7) LEVELIZED COSTS ($1992/GJ DAY): $39.58

(8) CAPITAL RECOVERY FACTOR = 9.38%

(9) DISCOUNT RATE = 9.94%

(10) CAPITAL COST ALLOWANCE ADJ FACTOR = 0.936

(11) GJ PER 10^3M^3 = 37.7

(12) GJ PER MCF 1.0935

* INTERIOR TRANSMISSION SYSTEM REVIEW.
** FROM BC GAS FIVE YEAR FORECAST, 1992 REVISION #3.

NO TABLE COL-5

TABLE COL–6: OPERATION AND MAINTENANCE EXPENDITURES – COLUMBIA

Line No.	Particulars	BCUC	($000) 12/31/92 Test Year	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU–PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	MANUFACTURED GAS									
2	Propane Air Plant	639	$0	50.00%	x					
3	Liquid Natural Gas – Supervision	640	2	50.00%	x					
4	Liquid Natural Gas Oprn. – Plant	649	0	50.00%	x					
6										
7			2							
8										
9	TRANSMISSION									
10	Supervision	660	33	50.00%						
11	Mains	665	59	50.00%						x
12	Compressor	666	5	50.00%						x
13	Measuring and Regulating	667	16	50.00%						x
14	Telemetry	668	1	50.00%						x
15	Gas Load – Supervision	669	25	50.00%						x
16	O&M Charged to Construction	669. 198	(8)	50.00%						x
17	Cross Charges	669. 199	(8)	50.00%						x
18										x
19			123							
20										
21	DISTRIBUTION									
22	Supervision	670	1,166	50.00%						
23	Load Dispatching	671	13	50.00%					x	
24	Remove & Reset Meters and Regs.	673	146	50.00%					x	
25	Premise Calls	674	72	100.00%		x				
26	Mains and Services	675	120	50.00%		x				
27	Measuring and Regulating	677	123	50.00%					x	
28	Muster Points	679.001	17	50.00%		x				
29	O&M Charged to Construction	679. 198	(513)	50.00%					x	
30	Cross Charges	679. 199	0	50.00%					x	
31									x	
32			1,144							
33										
34	GENERAL									
35	System Operation – Communication	684	9	50.00%			x			
36	System Operation and Engineering	685	396	50.00%			x			
37	General Operations	688	44	100.00%			x			
38	Charged to Construction/Transfers	689. 198	(100)	50.00%			x			
39	Cross Charges	689.199	(49)	50.00%			x			
40										
41			300							
42										
43										
44	Total Operating Expenses		1,569							
45										
46										

TABLE COL–6: OPERATION AND MAINTENANCE EXPENDITURES – COLUMBIA (CONTINUED)

Line No.	Particulars	BCUC	($000) Test Year Ex. 171	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU–PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	DISTRIBUTION SALES PROMOTION									
2	Marketing	700	$93	130.00%		x				
3	O&M Charged to Construction	700. 198	(10)	130.00%		x				
4	Advertising	701	36	130.00%		x				
5	Demonstration & Selling	702	170	130.00%		x				
6	Merchandising Revenue	703	(482)	130.00%		x				
7	Merchandising Cost of Goods	704	372	130.00%		x				
8	Other Sales Promotion	709	(14)	130.00%		x				
9										
10	Total Marketing		165							
11										
12	DISTRIBUTION CUSTOMER ACCOUNTING									
13	Supervision	710	59	10.00%		x				
14	Contracts and Orders	711	126	100.00%		x				
15	Meter Reading	712	105	100.00%		x				
16	Customers Billing and Accounting	713	81	100.00%		x				
17	Credit and Collection	714	159	100.00%		x				
18	Uncollectible Accounts	718	79	100.00%		x				
19										
20	Total Customer Accounting		609							
21										
22	MANUFACTURED GAS									
23	Man. Gas Production – Mtnce.	832	0	50.00%	x					
24	Local Storage	840	0	50.00%	x					
25	LNG – Plant Maintenance	849	0	50.00%	x					
26										
27			0							
28										
29	TRANSMISSION									
30	Structs. & Improvements – Mtnce.	862	8	50.00%			x			
31	Mains – Maintenance	865	49	50.00%			x			
32	Compressors – Maintenance	866	2	50.00%			x			
33	Measuring and Regulating – Mtnce.	867	3	50.00%			x			
34	Telemetry – Maintenance	868	8	50.00%			x			
35										
36			70							
37										
38	DISTRIBUTION									
39	Supervision	870	0	50.00%			x			
40	Structs. & Improvements – Mtnce.	872	26	50.00%			x			
41	Mains and Services – Mtnce.	875	90	50.00%			x			
42	Measuring and Regulating – Mtnce.	877	26	50.00%		x				
43	Meters – Mtnce.	878	28	100.00%		x				
44	Muster Points – Mtnce.	879	0	50.00%			x			
45										
46			170							
47										

...BLE COL–6: OPERATION AND MAINTENANCE EXPENDITURES – COLUMBIA (CONTINUED)

Line No.	Particulars	BCUC	($000) 12/31/92 Test Year	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU–PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	GENERAL									
2	Communication – Mtnce.	884	$3	0.00%			x			
3	System Mtnce. – Eng./Bldgs./Yards	885	13	50.00%			x			
4	General Operations	888	33	100.00%			x			
5	Cross Charges	889. 199	(1)	0.00%			x			
6										
7			48							
8										
9	Total Maintenance		288							
10										
11	NGV									
12	Operations – Compressors	690	0	50.00%				x		
13	Training	691	0	10.00%				x		
14	Administration / Operations	790	18	10.00%				x		
15	O&M Charged to Construction	790. 198	(4)	10.00%				x		
16	Advertising	791	0	130.00%				x		
17	Demonstration & Selling	792	0	130.00%				x		
18	Revenue from Merchandising	793	0	130.00%				x		
19	Expense of Merchandising	794	0	130.00%				x		
20	Maintenance	890	11	50.00%				x		
21										
22	Total NGV Expenses		25							
23										
24	ADMINISTRATIVE									
25	Administrative Expenses	721	987	0.00%						
26	Special Services	722	25	0.00%						
27	Insurance – General	723	34	0.00%						
28	Injuries and Damages	724	4	0.00%						
29	Other Admin. and General Exp.	728	75	0.00%						
30	Charged to Construction/Transfers	729. 198	(236)	0.00%						
31	Cross Charges	729. 199	(42)	0.00%						
32										
33	Total Administrative Expenses		847							
34										
35	Subtotal		3,503							
36										
37	Less – Vehicle Dep'n. Included Above		(52)	0.00%						
38	Less – Other 1992 Adjustments		(16)	0.00%						
40	Less – 1992 Commission Adjustment		(85)	0.00%						
41										
42	TOTAL OPERATION AND MAINTENANCE EXPENSES		$3,350							
43										
44										
45	INCREMENTAL COSTS ASSOCIATED WITH:									
46	PEAKING FACILITIES		$1							
47	ACCOUNT RELATED		$1,018							
48	THROUGHPUT RELATED		$305							
49	NGV		$7							
50	DISTRIBUTION PLANT RELATED		$402							
51	TRANSMISSION PLANT RELATED		$62							
52	TOTAL INCREMENTAL COSTS		$1,793							

LRIC Changes Resulting From Proposed New Rate Categories

In order to incorporate the proposed new rate classes (Small Commercial, Large Commercial, General Service, Small Interruptible, and Large Interruptible), the following modifications were made.

Incremental costs which are customer-specific are affected by the new rate categories. Meter and service cost estimates were re-estimated and are given in Tables LM-2P, Page 3D-1.9, INL-2P, Page 3D-1.10, and COL-2P, Page 3D-1.11 for the Lower Mainland, Inland and Columbia divisions respectively. As was the case for the Meter and Service incremental cost estimates for the existing customer classes, these estimates reflect costs associated with adding new customers to the BC Gas system.

The second category of customer-specific costs is that associated with new mains investment. As previously discussed, these costs were estimated for existing residential and commercial customer classes by analysing work orders. For the proposed new commercial rate classes, it was assumed that incremental customers added to the proposed Small Commercial class would result in incremental mains costs similar to that estimated for the existing Commercial customer class, and Large Commercial and General Service incremental customers would result in costs similar to that for existing Small/Medium Industrial customer classes.

LRIC estimates for each division under the proposed new rate classes are given in Tables LM-1P, Page 3D-1.5, INL-1P, Page 3D-1.6, and COL-1P, Page 3D-1.7.

Consolidated LRIC Results

Table PRO-1 (Page 3D-1.12) provides a detailed LRIC summary of consolidating the Lower Mainland, Inland and Columbia divisions. LRIC consolidation was achieved as follows.

Transmission LRIC were determined in a manner similar to that used for each individual division, but using the total project cost estimates and peak day demand increases for all three divisions. The consolidated results for system improvements and large transmission projects are presented in Tables PRO-4 (Page 3D-1.14) and PRO-5 (Page 3D-1.15) respectively.

Consolidated LRIC for Operation and Maintenance were determined by adding the O&M costs for each division together and then applying the incremental factors in a similar fashion to that used for the individual divisions. The consolidated O&M LRIC are given in Table PRO-6 (Page 3D-1.16).

Since LRIC distribution costs were determined for each division on a per customer basis, the consolidated LRIC distribution costs were derived using a customer weighted average. The results of this calculation are given in Table PRO-1.

TABLE BCG-1P: LONG RUN INCREMENTAL COSTS BY DIVISION

LOWER MAINLAND

($1992/GJ)

	(a)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	LARGE COMMERCIAL (d)	GENERAL SERVICE (e)	SEASONAL (f)	SMALL INTERR (g)	LARGE INTERR (h)
(1)	DISTRIBUTION	$1.78	$0.57	$0.16	$0.25	$0.25	$0.07	$0.04
(2)	TRANSMISSION	$0.35	$0.38	$0.31	$0.22	$0.07	$0.00	$0.00
(3)	O&M	$0.56	$0.21	$0.09	$0.12	$0.12	$0.07	$0.06
(4)	**TOTAL NON-GAS LRIC**	**$2.69**	**$1.16**	**$0.56**	**$0.59**	**$0.44**	**$0.14**	**$0.10**

INLAND

	($1992/GJ)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	LARGE COMMERCIAL (d)	GENERAL SERVICE (e)	SEASONAL (f)	SMALL T-SERVICE NON-CAPTIVE (g)	LARGE INDUSTRIAL CAPTIVE (h)	LARGE INDUSTRIAL NON-CAPTIVE (i)
(1)	DISTRIBUTION	$1.56	$0.45	$0.13	$0.22	$0.22	$0.03	$0.22	$0.17
(2)	TRANSMISSION	$0.52	$0.56	$0.46	$0.33	$0.11	$0.23	$0.27	$0.08
(3)	O&M	$0.66	$0.22	$0.07	$0.11	$0.11	$0.04	$0.06	$0.05
(4)	**TOTAL NON-GAS LRIC**	**$2.74**	**$1.23**	**$0.66**	**$0.66**	**$0.44**	**$0.30**	**$0.55**	**$0.30**

COLUMBIA

	($1992/GJ)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	GENERAL SERVICE (d)	LARGE FIRM INDUSTRIAL (e)
(1)	DISTRIBUTION	$1.99	$0.63	$0.25	$0.17
(2)	TRANSMISSION	$0.35	$0.33	$0.22	$0.18
(3)	O&M	$0.89	$0.29	$0.11	$0.06
(4)	**TOTAL NON-GAS LRIC**	**$3.23**	**$1.25**	**$0.58**	**$0.41**

TABLE BCG-2P: REVENUE IMPACTS OF LRIC RATES

LOWER MAINLAND

	(a)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	LARGE COMMERCIAL (d)	GENERAL SERVICE (e)	SEASONAL (f)	SMALL INTERR (g)	LARGE INTERR (h)	
(1)	LRIC ($/GJ)	$2.69	$1.16	$0.56	$0.59	$0.44	$0.14	$0.10	
(2)	VOLUME (GJ)	48,962,800	14,594,600	20,900,600	5,030,300	238,000	6,668,643	10,639,957	107,034,900
(3)	LRIC REVENUE ($000)	$131,710	$16,930	$11,704	$2,968	$105	$934	$1,064	$165,414
(4)	GROSS MARGIN ($000)	$88,551	$19,883	$29,871	$8,992	$195	$8,296	$11,460	$167,248
(5)	DIFFERENCE ($000)	$43,159	($2,953)	($18,167)	($6,024)	($90)	($7,362)	($10,396)	($1,834)
	REVENUE-NEUTRAL LRIC:								
(6)	PRO-RATED	$2.72	$1.17	$0.57	$0.60	$0.44	$0.14	$0.10	
(7)	$/GJ ADJUSTMENT	$2.71	$1.18	$0.58	$0.61	$0.46	$0.16	$0.12	

INLAND

	(a)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	LARGE COMMERCIAL (d)	GENERAL SERVICE (e)	SEASONAL (f)	SMALL T-SERVICE NON-CAPTIVE (g)	LARGE INDUSTRIAL CAPTIVE (h)	LARGE INDUSTRIAL NON-CAPTIVE (i)	
(1)	LRIC ($/GJ)	$2.74	$1.23	$0.66	$0.66	$0.44	$0.30	$0.55	$0.30	
(2)	VOLUME (GJ)	14,088,200	5,294,900	3,945,700	2,982,600	1,642,200	10,112,800	16,376,300	16,376,300	70,819,000
(3)	LRIC REVENUE ($000)	$38,602	$6,513	$2,604	$1,969	$723	$3,034	$9,007	$4,913	$67,363
(4)	GROSS MARGIN ($000)	$31,894	$12,763	$7,126	$4,599	$843	$3,498	$2,102	$2,102	$64,927
(5)	DIFFERENCE ($000)	$6,708	($6,250)	($4,522)	($2,630)	($120)	($464)	$6,905	$2,811	$2,436
	REVENUE-NEUTRAL LRIC:									
(6)	PRO-RATED	$2.64	$1.19	$0.64	$0.64	$0.42	$0.29	$0.53	$0.29	
(7)	$/GJ ADJUSTMENT	$2.71	$1.20	$0.63	$0.63	$0.41	$0.27	$0.52	$0.27	

COLUMBIA

	(a)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	GENERAL SERVICE (d)	LARGE FIRM INDUSTRIAL (e)	(f)
(1)	LRIC ($/GJ)	$3.23	$1.25	$0.58	$0.41	
(2)	VOLUME (GJ)	1,698,200	989,800	598,500	6,780,700	10,067,200
(3)	LRIC REVENUE ($000)	$5,485	$1,237	$347	$2,780	$9,850
(4)	GROSS MARGIN ($000)	$2,991	$1,181	$497	$1,232	$5,901
(5)	DIFFERENCE ($000)	$2,494	$56	($150)	$1,548	$3,949
	REVENUE-NEUTRAL LRIC:					
(6)	PRO-RATED	$1.94	$0.75	$0.35	$0.25	
(7)	$/GJ ADJUSTMENT	$2.84	$0.86	$0.19	$0.02	

TABLE LM–1P: DETAILED LRIC SUMMARY – LOWER MAINLAND

*	(a)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	LARGE COMMERCIAL (d)	GENERAL SERVICE (e)	SEASONAL (f)	NON–CORE SMALL INTERR (g)	NON–CORE LARGE INTERR (h)
(1)	PEAK DAY LOAD (10^3 M^3)	11,823	3,805	4,486	768	12	0	0
(2)	PEAK DAY LOAD (GJ)	455,887	146,705	172,969	29,630	455	0	0
(3)	LOAD FACTOR	30.68%	28.42%	34.52%	48.02%	149.43%	0	0
(4)	NO. OF CUSTOMERS (1992)	402,048	41,242	4,188	219	48	98	17
(5)	VOLUME (GJ 1992)	51,055,323	15,218,329	21,793,829	5,193,114	248,171	6,735,329	6,735,329
(6)	AVERAGE USE (GJ/YR)	122	369	5,204	23,713	14,236	68,728	396,196
(7)	INCREMENTAL USE (GJ/YR)	100	350	4,000	12,000	12,000	60,000	160,000
(8)	**TRANSMISSION ($/GJ)**	**$0.35**	**$0.38**	**$0.31**	**$0.22**	**$0.07**	**$0.00**	**$0.00**
	DISTRIBUTION (ANNUALIZED $/CUSTOMER)							
(9)	MAINS & LATERALS	$52	$52	$251	$251	$251	$251	$251
(10)	METERS & SERVICES	$126	$146	$379	$2,689	$2,689	$3,753	$6,902
(11)	TOTAL DISTRIBUTION	$178	$198	$630	$2,940	$2,940	$4,004	$7,153
(12)	**DISTRIBUTION ($/GJ)**	**$1.78**	**$0.57**	**$0.16**	**$0.25**	**$0.25**	**$0.07**	**$0.04**
	O & M COSTS ($/GJ)							
(13)	PEAKING	$0.01	$0.01	$0.01	$0.00	$0.00	$0.00	$0.00
(14)	DISTRIBUTION RELATED	$0.07	$0.02	$0.01	$0.01	$0.01	$0.00	$0.00
(15)	TRANSMISSION RELATED	$0.01	$0.01	$0.01	$0.01	$0.00	$0.00	$0.00
(16)	ACCOUNT RELATED	$0.42	$0.12	$0.01	$0.00	$0.00	$0.00	$0.00
(17)	THROUGHPUT RELATED	$0.05	$0.05	$0.05	$0.05	$0.05	$0.05	$0.05
(18)	DIRECT ASSIGNMENT**				$0.05	$0.05	$0.01	$0.00
(19)	**TOTAL O&M**	**$0.56**	**$0.21**	**$0.09**	**$0.12**	**$0.12**	**$0.07**	**$0.06**
(20)	**TOTAL NON–GAS COST**	**$2.69**	**$1.16**	**$0.56**	**$0.59**	**$0.43**	**$0.13**	**$0.10**

* SEE ATTACHED NOTES.
** EXCLUDES ACCOUNT–RELATED INCREMENTAL T–SERVICE COSTS

TABLE INL–1P: DETAILED LRIC SUMMARY – INLAND

*	(a)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	LARGE COMMERCIAL (d)	GENERAL SERVICE (e)	SEASONAL (f)	SMALL T–SERVICE NON–CAPTIVE (g)	LARGE INDUSTRIAL CAPTIVE (h)	LARGE INDUSTRIAL NON–CAPTIVE (i)
(1)	PEAK DAY LOAD (10^3 M^3)	3,264	1,324	812.5	434	9	169	821	589
(2)	PEAK DAY LOAD (GJ)	125,871	51,069	31,330	16,747	339	6,517	31,650	22,706
(3)	LOAD FACTOR	30.68%	28.42%	34.52%	48.82%	149.69%	69.08%	60.00%	190.00%
(4)	NO. OF CUSTOMERS (1992)	133,926	14,644	833	70	14	9	13	6
(5)	VOLUME (GJ 1992)	14,095,244	5,297,515	3,947,712	2,984,132	185,393	1,643,021	10,117,856	16,384,488
(6)	AVERAGE USE (GJ/YR)	105	362	4,739	42,630	13,289	118,244	778,297	2,730,748
(7)	INCREMENTAL USE (GJ/YR)	100	350	4,000	12,000	12,000	160,000	300,000	400,000
(8)	**TRANSMISSION ($/GJ)**	**$0.52**	**$0.56**	**$0.46**	**$0.33**	**$0.11**	**$0.23**	**$0.27**	**$0.08**
	DISTRIBUTION (ANNUALIZED $/CUSTOMER)								
(9)	MAINS & LATERALS	$42	$27	$193	$193	$193	$193	$39,396	$39,396
(10)	METERS & SERVICES	$114	$132	$342	$2,429	$2,429	$5,326	$27,593	$27,593
(11)	TOTAL DISTRIBUTION	$156	$159	$535	$2,622	$2,622	$5,519	$66,989	$66,989
(12)	**DISTRIBUTION ($/GJ)**	**$1.56**	**$0.45**	**$0.13**	**$0.22**	**$0.22**	**$0.03**	**$0.22**	**$0.17**
	O & M COSTS ($/GJ)								
(13)	PEAKING	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
(14)	DISTRIBUTION RELATED	$0.17	$0.05	$0.01	$0.02	$0.02	$0.00	$0.02	$0.02
(15)	TRANSMISSION RELATED	$0.01	$0.02	$0.01	$0.01	$0.00	$0.01	$0.01	$0.00
(16)	ACCOUNT RELATED	$0.45	$0.13	$0.01	$0.00	$0.00	$0.00	$0.00	$0.00
(17)	THROUGHPUT RELATED	$0.03	$0.03	$0.03	$0.03	$0.03	$0.03	$0.03	$0.03
(18)	DIRECT ASSIGNMENT**				$0.05	$0.05	$0.00	$0.00	$0.00
(19)	**TOTAL O&M**	**$0.66**	**$0.22**	**$0.07**	**$0.11**	**$0.11**	**$0.04**	**$0.06**	**$0.05**
(20)	**TOTAL NON–GAS COST**	**$2.74**	**$1.24**	**$0.66**	**$0.66**	**$0.43**	**$0.31**	**$0.55**	**$0.30**

* SEE ATTACHED NOTES.
** EXCLUDES ACCOUNT–RELATED INCREMENTAL T–SERVICE COSTS

TABLE COL–1P: DETAILED LRIC SUMMARY – COLUMBIA

*	(a)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	GENERAL SERVICE (d)	LARGE FIRM INDUSTRIAL (e)
(1)	PEAK DAY LOAD (10^3 M^3)	410	226	91	684
(2)	PEAK DAY LOAD (GJ)	15,453	8,505	3,438	25,791
(3)	LOAD FACTOR	30.68%	32.49%	48.60%	60.29%
(4)	NO. OF CUSTOMERS (1992)	14,325	1,759	13	6
(5)	VOLUME (GJ 1992)	1,730,466	1,008,606	609,872	6,909,431
(6)	AVERAGE USE (GJ/YR)	117.8	573	69,679	1,151,572
(7)	INCREMENTAL USE (GJ/YR)	100	350	12,000	300,000
(8)	**TRANSMISSION ($/GJ)**	**$0.35**	**$0.33**	**$0.22**	**$0.18**
	DISTRIBUTION (ANNUALIZED $/CUSTOMER)				
(9)	MAINS & LATERALS	$68	$68	$195	$39,396
(10)	METERS & SERVICES	$131	$151	$2,776	$10,708
(11)	TOTAL DISTRIBUTION	$199	$219	$2,971	$50,104
(12)	**DISTRIBUTION ($/GJ)**	**$1.99**	**$0.63**	**$0.25**	**$0.17**
	O & M COSTS ($/GJ)				
(13)	PEAKING	$0.00	$0.00	$0.00	$0.00
(14)	DISTRIBUTION RELATED	$0.22	$0.07	$0.03	$0.02
(15)	TRANSMISSION RELATED	$0.01	$0.01	$0.01	$0.01
(16)	ACCOUNT RELATED	$0.63	$0.18	$0.01	$0.00
(17)	THROUGHPUT RELATED	$0.03	$0.03	$0.03	$0.03
(18)	DIRECT ASSIGNMENT**			$0.05	$0.00
(19)	**TOTAL O&M**	**$0.89**	**$0.29**	**$0.11**	**$0.06**
(20)	**TOTAL NON–GAS COST**	**$3.23**	**$1.24**	**$0.58**	**$0.40**

* SEE ATTACHED NOTES.
** EXCLUDES ACCOUNT–RELATED INCREMENTAL T–SERVICE COSTS

NOTES TO TABLE 1: DETAILED LRIC SUMMARY

1 BC GAS
2 BC GAS
3 BC GAS
4 BC GAS
5 BC GAS
6 BC GAS (1992)
7 BC GAS
8 [SYSTEM IMPROVEMENTS (TABLE 4) + LARGE TRANSMISSION (TABLE 5)]/[(3)*365]
9 TABLE 3
10 TABLE 2
11 (9)+(10)
12 (11)/[(7)*(4)]
13 [O&M PEAKING COSTS (TABLE 6)]/[365*(3)]
14 [O&M DIST COST (TABLE 6)]*[RATIO OF CLASS DIST. CAPITAL TO TOTAL DIST. CAPITAL]/[(7)*(4)]
15 [O&M TRANS COSTS (TABLE 6)]/[365*(3)]
16 [O&M ACCOUNT COST (TABLE 6)]/(7)
17 [O&M THROUGHPUT COST (TABLE 6)]/[TOTAL VOLUME THROUGHPUT]
18 BILLING AND ACCOUNT RELATED COSTS SPECIFIC TO CUSTOMERS NOT CYCLE BILLED.
19 (13)+(14)+(15)+(16)+(17)+(18)
20 (8)+(12)+(19)

TABLE LM–2P: INCREMENTAL METER AND SERVICE COSTS* – LOWER MAINLAND

($1992)

	(a)	RES (b)	SMALL COMM (c)	LARGE COMM (d)	GENERAL HIGH LOAD FAC (e)	SMALL INTERR (f)	LARGE INTERR (g)
(1)	TYPE OF METER	200	400	3M	5MID	11M/ID	T30
(2)	METER SET	$130	$273	$1,871	$2,767	$3,811	$7,750
(3)	METER SET W/O METER	$62	$109	$775	$775	$10,075	$25,575
(4)	INSTRUMENTS	$0	$0	$0	$5,813	$5,813	$5,813
(5)	TELEMETER	$0	$0	$0	$9,300	$9,300	$15,500
(6)	CUSTOMER SERVICE	$0	$87	$240	$240	$3,100	$5,115
(7)	SERVICE LATERAL	$1,138	$1,138	$1,138	$2,325	$2,325	$3,875
(8)	TOTAL	$1,330	$1,606	$4,024	$21,220	$34,424	$63,628
(9)	**COST PER CUSTOMER****	**$126**	**$146**	**$379**	**$2,689**	**$3,753**	**$6,902**

(10)	ANNUAL CAPITAL CARRYING CHARGE FOR TELEMETERING (10% DEPR.) =	16.23%
(11)	ANNUAL CAPITAL CARRYING CHARGE FOR STANDARD METERS (3% DEPR.) =	10.28%
(12)	ANNUAL CAPITAL CARRYING CHARGE FOR SERVICES (2% DEPR.) =	9.38%

* TYPICAL (MOST COMMON) COSTS FOR METERS AND SERVICES BY CUSTOMER CLASS

** [[(2)+(3)+(4)]*(11)+(5)*(10)+[(6)+(7)]*(12)]

TABLE INL–2P: INCREMENTAL METER AND SERVICE COSTS* – INLAND

($1992)

	(a)	RES (b)	SMALL COMM (c)	LARGE COMM (d)	GENERAL HIGH LOAD FAC (e)	SMALL T–SERV (f)	LARGE INDUST*** (g)
(1)	TYPE OF METER	200	400	3M	5MID	T30	--
(2)	METER SET	$118	$246	$1,690	$2,499	$7,000	--
(3)	METER SET W/O METER	$56	$98	$700	$700	$23,100	--
(4)	INSTRUMENTS	$0	$0	$0	$5,250	$5,250	$240,000
(5)	TELEMETER	$0	$0	$0	$8,400	$8,400	$18,000
(6)	CUSTOMER SERVICE	$0	$78	$217	$217	$4,620	--
(7)	SERVICE LATERAL	$1,028	$1,028	$1,028	$2,100	$3,500	--
(8)	TOTAL	$1,201	$1,450	$3,634	$19,166	$51,870	$258,000
(9)	**COST PER CUSTOMER****	**$114**	**$132**	**$342**	**$2,429**	**$5,326**	**$27,593**

(10)	ANNUAL CAPITAL CARRYING CHARGE FOR TELEMETERING (10% DEPR.) =	16.23%
(11)	ANNUAL CAPITAL CARRYING CHARGE FOR STANDARD METERS (3% DEPR.) =	10.28%
(12)	ANNUAL CAPITAL CARRYING CHARGE FOR INLAND SERVICES (2% DEPR.) =	9.38%

* TYPICAL (MOST COMMON) COSTS FOR METERS AND SERVICES BY CUSTOMER CLASS
** [[(2)+(3)+(4)]*(11)+(5)*(10)+[(6)+(7)]*(12)]
*** REPRESENTATIVE COST FOR LARGE INDUSTRIAL METERING

TABLE COL–2P: INCREMENTAL METER AND SERVICE COSTS* – COLUMBIA

($1992)

	(a)	RES (b)	SMALL COMM (c)	LARGE COMM (d)	GENERAL HIGH LOAD FAC (e)	LARGE INDUST (f)
(1)	TYPE OF METER	200	400	3M	5MID	T60
(2)	METER SET	$134	$282	$1,931	$2,856	$12,800
(3)	METER SET W/O METER	$64	$112	$800	$800	$52,800
(4)	INSTRUMENTS	$0	$0	$0	$6,000	$6,000
(5)	TELEMETER	$0	$0	$0	$9,600	$16,000
(6)	CUSTOMER SERVICE	$0	$90	$248	$248	$10,720
(7)	SERVICE LATERAL	$1,174	$1,174	$1,174	$2,400	$8,000
(8)	TOTAL	$1,373	$1,658	$4,154	$21,904	$106,320
(9)	**COST PER CUSTOMER****	**$131**	**$151**	**$391**	**$2,776**	**$10,708**

(10)	ANNUAL CAPITAL CARRYING CHARGE FOR TELEMETERING (10% DEPR.) =	16.23%
(11)	ANNUAL CAPITAL CARRYING CHARGE FOR STANDARD METERS (3% DEPR.) =	10.28%
(12)	ANNUAL CAPITAL CARRYING CHARGE FOR INLAND SERVICES (2% DEPR.) =	9.38%

* TYPICAL (MOST COMMON) COSTS FOR METERS AND SERVICES BY CUSTOMER CLASS

** [[(2)+(3)+(4)]*(11)+(5)*(10)+[(6)+(7)]*(12)]

TABLE PRO-1: DETAILED LRIC SUMMARY - ALL DIVISIONS

*	(a)	RESIDENTIAL (b)	SMALL COMMERCIAL (c)	LARGE COMMERCIAL (d)	GENERAL SERVICE (e)
(1)	PEAK DAY LOAD (10^3 M^3)	15,497	5,355	5,299	1,293
(2)	PEAK DAY LOAD (GJ)	597,564	206,489	204,329	49,858
(3)	LOAD FACTOR	30.66%	28.56%	34.51%	48.28%
(4)	NO. OF CUSTOMERS (1992)	550,299	57,645	5,021	302
(5)	VOLUME (GJ 1992)	66,881,033	21,521,803	25,739,568	8,785,626
(6)	AVERAGE USE (GJ/YR)	122	373	5,126	29,091
(7)	INCREMENTAL USE (GJ/YR)	100	350	4,000	12,000
(8)	**TRANSMISSION ($/GJ)**	**$0.39**	**$0.42**	**$0.35**	**$0.25**
	DISTRIBUTION (ANNUALIZED $/CUSTOMER)				
(9)	MAINS & LATERALS	$50	$46	$241	$235
(10)	METERS & SERVICES	$123	$143	$373	$2,632
(11)	TOTAL DISTRIBUTION	$173	$189	$614	$2,868
(12)	**DISTRIBUTION ($/GJ)**	**$1.73**	**$0.54**	**$0.15**	**$0.24**
	O & M COSTS ($/GJ)				
(13)	PEAKING	$0.00	$0.01	$0.00	$0.00
(14)	DISTRIBUTION RELATED	$0.10	$0.03	$0.01	$0.01
(15)	TRANSMISSION RELATED	$0.01	$0.01	$0.01	$0.01
(16)	ACCOUNT RELATED	$0.43	$0.12	$0.01	$0.00
(17)	THROUGHPUT RELATED	$0.05	$0.05	$0.05	$0.05
(18)	DIRECT ASSIGNMENT				$0.05
(19)	**TOTAL O&M**	**$0.60**	**$0.23**	**$0.09**	**$0.13**
(20)	**TOTAL NON-GAS COST**	**$2.73**	**$1.19**	**$0.59**	**$0.62**

* SEE ATTACHED NOTES.

NOTES TO TABLE 1: DETAILED LRIC SUMMARY

1	BC GAS
2	BC GAS
3	BC GAS
4	BC GAS
5	BC GAS
6	BC GAS (1992)
7	BC GAS
8	[SYSTEM IMPROVEMENTS (TABLE 4) + LARGE TRANSMISSION (TABLE 5)]/[(3)*365]
9	TABLE 3
10	TABLE 2
11	(9)+(10)
12	(11)/[(7)*(4)]
13	[O&M PEAKING COSTS (TABLE 6)]/[365*(3)]
14	[O&M DIST COST (TABLE 6)]*[RATIO OF CLASS DIST. CAPITAL TO TOTAL DIST. CAPITAL]/[(7)*(4)]
15	[O&M TRANS COSTS (TABLE 6)]/[365*(3)]
16	[O&M ACCOUNT COST (TABLE 6)]/(7)
17	[O&M THROUGHPUT COST (TABLE 6)]/[TOTAL VOLUME THROUGHPUT]
18	BILLING AND ACCOUNT RELATED COSTS SPECIFIC TO CUSTOMERS NOT CYCLE BILLED.
19	(13)+(14)+(15)+(16)+(17)+(18)
20	(8)+(12)+(19)

TABLE PRO-4: SYSTEM IMPROVEMENTS – ALL DIVISIONS

CAPITAL COSTS (1992 $000)

	(a)	1993 (b)	1994 (c)	1995 (d)	1996 (e)	1997 (f)
(1)	LOWER MAINLAND	$1,942.0	$1,978.1	$4,285.6	$5,548.6	$6,833.8
(2)	INLAND	$3,735.5	$995.2	$305.2	$3,079.0	$210.8
(3)	COLUMBIA	$83.1	$176.0	$625.0	$0.0	$0.0
(4)	**TOTAL**	**$5,760.6**	**$3,149.3**	**$5,215.8**	**$8,627.6**	**$7,044.5**

CUMMULATIVE INCREMMENTAL PEAK DAY DESIGN LOAD (GJ)

		1993	1994	1995	1996	1997
(5)	LOWER MAINLAND*	31,835	62,190	85,881	109,572	151,772
(6)	INLAND**	17,039	24,801	31,888	38,539	45,028
(7)	COLUMBIA**	2,471	5,051	5,205	5,254	5,328
(8)	**TOTAL**	**51,346**	**92,042**	**122,973**	**153,365**	**202,128**

(9) DISCOUNT RATE = 9.94%

(10) CAPITAL COST ALLOWANCE ADJ FACTOR = 0.936

(11) LEVELIZED COSTS ($1992/GJ DAY) = $12.52

* COASTAL TRANSMISSION SYSTEM REVIEW, APPENDIX B.
** INTERIOR TRANSMISSION SYSTEM REVIEW EXTRAPOLATED USING BC GAS FIVE YEAR FORECAST GROWTH RATES

TABLE PRO-5: LARGE TRANSMISSION PROJECTS - ALL DIVISIONS

	CAPITAL EXPENDITURES ($1992 MIL):	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
(1)	LOWER MAINLAND*	$54.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
(2)	INLAND**	$0.00	$4.48	$36.70	($1.89)	($1.50)	($3.00)	$0.50	($3.00)	($3.00)	($1.10)	$5.00	($3.00)	($3.00)	($3.00)
(3)	**TOTAL**	**$54.80**	**$4.48**	**$36.70**	**($1.89)**	**($1.50)**	**($3.00)**	**$0.50**	**($3.00)**	**($3.00)**	**($1.10)**	**$5.00**	**($3.00)**	**($3.00)**	**($3.00)**

CUMMULATIVE INCREMENTAL PEAK DAY DESIGN LOAD*** (GJ)

(4)	LOWER MAINLAND	0	31,835	62,190	85,861	109,572	151,772	176,204	201,376	224,327	250,239	273,930	299,102	338,341	363,513
(5)	INLAND	0	3,279	7,651	14,209	20,767	27,325	32,790	39,348	45,906	51,371	56,836	62,301	68,859	75,417
(6)	**TOTAL**	**0**	**35,114**	**69,841**	**100,090**	**130,339**	**179,097**	**208,994**	**240,724**	**270,233**	**301,610**	**330,766**	**361,403**	**407,200**	**438,930**

		$1992/GJ PEAK DAY
(7)	LEVELIZED COST 1993-2004	$31.33
(8)	DISCOUNT RATE =	9.94%
(9)	CAPITAL COST ALLOWANCE ADJUSTMENT FACTOR =	0.936

* SOURCE: SURREY-LANGLEY PROJECT CPCN APPLICATION, VOLUME 1 OPTION B - PIPING OPTION 42 INCH
ADJUSTED TO REFLECT PROJECT COST CONTROL REPORT UPDATED 15 JANUARY 1993.
** INTERIOR TRANSMISSION SYSTEM 20 YEAR PROFORMA, ASSUMING ANG SUPPLY VOLUME = 80MMCFD AND NO BACKUP COMPRESSOR UNIT.
1993-95 COSTS UPDATED USING 5 YEAR GAS SUPPLY PLAN.
*** SYSTEM PLANNING PEAK HOUR DESIGN LOAD FORECAST

1... PRO–6: OPERATION AND MAINTENANCE EXPENDITURES – ALL DIVISIONS

Line No.	Particulars	BCUC	($000) 12/31/92 Test Year	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU–PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	MANUFACTURED GAS									
2	Propane Air Plant	639	$18	50.00%	x					
3	Liquid Natural Gas – Supervision	640	$128	50.00%	x					
4	Liquid Natural Gas Oprn. – Plant	649	$677	50.00%	x					
5	O&M Charged to Construction	649. 198	$0	50.00%	x					
6										
7			$823							
8										
9	TRANSMISSION									
10	Supervision	660	$1,273	50.00%						
11	Mains	665	$1,180	50.00%						x
12	Compressor	666	$250	50.00%						x
13	Measuring and Regulating	667	$60	50.00%						x
14	Telemetry	668	$57	50.00%						x
15	Gas Load – Supervision	669	$953	50.00%						x
16	O&M Charged to Construction	669. 198	($292)	50.00%						x
17	Cross Charges	669. 199	($294)	50.00%						x
18										
19			$3,187							
20										
21	DISTRIBUTION									
22	Supervision	670	$22,781	50.00%					x	
23	Load Dispatching	671	$497	50.00%					x	
24	Remove & Reset Meters and Regs.	673	$2,550	50.00%		x				
25	Premise Calls	674	$4,847	100.00%		x				
26	Mains and Services	675	$2,210	50.00%					x	
27	Measuring and Regulating	677	$2,020	50.00%		x				
28	Muster Points	679.001	$141	50.00%					x	
29	O&M Charged to Construction	679. 198	($12,345)	50.00%					x	
30	Cross Charges	679. 199	($288)	50.00%					x	
31										
32			$22,413							
33										
34	GENERAL									
35	System Operation – Communication	684	$196	50.00%			x			
36	System Operation and Engineering	685	$12,731	50.00%			x			
37	General Operations	688	$1,224	100.00%			x			
38	Charged to Construction/Transfers	689. 198	($4,030)	50.00%			x			
39	Cross Charges	689.199	($1,901)	50.00%			x			
40										
41			$8,220							
42										
43										
44	Total Operating Expenses		$34,643							
45										
46										

TABLE PRO-6: OPERATION AND MAINTENANCE EXPENDITURES – ALL DIVISIONS (CONTINUED)

Line No.	Particulars	BCUC	($000) 1992 Test Year Ex. 171	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU-PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	DISTRIBUTION SALES PROMOTION									
2	Marketing	700	$3,083	130.00%		x				
3	O&M Charged to Construction	700. 198	($559)	130.00%		x				
4	Advertising	701	$867	130.00%		x				
5	Demonstration & Selling	702	$2,788	130.00%		x				
6	Merchandising Revenue	703	($4,318)	130.00%		x				
7	Merchandising Cost of Goods	704	$3,246	130.00%		x				
8	Other Sales Promotion	709	$124	130.00%		x				
9										
10	Total Marketing		$5,231							
11										
12	DISTRIBUTION CUSTOMER ACCOUNTING									
13	Supervision	710	$1,947	10.00%		x				
14	Contracts and Orders	711	$1,106	100.00%		x				
15	Meter Reading	712	$1,882	100.00%		x				
16	Customers Billing and Accounting	713	$1,542	100.00%		x				
17	Credit and Collection	714	$3,552	100.00%		x				
18	Uncollectible Accounts	718	$1,848	100.00%		x				
19										
20	Total Customer Accounting		$11,877							
21										
22	MANUFACTURED GAS									
23	Man. Gas Production – Mtnce.	832	$1	50.00%	x					
24	Local Storage	840	$0	50.00%	x					
25	LNG – Plant Maintenance	849	$335	50.00%	x					
26										
27			$336							
28										
29	TRANSMISSION									
30	Structs. & Improvements – Mtnce.	862	$24	50.00%			x			
31	Mains – Maintenance	865	$564	50.00%			x			
32	Compressors – Maintenance	866	$148	50.00%			x			
33	Measuring and Regulating – Mtnce.	867	$15	50.00%			x			
34	Telemetry – Maintenance	868	$48	50.00%			x			
35										
36			$799							
37										
38	DISTRIBUTION									
39	Supervision	870	$0	50.00%			x			
40	Structs. & Improvements – Mtnce.	872	$109	50.00%			x			
41	Mains and Services – Mtnce.	875	$2,259	50.00%			x			
42	Measuring and Regulating – Mtnce.	877	$261	50.00%		x				
43	Meters – Mtnce.	878	$2,371	100.00%		x				
44	Muster Points – Mtnce.	879	$31	50.00%			x			
45										
46			$5,031							
47										

Line No.	Particulars	BCUC	($000) 12/31/92 Test Year	% Attributed Per Unit To Incremental Customers	PEAKING	ACCOUNT RELATED	THRU-PUT RELATED	NGV	DIST PLANT RELATED	TRAN PLANT RELATED
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	GENERAL									
2	Communication – Mtnce.	884	$59	0.00%			x			
3	System Mtnce. – Eng./Bldgs./Yards	885	$509	50.00%			x			
4	General Operations	888	$1,309	100.00%			x			
5	Cross Charges	889. 199	($28)	0.00%			x			
6										
7			$1,849							
8										
9	Total Maintenance		$8,015							
10										
11	NGV									
12	Operations – Compressors	690	$0	50.00%				x		
13	Training	691	$0	10.00%				x		
14	Administration / Operations	790	$681	10.00%				x		
15	O&M Charged to Construction	790. 198	($191)	10.00%				x		
16	Advertising	791	$0	130.00%				x		
17	Demonstration & Selling	792	$0	130.00%				x		
18	Revenue from Merchandising	793	$0	130.00%				x		
19	Expense of Merchandising	794	$0	130.00%				x		
20	Maintenance	890	$288	50.00%				x		
21										
22	Total NGV Expenses		$778							
23										
24	ADMINISTRATIVE									
25	Administrative Expenses	721	$38,466	0.00%						
26	Special Services	722	$962	0.00%						
27	Insurance – General	723	$1,301	0.00%						
28	Injuries and Damages	724	$155	0.00%						
29	Other Admin. and General Exp.	728	$2,870	0.00%						
30	Charged to Construction/Transfers	729. 198	($12,034)	0.00%						
31	Cross Charges	729. 199	($1,595)	0.00%						
32										
33	Total Administrative Expenses		$30,125							
34										
35	Subtotal		$90,669							
36										
37	Less – Vehicle Dep'n. Included Above		($832)	0.00%						
38	Less – Other 1992 Adjustments		($865)	0.00%						
39	Less – Lower Mainland Vehicle Lease		$0	0.00%						
40	Less – 1992 Commission Adjustment		($3,270)	0.00%						
41										
42	TOTAL OPERATION AND MAINTENANCE EXPENSES		$85,702							
43										
44										
45	INCREMENTAL COSTS ASSOCIATED WITH:									
46	PEAKING FACILITIES		$580							
47	ACCOUNT RELATED		$26,558							
48	THROUGHPUT RELATED		$7,885							
49	NGV		$193							
50	DISTRIBUTION PLANT RELATED		$6,498							
51	TRANSMISSION PLANT RELATED		$1,594							
52	TOTAL INCREMENTAL COSTS		$43,307							

COMPETITIVE ENERGY

AND

PRICE ELASTICITIES OF DEMAND

STUDIES

COMPETITIVE ENERGY PRICES AND NATURAL GAS PRICE ELASTICITIES OF DEMAND

The first part of this study presents data on current regional energy prices in British Columbia. The purpose in presenting these data is to assess the competitive position of natural gas rates with respect to the prices of other fuels in the marketplace. The second part presents estimates of the elasticity of natural gas demand with respect to price. These estimates are derived from the BC Gas Inc. long term energy demand forecasting model.

1.0 COMPETITIVE ENERGY PRICE ASSESSMENT

1.1 Introduction

This section presents the results of an energy price survey undertaken by BC Gas staff during December 1992 and January 1993. The regions of the province surveyed by telephone correspond approximately to the major sales divisions of BC Gas Inc. Thus certain areas which are not part of the BC Gas service area, such as Vancouver Island, were not part of the survey.

The prices contained herein were obtained from four sources:

- a telephone survey of fuel oil and propane distributors conducted by BC Gas regional office staff;
- fuel oil and propane posted price lists from dealer head offices for various cities in the province;
- the electricity rate schedules of BC Hydro and West Kootenay Power Ltd and the natural gas rate schedules of BC Gas Inc.;
- price data from Statistics Canada and Energy, Mines and Resources Canada.

Generally, a minimum of one local oil distributor and one local propane dealer were contacted in eighteen towns or cities throughout the service area of BC Gas Inc. Because the price range shown for each BC Gas sales region in the accompanying tables consists of at least two communities, with the exception of the Fort Nelson Division, and because the survey data is augmented in most cases with dealer list prices, there is a reasonably high likelihood that the data shown here are accurate depictions of energy prices prevailing in the Province at the time the survey was undertaken.

Table 1 below lists the communities surveyed and shows the organization of the price data to follow. The four Divisions of BC Gas have been arranged into eight sales districts. Eighteen communities were surveyed within these eight districts. Table 2 below provides a summary of the survey results and Table 3 compares the prices obtained in the current survey with the results of a similar survey undertaken a year ago. Natural gas rates in various service regions within the Pacific Northwest and Alberta are compared in Tables 4, 5 and 6. Finally, in Table 7, natural gas vehicle prices are compared with propane and gasoline.

Appendix A lists the data sources and Appendix B shows the conversion factors used to derive prices based upon energy content. Appendices C and D show additional fuel price data obtained from public sources. Detailed energy price survey results by community and by market sector are presented in Appendix E.

Table 1

BC Gas Inc. Competitive Energy Price Survey
Summary of Regions and Communities Surveyed

(a) Sales Division	(b) Sales District	(c) Cities Surveyed
Lower Mainland	Greater Vancouver	Vancouver, Burnaby, New Westminster
	Fraser Valley	Abbotsford, Chilliwack
Inland	Okanagan	Kelowna, Penticton, Vernon, Salmon Arm
	Central	Kamloops, 100 Mile House
	North	Prince George, Williams Lake
	West Kootenay	Castlegar, Trail
Columbia	East Kootenay	Cranbrook, Fernie
Fort Nelson		Fort Nelson

1.2 Residential Energy Price Survey Results

Table 2 summarizes the results of the residential energy price survey. These prices do not include the Goods and Services Tax. The range reflects the highest and lowest price observations obtained in each community. As the table shows, residential furnace oil and propane prices vary not only by region but, according to our survey, vary even within the same region.

Inter-regional differences are explained in part by the degree of competition from other fuels, regional transportation costs and the size of the local market. For example, propane prices are relatively low in Fort Nelson because natural gas rates are low and because the proximity of the Taylor gas processing plant keeps transportation costs to Fort Nelson relatively low. The intra-regional variation shown in Table 2 is partly

Table 2

Summary of Residential Energy Prices Within BC Gas Service Area

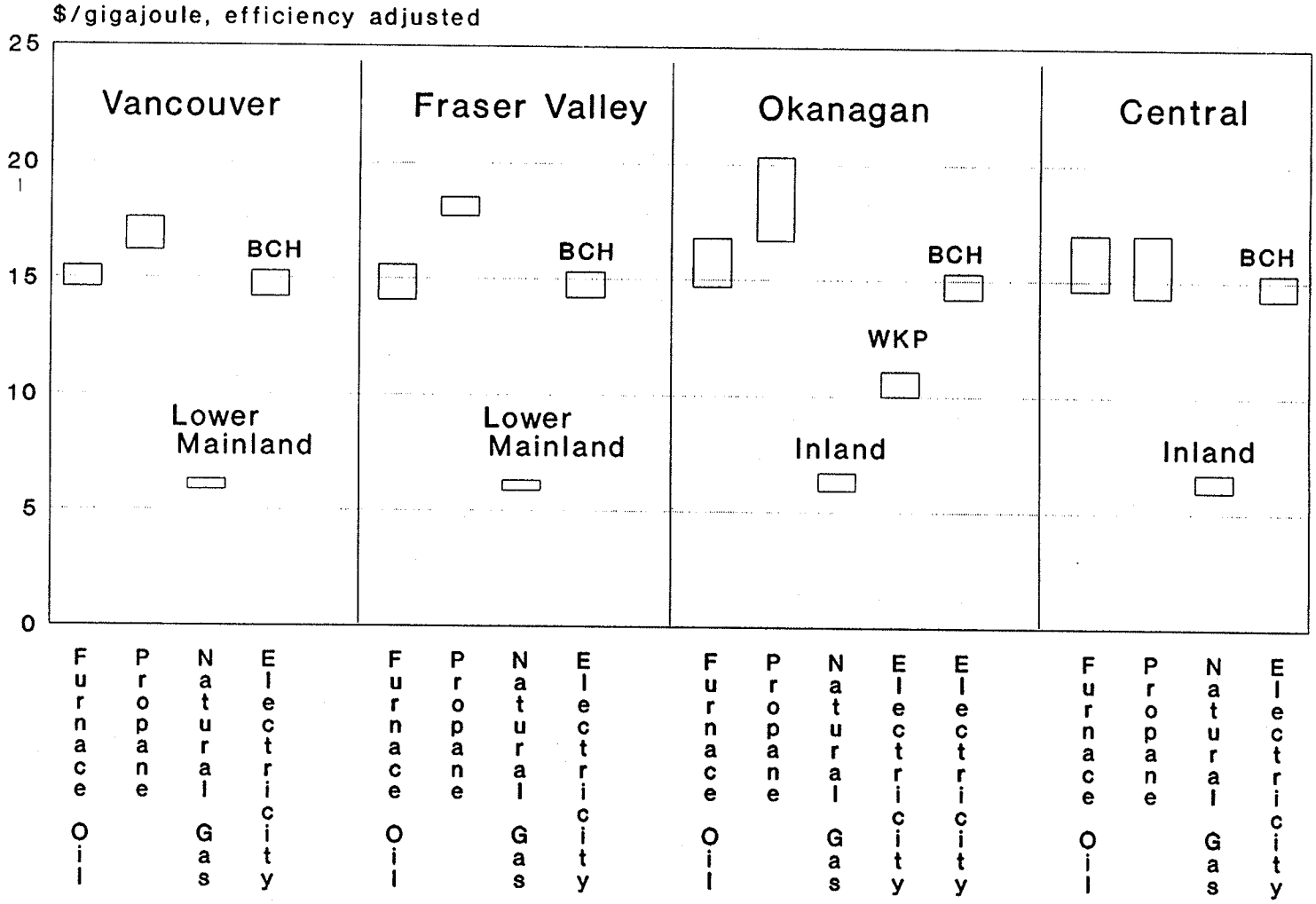
(a) Sales District	(b) Furnace Oil cts/litre	(c) Propane cts/litre	(d) Natural Gas $/GJ[a,b]	(e) Electricity cts/Kwh[a,c]
Vancouver	36.6 - 39.0	33.0 - 36.0	4.71 - 5.05	5.2 - 5.5
Fraser Valley	35.5 - 39.2	36.2 - 37.7	4.71 - 5.05	5.2 - 5.5
Okanagan	36.9 - 42.2	34.0 - 41.5	4.75 - 5.36	5.2 - 5.5 3.6 - 4.0[d]
Central	36.6 - 42.8	35.9 - 39.0	4.75 - 5.36	5.2 - 5.5
North	35.9 - 42.8	33.5 - 38.9	4.75 - 5.36	5.2 - 5.5
West Kootenay	38.5 - 42.8	36.9 - 36.9	4.75 - 5.36	3.6 - 4.0[d]
East Kootenay	38.5 - 38.5	35.0 - 35.0	4.01 - 4.29	5.2 - 5.5
Fort Nelson	39.0 - 43.2	31.5 - 31.5	3.29 - 3.42	5.2 - 5.5

Summary of Residential Energy Prices (Efficiency Adjusted) Within BC Gas Service Area
$ per Gigajoule

(a) Sales District	(b) Furnace Oil @ 65% Efficiency	(c) Propane @ 80% Efficiency	(d) Natural Gas @ 80% Efficiency[a,b]	(e) Electricity @ 100% Efficiency[a,c]
Vancouver	14.6 - 15.5	16.2 - 17.6	5.89 - 6.31	14.3 - 15.2
Fraser Valley	14.1 - 15.6	17.7 - 18.5	5.89 - 6.31	14.3 - 15.2
Okanagan	14.7 - 16.8	16.7 - 20.3	5.94 - 6.70	14.3 - 15.2 10.1 - 11.1[d]
Central	14.6 - 17.0	17.6 - 19.1	5.94 - 6.70	14.3 - 15.2
North	14.3 - 17.0	16.4 - 19.1	5.94 - 6.70	14.3 - 15.2
West Kootenay	15.3 - 17.0	18.1 - 18.1	5.94 - 6.70	10.1 - 11.1[d]
East Kootenay	15.3 - 15.3	17.1 - 17.1	5.01 - 5.36	14.3 - 15.2
Fort Nelson	15.3 - 17.2	15.4 - 15.4	4.11 - 4.28	14.3 - 15.2

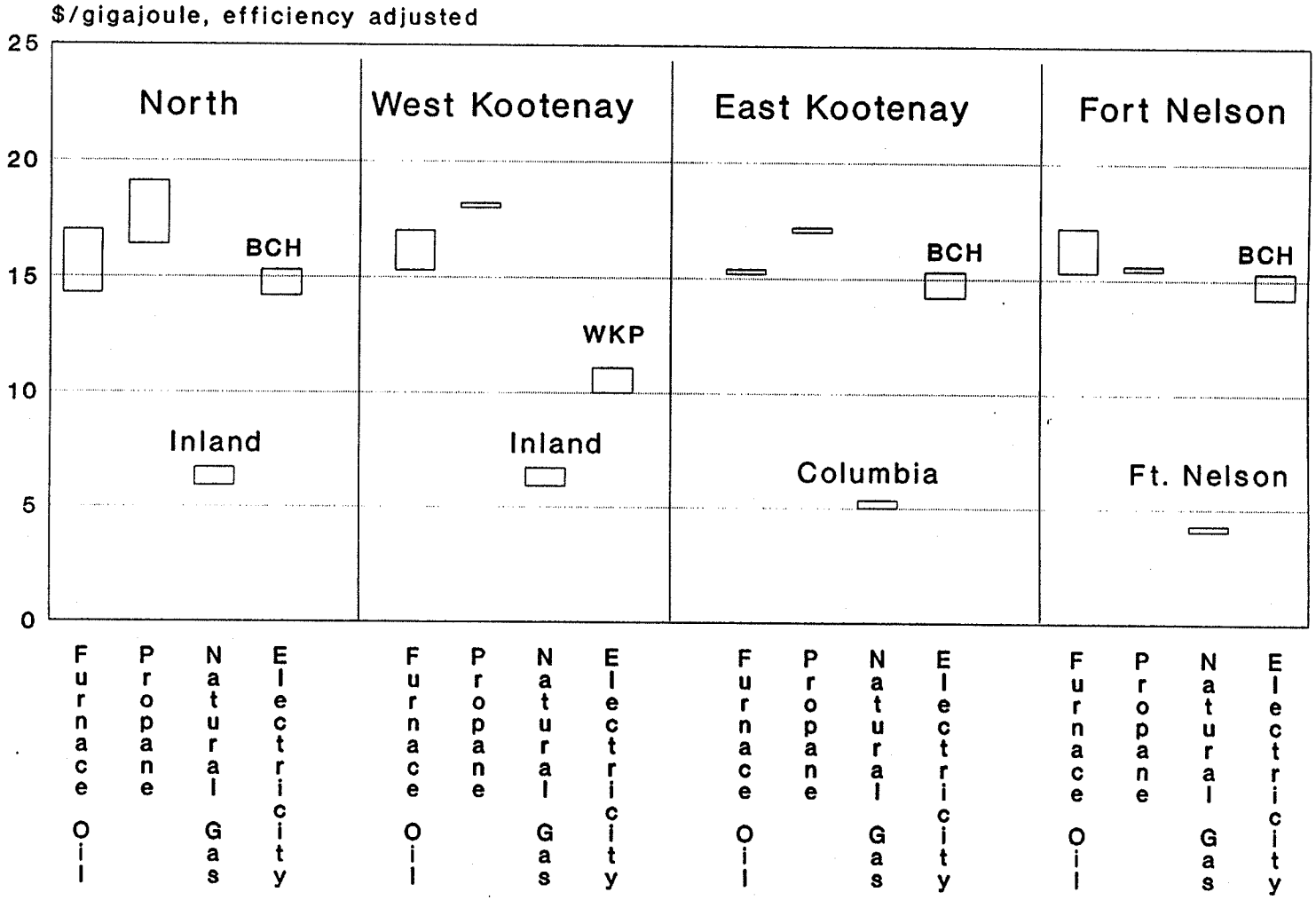
a The low price reflects 30 gigajoules per month consumption and the high price assumes 10 gigajoules consumption per month.
b Van & FV prices from Sch. 2101/2102, Lower Mainland Div.; all others reflect Rate 1, Inland Div., except East Kootenay, which is Columbia Division, and Fort Nelson, which is Fort Nelson Division. Rates are interim, effective January 1, 1993.
c Prices reflect BC Hydro Rate 1101, effective Aug. 1, 1992, unless otherwise indicated.
d Prices reflect West Kootenay Power, Schedule 4, interim rates effective January 1, 1993.

Summary of Residential Energy Prices Within BC Gas Service Area



Source: Table 2

Summary of Residential Energy Prices Within BC Gas Service Area, Cont'd.



Source: Table 2

due to differences between local dealer retail prices and head office list prices, as well as to differences in competitive forces within the same general geographic region.

The top half of Table 2 shows current retail prices. Differences in unit pricing and heat content among the various fuels makes comparisons difficult. In the bottom half of Table 2, the prices are converted to dollars per gigajoule and adjusted for typical space heating efficiencies.[1] On this basis, natural gas prices are significantly below the cost of competing fuels. However, note that the comparison does not consider capital and maintenance costs over the life of energy-using appliances.

The prices shown in Table 2, as well as the detailed survey results contained in Appendix E, depict prices as they exist at a moment in time; in this case December and January. Furnace oil and propane prices tend to be higher in the winter months, when demand is greatest, but lower in the summer months. Thus it is possible that a comparison of natural gas rates with furnace oil and propane prices in the winter may impart a bias to the results.

Monthly average energy price data from Statistics Canada suggests however that the seasonal variation in furnace oil and propane prices is not that large. Appendix C shows monthly average natural gas, electricity and fuel prices in B.C. during 1992. Appendix D shows monthly average furnace oil prices in Vancouver, Prince George and Victoria. While all energy prices show some monthly fluctuation, the Statistics Canada data suggests that natural gas rates would be below the cost of competing fuels in the residential sector no matter what time of year the survey was conducted.

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[1] Examples of the conversion procedure are shown in Appendix B.

1.3 Commercial Fuel Oil and Propane Prices

Commercial fuel oil and propane prices were not obtained by direct survey methods but instead were derived from the residential survey prices. Generally, fuel oil and propane dealers do not offer a commercial price but instead offer discounts to large volume customers. Since local dealers are generally reluctant to provide information regarding discounts to the public, a telephone survey was not feasible.

However, according to a dealer price list, the discount off the residential furnace oil posted price is consistently around 13.5 percent. Further, discussions with BC Gas marketing staff suggest that an appropriate volume discount for propane is 10 to 15 percent. All the furnace oil prices shown in Table 2 were therefore discounted by 13.5 percent and all the propane prices shown in Table 2 were discounted by 10 percent in order to infer larger volume commercial fuel oil and propane prices. The results of applying these discounts to residential prices are shown in Table E.2 in Appendix E. Also shown in Table E.2 are commercial electricity prices, which are based upon the appropriate commercial rate schedule.

1.4 Industrial Market Energy Prices

Industrial market energy prices are provided only for Greater Vancouver and the Fraser Valley. The reason is that prices for fuels used in industrial applications outside the Lower Mainland are difficult to obtain. The use of such fuels, with the exception of wood waste, is relatively small in total and often very site-specific. For example, the mines in the East Kootenay region often use "coal dust" for steam heat generation. Some pulp mills, Canadian Forest Products and Northwood for example, use "tall oil", a by-product from BC Chemicals, as a back-up fuel. Hog fuel and wood chip use is,

of course, also prevalent in some regions. An accurate hog fuel/wood chip price is difficult to obtain. Most pulp and paper mills use No. 2 or No. 6 oil as a back-up fuel when gas supply is interrupted. Propane and light fuel oil are used as back-up fuels by some Lower Mainland manufacturing plants.

Statistics Canada puts the price of No. 6 fuel oil in Vancouver at about 10 to 12 cents per litre. This same price range is probably appropriate for the Fraser Valley. However, heavy fuel oil use is very limited in the Lower Mainland and elsewhere in B.C. Coal consumption is also rare in the Lower Mainland. A price range of 15 to 20 cents per litre, reflecting higher transportation costs, may be appropriate for heavy fuel oil in most other regions of the province. BC Gas marketing staff estimate that No. 2 fuel oil sells for the equivalent of $5.00 per gigajoule in the Lower Mainland. Industrial energy price ranges for Greater Vancouver and the Fraser Valley are shown in Table E.3 of Appendix E.

1.5 Electricity Prices

Residential, commercial and industrial electricity prices are derived from current rate schedules. BC Hydro prices reflect current approved rates effective August 1, 1992. West Kootenay Power prices reflect interim rates effective January 1, 1993.

1.6 1992 and 1993 Price Survey Comparison

In February of 1992 BC Gas staff completed a survey similar to the one described in this report. Table 3 compares the results of that survey to the prices obtained in the current survey for selected communities. The comparison is restricted to the residential sector. The price movements shown in Table 3 suggest that furnace oil and propane prices have, in most cases, risen during the period between surveys.

According to the furnace oil price data from Statistics Canada shown in Appendix D, the 1992 annual average furnace oil price in Vancouver was about 3 percent higher than the 1991 average price. In Prince George the increase was almost seven percent. So, for furnace oil at least, the Statistics Canada data tends to support the results of the BC Gas surveys.

1.7 Natural Gas Rates in Neighbouring Service Territories

The price data presented in Tables 1 to 3 have compared natural gas prices with the cost of other energy. In Table 4, residential natural gas rates in neighbouring gas distribution service areas are shown. Tables 5 and 6 present similar comparisons for commercial and industrial gas rates. As before, the prices shown in these tables exclude provincial/state taxes, but do include municipal property taxes to the extent that such levies are included in the tariffs of the distribution utilities.

To a large extent, differences in the rates charged by gas distributors is explained by the cost of transporting natural gas from the wellhead to the city gate. For example, the relatively low rates charged by the Alberta distributors, Canadian Western and NorthWestern, is due largely to their proximity to the source of supply. Municipal property taxes also explain some of the variation in natural gas rates by service area.

1.8 Automotive Fuel Prices

In Table 7, monthly average automotive transportation fuel prices in the Greater Vancouver area are presented for 1992. This data is reproduced from a survey performed by the Canadian Oil Markets Division of Energy, Mines and Resources Canada. For purposes of comparison, automotive propane and natural gas vehicle prices have been converted to a gasoline equivalent price. The conversion procedure is described in Appendix B. The top-half of the table shows prices excluding federal and provincial taxes and the bottom half shows prices with all taxes included. On a pre-tax basis, NGV prices in 1992 were on average only slightly less than unleaded gasoline when measured in cents per litre of gasoline equivalent but were about 20 percent less than automotive propane prices. The competitive advantage of NGV over gasoline improves considerably after federal and provincial taxes are included.

Table 3

Residential Energy Price Survey Comparison

(a)	(b)		(c)		(d)	
Region	**Furnace Oil**		**Propane**		**Electricity[a,b]**	
	cents/litre		cents/litre		cents/kwh	
	Feb. 92	Jan. 93	Feb. 92	Jan. 93	Feb. 92	Jan. 93
Greater Vancouver	36.0-39.8	36.6-40.0	34.0-35.0	33.0-36.0	4.9 - 5.4	5.2 - 5.5
Abbotsford	33.6-36.2	35.5-38.6	34.3-35.3	36.2-37.7	4.9 - 5.4	5.2 - 5.5
Kelowna	35.0-39.0	37.9-41.9	33.0-35.0	37.4-37.4	4.9 - 5.4 3.3 - 3.7[c]	5.2 - 5.5 3.6 - 4.0[c]
Pr. George	34.5-39.2	36.6-42.1	28.5-30.5	28.0-33.5	4.9 - 5.4	5.2 - 5.5
Cranbrook	34.0-35.5	38.5-38.5	29.5-29.5	35.0-35.0	4.9 - 5.4	5.2 - 5.5
Castlegar	35.5-39.9	38.5-38.5	32.9-33.9	36.9-36.9	3.3 - 3.7[c]	3.6 - 4.0[c]
Ft. Nelson	36.0-40.0	39.0-43.1	28.5-28.5	31.5-31.5	4.9 - 5.4	5.2 - 5.4

a the low price reflects 30 gigajoules per month consumption and the high price assumes 10 gigajoules of consumption per month.

b prices reflect BC Hydro Rate 1101 unless otherwise indicated; 1993 prices effective August 1, 1993.

c prices reflect West Kootenay Power, Schedule 4; 1993 prices reflect interim rates effective January 1, 1993.

Table 4

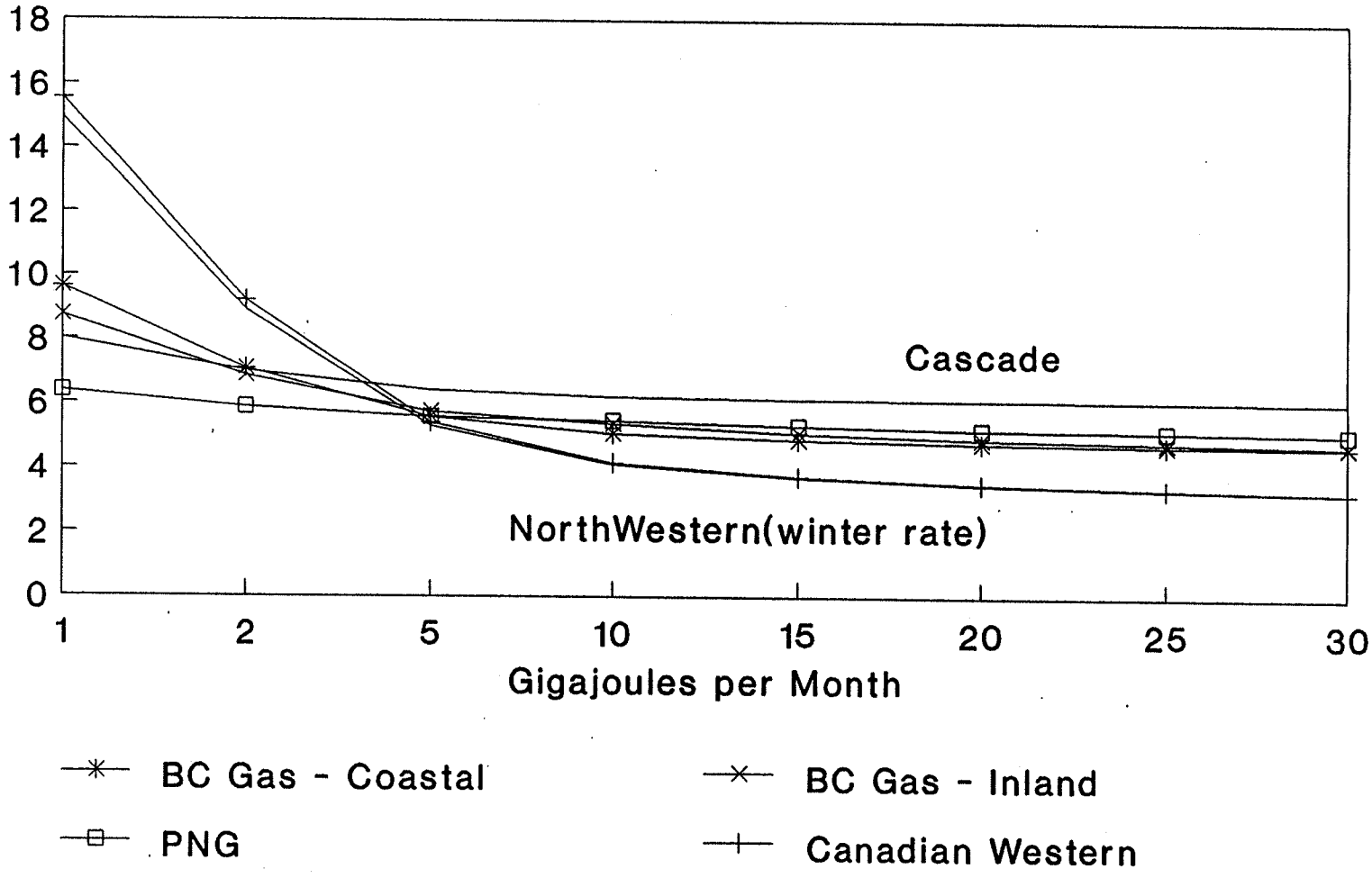
Natural Gas Residential Rate Comparison
$Cdn. per Gigajoule

Line No.	(a) Monthly Volume GJ's	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
		-- BC Gas Inc. --			Pacific Northern	-- NorthWestern --		-- Canadian Western --		Cascade	Washington Water Power	Washington Natural Gas
		LM	Inland	Columbia	Gas	Summer	Winter	Summer	Winter	Bellingham	Spokane	Seattle
1	1	9.63	8.74	8.04	6.37	14.38	14.95	15.03	15.54	8.02	8.14	12.62
2	2	7.08	6.86	5.96	5.87	8.35	8.92	8.69	9.21	7.01	6.00	9.58
3	5	5.56	5.73	4.71	5.56	4.73	5.30	4.89	5.41	6.41	4.71	7.16
4	10	5.05	5.36	4.29	5.46	3.53	4.10	3.63	4.14	6.21	4.28	6.21
5	15	4.88	5.07	4.15	5.31	3.13	3.69	3.20	3.72	6.14	4.14	5.89
6	20	4.79	4.91	4.08	5.21	2.93	3.49	2.99	3.51	6.11	4.07	5.74
7	25	4.74	4.82	4.04	5.16	2.80	3.37	2.87	3.38	6.09	4.03	5.64
8	30	4.71	4.75	4.01	5.12	2.72	3.29	2.78	3.30	6.07	4.00	5.58

9 Notes:
Lower Mainland – BC Gas Inc., Schedule 2101/2102, General Service, reflects interim increase effective January 1, 1993.
Inland – BC Gas Inc., Schedule 1, Residential Service, Option B, excludes franchise fee; reflects interim rates effective Jan. 1, 1993.
Columbia – BC Gas Inc., Schedule 1, Residential Service, Option B, excludes franchise fee; reflects interim rates effective Jan. 1, 1993.
PNG – Pacific Northern Gas Ltd., Schedule 1, Residential Service, effective Jan. 1, 1993.
NorthWestern – NorthWestern Utilities Limited, Rate A1A, General Service, municipal tax applicable in Edmonton included; winter rate to March 31, 1993 in effect; rate effective Nov. 1, 1992.
Cdn. Western – Canadian Western Natural Gas, Rate No. 1, General Service, municipal tax applicable in Calgary included; winter rate to March 31, 1993 in effect; rate effective Jan. 20, 1993.
Cascade – Cascade Natural Gas Corporation, Rate Schedule 501, General Residential Service, effective Dec. 1, 1992.
Wash. Water – Washington Water Power Company, Schedule 101, General Service, effective Dec. 1, 1992.
Wash. Natural – Washing Natural Gas Company, Rate Schedule 24, municipal tax applicable to Seattle included; rate effective January 1, 1993.

Cdn./U.S. exchange rate is $1.2653 Cdn. per $U.S.
Comparisons are approximate because heat content varies by region.
Note: table revised June 4 to include Washington Natural Gas rates.

Natural Gas Residential Rate Comparison
$ Cdn. per Gigajoule



Source: Table 4

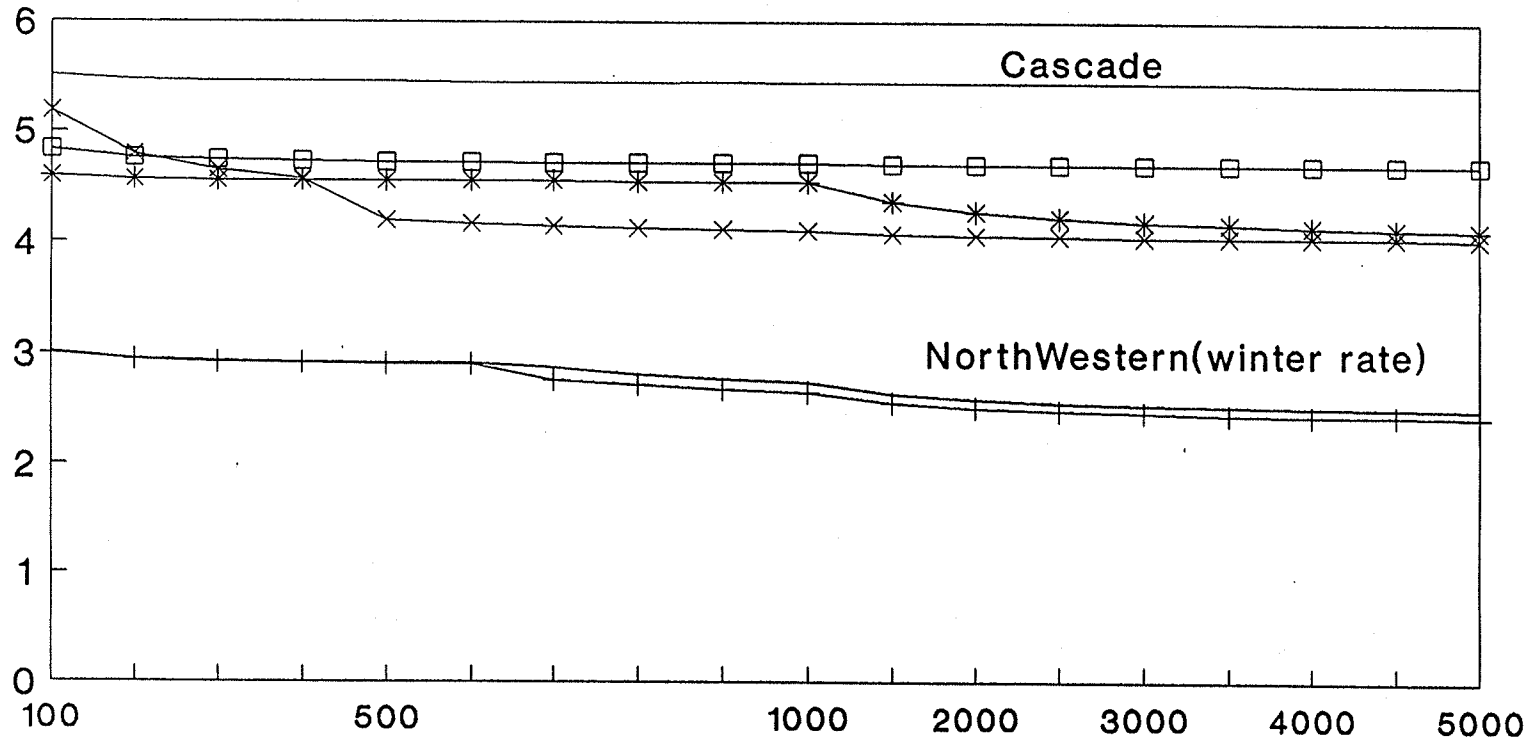
Table 5

Natural Gas Commercial Rate Comparison
$Cdn. per Gigajoule

Line No.	(a) Monthly Volume GJ's	(b) BC Gas Inc. Lower Mainland	(c) BC Gas Inc. Inland	(d) BC Gas Inc. Inland	(e) BC Gas Inc. Columbia	(f) Pacific Northern Gas	(g) NorthWestern Rate A1A	(h) NorthWestern Rate A2A	(i) Canadian Western Rate A1A	(j) Canadian Western Rate A2A	(k) Cascade Bellingham	(l) Washington Water Power Spokane	(m) Washington Natural Seattle
1	100	4.59	5.18		3.65	4.83	3.01		3.00		5.50	3.59	5.84
2	200	4.56	4.79		3.53	4.76	2.95		2.94		5.46	3.30	5.70
3	300	4.55	4.65		3.50	4.74	2.93		2.92		5.45	3.19	5.65
4	400	4.55	4.57		3.48	4.73	2.92		2.91		5.45	3.14	5.63
5	500	4.55		4.19	3.46	4.72	2.91		2.90		5.45	3.11	5.61
6	600	4.55		4.16	3.46	4.72	2.91		2.90		5.44	3.08	5.57
7	700	4.55		4.14	3.45	4.71		2.87		2.76	5.44	3.07	5.52
8	800	4.54		4.12	3.45	4.71		2.81		2.72	5.44	3.06	5.48
9	900	4.54		4.11	3.44	4.71		2.77		2.68	5.44	3.05	5.46
10	1,000	4.54		4.10	3.44	4.71		2.74		2.65	5.44	3.04	5.44
11	1,500	4.36		4.07	3.43	4.70		2.64		2.56	5.44	3.02	5.37
12	2,000	4.27		4.06	3.43	4.70		2.59		2.51	5.44	3.01	5.34
13	2,500	4.22		4.05	3.43	4.70		2.56		2.49	5.44	3.00	5.32
14	3,000	4.18		4.04	3.43	4.70		2.54		2.47	5.44	3.00	5.31
15	3,500	4.16		4.04	3.43	4.70		2.53		2.45	5.44	3.00	5.30
16	4,000	4.14		4.04	3.42	4.70		2.52		2.44	5.43	2.99	5.29
17	4,500	4.12		4.04	3.42	4.70		2.51		2.44	5.43	2.99	5.29
18	5,000	4.11		4.03	3.42	4.70		2.50		2.43	5.43	2.99	5.28

19 Notes: Lower Mainland – BC Gas Inc., Schedule 2207/2208, General Service; reflects interim rates effective Jan. 1, 1993.
20 Inland – BC Gas Inc., Schedule 2.1 & 2.2, General Service; reflects interim rates, less franchise fees, effective Jan. 1, 1993.
21 Columbia – BC Gas Inc., Schedule 2.1 & 2.2, Small and Large General Service; reflects interim rates, less franchise fees, effective Jan. 1, 1993.
22 PNG – Pacific Northern Gas Ltd., Schedule 2, General Commercial Service, effective Aug. 1, 1992.
23 Cdn. Western – Canadian Western Natural Gas Company, Rates A1A, General Service and Rate A2A, Optional;
24 Municipal tax applicable to Calgary included; winter rate to March 31, 1993 in effect; rate effective Jan. 20, 1993.
25 NorthWestern – NorthWestern Utilities Limited, Rates A1A, General Service and Rate A2A, Optional;
26 Muncipal tax applicable to Edmonton included; winter rate to March 31, 1993 in effect; rate effective Feb.1, 1993.
27 Cascade – Cascade Natural Gas Corporation, Rate Schedule 504, General Commercial Service, effective Dec. 1, 1992.
28 Wash. Water – Washington Water Power Company, Rate Schedule 111, Large General Service, effective Dec. 1, 1992.
29 Wash. Natural – Washington Natural Gas Company, Rate Schedule 41, Large Volume Service;
30 Muncipal tax applicable to Seattle included; rate effective Jan. 1, 1993.
31
32 Canadian/U.S. exchange rate is $1.2653 Cdn. per $U.S.
33 Volume cut–off points shown for Inland, NorthWestern and Canadian Western are approximate.
34 Comparisons are approximate because heat content varies by region.
35 Note: table revised June 4 to include Washington Natural Gas rates.

Natural Gas Commercial Rate Comparison
$ Cdn. per Gigajoule



More than one rate class is shown for some utilities.

Source: Table 5

Table 6–A

Natural Gas Industrial Rate Comparison
$Cdn. per Gigajoule

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Monthly Volume GJ's	BC Gas – Lower Mainland	BC Gas – Inland Sched. 5.1	BC Gas – Inland Sched. 5.2	BC Gas – Columbia	Pacific Northern Gas	Cascade Bellingham Rate 505	Cascade Bellingham Rate 511
1	1,000	4.54	4.26		3.53	3.35	4.73	4.95
2	2,000	4.27	3.69		3.20	3.35	4.69	4.62
3	3,000	4.18	3.50		3.05	3.34	4.68	4.51
4	4,000	4.14	3.40		2.94	3.34	4.67	4.45
5	5,000	4.11	3.35		2.88	3.34	4.67	4.42
6	6,000	4.09	3.31		2.84	3.34	4.67	4.40
7	7,000	4.08	3.28		2.81	3.34	4.66	4.38
8	8,000	4.07		3.01	2.79	3.32	4.66	4.37
9	9,000	4.06		2.99	2.77	3.31	4.66	4.36
10	10,000	4.05		2.98	2.76	3.31	4.66	4.35
11	12,500	4.04		2.96	2.73	3.29	4.66	4.34
12	15,000	4.04		2.94	2.72	3.28	4.66	4.33
13	17,500	4.01		2.93	2.70	3.28	4.66	4.33
14	20,000	3.97		2.92	2.70	3.27	4.66	4.32

15 Notes: Lower Mainland – BC Gas Inc., Schedule 2209, Industrial Operations; reflects interim rate increase effective January 1, 1993.
16 Inland – BC Gas Inc., Schedule 5, Large Firm Service – Industrial; excludes franchise fee;
17 reflects interim rate increase effective January 1, 1993.
18 Columbia BC Gas Inc., Schedule 3, Small Industrial Firm Service; excludes franchise fee;
19 reflects interim rate increase effective January 1, 1993.
20 PNG – Pacific Northern Gas Ltd., Rate Schedule 5, Small Industrial, effective Jan. 1, 1993.
21 Cascade – Cascade Natural Gas Corp., Schedule 505, General Industrial Service, effective Dec. 1, 1992
22 and Schedule 511, Large Volume General Industrial Service, effective December 1, 1992.
23
24 Cdn./U.S. exchange rate is $1.2653 Cdn. per U.S. dollar.
25 Volume cut–off points shown for Inland are approximate.
26 Comparisons are approximate because heat content varies by region.

Table 6–A Cont'd.

Natural Gas Industrial Rate Comparison
$Cdn. per Gigajoule

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Monthly Volume	-- Washington Water -- Spokane		Washington Natural Seattle	NorthWestern Rate A3A		Canadian Western Rate A3A	
	GJ's	Schedule 111	Schedule 112	Schedule 41	Summer	Winter	Summer	Winter
1	1,000	3.04	3.52	5.44	2.00	2.52	2.11	2.62
2	2,000	3.01	3.49	5.34	1.85	2.37	1.97	2.49
3	3,000	3.00	3.48	5.31	1.80	2.32	1.93	2.44
4	4,000	2.99	3.48	5.29	1.78	2.30	1.90	2.42
5	5,000	2.99	3.47	5.28	1.76	2.28	1.89	2.41
6	6,000	2.99	3.47	5.28	1.75	2.27	1.88	2.40
7	7,000	2.99	3.47	5.27	1.75	2.27	1.87	2.39
8	8,000	2.99	3.47	5.27	1.74	2.26	1.87	2.39
9	9,000	2.98	3.47	5.26	1.74	2.26	1.87	2.38
10	10,000	2.98	3.47	5.26	1.73	2.25	1.86	2.38
11	12,500	2.98	3.46	5.26	1.73	2.25	1.86	2.38
12	15,000	2.98	3.46	5.26	1.72	2.24	1.85	2.37
13	17,500	2.98	3.46	5.25	1.72	2.24	1.85	2.37
14	20,000	2.98	3.46	5.25	1.71	2.23	1.84	2.35

15 Notes: Northwestern – Northwestern Utilities Limited, Rate A3A, High Load Factor – General; muncipal tax applicable
16 to Edmonton included; winter rate from January 20 to March 31, 1993; rate effective February 1, 1993.
17 Canadian Western – Canadian Western Natural Gas Limited, Rate A3A, High Load Factor – General; muncipal tax applicable
18 to Calgary included; winter rate from January 20 to March 31, 1993; rate effective January 20, 1993.
19 Washington Water – Washington Water Power Company, Schedules 111 and 112, Large General Service;
20 rate effective December 1, 1992.
21 Washington Natural – Washington Natural Gas Company, Rate Schedule 41; Large Volume Service. Municipal tax applicable
22 to Seattle included, rate effective January 1, 1993.
23
24 Cdn./U.S. exchange rate is $1.2653 Cdn. per U.S. dollar.
25 A 40% load factor is used to estimate NorthWestern and Canadian Western demand charges.
26 Comparisons are approximate because heat content varies by region.
27 Note: table revised June 4 to include Washington Natural Gas rates.
28

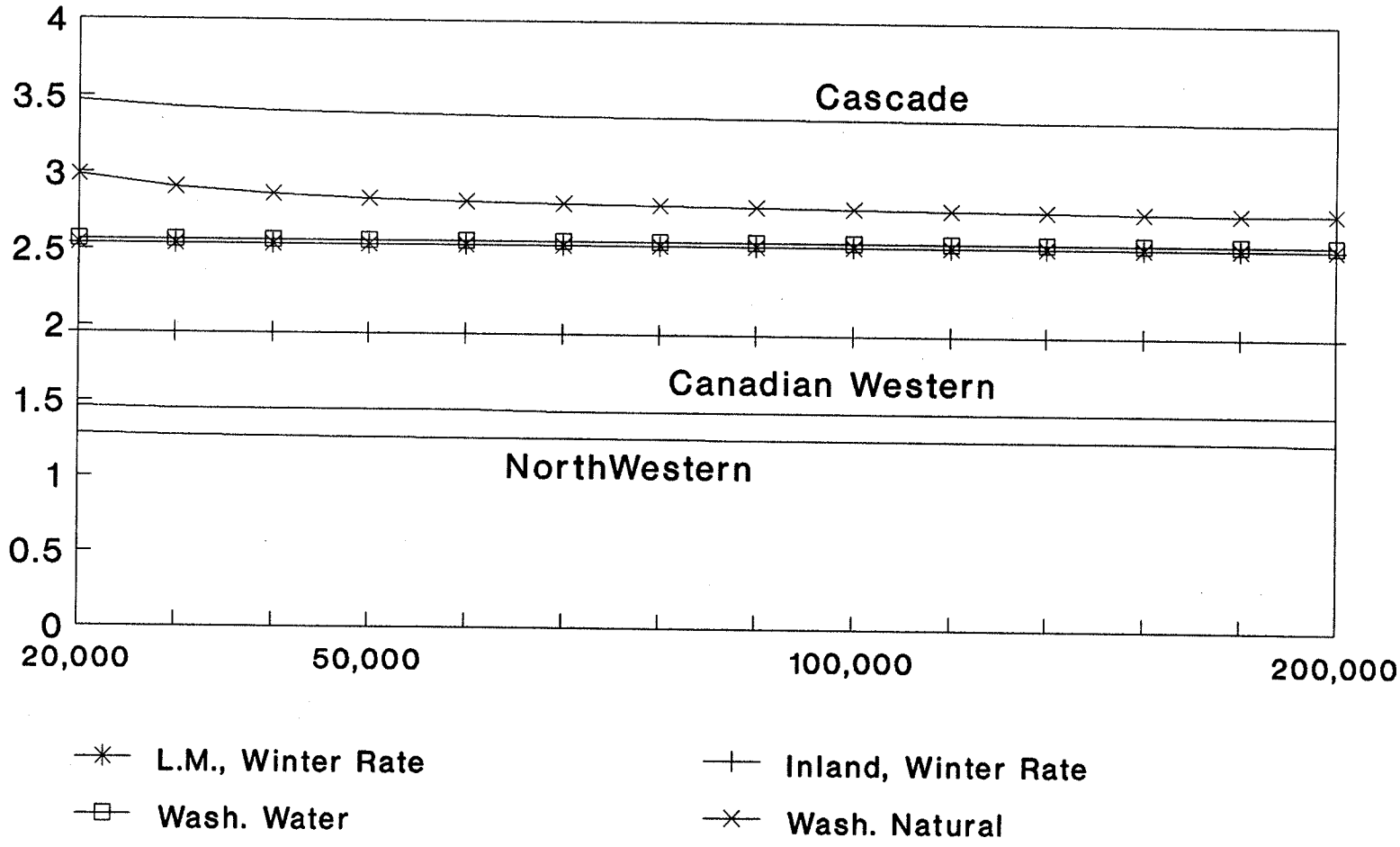
Table 6–B

Natural Gas Interruptible Service Rate Comparison
$Cdn. per Gigajoule

Line No.	(a) Monthly Volume GJ's	(b) BC Gas Lower Mainland Winter	(c) BC Gas Lower Mainland Summer	(d) BC Gas Inland Winter	(e) BC Gas Inland Summer	(f) Cascade Bellingham	(g) Washington Water Power Spokane	(h) Washington Natural Gas Seattle	(i) NorthWestern Rate 24	(j) Canadian Western Rate 24
1	20,000	2.54	2.04	1.95	1.47	3.47	2.56	2.99	1.28	1.46
2	30,000	2.54	2.04	1.95	1.47	3.43	2.56	2.91	1.27	1.45
3	40,000	2.54	2.04	1.95	1.47	3.41	2.56	2.86	1.27	1.45
4	50,000	2.54	2.04	1.95	1.47	3.39	2.56	2.84	1.26	1.45
5	60,000	2.54	2.04	1.95	1.47	3.39	2.56	2.82	1.26	1.44
6	70,000	2.54	2.04	1.95	1.47	3.38	2.56	2.81	1.26	1.44
7	80,000	2.54	2.04	1.95	1.47	3.38	2.56	2.80	1.26	1.44
8	90,000	2.54	2.04	1.95	1.47	3.37	2.56	2.80	1.26	1.44
9	100,000	2.54	2.04	1.95	1.47	3.37	2.56	2.79	1.26	1.44
10	120,000	2.54	2.04	1.95	1.47	3.37	2.56	2.78	1.26	1.44
11	140,000	2.54	2.04	1.95	1.47	3.36	2.56	2.78	1.26	1.44
12	160,000	2.54	2.04	1.95	1.47	3.36	2.56	2.77	1.26	1.44
13	180,000	2.54	2.04	1.95	1.47	3.36	2.56	2.77	1.26	1.44
14	200,000	2.54	2.04	1.95	1.47	3.36	2.56	2.77	1.26	1.44

15 Notes: Lower Mainland – BC Gas Inc., Schedule 10 gas costs and Schedule 22 transportation costs; reflects interim rate increase
16 effective January 1, 1993.
17 Inland – BC Gas Inc., Schedule 10 gas costs and Schedule 22 transportation costs; excludes franchise fee;
18 reflects interim rate increase effective January 1, 1993.
19 Cascade – Cascade Natural Gas Corp., Schedule 570, Interruptible Service, effective Dec. 1, 1992.
20 Wash. Water – Washington Water Power Company, Schedule 131, Interruptible Service, effective Dec. 1, 1992.
21 Wash. Natural – Washington Natural Gas, Schedule 87, Interruptible Service, effective January 1, 1993.
22 NorthWestern – NorthWestern Utilities Limited, Rate 24 interruptible t–service, effective February 1, 1993
23 plus typical gas commodity cost.
24 Canadian Western – Canadian Western Natural Gas Company, Rate 24 interruptible t–service, effective Feb. 1, 1993
25 plus typical gas commodity cost.
26
27 Cdn./U.S. exchange rate is $1.2653 Cdn. per U.S. dollar.
28 Comparisons are approximate because heat content varies by region.

Natural Gas Interruptible Service Rate Comparison, $Cdn. per Gigajoule



Source: Table 6-B

Table 7

Automotive Transportation Prices in Vancouver, 1992

Line No.	(a)	(b) Regular Unleaded Gasoline	(c) Automotive Propane	(d) Natural Gas
		Cents per litre of gasoline equivalent, excluding tax		
1	Jan	29.1	31.4	28.5
2	Feb	27.6	20.4	28.5
3	March	27.7	37.9	28.1
4	April	27.2	37.9	28.2
5	May	24.9	33.8	28.2
6	June	28.8	30.3	28.4
7	July	31.4	33.8	28.4
8	Aug	30.2	36.7	28.4
9	Sept	27.9	38.2	28.5
10	Oct	29.5	40.5	28.5
11	Nov	29.8	41.7	28.7
12	Dec	30.1	42.2	28.7
13				
14	Average	28.7	35.4	28.4
		Cents per litre of gasoline equivalent, including tax		
15	Jan	53.8	33.5	30.5
16	Feb	52.3	21.9	30.5
17	March	52.4	40.6	30.0
18	April	52.1	40.6	30.2
19	May	49.6	36.3	30.2
20	June	53.8	32.5	30.4
21	July	56.6	40.3	30.4
22	Aug	55.3	39.2	30.4
23	Sept	52.8	40.9	30.6
24	Oct	54.6	43.3	30.6
25	Nov	54.9	44.7	30.7
26	Dec	55.3	45.2	30.7
27				
28	Average	53.6	38.3	30.4

29 Source: Energy, Mines and Resources Canada, Energy Sector, February 1993.

2.0 ESTIMATES OF NATURAL GAS PRICE ELASTICITIES OF DEMAND

2.1 Introduction

This section presents estimates of the elasticity of natural gas demand with respect to its own price. The elasticities are derived from the BC Gas long term natural gas demand forecasting model. Since the model provides separate forecasts of the residential, commercial and industrial energy end-use markets, estimates of demand elasticities for each of these sectors are shown.

This section begins with a brief discussion of the elasticity concept. Elasticity estimates are presented in Table 8. A description of the structure of the econometric model, statistical results and elasticity formulas are contained in Appendix F. The model structure and statistical results described here are very similar but not identical to the forecasting models contained in the BC Gas Least Cost Integrated Resource Plan. The structural differences reflect some changes to the specification of dependent variables included in the energy share equation systems. Updates to the historical database also account for some of the changes to the statistical results.

The elasticity estimates shown in Table 8 suggest that natural gas demand is price inelastic. Long-run elasticities, which measure price responsiveness after all adjustments to a price change have taken place, range between -.3 and -.6. Short-run elasticities, which measure price responsiveness over a year, are very inelastic, generally less than -.1.

These results suggest that natural gas users in the short-run tend to maintain their accustomed level of consumption even when natural gas prices change. This response reflects the fact that in the short-run, natural gas users, and indeed users of all types of energy, have few options but to bear the

impact of the full increase in price. In the long run, natural gas users have more flexibility in adjusting their consumption to a change in price. For example, appliance purchase decisions will be influenced to some degree by current and expected future prices of energy. However, even in the long-run, our results suggest that an increase in the price of natural gas leads only to a relatively small decrease in consumption.

Although elasticity estimates are presented for residential, commercial and industrial markets, the level of aggregation is still relatively high. This is not a serious problem in the residential market where the bulk of demand is for space heating. In the industrial market, however, the responsiveness of demand to price may vary greatly depending upon the degree of fuel substitution possibilities. One would expect, for example, that short and long run elasticities in the lumber and pulp and paper industries would be more elastic than the estimates shown here.[2]

Because of the possibility that natural gas price elasticities may vary among industry sub-sectors, BC Gas, in its Least Cost Plan, stated its intention to develop industry sub-sector models in order to investigate industrial energy demand in more detail.[3]

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[2] In a 1985 study by Columbia Pacific Resources Group for Inland Natural Gas, long run natural gas price elasticities were estimated in the range of -.8 to -1.8. for pulp and paper and wood industries. However, elasticities in some other industries were inelastic.

[3] BC Gas Inc., "Least Cost Integrated Resource Plan, 1991-2001, Executive Summary," July 1992, page 32.

2.2 An Introduction to the Price Elasticity of Demand

2.2.1 The Elasticity Concept

A useful feature of the BC Gas natural gas demand forecast model is its ability to provide estimates of the elasticity of natural gas demand with respect to natural gas prices(hereafter, the price elasticity or the price elasticity of demand). The price elasticity measures the responsiveness of natural gas consumption to a change in its price. It is defined mathematically as the percentage change in the quantity consumed(in physical units) divided by the percentage change in the price. Expressed in this manner, the elasticity is a pure number, independent of the units in which natural gas volumes and prices are measured.

The price elasticity of any commodity is always presumed to be negative because of the well established inverse relationship between the quantity demanded and price. In other words, the percentage change in natural gas demand will be negative (or at least non-positive) for a positive percentage change in natural gas prices, holding constant the influence of all other variables that affect natural gas demand.

In the discussion to follow, all elasticity values are expressed in absolute value terms, with the understanding that they are in fact negative in sign. The major determinants of the price elasticity of demand are:

a) The availability of substitutes. The more substitutes there are for a particular commodity, the higher generally will be its price elasticity.

b) The nature of the need that the commodity satisfies. "Necessity" goods such as food, clothing and shelter are relatively price inelastic. Luxury goods, vacations as an example, are generally found to be price elastic.

c) The time period. The longer the time available to adjust demand to a price change, the more elastic will be the response.

d) The proportion of income spent on a commodity. The larger the proportion, the more price elastic a commodity generally becomes.

2.2.2 Elastic and Inelastic Price Elasticities of Demand

Economists often classify commodities according to its measured price elasticity. A commodity is said to be inelastic if the estimated elasticity is between zero and one. An elastic commodity has a price elasticity greater than one. An elastic commodity is therefore one in which a one percent change in price induces a greater than one percent change in demand. The demand for a commodity with an inelastic price elasticity is less responsive to price movements: a one percent change in its price induces a less than one percent change in the quantity purchased.

With accurate knowledge of price elasticities, a company can estimate the revenue implications of various pricing strategies. If "e" represents the measured price elasticity of natural gas demand, then the following rules apply:

a) If $e < 1$, demand is inelastic. An increase in price leads to an increase in revenue and a fall in price leads to a fall in total revenue.

b) If $e > 1$, demand is elastic. A price increase leads to a fall in revenue, but a price decrease leads to an increase in revenue.

c) If $e = 1$, demand has unitary elasticity and total revenue is unaffected by changes in price.

2.2.3 The Distinction Between the Short and the Long Run

One problem in measuring the responsiveness of natural gas demand to price changes is that consumption adjustments can be extended over a considerable period of time. Consequently, the value of the estimated elasticity can depend critically upon the period of time over which changes in prices and quantities are measured.

In recognition of this time dependency, elasticity estimates are often categorized as either short-run or long-run (or even the intermediate run). The longer the period considered, the wider are the options available to the consumer to adjust consumption.

As an illustration, a short run natural gas price elasticity would measure the change in natural gas consumption when the adjustment option is perhaps the furnace thermostat. Over a longer period, the options for altering consumption become wider: improved household insulation, new appliances or a new furnace. Both short and long run price elasticity estimates are presented here. The period of time comprising the long run is estimated by the model.

2.2.4 Substitution and Income Effects

Another important consideration in estimating and interpreting elasticity estimates is the distinction between substitution and income effects. A change in the price of natural gas relative to other energy prices will have two broad consequences for natural gas consumers: a substitution effect and an income effect.

An elasticity estimate that considers only the substitution effect measures the change in natural gas demand under the assumption that total energy demand is left unchanged by the change in the relative price of natural gas. An elasticity

estimate that considers both substitution and income effects additionally measures the change in natural gas consumption due to the change in real income brought about by the relative price change.

An elasticity estimate that recognizes both substitution and income effects will usually have a higher absolute value than an elasticity estimate that measures only substitution effects. The elasticities presented in Table 8 contain estimates that consider just substitution effects and estimates that recognize both substitution and income effects. The former measure is categorized as "total energy constant" and the latter estimates are called "total energy variable".

Table 8

Natural Gas Price Elasticities

British Columbia Residential Sector

	Short Run, TE Constant[a]	Long Run, TE Constant	Short Run, TE Variable[a]	Long Run, TE Variable
(a)	(b)	(c)	(d)	(e)
1970	0.18	1.09	0.22	1.23
1975	0.13	0.74	0.19	1.00
1980	0.11	0.60	0.17	0.94
1985	0.09	0.57	0.10	0.63
1990	0.08	0.57	0.12	0.72
1995	0.08	0.57	0.10	0.72
2000	0.07	0.56	0.09	0.67
British Columbia Commercial Sector				
1970	0.09	0.39	0.29	-
1975	0.08	0.32	0.32	-
1980	0.07	0.31	0.35	-
1985	0.06	0.32	0.39	-
1990	0.07	0.33	0.37	-
1995	0.07	0.33	0.36	-
2000	0.07	0.33	0.37	-
British Columbia Industrial Sector				
1970	0.11	0.54	0.21	-
1975	0.09	0.34	0.22	-
1980	0.07	0.32	0.27	-
1985	0.07	0.34	0.30	-
1990	0.06	0.29	0.30	-
1995	0.06	0.29	0.31	-
2000	0.06	0.29	0.32	-

a TE means total energy. See page 27-28 for explanation of elasticity definitions.

Note: All estimates have a negative sign attached. Long-run total energy variable elasticities not available for commercial and industrial sectors. Commercial and industrial short-run elasticities, total energy variable, have been revised. The previous estimates contained a computational error.

Table 8

Natural Gas Price Elasticities

British Columbia Residential Sector

(a)	Short Run, TE Constant[a] (b)	Long Run, TE Constant (c)	Short Run, TE Variable[a] (d)	Long Run, TE Variable (e)
1970	0.18	1.09	0.22	1.23
1975	0.13	0.74	0.19	1.00
1980	0.11	0.60	0.17	0.94
1985	0.09	0.57	0.10	0.63
1990	0.08	0.57	0.12	0.72
1995	0.08	0.57	0.10	0.72
2000	0.07	0.56	0.09	0.67

British Columbia Commercial Sector

1970	0.09	0.39	0.10	-
1975	0.08	0.32	0.09	-
1980	0.07	0.31	0.08	-
1985	0.06	0.32	0.08	-
1990	0.07	0.33	0.08	-
1995	0.07	0.33	0.08	-
2000	0.07	0.33	0.08	-

British Columbia Industrial Sector

1970	0.11	0.54	0.12	-
1975	0.09	0.34	0.10	-
1980	0.07	0.32	0.09	-
1985	0.07	0.34	0.08	-
1990	0.06	0.29	0.08	-
1995	0.06	0.29	0.07	-
2000	0.06	0.29	0.07	-

a TE means total energy. See page 27-28 for explanation of elasticity definitions.

Note: All estimates have a negative sign attached. Long-run total energy variable elasticities not available for commercial and industrial sectors.

3.0 MEASURING THE IMPACT OF A CHANGE IN THE PRICE OF NATURAL GAS ON DEMAND USING ECONOMETRIC MODEL SIMULATIONS

Elasticities are useful indicators of the effect of a price change on the level of demand. But as noted, the measurement assumes that all other variables that affect demand are held constant. Thus elasticities by themselves may not provide a complete picture of the effect of a change in the price of natural gas on gas consumption. In the real world, other variables that affect demand are continually changing and the interaction of these variables with a price change may result in a change in demand that differs from that suggested by the price elasticity alone.

In order to estimate the impact of a change in the price of natural gas on consumption in a more dynamic context, a series of simulations were undertaken using econometric models of natural gas demand. Using the BC Gas long-term sectoral energy demand models, the response of natural gas demand to a change in the natural gas price was measured as the percentage difference between forecasts that assumed a one-time 10 percent increase in the price of natural gas and reference forecasts that ommitted the one-time price increase.[4] The one-time 10 percent increase occurs in 1994. Thereafter, all variables that influence gas demand increase at rates that are identical to the high, low and base case reference assumptions.

The results of these simulations are summarized in Table 9. The high-low range shown in the table reflects the fact that the high, low and base case reference forecasts are based upon different assumptions about the future course of economic variables, including GDP growth, investment and the price of competing fuels. Each reference case configuration results

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[4] A description of the sectoral energy demand models is contained in Appendix B(1) of the BC Gas Least Cost Integrated Resource Plan, 1991 - 2001, July 1992.

therefore in a somewhat different response in natural gas demand to the price shock.

To assist in the interpretation of Table 9, consider the residential market. The results suggest that residential natural gas demand in 1995 is about 2 percent below what it would have been had the one-time price increase in 1994 not occurred. By the year 2005, residential demand is almost 5 percent below what it would have been without the one-time price increase.

The response in demand to the price shock differs somewhat according to market type. For example, whereas the long-run impact of the price shock in the residential market is a 5 percent decrease in consumption, industrial market demand ultimately falls by about 3 percent as a result of a similar increase in the price of industrial market natural gas.

As it turns out, the demand responses estimated by the econometric model simulations are not too much different than what is implied by the long-run elasticities. The long run demand elasticity with respect to price in the industrial sector is about -.3, which is comparable to the 3.0 to 3.4 percent decrease in industrial demand estimated by the simulations. In the residential market, the simulations imply a long-run demand response of about 5 percent, which is somewhat different than the estimated long run elasticity of -.6 to -.7. The long-run commercial sector price elasticity is about -.3, while the simulations show that commercial natural gas consumption falls by 4 to 4.5 percent if changes in other economic variables are allowed to interact with the one-time increase in the commercial market natural gas price.

Both the elasticity estimates and the econometric model simulations illustrate that natural gas consumers adjust to a price change over a period of years. In the first few years after a change in price, the demand response is muted largely because energy users are committed to their existing appliances and equipment. As the appliance and equipment stock is replaced over time, the opportunities to adjust consumption are greatly improved.

Table 9

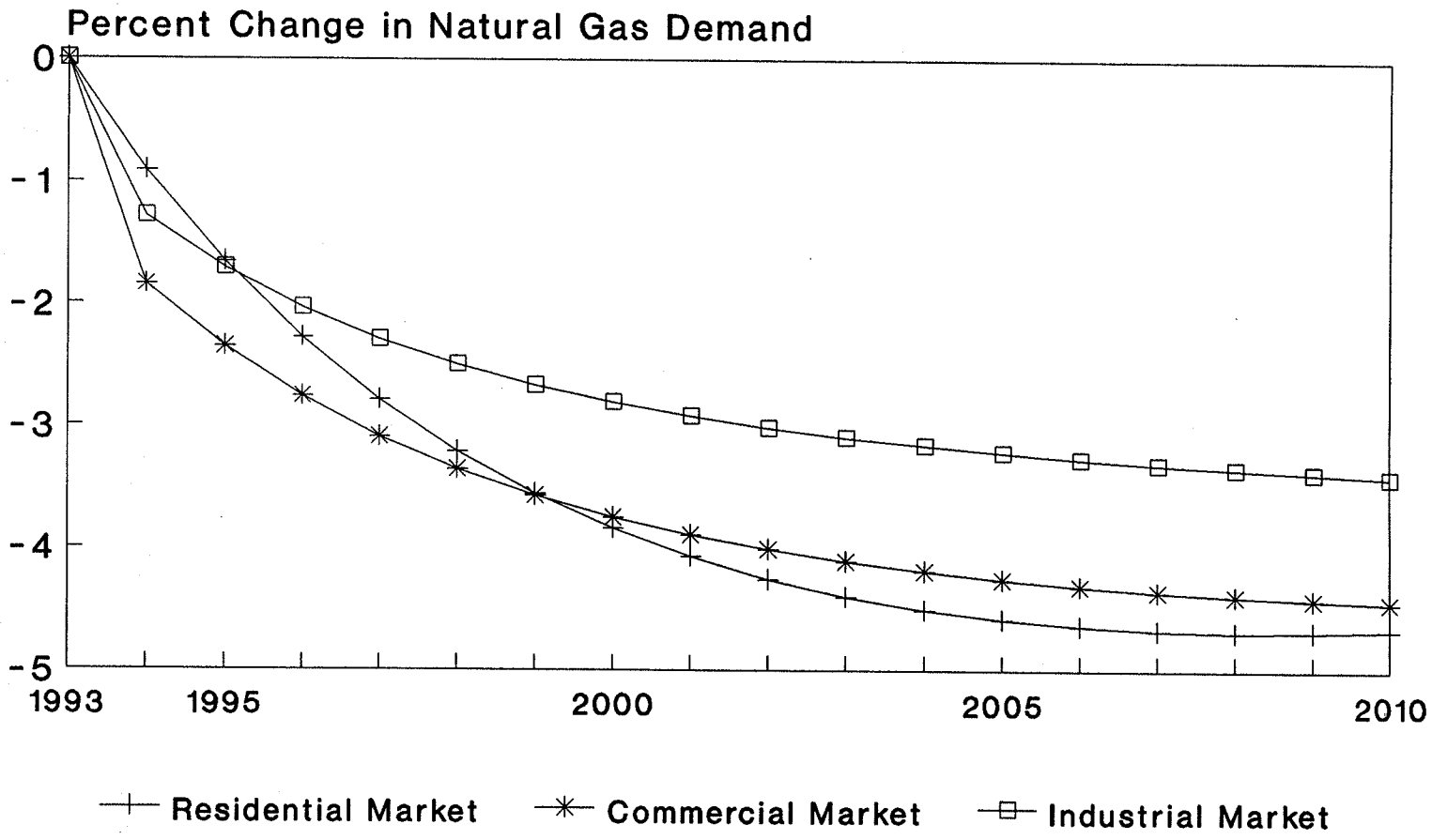
Estimated Percent Change in Natural Gas Demand From A 10 Percent Change in the Price of Natural Gas in 1994, by Year and Market

(Percent Change)

(a) Year	(b) Residential Market	(c) Commercial Market	(d) Industrial Market
1995	1.7 - 1.8	2.3 - 2.4	1.6 - 1.7
2000	3.8 - 4.1	3.6 - 3.8	2.7 - 2.8
2005	4.6 - 5.0	4.1 - 4.3	3.0 - 3.1
2010	4.7 - 5.2	4.3 - 4.5	3.3 - 3.4

Note: Simulation results are approximately symmetrical for a price increase or decrease. They therefore represent negative percent changes for a price increase and positive percent changes for a price decrease.

Estimated Impact of 10 Percent Increase in the Price of Natural Gas in 1994 on Natural Gas Demand, by Year and Market



Source: Table 9
Note: Mid-points of range only are pictured.

Appendix A

Data Sources

Distributor posted prices lists:

- Chevron Canada Limited, Vancouver, B.C.
- ICG Propane Inc., Burnaby, B.C.
- Imperial Oil Limited, Burnaby, B.C.
- Superior Propane, New Westminster, B.C.

Rate Schedules:

- BC Gas Inc., Lower Mainland Division, Gas Tariff, effective Jan. 1 1993; Inland Division, Gas Tariff, effective Jan. 1 1993; Columbia Division, Gas Tariff, effective Jan. 1 1993; Fort Nelson Division, Gas Tariff, effective Jan. 1, 1992.
- British Columbia Hydro and Power Authority, Electric Tariff, effective August 1, 1992.
- Canadian Western Natural Gas Limited, Rate Schedule Summary, effective January 20, 1993.
- Cascade Natural Gas Corporation, Washington Tariffs, effective December 1, 1992.
- NorthWestern Utilities Limited, Rate Schedule Summary, effective February 1, 1993.
- Washington Water Power Company, Washington Gas, Rate Schedules, effective December 1, 1992.
- West Kootenay Power, Electric Tariff, effective January 1, 1992.

Other Sources:

- Natural Gas Fact Book, Energy, Mines and Resources Canada,
  Domestic Natural gas Division, Oil and Gas Branch, December 1992;
- Petroleum Product Market Report, Energy, Mines and Resources Canada, Canadian Oil Markets and Emergency Planning Division, various months.
- Unpublished data, Statistics Canada, Prices Division.

Appendix B

Energy Conversion Factors and Formulas

B.1 Heat Content Factors

The following energy content factors were used to convert retail prices to prices on an energy equivalent basis:

Liquid Propane	25.53 GJ/m^3
Light Fuel Oil	38.68 GJ/m^3
Heavy Fuel Oil	41.73 GJ/m^3
Electricity	3.60 MJ/kw.h
Thermal Coal	18.80 GJ/tonne
Motor Gasoline	34.66 GJ/m^3
Automotive Diesel Fuel	38.68 GJ/m^3
Natural Gas	38.56 GJ/m^3

Source: National Energy Board

B.2 Heat Content and Efficiency Adjusted Price Conversions

The following examples show the conversion formulas that are used to convert prices to an energy equivalent and efficiency adjusted basis:

Furnace Oil:

(39 ¢/l ÷ 38.68 GJ/m^3) x 10 = $10.08/GJ @ 100% efficiency; @ 65% efficiency, $10.08/GJ ÷ .65 = $15.51/GJ.

Propane:

(36 ¢/l ÷ 25.53 GJ/m^3) x 10 = $14.10/GJ @ 100% efficiency; @ 80% efficiency, $14.10/GJ ÷ .8 = $17.63/GJ.

Electricity:

(5.2 ¢/kw.h ÷ 3.6 MJ/kw.h) x 10 = $14.17/GJ @ 100% efficiency;

B.3 Gasoline Equivalent Price Formulas:

NGV:

(34.66 MJ_3 per litre gasoline ÷ 38.61 MJ per m^3 natural gas) x .724 kg/m^3 (average density of B.C. natural gas)

= .650 kg of natural gas per litre of gasoline.

Propane:

(34.66 MJ per litre gasoline ÷ 25.53 MJ per litre propane) = 1.358 litres of propane per litre of gasoline.

Appendix C

Average Monthly Energy Prices – British Columbia, 1992

$ per gigajoule

Line No.		(a) Res. LFO	(b) No.#6 HFO	(c) Res. Gas	(e) Comm. Gas	(f) Ind. Gas	(g) Res. Elec.	(h) Comm. Elec.	(i) Ind. Elec.
1	1992/01	10.44	2.59	4.62	4.38	1.95	17.61	12.69	9.42
2	1992/02	10.34	2.59	4.87	4.56	2.04	17.61	12.69	9.42
3	1992/03	10.26	2.59	4.68	4.43	2.08	17.61	12.69	9.42
4	1992/04	10.29	2.59	4.99	4.48	2.12	17.61	12.69	9.42
5	1992/05	10.34	2.59	5.28	4.62	2.43	17.61	12.69	9.42
6	1992/06	10.34	2.59	5.61	5.39	2.10	17.61	12.69	9.42
7	1992/07	10.34	2.59	7.25	4.23	1.69	17.94	12.69	9.61
8	1992/08	10.34	2.59	5.62	4.24	1.46	17.94	13.00	9.61
9	1992/09	10.42	2.59	5.20	4.66	1.48	NA	NA	NA
10	1992/10	10.68	2.59	NA	NA	NA	NA	NA	NA
11	1992/11	10.75	2.59	NA	NA	NA	NA	NA	NA
12	1992/12	NA	NA	NA	NA	NA	NA	NA	NA
13									
14	Average:	10.41	2.59	5.35	4.55	1.93	17.69	12.73	9.47
15									
16		Note: residential electricity @1,000 Kwh consumption per month; commercial electricity @ 500,000 KWh;							
17		industrial electrcity consumption at 3,100,00 kwh per month.							
18		Note also that these retail prices include GST.							
19		NA – not available from Statistics Canada.							
20									
21									
22		Source: Statistics Canada, CANSIM Database, January 1993.							

Appendix D

Average Retail Fuel Oil Prices in British Columbia, 1992

(cents per litre)

	Vancouver	Victoria	Prince George
January	40.4	38.7	41.5
February	40.0	38.7	40.5
March	39.7	38.7	40.5
April	39.8	38.7	40.2
May	40.0	38.9	40.2
June	40.0	38.9	40.2
July	40.0	38.9	40.2
August	40.0	38.9	40.2
September	40.3	39.5	41.0
October	41.3	39.5	41.0
November	41.6	39.5	40.8
December	41.6	39.0	40.6
Annual	40.4	39.0	40.6
Annual (1991)	41.7	39.8	43.3

Source: Statistics Canada, Consumer Prices Division, February 1993.

Appendix E

Detailed survey results are presented in this Appendix. Each table presents price survey data for a different sales district within the BC Gas Inc. service area. The sales division and district are shown at the top of each table. The residential price data are shown in Table E.1. Commercial and industrial market price data are presented in E.2 and E.3 respectively. Energies competing with interruptible natural gas are shown in E.4

Column 2 of each table shows furnace oil and propane retail prices in cents per litre and electricity prices in cents per kilowatt hour. Fire wood is shown in dollars per cord for the Lower Mainland and Fraser Valley districts. The price range represents the lowest and highest furnace oil and propane prices obtained from the telephone survey and dealer list prices. For electricity, we show a price range that is based upon consumption of 10 and 30 gigajoules per month.

In Column 3, the survey data has been converted to dollars per gigajoule so that prices can be compared on a heat equivalent basis. The conversion factors are listed in Appendix B. The shaded area of Tables E.1 to E.3 show a matrix of natural gas equivalent prices. In other words, the shaded area shows what the burner tip price of natural gas would have to be in order for natural gas and a competing fuel to be equal after differences in heat content and appliance heating efficiency are taken into consideration. For example, if the efficiency of furnace oil is 65 percent and the efficiency of natural gas is 80 percent, then a natural gas rate of $11.30 per gigajoule is about equivalent to a retail furnace oil price of 35.5 cents per litre(see Table E.1, Lower Mainland Division, Fraser Valley.

The natural gas equivalent prices are designed to suggest the

possible competitive limit to natural gas rates. Table E.1 for the Fraser Valley shows, for example, that furnace oil prices are currently about 36 to 39 cents per litre. Assuming that the average furnace oil efficiency rating is 65 percent and the average natural gas furnace efficiency rating is 80 percent, then the competitive limit to the natural gas rate is about $11.30 per gigajoule, which is considerably above current natural gas rates. If one considered all the cases contained in that matrix, the competitive limit for natural gas is around $7.46 per gigajoule.

Table E.1

Energy/Natural Gas Price Matrix for Residential Space Heating

Lower Mainland Division – Greater Vancouver

Line No.	(a) Electricity	(b) Cents/KWh	(c) $/Input GJ	(d) Electric Efficiency:	(e) Gas Efficiency: 65%	(f) 80%	(g) 90%
	– @ 10 GJ/M	5.48	$15.23	80%	$12.37	$15.23	$17.13
1	– @ 30 GJ/M	5.15	$14.30	80%	$11.62	$14.30	$16.09
2							
3	– @ 10 GJ/M	5.48	$15.23	100%	$9.90	$12.18	$13.71
4	– @ 30 GJ/M	5.15	$14.30	100%	$9.30	$11.44	$12.87
5							
6	BC Hydro, Rate 1101, effective August 1, 1992.						
7							
8							
9	Furnace Oil			Furnace Oil	Gas Efficiency:		
10		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
11							
12	– Low	38.00	$9.82	65%	$9.82	$12.09	$13.60
13	– High	40.00	$10.34	65%	$10.34	$12.73	$14.32
14							
15	– Low	38.00	$9.82	80%	$7.98	$9.82	$11.05
16	– High	40.00	$10.34	80%	$8.40	$10.34	$11.63
17							
3							
19	Propane			Propane	Gas Efficiency:		
20		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
21							
22	– Low	33.00	$12.93	65%	$12.93	$15.91	$17.90
23	– High	36.00	$14.10	65%	$14.10	$17.36	$19.52
24							
25	– Low	33.00	$12.93	80%	$10.50	$12.93	$14.54
26	– High	36.00	$14.10	80%	$11.46	$14.10	$15.86
27							
28							
29	Fire Wood			Wood Stove	Gas Efficiency:		
30		$/Cord	$/Input GJ	Efficiency:	65%	80%	90%
31							
32	– Low	175.00	$7.74	55%	$9.15	$11.26	$12.67
33	– High	250.00	$11.06	55%	$13.07	$16.09	$18.10
34							
35	– Low	175.00	$7.74	65%	$7.74	$9.53	$10.72
36	– High	250.00	$11.06	65%	$11.06	$13.61	$15.32

Note: Furnace Oil, propane and fire wood price range based upon data from
38 BC Gas Inc. telephone survey, December 1 to 3, 1992 and distributor retail price lists.

Table E.1, Cont'd.

Energy/Natural Gas Price Matrix for Residential Space Heating

Lower Mainland Division – Fraser Valley

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	Gas Efficiency: 65%	80%	90%
1	– @ 10 GJ/M	5.48	$15.23	80%	$12.37	$15.23	$17.13
2	– @ 30 GJ/M	5.15	$14.30	80%	$11.62	$14.30	$16.09
3							
4	– @ 10 GJ/M	5.48	$15.23	100%	$9.90	$12.18	$13.71
5	– @ 30 GJ/M	5.15	$14.30	100%	$9.30	$11.44	$12.87
6							
7	BC Hydro, Rate 1101, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	35.50	$9.18	65%	$9.18	$11.30	$12.71
14	– High	39.20	$10.13	65%	$10.13	$12.47	$14.03
15							
16	– Low	35.50	$9.18	80%	$7.46	$9.18	$10.33
17	– High	39.20	$10.13	80%	$8.23	$10.13	$11.40
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	36.20	$14.18	65%	$14.18	$17.45	$19.63
25	– High	37.70	$14.77	65%	$14.77	$18.17	$20.45
26							
27	– Low	36.20	$14.18	80%	$11.52	$14.18	$15.95
28	– High	37.70	$14.77	80%	$12.00	$14.77	$16.61
29							
30							
31							
32	Fire Wood			Wood Stove	Gas Efficiency:		
33		$/Cord	$/Input GJ	Efficiency:	65%	80%	90%
34							
35	– Low	150.00	$6.64	55%	$7.84	$9.65	$10.86
36	– High	200.00	$8.85	55%	$10.46	$12.87	$14.48
37							
38	– Low	150.00	$6.64	65%	$6.64	$8.17	$9.19
39	– High	200.00	$8.85	65%	$8.85	$10.89	$12.25

Note: Furnace Oil, propane and fire wood price range based upon data from
41 BC Gas Inc. telephone survey, January 6 to 8, 1993 and Distributor retail price lists.

Energy/Natural Gas Price Matrix for Residential Space Heating

Inland Division – Okanagan Region

Line No.	(a) Electricity	(b) Cents/KWh	(c) $/Input GJ	(d) Electric Efficiency:	(e) Gas Efficiency: 65%	(f) 80%	(g) 90%
1	– @ 10 GJ/M	5.48	$15.23	80%	$12.37	$15.23	$17.13
2	– @ 30 GJ/M	5.15	$14.30	80%	$11.62	$14.30	$16.09
3							
4	– @ 10 GJ/M	5.48	$15.23	100%	$9.90	$12.18	$13.71
5	– @ 30 GJ/M	5.15	$14.30	100%	$9.30	$11.44	$12.87
6							
7	BC Hydro, Rate 1101, effective August 1, 1992.						
8							
9							
10	Electricity			Electric	Gas Efficiency:		
11		Cents/KWh	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– @ 10 GJ/M	3.98	$11.06	80%	$8.99	$11.06	$12.44
14	– @ 30 GJ/M	3.64	$10.10	80%	$8.21	$10.10	$11.36
15							
16	– @ 10 GJ/M	3.98	$11.06	100%	$7.19	$8.85	$9.95
7	– @ 30 GJ/M	3.64	$10.10	100%	$6.57	$8.08	$9.09
18							
19	West Kootenay Power and Light, Schedule 4, interim rate effective Jan. 1, 1993.						
20							
21					Gas Efficiency:		
22	Furnace Oil			Furnace Oil	65%	80%	90%
23		Cents/litre	$/Input GJ	Efficiency:			
24							
25	– Low	36.90	$9.54	65%	$9.54	$11.74	$13.21
26	– High	42.20	$10.91	65%	$9.54	$11.74	$13.21
27							
28	– Low	36.90	$9.54	80%	$7.75	$9.54	$10.73
29	– High	42.20	$10.91	80%	$7.75	$9.54	$10.73
30							
31							
32					Gas Efficiency:		
33	Propane			Propane	65%	80%	90%
34		Cents/litre	$/Input GJ	Efficiency:			
35							
36	– Low	34.00	$13.32	65%	$13.32	$16.39	$18.44
37	– High	37.40	$14.65	65%	$13.32	$16.39	$18.44
38							
39	– Low	34.00	$13.32	80%	$10.82	$13.32	$14.98
40	– High	37.40	$14.65	80%	$10.82	$13.32	$14.98

41 Note: Furnace oil and propane price range based upon data from
42 BC Gas Inc. telephone survey, January 6 to 8, 1993 and Distributor retail price lists.

Energy/Natural Gas Price Matrix for Residential Space Heating

Inland Division – Central Region

Line No.	(a)	(b)	(c)	(d)	(e) Gas Efficiency:	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	65%	80%	90%
1	– @ 10 GJ/M	5.48	$15.23	80%	$12.37	$15.23	$17.13
2	– @ 30 GJ/M	5.15	$14.30	80%	$11.62	$14.30	$16.09
3							
4	– @ 10 GJ/M	5.48	$15.23	100%	$9.90	$12.18	$13.71
5	– @ 30 GJ/M	5.15	$14.30	100%	$9.30	$11.44	$12.87
6							
7	BC Hydro, Rate 1101, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	36.60	$9.46	65%	$9.46	$11.65	$13.10
14	– High	42.75	$11.05	65%	$11.05	$13.60	$15.30
15							
16	– Low	36.60	$9.46	80%	$7.69	$9.46	$10.65
7	– High	42.75	$11.05	80%	$8.98	$11.05	$12.43
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	35.90	$14.06	65%	$14.06	$17.31	$19.47
25	– High	39.00	$15.28	65%	$15.28	$18.80	$21.15
26							
27	– Low	35.90	$14.06	80%	$11.43	$14.06	$15.82
28	– High	39.00	$15.28	80%	$12.41	$15.28	$17.19

29 Note: Furnace oil and propane price range based upon data from
30 BC Gas Inc. telephone survey, January 6 to 8, 1993 and Distributor retail price lists.

Energy/Natural Gas Price Matrix for Residential Space Heating

Inland Division – North Region

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	Gas Efficiency: 65%	80%	90%
1	– @ 10 GJ/M	5.48	$15.23	80%	$12.37	$15.23	$17.13
2	– @ 30 GJ/M	5.15	$14.30	80%	$11.62	$14.30	$16.09
3							
4	– @ 10 GJ/M	5.48	$15.23	100%	$9.90	$12.18	$13.71
5	– @ 30 GJ/M	5.15	$14.30	100%	$9.30	$11.44	$12.87
6							
7	BC Hydro, Rate 1101, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	35.90	$9.28	65%	$9.28	$11.42	$12.85
14	– High	42.75	$11.05	65%	$11.05	$13.60	$15.30
15							
16	– Low	35.90	$9.28	80%	$7.54	$9.28	$10.44
7	– High	42.75	$11.05	80%	$8.98	$11.05	$12.43
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	33.50	$13.12	65%	$13.12	$16.15	$18.17
25	– High	38.90	$15.24	65%	$15.24	$18.75	$21.10
26							
27	– Low	33.50	$13.12	80%	$10.66	$13.12	$14.76
28	– High	38.90	$15.24	80%	$12.38	$15.24	$17.14

29 Note: Furnace oil and propane price range based upon data from
30 BC Gas Inc. telephone survey, January 6 to 8, 1993 and Distributor retail price lists.

Energy/Natural Gas Price Matrix for Residential Space Heating

Inland Division – West Kootenay Region

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	Gas Efficiency: 65%	80%	90%
1	– @ 10 GJ/M	3.98	$11.06	80%	$8.99	$11.06	$12.44
2	– @ 30 GJ/M	3.64	$10.10	80%	$8.21	$10.10	$11.36
3							
4	– @ 10 GJ/M	3.98	$11.06	100%	$7.19	$8.85	$9.95
5	– @ 30 GJ/M	3.64	$10.10	100%	$6.57	$8.08	$9.09
6							
7	West Kootenay Power and Light, Schedule 4, interim rate effective Jan. 1, 1993.						
8							
9							
10					Gas Efficiency:		
11	Furnace Oil			Furnace Oil	65%	80%	90%
12		Cents/litre	$/Input GJ	Efficiency:			
13							
14	– Low	38.50	$9.95	65%	$9.95	$12.25	$13.78
15	– High	42.80	$11.07	65%	$11.07	$13.62	$15.32
16							
7	– Low	38.50	$9.95	80%	$8.09	$9.95	$11.20
18	– High	42.80	$11.07	80%	$8.99	$11.07	$12.45
19							
20							
21					Gas Efficiency:		
22	Propane			Propane	65%	80%	90%
23		Cents/litre	$/Input GJ	Efficiency:			
24							
25	– Low	36.90	$14.45	65%	$14.45	$17.79	$20.01
26	– High	36.90	$14.45	65%	$14.45	$17.79	$20.01
27							
28	– Low	36.90	$14.45	80%	$11.74	$14.45	$16.26
29	– High	36.90	$14.45	80%	$11.74	$14.45	$16.26

30 Note: Furnace oil and propane price range based upon data from
31 BC Gas Inc. telephone survey, January 6 to 8, 1993 and Distributor retail price lists.

Energy/Natural Gas Price Matrix for Residential Space Heating

Columbia Division

Line No.	(a)	(b)	(c)	(d)	(e) Gas Efficiency:	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	65%	80%	90%
1	– @ 10 GJ/M	5.48	$15.23	80%	$12.37	$15.23	$17.13
2	– @ 30 GJ/M	5.15	$14.30	80%	$11.62	$14.30	$16.09
3							
4	– @ 10 GJ/M	5.48	$15.23	100%	$9.90	$12.18	$13.71
5	– @ 30 GJ/M	5.15	$14.30	100%	$9.30	$11.44	$12.87
6							
7	BC Hydro, Rate 1101, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	38.50	$9.95	65%	$9.95	$12.25	$13.78
14	– High	38.50	$9.95	65%	$9.95	$12.25	$13.78
15							
16	– Low	38.50	$9.95	80%	$8.09	$9.95	$11.20
7	– High	38.50	$9.95	80%	$8.09	$9.95	$11.20
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	35.00	$13.71	65%	$13.71	$16.87	$18.98
25	– High	35.00	$13.71	65%	$13.71	$16.87	$18.98
26							
27	– Low	35.00	$13.71	80%	$11.14	$13.71	$15.42
28	– High	35.00	$13.71	80%	$11.14	$13.71	$15.42

29 Note: Furnace oil and propane price range based upon data from
30 BC Gas Inc. telephone survey, January 6 to 8, 1993 and Distributor retail price lists.

Energy/Natural Gas Price Matrix for Residential Space Heating

Fort Nelson Division

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	Gas Efficiency: 65%	80%	90%
1	– @ 10 GJ/M	5.48	$15.23	80%	$12.37	$15.23	$17.13
2	– @ 30 GJ/M	5.15	$14.30	80%	$11.62	$14.30	$16.09
3							
4	– @ 10 GJ/M	5.48	$15.23	100%	$9.90	$12.18	$13.71
5	– @ 30 GJ/M	5.15	$14.30	100%	$9.30	$11.44	$12.87
6							
7	BC Hydro, Rate 1101, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	39.00	$10.08	65%	$10.08	$12.41	$13.96
14	– High	43.20	$11.17	65%	$11.17	$13.75	$15.46
15							
16	– Low	39.00	$10.08	80%	$8.19	$10.08	$11.34
7	– High	43.20	$11.17	80%	$9.07	$11.17	$12.56
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	31.50	$12.34	65%	$12.34	$15.19	$17.08
25	– High	31.50	$12.34	65%	$12.34	$15.19	$17.08
26							
27	– Low	31.50	$12.34	80%	$10.02	$12.34	$13.88
28	– High	31.50	$12.34	80%	$10.02	$12.34	$13.88

29 Note: Furnace oil and propane price range based upon data from
30 BC Gas Inc. telephone survey, January 6 to 8, 1993 and Distributor retail price lists.

Table E.2

Energy/Natural Gas Price Matrix for Commercial Space and Steam Heating

Lower Mainland Division – Greater Vancouver

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	Gas Efficiency: 65%	80%	90%
1	– @ 200 GJ/M	5.00	$13.89	80%	$11.29	$13.89	$15.63
2	– @ 2000 GJ/M	5.37	$14.92	80%	$12.12	$14.92	$16.79
3							
4	– @ 200 GJ/M	5.00	$13.89	100%	$9.03	$11.11	$12.50
5	– @ 2000 GJ/M	5.37	$14.92	100%	$9.70	$11.94	$13.43
6							
7	BC Hydro, Rate 1200, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	33.48	$8.66	65%	$8.66	$10.65	$11.98
14	– High	35.24	$9.11	65%	$9.11	$11.21	$12.62
15							
16	– Low	33.48	$8.66	80%	$7.03	$8.66	$9.74
17	– High	35.24	$9.11	80%	$7.40	$9.11	$10.25
18							
19							
20	Propane			Propane	Gas Efficiency:		
21		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
22							
23	– Low	30.00	$11.75	65%	$11.75	$14.46	$16.27
24	– High	32.73	$12.82	65%	$12.82	$15.78	$17.75
25							
26	– Low	30.00	$11.75	80%	$9.55	$11.75	$13.22
27	– High	32.73	$12.82	80%	$10.42	$12.82	$14.42

28 Note: Furnace oil and propane prices discounted by 13.5% and 10% respectively
29 off residential survey prices and distributor retail price lists.

Table E.2

Energy/Natural Gas Price Matrix for Commercial Space and Steam Heating

Lower Mainland Division – Fraser Valley

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Electricity				Gas Efficiency:		
		Cents/KWh	$/Input GJ	Electric Efficiency:	65%	80%	90%
1	– @ 200 GJ/M	5.00	$13.89	80%	$11.29	$13.89	$15.63
2	– @ 2000 GJ/M	5.37	$14.92	80%	$12.12	$14.92	$16.79
3							
4	– @ 200 GJ/M	5.00	$13.89	100%	$9.03	$11.11	$12.50
5	– @ 2000 GJ/M	5.37	$14.92	100%	$9.70	$11.94	$13.43
6							
7	BC Hydro, Rate 1200, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	31.28	$8.09	65%	$8.09	$9.95	$11.20
14	– High	34.54	$8.93	65%	$8.93	$10.99	$12.36
15							
16	– Low	31.28	$8.09	80%	$6.57	$8.09	$9.10
7	– High	34.54	$8.93	80%	$7.25	$8.93	$10.05
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	32.91	$12.89	65%	$12.89	$15.87	$17.85
25	– High	34.27	$13.42	65%	$13.42	$16.52	$18.59
26							
27	– Low	32.91	$12.89	80%	$10.47	$12.89	$14.50
28	– High	34.27	$13.42	80%	$10.91	$13.42	$15.10

29 Note: Fuel oil and propane prices are discounted by 13.5% and 10% respectively
30 off residential survey prices and distributor retail price lists.

Energy/Natural Gas Price Matrix for Commercial Space and Steam Heating

Inland Division – Okanagan Region

Line No.	(a) Electricity	(b) Cents/KWh	(c) $/Input GJ	(d) Electric Efficiency:	(e) Gas Efficiency: 65%	(f) 80%	(g) 90%
1	– @ 200 GJ/M	5.00	$13.89	80%	$11.29	$13.89	$15.63
2	– @ 2000 GJ/M	5.37	$14.92	80%	$12.12	$14.92	$16.79
3							
4	– @ 200 GJ/M	5.00	$13.89	100%	$9.03	$11.11	$12.50
5	– @ 2000 GJ/M	5.37	$14.92	100%	$9.70	$11.94	$13.43
6							
7	BC Hydro, Rate 1200, effective August 1, 1992.						
8							
9					Gas Efficiency:		
10	Electricity			Electric	65%	80%	90%
11		Cents/KWh	$/Input GJ	Efficiency:			
12							
13	– @ 200 GJ/M	4.61	$12.80	80%	$10.40	$12.80	$14.40
14	– @ 2000 GJ/M	2.93	$8.15	80%	$6.62	$8.15	$9.17
15							
16	– @ 200 GJ/M	4.61	$12.80	100%	$8.32	$10.24	$11.52
17	– @ 2000 GJ/M	2.93	$8.15	100%	$5.30	$6.52	$7.34
18							
19	West Kootenay Power and Light, Schedules 21 & 24, interim rates effective January 1, 1993.						
20							
21							
22	Furnace Oil			Furnace Oil	Gas Efficiency:		
23		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
24							
25	– Low	32.51	$8.41	65%	$8.41	$10.34	$11.64
26	– High	37.18	$9.61	65%	$9.61	$11.83	$13.31
27							
28	– Low	32.51	$8.41	80%	$6.83	$8.41	$9.46
29	– High	37.18	$9.61	80%	$7.81	$9.61	$10.81
30							
31							
32							
33	Propane			Propane	Gas Efficiency:		
34		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
35							
36	– Low	30.91	$12.11	65%	$12.11	$14.90	$16.76
37	– High	34.00	$13.32	65%	$13.32	$16.39	$18.44
39							
39	– Low	30.91	$12.11	80%	$9.84	$12.11	$13.62
40	– High	34.00	$13.32	80%	$10.82	$13.32	$14.98

41 Note: Fuel oil and propane prices are discounted by 13.5% and 10% respectively
42 off residential survey prices and distributor retail price lists.

Energy/Natural Gas Price Matrix for Commercial Space and Steam Heating

Inland Division – Central Region

Line No.	(a) Electricity	(b) Cents/KWh	(c) $/Input GJ	(d) Electric Efficiency:	(e) Gas Efficiency: 65%	(f) 80%	(g) 90%
1	– @ 200 GJ/M	5.00	$13.89	80%	$11.29	$13.89	$15.63
2	– @ 2000 GJ/M	5.37	$14.92	80%	$12.12	$14.92	$16.79
3							
4	– @ 200 GJ/M	5.00	$13.89	100%	$9.03	$11.11	$12.50
5	– @ 2000 GJ/M	5.37	$14.92	100%	$9.70	$11.94	$13.43
6							
7	BC Hydro, Rate 1200, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	32.25	$8.34	65%	$8.34	$10.26	$11.54
14	– High	37.67	$9.74	65%	$9.74	$11.98	$13.48
15							
16	– Low	32.25	$8.34	80%	$6.77	$8.34	$9.38
7	– High	37.67	$9.74	80%	$7.91	$9.74	$10.95
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	32.64	$12.78	65%	$12.78	$15.73	$17.70
25	– High	35.45	$13.89	65%	$13.89	$17.09	$19.23
26							
27	– Low	32.64	$12.78	80%	$10.39	$12.78	$14.38
28	– High	35.45	$13.89	80%	$11.28	$13.89	$15.62

29 Note: Fuel oil and propane prices are discounted by 13.5% and 10% respectively
30 off residential survey prices and distributor retail price lists.

Energy/Natural Gas Price Matrix for Commercial Space and Steam Heating

Inland Division – North Region

Line No.	(a)	(b)	(c)	(d)	(e) Gas Efficiency: 65%	(f) 80%	(g) 90%
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:			
1	– @ 200 GJ/M	5.00	$13.89	80%	$11.29	$13.89	$15.63
2	– @ 2000 GJ/M	5.37	$14.92	80%	$12.12	$14.92	$16.79
3							
4	– @ 200 GJ/M	5.00	$13.89	100%	$9.03	$11.11	$12.50
5	– @ 2000 GJ/M	5.37	$14.92	100%	$9.70	$11.94	$13.43
6							
7	BC Hydro, Rate 1200, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	31.63	$8.18	65%	$8.18	$10.06	$11.32
14	– High	37.67	$9.74	65%	$9.74	$11.98	$13.48
15							
16	– Low	31.63	$8.18	80%	$6.64	$8.18	$9.20
7	– High	37.67	$9.74	80%	$7.91	$9.74	$10.95
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	30.45	$11.93	65%	$11.93	$14.68	$16.52
25	– High	35.36	$13.85	65%	$13.85	$17.05	$19.18
26							
27	– Low	30.45	$11.93	80%	$9.69	$11.93	$13.42
28	– High	35.36	$13.85	80%	$11.25	$13.85	$15.58

29 Note: Fuel oil and propane prices are discounted by 13.5% and 10% respectively
30 off residential survey prices and distributor retail price lists.

Energy/Natural Gas Price Matrix for Commercial Space and Steam Heating

Inland Division – West Kootenay Division

Line No.	(a) Electricity	(b) Cents/KWh	(c) $/Input GJ	(d) Electric Efficiency:	(e) Gas Efficiency: 65%	(f) 80%	(g) 90%
1	– @ 200 GJ/M	4.61	$12.80	80%	$10.40	$12.80	$14.40
2	– @ 2000 GJ/M	2.93	$8.15	80%	$6.62	$8.15	$9.17
3							
4	– @ 200 GJ/M	4.61	$12.80	100%	$8.32	$10.24	$11.52
5	– @ 2000 GJ/M	2.93	$8.15	100%	$5.30	$6.52	$7.34
6							
7	West Kootenay Power and Light, Schedules 21 & 24, interim rates effective January 1, 1993.						
8							
9							
10							
11	Furnace Oil			Furnace Oil	Gas Efficiency:		
12		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
13							
14	– Low	33.92	$8.77	65%	$8.77	$10.79	$12.14
15	– High	37.71	$9.75	65%	$9.75	$12.00	$13.50
16							
7	– Low	33.92	$8.77	80%	$7.13	$8.77	$9.87
18	– High	37.71	$9.75	80%	$7.92	$9.75	$10.97
19							
20							
21							
22	Propane			Propane	Gas Efficiency:		
23		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
24							
25	– Low	33.55	$13.14	65%	$13.14	$16.17	$18.19
26	– High	33.55	$13.14	65%	$13.14	$16.17	$18.19
27							
28	– Low	33.55	$13.14	80%	$10.68	$13.14	$14.78
29	– High	33.55	$13.14	80%	$10.68	$13.14	$14.78

30 Note: Fuel oil and propane prices are discounted by 13.5% and 10% respectively
31 off residential survey prices and distributor retail price lists.

Energy/Natural Gas Price Matrix for Commercial Space and Steam Heating

Columbia Division

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	Gas Efficiency: 65%	80%	90%
1	– @ 200 GJ/M	5.00	$13.89	80%	$11.29	$13.89	$15.63
2	– @ 2000 GJ/M	5.37	$14.92	80%	$12.12	$14.92	$16.79
3							
4	– @ 200 GJ/M	5.00	$13.89	100%	$9.03	$11.11	$12.50
5	– @ 2000 GJ/M	5.37	$14.92	100%	$9.70	$11.94	$13.43
6							
7	BC Hydro, Rate 1200, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	33.92	$8.77	65%	$8.77	$10.79	$12.14
14	– High	33.92	$8.77	65%	$8.77	$10.79	$12.14
15							
16	– Low	33.92	$8.77	80%	$7.13	$8.77	$9.87
7	– High	33.92	$8.77	80%	$7.13	$8.77	$9.87
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	31.82	$12.46	65%	$12.46	$15.34	$17.26
25	– High	31.82	$12.46	65%	$12.46	$15.34	$17.26
26							
27	– Low	31.82	$12.46	80%	$10.13	$12.46	$14.02
28	– High	31.82	$12.46	80%	$10.13	$12.46	$14.02

29 Note: Fuel oil and propane prices are discounted by 13.5% and 10% respectively
30 off residential survey prices and distributor retail price lists.

Energy/Natural Gas Price Matrix for Commercial Space and Steam Heating

Fort Nelson Division

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	Gas Efficiency: 65%	80%	90%
1	– @ 200 GJ/M	5.00	$13.89	80%	$11.29	$13.89	$15.63
2	– @ 2000 GJ/M	5.37	$14.92	80%	$12.12	$14.92	$16.79
3							
4	– @ 200 GJ/M	5.00	$13.89	100%	$9.03	$11.11	$12.50
5	– @ 2000 GJ/M	5.37	$14.92	100%	$9.70	$11.94	$13.43
6							
7	BC Hydro, Rate 1200, effective August 1, 1992.						
8							
9							
10	Furnace Oil			Furnace Oil	Gas Efficiency:		
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
12							
13	– Low	34.36	$8.88	65%	$8.88	$10.93	$12.30
14	– High	38.06	$9.84	65%	$9.84	$12.11	$13.62
15							
16	– Low	34.36	$8.88	80%	$7.22	$8.88	$9.99
7	– High	38.06	$9.84	80%	$8.00	$9.84	$11.07
18							
19							
20							
21	Propane			Propane	Gas Efficiency:		
22		Cents/litre	$/Input GJ	Efficiency:	65%	80%	90%
23							
24	– Low	28.64	$11.22	65%	$11.22	$13.81	$15.53
25	– High	28.64	$11.22	65%	$11.22	$13.81	$15.53
26							
27	– Low	28.64	$11.22	80%	$9.11	$11.22	$12.62
28	– High	28.64	$11.22	80%	$9.11	$11.22	$12.62

29 Note: Fuel oil and propane prices are discounted by 13.5% and 10% respectively
30 off residential survey prices and distributor retail price lists.

Table E.3

Energy/Natural Gas Price Matrix for Industrial Applications

Lower Mainland Division – Greater Vancouver

Line No.	(a) Electricity	(b) Cents/KWh	(c) $/Input GJ	(d) Electric Efficiency:	(e) Gas Efficiency: 65%	(f) 80%
1	– @ 2,000 GJ/M	3.21	$8.92	80%	$7.25	$8.92
2	– @ 20,000 GJ/M	3.21	$8.92	80%	$7.25	$8.92
3						
4	– @ 2,000 GJ/M	3.21	$8.92	100%	$5.80	$7.14
5	– @ 20,000 GJ/M	3.21	$8.92	100%	$5.80	$7.14
6						
7	BC Hydro, transmission service, Rate 1821, effective August 1, 1992.					
8						
9						
10	Heavy Fuel Oil			No. 6 Oil	Gas Efficiency:	
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%
12						
13	– Low	10.00	$2.40	55%	$2.83	$3.49
14	– High	12.00	$2.88	55%	$3.40	$4.18
15						
16	– Low	10.00	$2.40	65%	$2.40	$2.95
17	– High	12.00	$2.88	65%	$2.88	$3.54
18						
19						
20	No. 2 Oil			Light Fuel Oil	Gas Efficiency:	
21		Cents/litre	$/Input GJ	Efficiency:	65%	80%
22						
23	– Low	18.00	$4.65	55%	$5.50	$6.77
24	– High	21.00	$5.43	55%	$6.42	$7.90
25						
26	– Low	18.00	$4.65	65%	$4.65	$5.73
27	– High	21.00	$5.43	65%	$5.43	$6.68
28						
29						
30						
31	Thermal Coal			Thermal Coal	Gas Efficiency:	
32		$/tonne	$/Input GJ	Efficiency:	65%	80%
33						
34	– Low	45.00	$2.39	55%	$2.83	$3.48
35	– High	50.00	$2.66	55%	$3.14	$3.87
36						
37	– Low	45.00	$2.39	65%	$2.39	$2.95
38	– High	50.00	$2.66	65%	$2.66	$3.27

39 Source: No.6 Fuel Oil price range based on data from Statistics Canada;
40 No. 2 oil price estimated by BC Gas marketing staff.
41 Thermal coal price based on data from the 'Mineral Market Update', MEM&PR, August 1992.

Energy/Natural Gas Price Matrix for Industrial Applications

Lower Mainland Division – Fraser Valley

Line No.	(a)	(b)	(c)	(d)	(e)	(f)
	Electricity	Cents/KWh	$/Input GJ	Electric Efficiency:	Gas Efficiency: 65%	80%
1	– @ 2,000 GJ/M	3.21	$8.92	80%	$7.25	$8.92
2	– @ 20,000 GJ/M	3.21	$8.92	80%	$7.25	$8.92
3						
4	– @ 2,000 GJ/M	3.21	$8.92	100%	$5.80	$7.14
5	– @ 20,000 GJ/M	3.21	$8.92	100%	$5.80	$7.14
6						
7	BC Hydro, transmission service, Rate 1821.					
8						
9						
10	Heavy Fuel Oil			No. 6 Oil	Gas Efficiency:	
11		Cents/litre	$/Input GJ	Efficiency:	65%	80%
12						
13	– Low	10.00	$2.40	55%	$2.83	$3.49
14	– High	12.00	$2.88	55%	$3.40	$4.18
15						
16	– Low	10.00	$2.40	65%	$2.40	$2.95
17	– High	12.00	$2.88	65%	$2.88	$3.54
18						
19						
20	No. 2 Oil			Light Fuel Oil	Gas Efficiency:	
21		Cents/litre	$/Input GJ	Efficiency:	65%	80%
22						
23	– Low	18.00	$4.65	55%	$5.50	$6.77
24	– High	21.00	$5.43	55%	$6.42	$7.90
25						
26	– Low	18.00	$4.65	65%	$4.65	$5.73
27	– High	21.00	$5.43	65%	$5.43	$6.68
28						
29						
30						
31	Thermal Coal			Thermal Coal	Gas Efficiency:	
32		$/tonne	$/Input GJ	Efficiency:	65%	80%
33						
34	– Low	45.00	$2.39	55%	$2.83	$3.48
35	– High	50.00	$2.66	55%	$3.14	$3.87
36						
37	– Low	45.00	$2.39	65%	$2.39	$2.95
38	– High	50.00	$2.66	65%	$2.66	$3.27

39 Source: No.6 Fuel Oil price range based on data from Statistics Canada;
40 No. 2 oil price estimated by BC Gas marketing staff.
41 Thermal coal price based on data from the 'Mineral Market Update', MEM&PR, August 1992.

Table E.4

Interruptible Energy/Natural Gas Price Matrix for Industrial Applications

Lower Mainland Division – Lower Mainland & Fraser Valley

Line No.	(a) Electricity	(b) Cents/KWh	(c) $/Input GJ	(d) Electric Efficiency:	(e) Gas Efficiency: 65%	(f) 80%
	– @ 20,000 GJ/M	1.98	$5.51	80%	$4.48	$5.51
1	– @ 200,000 GJ/M	1.98	$5.51	80%	$4.48	$5.51
2						
3	– @ 20,000 GJ/M	1.98	$5.51	100%	$3.58	$4.41
4	– @ 200,000 GJ/M	1.98	$5.51	100%	$3.58	$4.41
5						
6	BC Hydro, interruptible service, Rate 1205, effective August 1, 1992.					
7						
8						
9	Heavy Fuel Oil			No. 6 Oil	Gas Efficiency:	
10		Cents/litre	$/Input GJ	Efficiency:	65%	80%
11						
12	– Low	10.00	$2.40	55%	$2.83	$3.49
13	– High	12.00	$2.88	55%	$3.40	$4.18
14						
15	– Low	10.00	$2.40	65%	$2.40	$2.95
16	– High	12.00	$2.88	65%	$2.88	$3.54
17						
18						
19	No. 2 Oil			Light Fuel Oil	Gas Efficiency:	
20		Cents/litre	$/Input GJ	Efficiency:	65%	80%
21						
22	– Low	18.00	$4.65	55%	$5.50	$6.77
23	– High	21.00	$5.43	55%	$6.42	$7.90
24						
25	– Low	18.00	$4.65	65%	$4.65	$5.73
26	– High	21.00	$5.43	65%	$5.43	$6.68
27						
28						
29	Thermal Coal			Thermal Coal	Gas Efficiency:	
30		$/tonne	$/Input GJ	Efficiency:	65%	80%
31						
32	– Low	45.00	$2.39	55%	$2.83	$3.48
33	– High	50.00	$2.66	55%	$3.14	$3.87
34						
35	– Low	45.00	$2.39	65%	$2.39	$2.95
36	– High	50.00	$2.66	65%	$2.66	$3.27

37 Source: No.6 Fuel Oil price range based on data from Statistics Canada;
38 No. 2 oil price estimated by BC Gas marketing staff.
39 Thermal coal price based on data from the 'Mineral Market Update', MEM&PR, August 1992.

Appendix F

Derivation of Natural Gas Price Elasticities

Residential Energy Share Equations

In order to estimate residential natural gas price elasticities, total residential energy demand is allocated to percentage shares of total energy consumption according to relative energy prices and energy consumption shares in the previous period[5]

The general form of the energy share equations are:

$$\text{(Eq. 1)} \qquad M_i = b_{0i} + b_{1i} \cdot P_i + b_{2i} \cdot P_j + d_i \cdot M_i(-1)$$

where Mi is the percent share of energy i.
Pi the constant dollar price index for energy i.
Pj is the constant dollar price index of energy j.

Economic theory suggests the following restrictions on the energy price variables:

a) all prices should be homogenous of degree zero. That is, each energy share should remain unchanged if all prices change by the same proportion. This condition is satisfied if prices are expressed as a ratio of logarithms.

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[5]The energy share equations are based in part upon the work of DataMetrics Limited. See for example "Projections of British Columbia Energy Demand: Residential, Commercial and Industrial Sectors, 1982 - 2001", for B.C. Hydro, 1982.

b) price effects are symmetrical across energy shares. A change in the market share of one fuel as a result of a percent change in the price of that fuel relative to another should be equal to the change in the market share of the other fuel with respect to the same percent change in relative fuel prices. This condition is satisfied when $b_{1i} = b_{1j}$.

For non-price variables, these additional restrictions apply:

c) $d_i = d_j = d$

d) $\sum b_{0i} = (1 - d)$

The purpose of restrictions c) and d) is to ensure that the estimated shares always equal unity.

Implementing these restrictions leads to the following estimating equations:

(Eq. 2)

$$M_g = b_{0g} + b_1 \cdot \ln(Pg/Po) + b_2 \cdot \ln(Pg/Poth) + d \cdot M_g(-1) + v_g$$

$$M_o = b_{0o} + b_1 \cdot \ln(Pg/Po) + b_3 \cdot \ln(Po/Poth) + d \cdot M_o(-1) + v_o$$

$$M_{oth} = b_{0oth} + b_2 \cdot \ln(Pg/Poth) + b_3 \cdot \ln(Po/Poth) + d \cdot M_e(-1) + v_e$$

where M_g, M_o and M_{oth} are the percent shares of natural gas, furnace oil, and other fuels(principally propane).

Pg, Po and Poth are the price indexes for natural gas, furnace oil and other fuels respectively, with 1986 = 1.0.

The disturbance vector $v \equiv \{v_g, v_o, v_e\}$ is assumed multivariate normally distributed with mean vector zero and a constant covariance matrix Ω.

One share equation must be excluded from estimation because only n-1 of the shares are linearly independent. Using the method of seemingly unrelated regressions(SUR), the following parameters were estimated:

b_{0g} = .094 (5.33)	b_1 = - .050 (-4.51)	b_2 = -.017 (-1.56)	d = .872 (25.83)
b_{0o} = .015 (3.20)	b_1 = .050 (4.51)		d = .872 (25.83)
b_{0oth} = .019		b_2 = .017	d = .872

with t statistics in brackets.

	R2(adj.)	Std. Error	F Stat.	Mean of Dep Variable.
Gas	.99	.017	1144.4	.544
LFO	.97	.017	536.3	.301

The Commercial and Industrial Sectors

Coefficient restrictions identical to those imposed upon the residential sector share equations are required here as well. Imposition of these restrictions leads to the following equation system:

(Eq. 3)

$$M_g = b_{0g} + b_1 \cdot \ln(Pg/Po) + b_2 \cdot \ln(Pg/Pe) + d \cdot M_g(-1) + v_g$$

$$M_o = b_{0o} + b_1 \cdot \ln(Pg/Po) + b_3 \cdot \ln(Pe/Po) + d \cdot M_o(-1) + v_o$$

$$M_e = b_{0e} + b_2 \cdot \ln(Pg/Pe) + b_3 \cdot \ln(Pe/Po) + d \cdot M_e(-1) + v_e$$

where Mg, Mo and Me are the percent shares of natural gas, oil products and electricity respectively.

Pg, Po and Pe are price indexes of natural gas, oil products and electricity respectively with 1971 = 1.0.

$M_i(-1)$ indicates that the share is lagged one period.

The disturbance vector $v \equiv \{v_g, v_o, v_e\}$ is assumed multivariate normally distributed with mean vector zero and a constant covariance matrix Ω.

Commercial Sector Energy Share Equations

Using SUR system methods, the following parameters were estimated:

b_{0g} = .089 (20.7)	b_1 = -.030 (-2.52)			d = .8
b_{0o} = .040 (5.76)	b_1 = .030 (2.52)	b_3 = .017 (2.00)		d = .8
b_{0e} = .071		b_3 = -.017		d = .8

	R2(adj.)	Std. Error	F Stat.	Mean of Dep. Var.
Gas	.93	.022	389.6	.384
Oil	.93	.032	183.2	.329

The electricity share is derived implicitly from the estimated shares. We are unable to obtain a statistically significant result for ln(Pg/Pe), the coefficient b_2 in the equation system above and so exclude it from the commercial energy share model. All other variables are statistically significant at a 90% confidence level. A value of .8 was first estimated and then imposed on the lag coefficient, d.

Industrial Energy Share Equations

For the industrial sector, the electricity share is directly estimated. A fourth energy share consisting of coal and liquified petroleum gases, mainly propane, is excluded from estimation. While coal is irrelevant to the residential and commercial sectors, its use, along with propane is prevalent enough within the industrial sector to warrant separate treatment. Again using SUR estimation methods, the following parameters were estimated:

b_{0g} = .068	b_1 = -.015		b_4 = -.009	d = .8
(12.1)	(-2.97)		(-2.38)	
b_{0o} = .049	b_1 = .015	b_3 = .007		d = .8
(12.1)	(2.97)	(2.04)		
b_{0e} = .077		b_3 = -.007		d = .8
(28.8)		(-2.04)		
b_{0oth}= .006			b_4 = .009	d = .8

with t statistics in brackets. A value of .8 was first estimated and then imposed on the lag coefficient, d. We were again unable to obtain a statistically significant result for ln(Pg/Pe), the coefficient b_2, and so exclude it from the industrial energy share model. All parameter estimates are significant at a 90 percent level of confidence.

	R2(adj.)	Std. Error	F Stat.	Mean of Dep Var.
Gas	.91	.022	153.8	.279
Elec	.77	.012	49.5	.372
Oil	.91	.019	141.2	.314

PROPOSED INDUSTRIAL TARIFFS

Draft rate schedules 25, 27, 5 and 7 (collectively, the "general rate schedules") are intended to replace the following industrial tariffs of the Company:

	Firm Transportation	Interruptible Transportation	Firm Service	Interruptible Service
Lower Mainland	2006/2007	N/A	2209	2501 2502A 2502B
Inland	25	N/A	5,6	7
Columbia	N/A	N/A	3	N/A

The general rate schedules should attract the smaller volume customers who now ship or might have otherwise shipped gas under rate schedule 22 and will be available to customers in the Lower Mainland, Inland and Columbia service areas.

Each general rate schedule incorporates amendments from a variety of sources and integrates into one document the existing general terms and conditions applicable to small industrial transportation service, the existing rate schedules and a substantial portion of the service or transportation agreements applicable thereunder. The proposed General Terms and Conditions of the Company, included in this application, will also apply to transportation or sales under the general rate schedules.

The general rate schedules and attached agreements were prepared to accommodate customers' requests to make the Company's industrial tariffs more user-friendly yet still protect the Company. These documents may be amended following the communication program planned by the Company and referred to previously.

The Company proposes to amend rate schedules 4, 10, 13 and 22 and will distribute the amended documents at an early date.

New or revised sales rate schedules are included with the June 7 revisions. The sales schedules should be placed under the tabs described below.

		Tab
Rate Schedule 4:	Seasonal Service	5 G
Rate Schedule 10:	Large Volume Interruptible Sales	5 H
Rate Schedule 13:	Peaking ~~and Backstopping~~ Sales	5 I
~~Rate Schedule 30:~~	~~Index Priced Interruptible Sales~~	~~5 J~~
Rate Schedule 14:	Backstopping Sales	5 J

Rate Schedule 32 Large Volume Gas Balancing which was filed May 20, 1993 under Tab 5E should be relocated to Tab 5F. Rate Schedules 22 and 22A should remain under Tab 5E.

Sales agreements are also enclosed accompanying rate schedules 4, 19 and 13, and will be developed on a similar basis for schedules 30.

Rate schedules 4, 10 and 25 offer service fairly similar to current seasonal and interruptible sales tariffs within Lower Mainland and Inland divisions. Interruptible rate schedules 10 and 13 are new to Columbia division. Rate Schedule 13 is only available in conjunction with Rate Schedule 10.

Rate Schedule 30 provides an alternative to Rate Schedule 10 and 13 sales, whereby customers will be given an option to purchase interruptible gas on a more flexible basis. The term of rate Schedule 30 sales may be for as little as one month and conditions of sales will reflect those available in the spot market.

DRAFT

BC GAS INC.

RATE SCHEDULE 5
GENERAL FIRM SERVICE

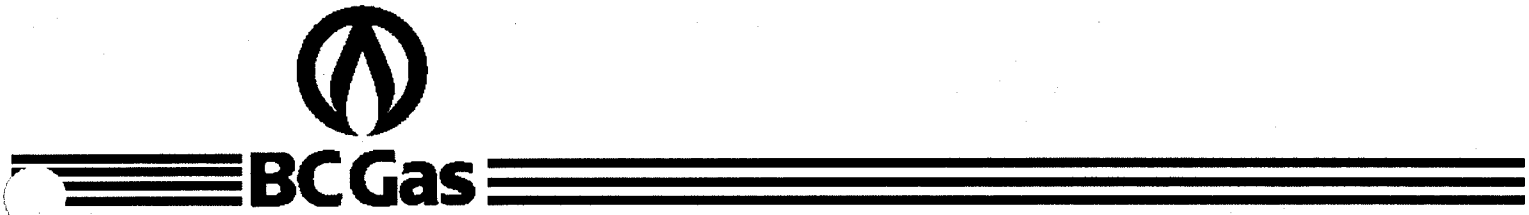


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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the sale of firm gas, no portion of which may be resold, through one meter station to a customer who, pursuant to this rate schedule, uses more than 50% of its approved connected gas load for applications other than space heating.

1.2 **Service Agreement** - BC Gas will only sell gas pursuant to an executed service agreement.

1.3 **British Columbia Utilities Commission** - This rate schedule is approved by the British Columbia Utilities Commission and may only be amended with the permission of the British Columbia Utilities Commission.

2. Conditions of Service

2.1 **Conditions** - This rate schedule is available in all territory served by BC Gas under the tariff of which this rate schedule is a part if

(a) adequate gas volumes for such service are available,

(b) adequate capacity exists in the BC Gas system,

(c) the customer purchases under this rate schedule all of the fuel required for its facilities specified in the service agreement; and

(d) BC Gas has installed at the delivery point the facilities and equipment referred to in section 7.1 (Facilities and Equipment).

2.2 **Security** - At any time during the term of the service agreement BC Gas may require the customer to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the customer under this rate schedule and the service agreement for a period of 90 days. Where BC Gas requires a customer to provide a letter of credit and the customer is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

2.3 **Switch from Transportation Service or Interruptible Sales** - A consumer of gas within the service area of BC Gas either receiving transportation service pursuant to a transportation rate schedule, or buying gas pursuant to an interruptible gas sales rate schedule, and wishing to buy gas pursuant to this rate schedule must

(a) give 13 months' prior notice to BC Gas of such consumer's desire to do so, and

(b) if BC Gas is subjected to higher gas prices or transportation costs or both, reimburse BC Gas for any such higher prices or cost in addition to paying the charges set forth in the table of charges.

3. Sales

3.1 **Sale of Gas** - Subject to section 13 of the general terms and conditions of BC Gas (Interruption of Service), BC Gas will sell to the customer and the customer will buy from BC Gas at one delivery point such quantity of gas as is required by the customer for the operation of the customer's facilities specified in the service agreement, estimated to be the maximum quantity per day set forth in the service agreement, for the charges and on all of the terms and conditions set forth in either this rate schedule or the service agreement.

3.2 **Maximum Hourly Quantities** - BC Gas will not be obliged to deliver in any one hour more than 5% of the maximum quantity per day set forth in the service agreement.

3.3 **Pressure at Delivery Point** - All gas delivered by BC Gas at the delivery point to the customer will be at not less than the pressure specified in the service agreement.

4. Table of Charges

4.1 **Charges** - In respect of all quantities of gas delivered to the delivery point pursuant to this rate schedule and the transportation agreement, the customer will pay to BC Gas all of the charges set forth in the table of charges.

5. Term of Service Agreement

5.1 **Term** - The initial term of the service agreement will begin on the commencement date and will expire at 8:00 a.m. PST on the November 1 next following, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term shall instead expire at 8:00 a.m. PST on the November 1 second next following.

5.2 **Automatic Renewal** - Except as specified in the service agreement, the term of the service agreement will continue on a year to year basis after the expiry of the initial

term until cancelled by either BC Gas or the customer upon not less than 13 months' notice prior to the end of the contract year then in effect.

5.3 **Early Termination** - The term of the service agreement is subject to early termination in accordance with section 9 (Default or Bankruptcy).

5.4 **Survival of Covenants** - Upon the termination of the service agreement, whether pursuant to section 9 (Default or Bankruptcy) or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this rate schedule and in the service agreement relating to the obligation of any of the parties to account to or indemnify the other and to pay to the other any monies owing as at the date of termination in connection with the service agreement,

will survive such termination.

6. Statement and Payments

6.1 **Statements to be Provided** - BC Gas will, on or before the 15th day of each month, deliver to the customer a statement for the preceding month showing the gas quantities delivered to the customer and the amount due. BC Gas will, on or before the 45th day after the end of a contract year, deliver to the customer a separate statement for the preceding contract year showing the amount required from the customer in respect of any indemnity due under a service agreement. Any errors in any statement will be promptly reported to the other party as provided hereunder, and statements will be final and binding unless questioned within one year after the date of the statement.

6.2 **Payment and Interest** - Payment for the full amount of the statement, including federal, provincial and municipal taxes or fees applicable thereon, will be made to BC Gas at its Vancouver, British Columbia office, or such other place in Canada as it will designate, on or before the 1st business day after the 21st calendar day following the billing date. If the customer fails or neglects to make any payment required under this rate schedule, or any portion thereof, to BC Gas when due, interest on such payment or portion thereof, as the case may be, will accrue from and including the date when such payment is due to and including the date the same is paid at the rate of 1½% per month (19.56% per annum).

6.3 **Examination of Records** - Each of BC Gas and the customer will have the right to examine at reasonable times the books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge, computation or demand made pursuant to any provisions of this rate schedule or the service agreement.

7. Measuring Equipment

7.1 **Facilities and Equipment** - BC Gas may install, maintain and operate at the delivery point such metering and communications facilities and equipment as BC Gas determines are necessary or desirable for measuring the quantity of gas delivered pursuant to this rate schedule to the customer and the customer will permit BC Gas, without cost to BC Gas, to use the customer's communications lines and power for the purpose of installing, maintaining and operating the measuring equipment of BC Gas.

7.2 **Measuring Site** - If BC Gas reasonably determines that it is necessary to install the facilities and equipment referred to in section 7.1 (Facilities and Equipment) on the customer's property, the customer will, without charge, provide a suitable site along with utilities and enclosures for the installation of the facilities and equipment of BC Gas. BC Gas will at all times have clear access to the site and to all of its facilities and equipment. All facilities and equipment installed by BC Gas on the customer's property will remain the property of BC Gas and may be removed by BC Gas upon termination of the service agreement.

7.3 **Calibration and Test of Measuring Equipment** - The accuracy of the measuring equipment of BC Gas will be verified by standard tests and methods at regular intervals and at other times at the initiative of BC Gas or upon the reasonable request of the customer. Notice of the time and nature of each test conducted in response to communications with or at the request of the customer will be given by BC Gas to the customer sufficiently in advance to permit a representative of the customer to be present. If during a test the measuring equipment is found to be registering inaccurately, it will be adjusted at once to read as accurately as possible. The results of each test and adjustment, if any, made by BC Gas, whether or not the customer is present for such test, will be accepted until the next test. All tests of such measuring equipment of BC Gas will be made at the expense of BC Gas, except that the customer will bear the expense of tests made at its request if the measuring equipment is found to be inaccurate by an amount equal to 2% or less.

7.4 **Inaccuracy Exceeding 2%** - If upon any test the measuring equipment is found to be inaccurate by an amount exceeding 2%, any previous readings of such equipment will be corrected to zero error for any period during which it is definitely known or is agreed upon that the error existed. If the period is not definitely known or is not

agreed upon, such correction will be for a period covering the last half of the time elapsed since the date of the last test. Provided that under no circumstances will an adjustment be made for a period of more than the preceding 12 months.

7.5 **Correction of Measuring Errors** - If the measuring equipment is out of service or out of repair so that the quantity of gas delivered cannot be correctly determined by the reading thereof, the gas delivered during the period such measuring equipment is out of service or out of repair will be estimated on the basis of the best available data, using the first of the following methods which is feasible

(a) by correcting the error if the percentage of error is ascertained by calibration test or mathematical calculation,

(b) by using the registration of any check measuring equipment if installed and accurately registering, and

(c) by estimating the quantity of gas delivered to the customer during the preceding periods under similar conditions when the meter was registering accurately.

7.6 **Customer's Equipment** - The customer may at its own expense install, maintain and operate its own measuring equipment for the purposes of monitoring or checking the measuring equipment of BC Gas, provided that the customer will install such equipment so as not to interfere with the operation of the measuring equipment of BC Gas.

7.7 **Right to be Present** - BC Gas and the customer will have the right to inspect all equipment installed or furnished by the other and the charts and other measurement or test data of the other at all times during business hours, and to be present at the time of any installing, testing, cleaning, changing, repairing, calibrating or adjusting done in connection with the measuring equipment of the other party, but all such activities will be performed by the party furnishing the measuring equipment.

7.8 **Preservation of Records** - Both parties will cause to be preserved each test datum, chart and other record of gas measurement for a period of 2 years.

8. Measurement

8.1 **Unit of Volume** - The unit of volume of gas for all purposes hereunder will be 1 cubic metre at a temperature of 15° Celsius and an absolute pressure of 101.325 kilopascals.

8.2 **Determination of Volume** - Gas delivered hereunder will be metered using metering apparatus approved by the Standards Division, Department of Consumer & Corporate Affairs of Canada and the determination of standard volumes delivered hereunder will be in accordance with terms and conditions pursuant to the *Electricity and Gas Inspection Act* of Canada.

8.3 **Conversion to Energy Units** - In accordance with the *Electricity and Gas Inspection Act* of Canada, volumes of gas delivered each day will be converted to energy units by multiplying the standard volume by the heat content of each unit of gas. Volumes will be specified in 10^3m^3 rounded to two decimal places and energy will be specified in gigajoules rounded to one decimal place.

9. Default or Bankruptcy

9.1 **Default** - If the customer at any time fails or neglects

(a) to make any payment due to BC Gas or to any other person under this rate schedule or the service agreement within 30 days after payment is due, or

(b) to cure any default of any of the other terms, covenants, agreements, conditions or obligations imposed upon it under this rate schedule or the service agreement, within 30 days after BC Gas gives to the customer notice of such default or, in the case of a default that cannot with due diligence be cured within a period of 30 days, the customer fails to proceed promptly after the giving of such notice with due diligence to cure the same and thereafter to prosecute the curing of such default with all due diligence,

BC Gas may in addition to any other remedy that it has, at its option and without liability therefor

(c) suspend further service to the customer and may refuse to deliver gas to the customer until the default has been fully remedied, and no such suspension or refusal will relieve the customer from any obligation under this rate schedule or the service agreement, or

(d) terminate the service agreement, and no such termination of the service agreement pursuant hereto will exclude the right of BC Gas to collect any amount due to it from the customer for what would otherwise have been the remainder of the term of the service agreement.

9.2 **Bankruptcy or Insolvency** - If the customer becomes bankrupt or insolvent or commits or suffers an act of bankruptcy or insolvency or a receiver is appointed

pursuant to a statute or under a debt instrument or the customer seeks protection from the demands of its creditors pursuant to any legislation enacted for that purpose, BC Gas will have the right, at its sole discretion, to terminate the service agreement by giving notice in writing to the customer and thereupon BC Gas may cease further delivery of gas to the customer and the amount then outstanding for gas provided under the service agreement will immediately be due and payable by the customer.

10. Notice

10.1 **Notice** - Any notice, request, statement or bill that is required to be given or that may be given under this rate schedule or under the service agreement will, unless otherwise specified, be in writing and will be considered as fully delivered when mailed, personally delivered or sent by telecopier to the other in accordance with the following:

if to BC Gas	BC GAS INC.	
MAILING ADDRESS:	1111 West Georgia Street 6th Floor Vancouver, B.C. V6E 4M4	
BILLING AND PAYMENT:	Attention:	Manager, Customer Administration
	Telephone:	(604) 443-6507
	Telecopier:	(604) 443-6588
CUSTOMER RELATIONS	Attention:	Manager, Industrial Markets
	Telephone:	(604) 443-6491
	Telecopier:	(604) 443-6770
LEGAL AND OTHER:	Attention:	V.P. Legal & Regulatory Affairs
	Telephone:	(604) 443-6607
	Telecopier:	(604) 443-6789

if to the customer, then as set forth in the service agreement.

10.2 **Specific Notices** - Notwithstanding section 10.1 (Notice), notices with respect to curtailment, interruption or restoration of deliveries of gas or with respect to force

majeure will be sufficient if given by BC Gas in writing by telecopier, or orally in person, or by telephone (to be confirmed in writing) to the person or persons designated from time to time by the customer as authorized to receive such notices.

11. Interpretation

11.1 **Definitions in General Terms and Conditions of BC Gas** - Except where the context requires otherwise or except as otherwise expressly provided in this rate schedule, all words and phrases defined in the general terms and conditions of BC Gas and used in this rate schedule or in a service agreement have the meanings set out in the general terms and conditions of BC Gas.

11.2 **Change in Definition of "Day"** - BC Gas may, in its sole discretion, amend the definition of "day" from time to time.

11.3 **Further Definitions** - Additionally, except where the context requires otherwise, each of the words and phrases described in the definitions have the meanings ascribed thereto in the definitions.

11.4 **Interpretation** - Except where the context requires otherwise or except as otherwise expressly provided, in this rate schedule or in a service agreement

(a) all references to a designated section are to the designated section of this rate schedule unless otherwise specifically stated,

(b) the singular of any term includes the plural, and vice versa, and the use of any term is equally applicable to any gender and, where applicable, body corporate,

(c) any reference to a corporate entity includes and is also a reference to any corporate entity that is a successor to such entity,

(d) all words, phrases and expressions used in this rate schedule or in a service agreement that have a common usage in the gas industry and that are not defined in the general terms and conditions of BC Gas, the definitions or in the service agreement have the meanings commonly ascribed thereto in the gas industry, and

(e) the headings of the sections set forth in this rate schedule or in the service agreement are for convenience of reference only and will not be considered in any interpretation of this rate schedule or the service agreement.

12. Miscellaneous

12.1 **Waiver** - No waiver by either BC Gas or the customer of any default by the other in the performance of any of the provisions of this rate schedule or the service agreement will operate or be construed as a waiver of any other or future default or defaults, whether of a like or different character.

12.2 **Enurement** - The service agreement will enure to the benefit and be binding upon the parties and their respective successors and permitted assigns, including without limitation successors by merger, amalgamation or consolidation.

12.3 **Assignment** - The customer will not assign the service agreement or any of its rights or obligations thereunder without the prior written consent of BC Gas which consent will not be unreasonably withheld or delayed. No assignment will release the customer from its obligations under this rate schedule or under the service agreement. This provision applies to every proposed assignment by the customer.

12.4 **Amendments to be in Writing** - Except as set forth in this rate schedule, no amendment or variation of the service agreement will be effective or binding upon the parties unless such amendment or variation is set forth in writing and duly executed by the parties.

12.5 **Proper Law** - The service agreement will be construed and interpreted in accordance with the laws of the Province of British Columbia and the laws of Canada applicable therein.

12.6 **Time is of Essence** - Time is of the essence of this rate schedule, the service agreement and of the terms and conditions thereof.

12.7 **Subject to Legislation** - Notwithstanding any other provision hereof this rate schedule and the service agreement and the rights and obligations of BC Gas and the customer under this rate schedule and the service agreement are subject to all present and future laws, rules, regulations and orders of any legislative body, governmental agency or duly constituted authority now or hereafter having jurisdiction over BC Gas or the customer.

12.8 **Further Assurances** - Each of BC Gas and the customer will, on demand by the other, execute and deliver or cause to be executed and delivered all such further documents and instruments and do all such further acts and things as the other may reasonably require to evidence, carry out and give full effect to the terms, conditions, intent and meaning of this rate schedule and the service agreement and to assure the completion of the transactions contemplated hereby.

12.9 **Form of Payments** - All payments required to be made under statements and invoices rendered pursuant to this rate schedule or the service agreement will be made by telegraphic transfer to, or cheque or bank cashier's cheque drawn on, a Canadian chartered bank or trust company, payable in lawful money of Canada at par in immediately available funds in Vancouver, British Columbia.

12.10 **Change in Day** - If BC Gas amends the meaning of "day" as provided for in section 11.2 (Change in Definition of "Day"), a pro-rata adjustment of quantities of gas and charges to account for any day of more or less than 24 hours will be made and the term of the service agreement will be similarly adjusted.

DEFINITIONS

(a) **BC Gas** - means BC Gas Inc., a body corporate incorporated pursuant to the laws of the Province of British Columbia under number 368681.

(b) **BC Gas system** - means the gas transmission and distribution system owned and operated by BC Gas, as such system is expanded, reduced or modified from time to time.

(c) **British Columbia Utilities Commission** - means the British Columbia Utilities Commission constituted under the *Utilities Commission Act* of British Columbia and includes and is also a reference to

(i) any commission that is a successor to such commission, and

(ii) any commission that is constituted pursuant to any statute that may be passed which supplements or supersedes the *Utilities Commission Act* of British Columbia.

(d) **commencement date** - means the day specified as the commencement date in the service agreement.

(e) **contract year** - means a period of 12 consecutive months commencing at the beginning of the 1st day of November and ending at the beginning of the next succeeding 1st day of November.

(f) **customer** - means a person who enters into a service agreement with BC Gas.

(g) **day** - means, subject to section 11.2 (Change in Definition of "Day"), any period of twenty-four consecutive hours beginning and ending at 8:00 a.m. PST.

(h) **definitions** - means the definitions appended to this rate schedule.

(i) **delivery point** - means the point specified in a service agreement where BC Gas delivers gas to a customer.

(j) **force majeure** - means any acts of God, strikes, lockouts, or other industrial disturbances, civil disturbances, arrests and restraints of rulers or people, interruptions by government or court orders, present or future valid orders of any regulatory body having proper jurisdiction, acts of the public enemy, wars, riots, blackouts, insurrections, failure or inability to secure materials or labour by reason of priority, regulations or orders of government, serious epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, explosions, breakage or accident to

machinery or lines of pipes, or freezing of wells or pipelines, or the failure of gas supply, temporary or otherwise, from a supplier of gas, which act of force majeure was not due to negligence of the party claiming force majeure. Further, force majeure will also include a declaration of force majeure by a transporter that results in gas being unavailable for delivery.

(k) **franchise fees** - means the aggregate of all monies payable by BC Gas to a municipality

(i) for the use of the municipality's streets and other property to construct and operate the utility business of BC Gas,

(ii) relating to the revenues received by BC Gas for services provided and gas consumed within the municipality, and

(iii) relating, if applicable, to the value of gas transported by BC Gas through the municipality.

(l) **gas** - means the residue remaining after raw gas has been subjected to any or all of the following permissible processes

(i) the removal of any of its constituent parts other than methane, and the removal of methane to such extent as is necessary in removing other constituents,

(ii) the compression, regulation, cooling, cleaning or any other chemical or physical process other than the addition of diluents, such as air or nitrogen, to such extent as may be required in its production, gathering, transmission, transportation, storage, removal from storage and delivery, and

(iii) the addition of odorant by BC Gas,

but for greater certainty gas does not include propane.

(m) **general terms and conditions of BC Gas** - means the general terms and conditions of BC Gas from time to time approved by the British Columbia Utilities Commission.

(n) **heat content** - means the gross heating value of the gas, determined on the basis of a temperature of 15° Celsius with the gas free of all water vapour and at an absolute pressure of 101.325 kilopascals, with the products of combustion cooled to the initial temperature of the gas and the water formed by the combustion condensed to the liquid state. The heat content will be expressed in megajoules per cubic metre of gas (MJ/M^3) rounded to two decimal places.

(o) **hour** - means any consecutive 60 minute period.

(p) **month** - means, subject to any changes from time to time required by BC Gas in the starting time of its gas day, the period beginning at 8:00 a.m. PST on the first day of the calendar month and ending at 8:00 a.m. PST on the first day of the next succeeding calendar month.

(q) **PST** - means Pacific Standard Time.

(r) **rate schedule 25 or this rate schedule** - means all rates, terms and conditions, including the definitions and the table of charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission.

(s) **service agreement** - means an agreement between BC Gas and a customer to provide service pursuant to this rate schedule.

(t) **supplier** - means a party who sells gas to BC Gas pursuant to a gas sales agreement.

(u) **table of charges** - means the table of prices, fees and charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, appended to this rate schedule.

(v) **transporter** - means, in the case of the Columbia service area, Alberta Natural Gas Company, a Canadian corporation, and in the case of the Inland and Lower Mainland service areas, Westcoast Energy Inc., a Canadian corporation, but also means any other gas pipeline supplier connected to the facilities of BC Gas from which BC Gas receives gas for the purposes of gas service or resale.

(w) "**10^3m^3**" means 1,000 Cubic Metres.

TABLE OF CHARGES

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
1.	**Basic Charge** per month	$ 300.00	$ 300.00	$ 300.00
2.	**Delivery Charge** per gigajoule			
	(a) between April 1 and November 1	$ .75	$ .75	$ .75
	(b) between November 1 and April 1	$ 1.50	$ 1.50	$ 1.50
3.	**Gas Cost Recovery Charge** per gigajoule	$ 2.29	$ 2.097	$ 2.067

Franchise Fees Charge of 3.09% of aggregate of the charges above, payable if the facilities to which gas is delivered under this rate schedule are located within the municipal boundaries of a municipality to which BC Gas pays franchise fees.

Minimum Charge per month - The minimum charge per month will be the aggregate of the basic charge and the franchise fees charge.

GENERAL FIRM SERVICE AGREEMENT

DRAFT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Inc. ("BC Gas") and _____ (the "customer").

WHEREAS:

A. BC Gas owns and operates the BC Gas system;

B. The customer is the owner and operator of a _____ located in or near _____ in the Province of British Columbia; and

C. The customer desires to purchase from BC Gas firm gas for such facilities in accordance with rate schedule 5.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Commencement Date:_____ Expiry Date:_____
(only specify an expiry date if term of service agreement is not to automatically continue from year to year as set forth in section 5.2 of rate schedule 5)

Delivery Point:_____

_____

Gauge pressure at Delivery Point: not greater than _____ kilopascals and not less than _____ kilopascals

Estimated maximum of _____ gigajoules per day

Address of customer for receiving notices:

_____
(name of customer) Attention:_____

_____ Telephone:_____
(address of customer)

_____ Telecopier:_____

_____

The information set forth above is hereby approved by the parties and each reference in either this agreement or rate schedule 5 to any such information is to the information set forth above.

2. Rate Schedule 5

2.1 **Additional Terms** - All rates, terms and conditions set forth in rate schedule 5 or the general terms and conditions of BC Gas, as either of them may be amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, are in addition to the rates, terms and conditions contained in this service agreement and form part of this service agreement and bind BC Gas and the customer as if set forth herein.

2.2 **Payment of Amounts** - Without limiting the generality of the foregoing, the customer will pay to BC Gas all of the amounts set forth in rate schedule 5 for the services provided under rate schedule 5 and this service agreement.

2.3 **Conflict** - Where anything in either rate schedule 5 or the general terms and conditions of BC Gas conflicts with any of the rates, terms and conditions set forth in this service agreement, this service agreement governs. Where anything in rate schedule 5 conflicts with any of the rates, terms and conditions set forth in the general terms and conditions of BC Gas, schedule 5 governs.

3. Limitation on Liability and Indemnity

3.1 **Limitation on Liability** - Neither BC Gas, its employees, contractors or agents will be liable in damages for or on account of any interruption or curtailment permitted under the general terms and conditions of BC Gas, this service agreement or rate schedule 5.

3.2 **Indemnity** - The customer will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of each of the following

(a) franchise fees not otherwise collected by BC Gas under the table of charges, and

(b) all federal, provincial, municipal taxes (or payments made in lieu thereof) and royalties, whether payable on the delivery of gas to BC Gas by the customer or on the delivery of gas to the customer by BC Gas, or on any other service provided by BC Gas to the customer.

4. Force Majeure

4.1 **Force Majeure** - Subject to the other provisions of this section 4, if either party is unable or fails by reason of force majeure to perform in whole or in part any obligation or covenant set forth in this service agreement, the obligations of both BC Gas and the customer will be suspended to the extent necessary for the period of the force majeure condition.

4.2 **Curtailment Notice** - If BC Gas claims suspension pursuant to this section 4, BC Gas will be deemed to have issued to the customer a notice of curtailment.

4.3 **Exceptions** - Neither party will be entitled to the benefit of the provisions of section 4.1 of this agreement under any of the following circumstances

(a) to the extent that the failure was caused by the negligence or contributory negligence of the party claiming suspension,

(b) to the extent that the failure was caused by the party claiming suspension having failed to diligently attempt to remedy the condition and to resume the performance of the covenants or obligations with reasonable dispatch, or

(c) unless as soon as possible after the happening of the occurrence relied on or as soon as possible after determining that the occurrence was in the nature of force majeure and would affect the claiming party's ability to observe or perform any of its covenants or obligations under this service agreement, the party claiming suspension will have given to the other party notice to the effect that the party is unable by reason of force majeure (the nature of which will be specified) to perform the particular covenants or obligations.

4.4 **Notice to Resume** - The party claiming suspension will likewise give notice, as soon as possible after the force majeure condition has been remedied, to the effect that it has been remedied and that the party has resumed, or is then in a position to resume, the performance of the covenants or obligations.

4.5 **Settlement of Labour Disputes** - Notwithstanding any of the provisions of this section 4, the settlement of labour disputes or industrial disturbances will be entirely within the discretion of the particular party involved and the party may make settlement of it at the time and on terms and conditions as it may deem to be advisable and no delay in making settlement will deprive the party of the benefit of section 4.1 of this agreement.

4.6 **No Exemption for Payments** - Notwithstanding any of the provisions of this section 4, force majeure will not relieve or release either party from its obligations to make payments to the other.

4.7 **Periodic Repair by BC Gas** - BC Gas may temporarily shut off the delivery of gas for the purpose of repairing or replacing a portion of the BC Gas system or its

equipment and BC Gas will endeavour to give the customer as much notice as possible with respect to such interruption, not to be less than 8 hours' prior notice except when prevented by force majeure. BC Gas will use all diligence to restore service as quickly as possible.

5. Arbitration

5.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

5.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting forth the nature of the dispute.

5.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 5.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a past or present employee, officer or director of any of the parties or their respective successors or affiliates, any customer or supplier of the customer or BC Gas.

5.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 45 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

5.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

IN WITNESS WHEREOF the parties hereto have executed this service agreement.

BC GAS INC.

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

_____
(here insert name of customer)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

DRAFT

BC GAS INC.

RATE SCHEDULE 25
GENERAL FIRM TRANSPORTATION



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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the provision of firm transportation service through one meter station to one shipper.

1.2 **Transportation Agreement** - BC Gas will only transport gas pursuant to an executed transportation agreement. BC Gas is not offering to provide service as a common carrier.

1.3 **British Columbia Utilities Commission** - This rate schedule is approved by the British Columbia Utilities Commission and may only be amended with the permission of the British Columbia Utilities Commission.

2. Conditions of Service

2.1 **Conditions** - This rate schedule is available in all territory served by BC Gas under the tariff of which this rate schedule is a part if

(a) adequate capacity exists on the BC Gas system,

(b) the shipper has contracted for a supply of gas, which has been approved by the British Columbia Utilities Commission and any other authorities having jurisdiction,

(c) the shipper has contracted with the transporter for firm delivery to the interconnection point each day over the term of the transportation agreement of a quantity of gas equal to the DTQ,

(d) where the shipper is not an end-user of the gas to be transported pursuant to the transportation agreement

(i) the end-user is specified in to the transportation agreement,

(ii) the shipper does not deliver gas to a party other than the end-user specified in the transportation agreement,

(iii) the term of the transportation agreement is identical to the term of the gas supply contract between the shipper and the end-user, which will be for a period of not less than one contract year, and

(iv) the shipper has provided to BC Gas prior to the commencement of service under this rate schedule in a form acceptable to BC Gas the following

(A) an irrevocable authorization from the end-user permitting BC Gas access to the end-user's property, appropriate easements and right-of-ways on the end-user's property to lay, construct and operate the pipeline and facilities and equipment deemed necessary by BC Gas to provide gas service under this rate schedule, and

(B) a declaration from the end-user agreeing to comply with all instructions, orders, notices, directions and requests by BC Gas that would be applicable to the end-user if the end-user were a shipper under a transportation agreement, and

(e) BC Gas has installed at the delivery point the facilities and equipment referred to in section 12.1 (Facilities and Equipment).

2.2 **Security** - At any time during the term of the transportation agreement BC Gas may require the shipper to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the shipper under this rate schedule and the transportation agreement for a period of 90 days. Where BC Gas requires a shipper to provide a letter of credit and the shipper is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

2.3 **Warning Relating to Firm Sales Rate Schedule** - An end-user wishing to switch at the end of the term of a transportation agreement to a firm gas sales rate schedule must comply with the requirements set forth in the applicable sales rate schedule, including the following

(a) giving 13 months' prior notice to BC Gas of the end-user's desire to do so, and

(b) if BC Gas is subjected to higher gas prices or transportation costs or both, reimbursing BC Gas for any such higher prices or costs.

3. Transportation

3.1 **Transportation of Gas** - Subject to section 13 of the general terms and conditions of BC Gas (Interruption of Service), BC Gas will transport for and deliver to the shipper at one delivery point (except as otherwise specified in the transportation agreement) on each day the quantity of gas, up to the DTQ, received at the interconnection point from the shipper for the charges and on all of the terms and conditions set forth in either this rate schedule or the transportation agreement.

3.2 **Maximum Hourly Quantities** - BC Gas will not be obliged to receive or deliver in one hour more than 5% of the DTQ.

3.3 **Pressure at Interconnection Point** - All gas delivered to BC Gas at the interconnection point by or on behalf of the shipper will not be at less than the pressure specified in the transporter's service terms.

3.4 **Pressure at Delivery Point** - All gas delivered by BC Gas at the delivery point to or on behalf of the shipper will not be at less than the pressure specified in the transportation agreement.

4. Table of Charges

4.1 **Charges** - In respect of all quantities of gas delivered to the delivery point pursuant to this rate schedule and the transportation agreement, the shipper will pay to BC Gas all of the charges set forth in the table of charges.

5. Unauthorized Overrun Rate

5.1 **Charges for Unauthorized Service** - On any day the shipper takes unauthorized overrun gas, the shipper will pay to BC Gas the charge for unauthorized overrun gas set forth in the table of charges.

5.2 **Payments Not License** - Payments made by the shipper to BC Gas for unauthorized overrun gas neither give the shipper the right to take unauthorized overrun gas, nor exclude or limit any other remedies available to BC Gas for the shipper's taking of unauthorized overrun gas.

5.3 **Notice of Curtailment** - BC Gas will endeavour to give the shipper as much notice as possible with respect to interruption or curtailment, not to be less than 8 hours' prior notice unless prevented by force majeure or unless the transporter does not provide to BC Gas at least 8 hours' prior notice of curtailment.

5.4 **Default Regarding Curtailment** - If the shipper at any time fails or neglects to comply with a notice from BC Gas to interrupt or curtail the shipper's take, BC Gas may, in addition to any other remedy which it may then or thereafter have, at its option, without liability therefor and without any prior notice to the shipper

(a) turn off the valve at the delivery point,

(b) suspend further transportation service to the shipper and may refuse to deliver gas to the shipper, or

(c) deliver such gas and charge the shipper for such gas consumed on that day the charge for unauthorized overrun gas set forth in the table of charges.

6. Nomination

6.1 **Supplier** - The shipper will notify BC Gas of the identity of the shipper's supplier on or before the commencement date, and from time to time when the shipper's supplier changes.

6.2 **Requested Quantity** - The shipper will notify BC Gas prior to 7:30 a.m. PST on each day (or such other time as may be specified from time to time by BC Gas) of the quantity of gas the shipper wishes to receive on the next day such that, except in circumstances beyond the shipper's forecasting ability, such quantity will approximately equal the quantity of gas the shipper actually receives on the next day. If the shipper does not notify BC Gas in accordance with the foregoing, then the quantity of gas which the shipper wishes to receive on the next day will be deemed to be the shipper's requested quantity, adjusted as set forth in section 6.3 (Adjustment of Requested Quantity), for the current day.

6.3 **Adjustment of Requested Quantity** - BC Gas will adjust the shipper's requested quantity, described in section 6.2 (Requested Quantity), when in the reasonable opinion of BC Gas any modification is required: in order to minimize the month end balancing quantity; during any period of interruption or curtailment provided for in this rate schedule or the transportation agreement; or on any day between November 1 and April 1 in any contract year when BC Gas wishes to increase the requested quantity to the level available under the shipper's contract with the transporter. On any day BC Gas will be entitled to utilize the balance of the shipper's gas delivered at the interconnection point if not required by the shipper.

6.4 **Request to Transporter** - BC Gas will provide to the transporter the shipper's requested quantity, adjusted as set forth in section 6.3 (Adjustment of Requested Quantity).

6.5 **Delivery to Interconnection Point** - The shipper will cause to be delivered to the interconnection point on each day a quantity of gas at least equal to the shipper's requested quantity, adjusted as set forth in section 6.3 (Adjustment of Requested Quantity).

6.6 **Failure to Deliver to Interconnection Point** - If on any day less gas is delivered at the interconnection point than the quantity provided to the transporter pursuant to section 6.4 (Request to Transporter), BC Gas may in its discretion interrupt or curtail service hereunder by the amount the shipper fails to deliver or may deliver such gas and charge the shipper for such gas consumed on that day the authorized overrun charge set forth in the table of charges. If BC Gas is unable to ascertain which shipper is responsible for a deficiency, BC Gas may in its discretion interrupt or curtail service to shippers on a basis deemed equitable by BC Gas. BC Gas agrees to reallocate the deficiency to the shipper responsible in the event BC Gas obtains information that allows it to determine responsibility.

6.7 **Form of Notifications** - All notifications provided for in this section 6 will be by telephone or telecopier or such other method as may be agreed upon from time to time by BC Gas and the shipper.

7. Balancing

7.1 **Monthly Adjustments** - BC Gas will make monthly adjustments for the differences between the sum of the authorized quantities for the applicable month and the applicable monthly transportation quantity as follows

(a) for overdeliveries (the sum of the authorized quantities is greater than the monthly transportation quantity) BC Gas will maintain an inventory account for the shipper and will increase the balance in the inventory account by the amount of the excess. BC Gas and the shipper will cooperate to limit the quantity of gas maintained in the shipper's inventory account, and

(b) for underdeliveries (the sum of the authorized quantities is less than the monthly transportation quantity), and subject to availability of gas supply, BC Gas will sell to the shipper the deficiency quantities at the authorized overrun charge set forth in the table of charges.

7.2 **Imbalance Following Termination** - If after termination of a transportation agreement BC Gas has received a quantity of gas in excess of quantities delivered to the shipper, then the shipper will have the right to request these quantities be returned within 90 days following the termination. If not claimed within 90 days, such excess will be forfeited to BC Gas.

8. Group Nominations and Balancing

8.1 **Group Nomination and Balancing** - If a customer agent has executed a customers' agent agreement, and if the members of the customer agent's group are in the same division of BC Gas and receive service under this rate schedule, the members of the customer agent's group may, in the discretion of BC Gas, nominate and balance on a group basis pursuant to sections 6 (Nomination) and 7 (Balancing), as modified by this section, and the customer agent will be the agent for each of the members of a group for the purposes of any and all matters set forth in sections 6 (Nomination) and 7 (Balancing).

8.2 **Monthly Transportation Quantity** - The monthly transportation quantity for a group is the sum of the monthly transportation quantity for each member of the group.

8.3 **Estimates by Customer Agent** - The customer agent will notify BC Gas of the identity of the supplier and the requested quantity, described in section 6.2, (Requested Quantity) on behalf of all members of a group on an aggregate basis.

8.4 **Charges to be Paid by Customer Agent** - The charges for authorized overrun gas and unauthorized overrun gas, set forth in the table of charges, will be determined based on the quantities transported on behalf of the group as a whole and will be paid to BC Gas by the customer agent as specified in the customers' agent agreement. Notwithstanding the foregoing, each shipper is jointly and severally liable as principal obligant with the customer agent for all charges for authorized overrun gas and unauthorized overrun gas, set forth in the table of charges, applicable to such shipper.

8.5 **Security** - BC Gas may require the customer agent to provide security, as set forth in section 2.2 (Security), with necessary changes, for the performance of the customer agent's obligations under the customers' agent agreement.

9. Term of Transportation Agreement

9.1 **Term** - The initial term of the transportation agreement will begin on the commencement date and

(a) if the shipper is the end-user, will expire at 8:00 a.m. PST on the November 1st next following, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term will instead expire at 8:00 a.m. PST on the November 1st second next following, and

(b) if the shipper is not the end-user, the term of the transportation agreement will be as described in section 2.1(d)(iii).

9.2 **Automatic Renewal Where Shipper is End-User** - If the shipper is the end-user, and except as specified in the transportation agreement, the term of the transportation agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the shipper upon not less than 2 months' notice prior to the end of the contract year then in effect. If the shipper fails to request an amended DTQ within 2 months prior to the end of the contract year then in effect, the previous DTQ will remain in effect.

9.3 **Early Termination** - The term of the transportation agreement is subject to early termination in accordance with section 15 (Default or Bankruptcy).

9.4 **Survival of Covenants** - Upon the termination of the transportation agreement, whether pursuant to section 15 (Default or Bankruptcy) or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this rate schedule and in the transportation agreement relating to the obligation of any of the parties to account to or indemnify the other and to pay to the other any monies owing as at the date of termination in connection with the transportation agreement,

will survive such termination.

10. Statements and Payments

10.1 **Statements to be Provided** - BC Gas will, on or before the 15th day of each month, deliver to the shipper a statement for the preceding month showing the gas quantities delivered to the shipper and the amount due. BC Gas will, on or before the 45th day after the end of a contract year, deliver to the shipper a separate statement for the preceding contract year showing the amount required from the shipper in respect of any indemnity due under a transportation agreement. Any errors in any statement will be promptly reported to the other party as provided hereunder, and statements will be final and binding unless questioned within one year after the date of the statement.

10.2 **Payment and Interest** - Payment for the full amount of the statement, including federal, provincial and municipal taxes or fees applicable thereon, will be made to BC Gas at its Vancouver, British Columbia office, or such other place in Canada as it

will designate, on or before the 1st business day after the 21st calendar day following the billing date. If the shipper fails or neglects to make any payment required under this rate schedule, or any portion thereof, to BC Gas when due, interest on such payment or portion thereof, as the case may be, will accrue from and including the date when such payment is due to and including the date the same is paid at the rate of 1½% per month (19.56% per annum).

10.3 **Examination of Records** - Each of BC Gas and the shipper will have the right to examine at reasonable times the books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge, computation or demand made pursuant to any provisions of this rate schedule or the transportation agreement.

11. Quality

11.1 **Minimum Standards** - All gas delivered to the interconnection point and all gas delivered to the delivery point will conform to the quality specifications set forth in the transporter's service terms.

11.2 **Failure by Shipper to Meet Specifications** - Whenever any gas delivered by the shipper to the interconnection point fails to conform with any of the specifications required in section 11.1 (Minimum Standards), BC Gas agrees to notify the transporter and the shipper of such failure and if the transporter or the shipper or both of them fail to promptly remedy any such failure BC Gas may, without prejudice to any other right it has, refuse to accept receipt of such gas pending remedy by the transporter or the shipper, or accept receipt of such gas and may make all changes necessary to bring the shipper's gas into conformity with such quality specifications, in which case the shipper will reimburse BC Gas for all reasonable expenses incurred by BC Gas in effecting such changes.

11.3 **Failure by BC Gas to Meet Specifications** - Whenever any gas delivered by BC Gas to the delivery point fails to conform with any of the specifications required in section 11.1 (Minimum Standards), the shipper agrees to notify BC Gas of such failure and if BC Gas fails to promptly remedy any such failure the shipper may, without prejudice to any other right it has, refuse to accept receipt of such gas pending remedy by BC Gas, or accept delivery of such gas and may make all changes necessary to bring such gas into conformity with such quality specifications, in which case BC Gas will reimburse the shipper for all reasonable expenses incurred by the shipper in effecting such changes.

12. Measuring Equipment

12.1 **Facilities and Equipment** - BC Gas may install, maintain and operate at the delivery point such metering and communications facilities and equipment as BC Gas determines are necessary or desirable for measuring the quantity of gas delivered pursuant to this rate schedule to the shipper and the shipper will permit BC Gas, without cost to BC Gas, to use the shipper's communications lines and power for the purpose of installing, maintaining and operating the measuring equipment of BC Gas.

12.2 **Measuring Site** - If BC Gas reasonably determines that it is necessary to install the facilities and equipment referred to in section 12.1 (Facilities and Equipment) on the shipper's property, the shipper will, without charge, provide a suitable site along with utilities and enclosures for the installation of the facilities and equipment of BC Gas. BC Gas will at all times have clear access to the site and to all of its facilities and equipment. All facilities and equipment installed by BC Gas on the shipper's property will remain the property of BC Gas and may be removed by BC Gas upon termination of the transportation agreement.

12.3 **Calibration and Test of Measuring Equipment** - The accuracy of the measuring equipment of BC Gas will be verified by standard tests and methods at regular intervals and at other times at the initiative of BC Gas or upon the reasonable request of the shipper. Notice of the time and nature of each test conducted in response to communications with or at the request of the shipper will be given by BC Gas to the shipper sufficiently in advance to permit a representative of the shipper to be present. If during a test the measuring equipment is found to be registering inaccurately, it will be adjusted at once to read as accurately as possible. The results of each test and adjustment, if any, made by BC Gas, whether or not the shipper is present for such test, will be accepted until the next test. All tests of such measuring equipment of BC Gas will be made at the expense of BC Gas, except that the shipper will bear the expense of tests made at its request if the measuring equipment is found to be inaccurate by an amount equal to 2% or less.

12.4 **Inaccuracy Exceeding 2%** - If upon any test the measuring equipment is found to be inaccurate by an amount exceeding 2%, any previous readings of such equipment will be corrected to zero error for any period during which it is definitely known or is agreed upon that the error existed. If the period is not definitely known or is not agreed upon, such correction will be for a period covering the last half of the time elapsed since the date of the last test. Provided that under no circumstances will an adjustment be made for a period of more than the preceding 12 months.

12.5 **Correction of Measuring Errors** - If the measuring equipment is out of service or out of repair so that the quantity of gas delivered cannot be correctly determined by the reading thereof, the gas delivered during the period such measuring equipment is

out of service or out of repair will be estimated on the basis of the best available data, using the first of the following methods which is feasible

(a) by correcting the error if the percentage of error is ascertained by calibration test or mathematical calculation,

(b) by using the registration of any check measuring equipment if installed and accurately registering, and

(c) by estimating the quantity of gas delivered to the shipper during the preceding periods under similar conditions when the meter was registering accurately.

12.6 **Shipper's Equipment** - The shipper may at its own expense install, maintain and operate its own measuring equipment for the purposes of monitoring or checking the measuring equipment of BC Gas, provided that the shipper will install such equipment so as not to interfere with the operation of the measuring equipment of BC Gas.

12.7 **Right to be Present** - BC Gas and the shipper will have the right to inspect all equipment installed or furnished by the other and the charts and other measurement or test data of the other at all times during business hours, and to be present at the time of any installing, testing, cleaning, changing, repairing, calibrating or adjusting done in connection with the measuring equipment of the other party, but all such activities will be performed by the party furnishing the measuring equipment.

12.8 **Preservation of Records** - Both parties will cause to be preserved each test datum, chart and other record of gas measurement for a period of 2 years.

13. Measurement

13.1 **Unit of Volume** - The unit of volume of gas for all purposes hereunder will be 1 cubic metre at a temperature of 15° Celsius and an absolute pressure of 101.325 kilopascals.

13.2 **Determination of Volume** - Gas delivered hereunder will be metered using metering apparatus approved by the Standards Division, Department of Consumer & Corporate Affairs of Canada and the determination of standard volumes delivered hereunder will be in accordance with terms and conditions pursuant to the *Electricity and Gas Inspection Act* of Canada.

13.3 **Conversion to Energy Units** - In accordance with the *Electricity and Gas Inspection Act* of Canada, volumes of gas delivered each day will be converted to energy units by multiplying the standard volume by the heat content of each unit of gas. Volumes

will be specified in 10^3m^3 rounded to two decimal places and energy will be specified in gigajoules rounded to one decimal place.

14. Representations, Warranties and Covenants

14.1 **Title** - The shipper covenants with BC Gas that the shipper will have good title to all gas to be delivered to BC Gas at the interconnection point on behalf of the shipper from suppliers other than BC Gas, free and clear of all liens, encumbrances and claims.

14.2 **Title Not That of BC Gas** - BC Gas agrees that title to all gas transported pursuant to the transportation agreement remains with the shipper.

14.3 **Acknowledgement** - The shipper acknowledges that the gas transported under the transportation agreement will be odorized and commingled with gas within transporter's pipeline system and the BC Gas system and the shipper agrees to accept a proportionate share of any gas lost by pipeline failure, fire or other similar cause that may affect the shipper's gas.

15. Default or Bankruptcy

15.1 **Default** - If the shipper at any time fails or neglects

(a) to make any payment due to BC Gas or to any other person under this rate schedule or the transportation agreement within 30 days after payment is due, or

(b) to cure any default of any of the other terms, covenants, agreements, conditions or obligations imposed upon it under this rate schedule or the transportation agreement, within 30 days after BC Gas gives to the shipper notice of such default or, in the case of a default that cannot with due diligence be cured within a period of 30 days, the shipper fails to proceed promptly after the giving of such notice with due diligence to cure the same and thereafter to prosecute the curing of such default with all due diligence,

BC Gas may in addition to any other remedy that it has, including the rights of BC Gas set forth in section 5.4 (Default Regarding Curtailment), at its option and without liability therefor

(c) suspend further transportation service to the shipper and may refuse to deliver gas to the shipper until the default has been fully remedied, and no such

suspension or refusal will relieve the shipper from any obligation under this rate schedule or the transportation agreement, or

(d) terminate the transportation agreement, and no such termination of the transportation agreement pursuant hereto will exclude the right of BC Gas to collect any amount due to it from the shipper for what would otherwise have been the remainder of the term of the transportation agreement.

15.2 **Bankruptcy or Insolvency** - If the shipper becomes bankrupt or insolvent or commits or suffers an act of bankruptcy or insolvency or a receiver is appointed pursuant to a statute or under a debt instrument or the shipper seeks protection from the demands of its creditors pursuant to any legislation enacted for that purpose, BC Gas will have the right, at its sole discretion, to terminate the transportation agreement by giving notice in writing to the shipper and thereupon BC Gas may cease further delivery of gas to the shipper and the amount then outstanding for gas provided under the transportation agreement will immediately be due and payable by the shipper.

16. Notice

16.1 **Notice** - Any notice, request, statement or bill that is required to be given or that may be given under this rate schedule or under the transportation agreement will, unless otherwise specified, be in writing and will be considered as fully delivered when mailed, personally delivered or sent by telecopier to the other in accordance with the following:

if to BC Gas	BC GAS INC.	
MAILING ADDRESS:	1111 West Georgia Street 6th Floor Vancouver, B.C. V6E 4M4	
NOMINATIONS:	Attention: Telephone: Telecopier:	Supervisor, Gas Control (604) 293-8786 (604) 293-8789
BILLING AND PAYMENT:	Attention: Telephone: Telecopier:	Manager, Customer Administration (604) 443-6507 (604) 443-6588

CUSTOMER RELATIONS	Attention:	Manager, Industrial Markets
	Telephone:	(604) 443-6491
	Telecopier:	(604) 443-6770
LEGAL AND OTHER:	Attention:	V.P. Legal & Regulatory Affairs
	Telephone:	(604) 443-6607
	Telecopier:	(604) 443-6789

if to the shipper, then as set forth in the transportation agreement.

16.2 **Specific Notices** - Notwithstanding section 16.1 (Notice), notices with respect to curtailment, interruption or restoration of deliveries of gas or with respect to force majeure will be sufficient if given by BC Gas in writing by telecopier, or orally in person, or by telephone (to be confirmed in writing) to the person or persons designated from time to time by the shipper as authorized to receive such notices.

17. Interpretation

17.1 **Definitions in General Terms and Conditions of BC Gas** - Except where the context requires otherwise or except as otherwise expressly provided in this rate schedule, all words and phrases defined in the general terms and conditions of BC Gas and used in this rate schedule or in a transportation agreement have the meanings set out in the general terms and conditions of BC Gas.

17.2 **Change in Definition of "Day"** - BC Gas may, in its sole discretion, amend the definition of "day" from time to time.

17.3 **Further Definitions** - Additionally, except where the context requires otherwise, each of the words and phrases described in the definitions have the meanings ascribed thereto in the definitions.

17.4 **Interpretation** - Except where the context requires otherwise or except as otherwise expressly provided, in this rate schedule or in a transportation agreement

(a) all references to a designated section are to the designated section of this rate schedule unless otherwise specifically stated,

(b) the singular of any term includes the plural, and vice versa, and the use of any term is equally applicable to any gender and, where applicable, body corporate,

(c) any reference to a corporate entity includes and is also a reference to any corporate entity that is a successor to such entity,

(d) all words, phrases and expressions used in this rate schedule or in a transportation agreement that have a common usage in the gas industry and that are not defined in the general terms and conditions of BC Gas, the definitions or in the transportation agreement have the meanings commonly ascribed thereto in the gas industry, and

(e) the headings of the sections set forth in this rate schedule or in the transportation agreement are for convenience of reference only and will not be considered in any interpretation of this rate schedule or the transportation agreement.

18. Miscellaneous

18.1 **Waiver** - No waiver by either BC Gas or the shipper of any default by the other in the performance of any of the provisions of this rate schedule or the transportation agreement will operate or be construed as a waiver of any other or future default or defaults, whether of a like or different character.

18.2 **Enurement** - The transportation agreement will enure to the benefit and be binding upon the parties and their respective successors and permitted assigns, including without limitation successors by merger, amalgamation or consolidation.

18.3 **Assignment** - The shipper will not assign the transportation agreement or any of its rights or obligations thereunder without the prior written consent of BC Gas which consent will not be unreasonably withheld or delayed. No assignment will release the shipper from its obligations under this rate schedule or under the transportation agreement. This provision applies to every proposed assignment by the shipper.

18.4 **Amendments to be in Writing** - Except as set forth in this rate schedule, no amendment or variation of the transportation agreement will be effective or binding upon the parties unless such amendment or variation is set forth in writing and duly executed by the parties.

18.5 **Proper Law** - The transportation agreement will be construed and interpreted in accordance with the laws of the Province of British Columbia and the laws of Canada applicable therein.

18.6 **Time is of Essence** - Time is of the essence of this rate schedule, the transportation agreement and of the terms and conditions thereof.

18.7 **Subject to Legislation** - Notwithstanding any other provision hereof this rate schedule and the transportation agreement and the rights and obligations of BC Gas and the shipper under this rate schedule and the transportation agreement are subject to all present and future laws, rules, regulations and orders of any legislative body, governmental agency or duly constituted authority now or hereafter having jurisdiction over BC Gas or the shipper.

18.8 **Further Assurances** - Each of BC Gas and the shipper will, on demand by the other, execute and deliver or cause to be executed and delivered all such further documents and instruments and do all such further acts and things as the other may reasonably require to evidence, carry out and give full effect to the terms, conditions, intent and meaning of this rate schedule and the transportation agreement and to assure the completion of the transactions contemplated hereby.

18.9 **Form of Payments** - All payments required to be made under statements and invoices rendered pursuant to this rate schedule or the transportation agreement will be made by telegraphic transfer to, or cheque or bank cashier's cheque drawn on, a Canadian chartered bank or trust company, payable in lawful money of Canada at par in immediately available funds in Vancouver, British Columbia.

18.10 **Change in Day** - If BC Gas amends the meaning of "day" as provided for in section 17.2 (Change in Definition of "Day"), a pro-rata adjustment of quantities of gas and charges to account for any day of more or less than 24 hours will be made and the term of the transportation agreement will be similarly adjusted.

DEFINITIONS

(a) **A.N.G.** - means Alberta Natural Gas Company, a Canadian corporation.

(b) **authorized overrun gas** - means any gas taken by the shipper during a month which is in excess of the applicable monthly transportation quantity less any unauthorized overrun gas taken during such month.

(c) **authorized quantity** - means the quantity of energy for each day approved by the transporter for transportation service on the transporter's pipeline system, based on the quantity requested by the shipper, adjusted as set forth in section 6.3 (Adjustment to Requested Quantity).

(d) **BC Gas** - means BC Gas Inc., a body corporate incorporated pursuant to the laws of the Province of British Columbia under number 368681.

(e) **BC Gas system** - means the gas transmission and distribution system owned and operated by BC Gas, as such system is expanded, reduced or modified from time to time.

(f) **British Columbia Utilities Commission** - means the British Columbia Utilities Commission constituted under the *Utilities Commission Act* of British Columbia and includes and is also a reference to

(i) any commission that is a successor to such commission, and

(ii) any commission that is constituted pursuant to any statute that may be passed which supplements or supersedes the *Utilities Commission Act* of British Columbia.

(g) **commencement date** - means the day specified as the commencement date in the transportation agreement.

(h) **contract year** - means a period of 12 consecutive months commencing at the beginning of the 1st day of November and ending at the beginning of the next succeeding 1st day of November.

(i) **customer agent** - means a person who enters into a customers' agent agreement with BC Gas.

(j) **customers' agent agreement** - means an agreement between BC Gas and a customer agent pursuant to which the customer agent agrees to pay to BC Gas the charges for

authorized overrun gas and unauthorized overrun gas, set forth in the table of charges, applicable to the group.

(k) **day** - means, subject to section 17.2 (Change in Definition of "Day"), any period of twenty-four consecutive hours beginning and ending at 8:00 a.m. PST.

(l) **definitions** - means the definitions appended to this rate schedule.

(m) **delivery point** - means the point specified in a transportation agreement where BC Gas delivers gas to a shipper.

(n) **DTQ** - means the maximum quantity of gas that BC Gas is obligated to transport for and deliver to a shipper at the delivery point on any particular day, which in the discretion of BC Gas reasonably reflects the shipper's requirements and which is specified in a transportation agreement.

(o) **end-user** - means a person specified in a transportation agreement who is a consumer of gas within the service area of BC Gas.

(p) **force majeure** - means any acts of God, strikes, lockouts, or other industrial disturbances, civil disturbances, arrests and restraints of rulers or people, interruptions by government or court orders, present or future valid orders of any regulatory body having proper jurisdiction, acts of the public enemy, wars, riots, blackouts, insurrections, failure or inability to secure materials or labour by reason of priority, regulations or orders of government, serious epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, explosions, breakage or accident to machinery or lines of pipes, or freezing of wells or pipelines, or the failure of gas supply, temporary or otherwise, from a supplier of gas to the shipper, which act of force majeure was not due to negligence of the party claiming force majeure. Further, force majeure will also include a declaration of force majeure by a transporter that results in gas being unavailable for delivery at the interconnection point.

(q) **franchise fees** - means the aggregate of all monies payable by BC Gas to a municipality

(i) for the use of the municipality's streets and other property to construct and operate the utility business of BC Gas,

(ii) relating to the revenues received by BC Gas for services provided and gas consumed within the municipality, and

(iii) relating, if applicable, to the value of gas transported by BC Gas through the municipality.

(r) **gas** - means the residue remaining after raw gas has been subjected to any or all of the following permissible processes

(i) the removal of any of its constituent parts other than methane, and the removal of methane to such extent as is necessary in removing other constituents,

(ii) the compression, regulation, cooling, cleaning or any other chemical or physical process other than the addition of diluents, such as air or nitrogen, to such extent as may be required in its production, gathering, transmission, transportation, storage, removal from storage and delivery, and

(iii) the addition of odorant by BC Gas,

but for greater certainty gas does not include propane.

(s) **general terms and conditions of BC Gas** - means the general terms and conditions of BC Gas from time to time approved by the British Columbia Utilities Commission.

(t) **group** - means a group of shippers or end-users who each transport gas under this rate schedule, using a common gas supply pool and common nomination procedure with the transporter, and, in the case of shippers, who have each entered into a transportation agreement or, in the case of end-users, for whom one shipper has entered into transportation agreements.

(u) **heat content** - means the gross heating value of the gas, determined on the basis of a temperature of 15° Celsius with the gas free of all water vapour and at an absolute pressure of 101.325 kilopascals, with the products of combustion cooled to the initial temperature of the gas and the water formed by the combustion condensed to the liquid state. The heat content will be expressed in megajoules per cubic metre of gas (MJ/M^3) rounded to two decimal places.

(v) **hour** - means any consecutive 60 minute period.

(w) **interconnection point** - means a point (specified as the "Delivery Point" in the transportation agreement and relied upon by a shipper for the movement of gas through the transporter's pipeline system) where the BC Gas system interconnects with the facilities of one of the transporters of BC Gas, as specified in a transportation agreement.

(x) **month** - means, subject to any changes from time to time required by BC Gas in the starting time of its gas day, the period beginning at 8:00 a.m. PST on the first day of the calendar month and ending at 8:00 a.m. PST on the first day of the next succeeding calendar month.

(y) **monthly transportation quantity or MTQ** - subject to section 8.2 (Monthly Transportation Quantity), means the lesser of the following quantities of gas

(i) the quantity of gas BC Gas has received from a shipper during a month plus any imbalance carried forward from the previous month, and

(ii) the quantity of gas obtained by multiplying the DTQ by the number of days in the month, adjusted to reflect any gas the shipper fails to deliver to the interconnection point and any gas interrupted or curtailed below the DTQ, but in no event will curtailed quantities which the shipper failed to deliver to the interconnection point be double counted.

(z) **PST** - means Pacific Standard Time.

(aa) **rate schedule 25 or this rate schedule** - means all rates, terms and conditions, including the definitions and the table of charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission.

(ab) **shipper** - means a person who enters into a transportation agreement with BC Gas. If the shipper is not an end-user, then the word "shipper" in the context of each of delivery point, property, deliveries of gas, using of gas, consuming of gas, taking of gas, curtailing of gas, interrupting of gas, limiting the taking of gas, receiving of gas, purchasing of gas, accepting of gas, supplying of gas and requesting quantities of gas, will also mean "end-user".

(ac) **supplier** - means a party who sells gas to a shipper or BC Gas pursuant to a gas sales agreement.

(ad) **table of charges** - means the table of prices, fees and charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, appended to this rate schedule.

(ae) **transportation agreement** - means an agreement between BC Gas and a shipper to provide service pursuant to this rate schedule.

(af) **transporter** - means, in the case of the Columbia service area, A.N.G, and in the case of the Inland and Lower Mainland service areas, Westcoast, but also means any other gas pipeline supplier connected to the facilities of BC Gas from which BC Gas receives gas for the purposes of gas transportation or resale.

(ag) **transporter's service terms** - means the general terms and conditions of the applicable transporter, as filed with and approved from time to time by the National Energy Board or other applicable governmental authority.

(ah) **unauthorized overrun gas** - means any gas taken on any day by a shipper in excess of the quantity specified in any notice from BC Gas to interrupt or curtail the shipper's take, and for greater certainty, unauthorized overrun gas includes all gas taken by a shipper to the extent that the obligation of BC Gas to deliver such gas is suspended by reason of force majeure.

(ai) **Westcoast** - means Westcoast Energy Inc., a Canadian corporation.

(aj) "**10^3m^3**" means 1,000 Cubic Metres.

TABLE OF CHARGES

	Lower Mainland Service Area	Inland Service Area	Columbia Service Area
1. Transportation			
(a) Basic Charge per month	$ 300.00	$ 300.00	$ 300.00
(b) Delivery Charge per gigajoule of MTQ			
(i) between April 1 and November 1	$ .75	$ .75	$ .75
(ii) between November 1 and April 1	$ 1.50	$ 1.50	$ 1.50
(c) Direct Purchase Administration Charge per month	$ 175.00	$ 175.00	$ 175.00
2. Sales			
(a) Charge per gigajoule of authorized overrun gas			
(i) between 8 a.m. PST April 1 to 8 a.m. PST November 1	$ 1.80	$ 1.80	$ 2.45
(ii) between 8 a.m. PST November 1 to 8 a.m. PST April 1	$ 4.47	$ 4.20	$ 3.78
(b) Charge per gigajoule of unauthorized overrun gas	$ 21.50	$ 21.50	$ 8.50

Franchise Fees Charge of 3.09% of aggregate of the charges above, payable if the facilities to which gas is delivered under this rate schedule are located within the municipal boundaries of a municipality to which BC Gas pays franchise fees.

Minimum Charge per month - The minimum charge per month will be the aggregate of the basic charge, the direct purchase administration charge and the franchise fees charge.

GENERAL FIRM TRANSPORTATION AGREEMENT

DRAFT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Inc. ("BC Gas") and _____ (the "shipper").

WHEREAS:

A. BC Gas owns and operates the BC Gas system; and

B. The shipper has requested that BC Gas arrange for the transportation of gas on a firm basis through the BC Gas system to _____ located in or near _____ in the Province of British Columbia in accordance with rate schedule 25.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Commencement Date:_____ Expiry Date:_____
(only specify an expiry date if term of transportation agreement is not to automatically continue from year to year as set forth in section 9.2 of rate schedule 25 or if shipper is not end-user)

Delivery Point:_____ End-User:_____
(insert name of end-user only if it differs from name of shipper)

_____

Gauge pressure at Delivery Point: not greater than _____ kilopascals and not less than _____ kilopascals

DTQ: _____ gigajoules

Interconnection Point: the point at (_____ km-post_____) where the transporter's pipeline system in British Columbia interconnects with the BC Gas system

Address of shipper for receiving notices:

_____
(name of shipper) Attention:_____

_____ Telephone:_____
(address of shipper)

_____ Telecopier:_____

_____

The information set forth above is hereby approved by the parties and each reference in either this agreement or rate schedule 25 to any such information is to the information set forth above.

2. Rate Schedule 25

2.1 **Additional Terms** - All rates, terms and conditions set forth in rate schedule 25 or the general terms and conditions of BC Gas, as either of them may be amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, are in addition to the rates, terms and conditions contained in this transportation agreement and form part of this transportation agreement and bind BC Gas and the shipper as if set forth herein.

2.2 **Payment of Amounts** - Without limiting the generality of the foregoing, the shipper will pay to BC Gas all of the amounts set forth in rate schedule 25 for the services provided under rate schedule 25 and this transportation agreement.

2.3 **Conflict** - Where anything in either rate schedule 25 or the general terms and conditions of BC Gas conflicts with any of the rates, terms and conditions set forth in this transportation agreement, this transportation agreement governs. Where anything in rate schedule 25 conflicts with any of the rates, terms and conditions set forth in the general terms and conditions of BC Gas, schedule 25 governs.

3. Limitation on Liability and Indemnity

3.1 **Limitation on Liability** - Neither BC Gas, its employees, contractors or agents will be liable in damages for or on account of any interruption or curtailment permitted under the general terms and conditions of BC Gas, this transportation agreement or rate schedule 25.

3.2 **Indemnity** - The shipper will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of each of the following

(a) any defect in title to any gas delivered to BC Gas at the interconnection point on behalf of the shipper from Suppliers other than BC Gas, or arising from any charges that are applicable to the gas delivered to BC Gas,

(b) franchise fees not otherwise collected by BC Gas under the table of charges,

(c) nominations made in accordance with sections 6 or 8 of rate schedule 25 by BC Gas to the transporter with respect to the shipper's transportation volumes, whether or not the shipper is a member of a group,

(d) gas delivered by the shipper to BC Gas failing to meet the quality specifications set out in section 11.1 of rate schedule 25,

(e) all federal, provincial, municipal taxes (or payments made in lieu thereof) and royalties, whether payable on the delivery of gas to BC Gas by the shipper or on the delivery of gas to the shipper by BC Gas, or on any other service provided by BC Gas to the shipper, and

(f) all charges for authorized overrun gas and unauthorized gas, set forth in the table of charges, whether or not the shipper is a member of a group.

3.3 **Principal Obligant** - If the shipper is a member of a group, the shipper's obligations to pay the charges for authorized overrun gas and unauthorized overrun gas, both set forth in the table of charges, are that of principal obligant and not of surety and are independent of the obligations of the shipper's customer agent pursuant to the customers' agent agreement and a separate action or actions may be brought against the shipper, whether or not an action is brought against the shipper's customer agent and whether or not the customer agent can be or is joined in any such action or actions.

3.4 **Waiver of Defences** - For greater certainty, if the shipper is a member of a group, BC Gas will not be bound to exhaust its recourse against the shipper's customer agent before being entitled to payment from the shipper for the charges for authorized overrun gas and unauthorized overrun gas, both set forth in the table of charges; the shipper waives all diligence, demands, notices, protests, of the shipper's obligations for the charges for authorized overrun gas and unauthorized overrun gas, both set forth in the table of charges, and any and all claims or defences relating to lack of diligence or delays in collection or enforcement of any and all other securities taken by BC Gas and consents to any and all renewals and extensions of the time for payment; and this agreement will not be affected by the dissolution, arrangement, reorganization, assignment for the benefit of creditors, proposal or notice of intention to make a proposal to creditors or bankruptcy of the shipper's customer agent (whether voluntary or compulsory), or by any amalgamation of the customer agent.

4. Force Majeure

4.1 **Force Majeure** - Subject to the other provisions of this section 4, if either party is unable or fails by reason of force majeure to perform in whole or in part any obligation or covenant set forth in this transportation agreement, the obligations of both BC Gas and the shipper will be suspended to the extent necessary for the period of the force majeure condition.

4.2 **Curtailment Notice** - If BC Gas claims suspension pursuant to this section 4, BC Gas will be deemed to have issued to the shipper a notice of curtailment.

4.3 **Exceptions** - Neither party will be entitled to the benefit of the provisions of section 4.1 of this agreement under any of the following circumstances

(a) to the extent that the failure was caused by the negligence or contributory negligence of the party claiming suspension,

(b) to the extent that the failure was caused by the party claiming suspension having failed to diligently attempt to remedy the condition and to resume the performance of the covenants or obligations with reasonable dispatch, or

(c) unless as soon as possible after the happening of the occurrence relied on or as soon as possible after determining that the occurrence was in the nature of force majeure and would affect the claiming party's ability to observe or perform any of its covenants or obligations under this transportation agreement, the party claiming suspension will have given to the other party notice to the effect that the party is unable by reason of force majeure (the nature of which will be specified) to perform the particular covenants or obligations.

4.4 **Notice to Resume** - The party claiming suspension will likewise give notice, as soon as possible after the force majeure condition has been remedied, to the effect that it has been remedied and that the party has resumed, or is then in a position to resume, the performance of the covenants or obligations.

4.5 **Settlement of Labour Disputes** - Notwithstanding any of the provisions of this section 4, the settlement of labour disputes or industrial disturbances will be entirely within the discretion of the particular party involved and the party may make settlement of it at the time and on terms and conditions as it may deem to be advisable and no delay in making settlement will deprive the party of the benefit of section 4.1 of this agreement.

4.6 **No Exemption for Payments** - Notwithstanding any of the provisions of this section 4, force majeure will not relieve or release either party from its obligations to make payments to the other.

4.7 **Periodic Repair by BC Gas** - BC Gas may temporarily shut off the delivery of gas for the purpose of repairing or replacing a portion of the BC Gas system or its equipment and BC Gas will endeavour to give the shipper as much notice as possible with respect to such interruption, not to be less than 8 hours' prior notice except when prevented by force majeure. BC Gas will use all diligence to restore service as quickly as possible.

4.8 **Shipper's Gas** - If BC Gas curtails or interrupts transportation of gas by reason of force majeure the shipper will make its supply of gas available to BC Gas, to the

extent required by BC Gas, to maintain service priority to those customers or classes of customers which BC Gas determines should be served.

5. Arbitration

5.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

5.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting forth the nature of the dispute.

5.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 5.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a past or present employee, officer or director of any of the parties or their respective successors or affiliates, any shipper or supplier of the shipper or BC Gas.

5.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 45 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

5.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

IN WITNESS WHEREOF the parties hereto have executed this transportation agreement.

BC GAS INC.

_____
(here insert name of shipper)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

GENERAL TRANSPORTATION CUSTOMERS' AGENT AGREEMENT

DRAFT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Inc. ("BC Gas") and _____ (the "customer agent").

WHEREAS:

A. The customer agent wishes to nominate on behalf of a the members of a group for transportation service on the transporter's pipeline system and on the BC Gas system; and

B. A shipper or shippers have entered into transportation agreements with BC Gas in respect of each of the members of the group.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Members of Group:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(if space is insufficient, continue list on an additional page)

Beginning Date of this agreement:

_____

Expiry Date of this agreement:

_____

(no expiry date need be specified)

Address of Customer Agent for receiving notices:

_____

(name of customer agent)

_____

(address of customer agent)

_____

_____

Attention: _____

Telephone: _____

Telecopier: _____

The information set forth above is hereby approved by the parties and each reference in either this agreement or rate schedule 25 to any such information is to the information set forth above.

2. Rate Schedule 25

2.1 **Definitions in Rate Schedule 25** - Except where the context requires otherwise or except as otherwise expressly provided in this agreement, all words and phrases defined in rate schedule 25 and used in this agreement have the meanings set out in rate schedule 25.

2.2 **Applicable Provisions of Rate Schedule 25** - The terms and conditions set forth in sections 10 (Statements and Payments), 13 (Measurement), 15 (Default or Bankruptcy), 16 (Notice), 17 (Interpretation) and 18 (Miscellaneous) of rate schedule 25 apply to this agreement, with necessary changes, including the substitution of "customer agent" for "shipper", as if set forth in this agreement.

3. Gas Supply Charges

3.1 **Payments by Customer Agent** - The customer agent promises as principal obligant (and not as surety) to pay to BC Gas the charges for authorized overrun gas and the charges for unauthorized overrun gas, both set forth in the table of charges of rate schedule 25, determined based on the quantities transported on behalf of the group from time to time as a whole.

4. Changes to Group

4.1 **Amendment to Agreement Required** - No shipper or end-user may be added to or deleted from the group without amending this agreement in writing and in accordance with the terms of this section.

4.2 **Deletions From Group** - If the customer agent wishes to cease nominating for a shipper or end-user and the customer agent has given to BC Gas 30 days' prior notice that such shipper or end-user wishes to cease to be a member of the group, BC Gas agrees that it will amend this agreement to delete such shipper or end-user from the group and thereafter the customer agent will not be liable for any subsequently incurred charges for authorized overrun gas or unauthorized overrun gas, both set forth in the table of charges of rate schedule 25, in respect of any such shipper or end-user.

5. Term

5.1 **Term** - The term of this agreement will commence on the beginning date specified in section 1 of this agreement and will expire on the earliest to occur of the following

(a) 30 days following notice from the customer agent to BC Gas that the customer agent wishes to cease to nominate for transportation service and balance on behalf of the group,

(b) the expiry or termination of the transportation agreements of all of the members of the group,

(c) the expiry date specified in section 1 of this agreement, and

(d) 30 days following notice from BC Gas to the customer agent that BC Gas no longer wishes the members of the group to nominate and balance on a group basis.

5.2 **Survival of Covenants** - Upon the termination of this agreement, whether pursuant to section 15 (Default or Bankruptcy) of rate schedule 25 or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this agreement relating to the obligation of any of the parties to account to or indemnify the other and to pay to the other any monies owing as at the date of termination in connection with this agreement,

will survive such termination.

6. Representations, Warranties and Covenants

6.1 **Representations and Warranties** - The customer agent represents, warrants and covenants with BC Gas as follows

(a) the members of the group are listed in section 1 of this agreement,

(b) the customer agent is the agent of each of the members of the group and has the authority of each of the members of the group for the purposes of any and

all matters set forth in sections 6 (Nomination), 7 (Balancing) and 8 (Group Nomination and Balancing) of rate schedule 25, and

(c) BC Gas may rely on any act or thing done, or document executed, by the customer agent in connection with of any and all matters set forth in sections 6 (Nomination), 7 (Balancing) and 8 (Group Nomination and Balancing) of rate schedule 25.

6.2 **Changes in Group** - The customer agent will give to BC Gas not less than 30 days' prior notice of each addition to or deletion from the group.

7. Limitation on Liability and Indemnity

7.1 **Limitation on Liability** - None of BC Gas, its employees, contractors and agents will be liable in damages for or on account of any interruption or curtailment permitted under the general terms and conditions of BC Gas, this agreement or rate schedule 25.

7.2 **Indemnity** - The customer agent will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of nominations or balancing made in accordance with sections 6, 7 or 8 of rate schedule 25 by BC Gas to the transporter with respect to the group's transportation volumes.

8. Arbitration

8.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

8.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting forth the nature of the dispute.

8.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 8.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a

past or present employee, officer or director of any of the parties or their respective successors or affiliates, any member or former member of the group or any supplier of any member or former member of the group or BC Gas.

8.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 45 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

8.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

9. Principal Obligant

9.1 **Principal Obligant** - The customer agent's obligations under this agreement are that of principal obligant and not of surety and are independent of the obligations pursuant to the group's transportation agreements and a separate action or actions may be brought against the customer agent, whether or not an action is brought against any members of the group and whether or not any members of the group can be or are joined in any such action or actions.

9.2 **Waiver of Defences** - For greater certainty, BC Gas will not be bound to exhaust its recourse against the members of the group before being entitled to payment from the customer agent hereunder; the customer agent waives all diligence, demands, notices, protests, of the customer agent's obligations under this agreement, and any and all claims or defences relating to lack of diligence or delays in collection or enforcement of any and all other securities taken by BC Gas and consents to any and all renewals and extensions of the time for payment; and this agreement will not be affected by the dissolution, arrangement, reorganization, assignment for the benefit of creditors, proposal or notice of intention to make a proposal to creditors or bankruptcy of any

member of the group (whether voluntary or compulsory), or by any amalgamation of any member of the group.

IN WITNESS WHEREOF the parties hereto have executed this agreement.

BC GAS INC.

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

_____
(here insert name of customer agent)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

DRAFT

BC GAS INC.

RATE SCHEDULE 7
GENERAL INTERRUPTIBLE SERVICE



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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the sale of interruptible gas, no portion of which may be resold, through one meter station to one customer.

1.2 **Service Agreement** - BC Gas will only sell gas pursuant to an executed service agreement.

1.3 **British Columbia Utilities Commission** - This rate schedule is approved by the British Columbia Utilities Commission and may only be amended with the permission of the British Columbia Utilities Commission.

2. Conditions of Service

2.1 **Conditions** - This rate schedule is available in all territory served by BC Gas under the tariff of which this rate schedule is a part if

(a) adequate gas volumes for such service are available,

(b) adequate capacity exists in the BC Gas system,

(c) at all times when adequate quantities of gas are available from BC Gas to the customer at the facilities specified in the service agreement, the customer will use such gas as the only fuel for such facilities,

(d) BC Gas has installed at the delivery point the facilities and equipment referred to in section 8.1 (Facilities and Equipment), and

(e) the customer has and continues to have, to the satisfaction of BC Gas, an alternative fuel burning installation in good operating order with an adequate supply of fuel in order that the customer can continue its operations on occasions when gas service is discontinued, interrupted or curtailed. BC Gas may waive this requirement provided that the customer agrees and acknowledges that any interruption of its operations due to gas discontinuance, interruption or curtailment results solely from the customer's election not to install and maintain standby facilities.

2.2 **Security** - At any time during the term of the service agreement BC Gas may require the customer to provide, and at all times maintain, an irrevocable letter of credit in

favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the customer under this rate schedule and the service agreement for a period of 90 days. Where BC Gas requires a customer to provide a letter of credit and the customer is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

2.3 **Warning Relating to Firm Sales Rate Schedule** - A customer wishing to switch at the end of the term of a service agreement to a firm gas sales rate schedule must comply with the requirements set forth in the applicable sales rate schedule, including the following

(a) giving 13 months' prior notice to BC Gas of the customer's desire to do so, and

(b) if BC Gas is subjected to higher gas prices or transportation costs or both, reimbursing BC Gas for any such higher prices or costs.

3. Sales

3.1 **Sale of Gas** - Subject to section 13 of the general terms and conditions of BC Gas (Interruption of Service), BC Gas will sell to the customer and the customer will buy from BC Gas at one delivery point such quantity of gas as is required by the customer for the operation of the customer's facilities specified in the service agreement, estimated to be the maximum quantity per day set forth in the service agreement, for the charges and on all of the terms and conditions set forth in either this rate schedule or the service agreement.

3.2 **Curtailment** - If BC Gas at any time determines either that it does not have sufficient capacity on the BC Gas system, or that adequate volumes of gas are not available, to accommodate the customer's request for service under this rate schedule, BC Gas may for any length of time interrupt or curtail the delivery of gas to the delivery point.

3.3 **Notice of Curtailment** - Each notice from BC Gas to the customer with respect to the interruption or curtailment by BC Gas of deliveries of gas to the delivery point will specify the quantity of gas to be interrupted or curtailed and the time at which such interruption or curtailment is to be made and BC Gas will endeavour to give the customer as much notice as possible with respect to such interruption or curtailment, not to be less than 8 hours' prior notice unless prevented by force majeure or unless the transporter does not provide to BC Gas at least 8 hours' prior notice of curtailment.

3.4 **Default Regarding Curtailment** - If the customer at any time fails or neglects to comply with a notice from BC Gas to interrupt or curtail the customer's take, BC Gas may, in addition to any other remedy that it may then or thereafter have, at its option, without liability therefor and without any prior notice to the customer

(a) turn off the valve at the delivery point,

(b) suspend further transportation service to the customer and may refuse to deliver gas to the customer,

(c) deliver such gas and charge the customer for such gas consumed on that day the charge for unauthorized overrun gas set forth in the table of charges, or

(d) if during any one contract year the customer fails or neglects to comply with three notices from BC Gas to interrupt or curtail the customer's take, unless the customer provides to BC Gas assurances, to the complete satisfaction of BC Gas, that the customer will comply with all further interruption or curtailment notices, BC Gas may, in addition to any other remedy which it may then or thereafter have, at its option and without liability therefor, switch the customer to a firm gas sales rate schedule, beginning on the commencement of the next following contract year. If the customer and BC Gas do not execute a new service agreement pursuant to the firm sales rate schedule, from the date of such switch the service agreement will be deemed to a service agreement pursuant to the firm gas sales rate schedule, with all necessary changes.

3.5 **Acknowledgement** - All customers purchasing gas pursuant to this rate schedule acknowledge and agree that they can accommodate any total or partial interruption of gas service by BC Gas.

3.6 **Maximum Hourly Quantities** - BC Gas will not be obliged to deliver in any one hour more than 5% of the maximum quantity per day set forth in the service agreement.

3.7 **Pressure at Delivery Point** - All gas delivered by BC Gas at the delivery point to the customer will be at not less than the pressure specified in the service agreement.

4. Table of Charges

4.1 **Charges** - In respect of all quantities of gas delivered to the delivery point pursuant to this rate schedule and the transportation agreement, the customer will pay to BC Gas all of the charges set forth in the table of charges.

4.2 **Alternative Fuels** - BC Gas may, in its sole discretion, reduce the charges set forth in the table of charges to any customer to compete with the price of alternative fuels.

5. Unauthorized Overrun Rate

5.1 **Charges for Unauthorized Service** - On any day the customer takes unauthorized overrun gas, the customer will pay to BC Gas the charge for unauthorized overrun gas set forth in the table of charges.

5.2 **Payments Not License** - Payments made by the customer to BC Gas for unauthorized overrun gas neither give the customer the right to take unauthorized overrun gas, nor exclude or limit any other remedies available to BC Gas for the customer's taking of unauthorized overrun gas.

6. Term of Service Agreement

6.1 **Term** - The initial term of the service agreement will begin on the commencement date and will expire at 8:00 a.m. PST on the November 1 next following, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term shall instead expire at 8:00 a.m. PST on the November 1 second next following.

6.2 **Automatic Renewal** - Except as specified in the service agreement, the term of the service agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the customer upon not less than 2 months' notice prior to the end of the contract year then in effect.

6.3 **Early Termination** - The term of the service agreement is subject to early termination in accordance with section 10 (Default or Bankruptcy).

6.4 **Survival of Covenants** - Upon the termination of the service agreement, whether pursuant to section 10 (Default or Bankruptcy) or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this rate schedule and in the service agreement relating to the obligation of any of the parties to account to or indemnify the other and

to pay to the other any monies owing as at the date of termination in connection with the service agreement,

will survive such termination.

7. Statement and Payments

7.1 **Statements to be Provided** - BC Gas will, on or before the 15th day of each month, deliver to the customer a statement for the preceding month showing the gas quantities delivered to the customer and the amount due. BC Gas will, on or before the 45th day after the end of a contract year, deliver to the customer a separate statement for the preceding contract year showing the amount required from the customer in respect of any indemnity due under a service agreement. Any errors in any statement will be promptly reported to the other party as provided hereunder, and statements will be final and binding unless questioned within one year after the date of the statement.

7.2 **Payment and Interest** - Payment for the full amount of the statement, including federal, provincial and municipal taxes or fees applicable thereon, will be made to BC Gas at its Vancouver, British Columbia office, or such other place in Canada as it will designate, on or before the 1st business day after the 21st calendar day following the billing date. If the customer fails or neglects to make any payment required under this rate schedule, or any portion thereof, to BC Gas when due, interest on such payment or portion thereof, as the case may be, will accrue from and including the date when such payment is due to and including the date the same is paid at the rate of 1½% per month (19.56% per annum).

7.3 **Examination of Records** - Each of BC Gas and the customer will have the right to examine at reasonable times the books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge, computation or demand made pursuant to any provisions of this rate schedule or the service agreement.

8. Measuring Equipment

8.1 **Facilities and Equipment** - BC Gas may install, maintain and operate at the delivery point such metering and communications facilities and equipment as BC Gas determines are necessary or desirable for measuring the quantity of gas delivered pursuant to this rate schedule to the customer and the customer will permit BC Gas, without cost to BC Gas, to use the customer's communications lines and power for the purpose of installing, maintaining and operating the measuring equipment of BC Gas.

8.2 **Measuring Site** - If BC Gas reasonably determines that it is necessary to install the facilities and equipment referred to in section 8.1 (Facilities and Equipment) on the customer's property, the customer will, without charge, provide a suitable site along with utilities and enclosures for the installation of the facilities and equipment of BC Gas. BC Gas will at all times have clear access to the site and to all of its facilities and equipment. All facilities and equipment installed by BC Gas on the customer's property will remain the property of BC Gas and may be removed by BC Gas upon termination of the service agreement.

8.3 **Calibration and Test of Measuring Equipment** - The accuracy of the measuring equipment of BC Gas will be verified by standard tests and methods at regular intervals and at other times at the initiative of BC Gas or upon the reasonable request of the customer. Notice of the time and nature of each test conducted in response to communications with or at the request of the customer will be given by BC Gas to the customer sufficiently in advance to permit a representative of the customer to be present. If during a test the measuring equipment is found to be registering inaccurately, it will be adjusted at once to read as accurately as possible. The results of each test and adjustment, if any, made by BC Gas, whether or not the customer is present for such test, will be accepted until the next test. All tests of such measuring equipment of BC Gas will be made at the expense of BC Gas, except that the customer will bear the expense of tests made at its request if the measuring equipment is found to be inaccurate by an amount equal to 2% or less.

8.4 **Inaccuracy Exceeding 2%** - If upon any test the measuring equipment is found to be inaccurate by an amount exceeding 2%, any previous readings of such equipment will be corrected to zero error for any period during which it is definitely known or is agreed upon that the error existed. If the period is not definitely known or is not agreed upon, such correction will be for a period covering the last half of the time elapsed since the date of the last test. Provided that under no circumstances will an adjustment be made for a period of more than the preceding 12 months.

8.5 **Correction of Measuring Errors** - If the measuring equipment is out of service or out of repair so that the quantity of gas delivered cannot be correctly determined by the reading thereof, the gas delivered during the period such measuring equipment is out of service or out of repair will be estimated on the basis of the best available data, using the first of the following methods which is feasible

(a) by correcting the error if the percentage of error is ascertained by calibration test or mathematical calculation,

(b) by using the registration of any check measuring equipment if installed and accurately registering, and

(c) by estimating the quantity of gas delivered to the customer during the preceding periods under similar conditions when the meter was registering accurately.

8.6 **Customer's Equipment** - The customer may at its own expense install, maintain and operate its own measuring equipment for the purposes of monitoring or checking the measuring equipment of BC Gas, provided that the customer will install such equipment so as not to interfere with the operation of the measuring equipment of BC Gas.

8.7 **Right to be Present** - BC Gas and the customer will have the right to inspect all equipment installed or furnished by the other and the charts and other measurement or test data of the other at all times during business hours, and to be present at the time of any installing, testing, cleaning, changing, repairing, calibrating or adjusting done in connection with the measuring equipment of the other party, but all such activities will be performed by the party furnishing the measuring equipment.

8.8 **Preservation of Records** - Both parties will cause to be preserved each test datum, chart and other record of gas measurement for a period of 2 years.

9. Measurement

9.1 **Unit of Volume** - The unit of volume of gas for all purposes hereunder will be 1 cubic metre at a temperature of 15° Celsius and an absolute pressure of 101.325 kilopascals.

9.2 **Determination of Volume** - Gas delivered hereunder will be metered using metering apparatus approved by the Standards Division, Department of Consumer & Corporate Affairs of Canada and the determination of standard volumes delivered hereunder will be in accordance with terms and conditions pursuant to the *Electricity and Gas Inspection Act* of Canada.

9.3 **Conversion to Energy Units** - In accordance with the *Electricity and Gas Inspection Act* of Canada, volumes of gas delivered each day will be converted to energy units by multiplying the standard volume by the heat content of each unit of gas. Volumes will be specified in 10^3m^3 rounded to two decimal places and energy will be specified in gigajoules rounded to one decimal place.

10. Default or Bankruptcy

10.1 **Default** - If the customer at any time fails or neglects

(a) to make any payment due to BC Gas or to any other person under this rate schedule or the service agreement within 30 days after payment is due, or

(b) to cure any default of any of the other terms, covenants, agreements, conditions or obligations imposed upon it under this rate schedule or the service agreement, within 30 days after BC Gas gives to the customer notice of such default or, in the case of a default that cannot with due diligence be cured within a period of 30 days, the customer fails to proceed promptly after the giving of such notice with due diligence to cure the same and thereafter to prosecute the curing of such default with all due diligence,

BC Gas may in addition to any other remedy that it has, including the rights of BC Gas set forth in section 3.4 (Default Regarding Curtailment), at its option and without liability therefor

(c) suspend further service to the customer and may refuse to deliver gas to the customer until the default has been fully remedied, and no such suspension or refusal will relieve the customer from any obligation under this rate schedule or the service agreement, or

(d) terminate the service agreement, and no such termination of the service agreement pursuant hereto will exclude the right of BC Gas to collect any amount due to it from the customer for what would otherwise have been the remainder of the term of the service agreement.

10.2 **Bankruptcy or Insolvency** - If the customer becomes bankrupt or insolvent or commits or suffers an act of bankruptcy or insolvency or a receiver is appointed pursuant to a statute or under a debt instrument or the customer seeks protection from the demands of its creditors pursuant to any legislation enacted for that purpose, BC Gas will have the right, at its sole discretion, to terminate the service agreement by giving notice in writing to the customer and thereupon BC Gas may cease further delivery of gas to the customer and the amount then outstanding for gas provided under the service agreement will immediately be due and payable by the customer.

11. Notice

11.1 **Notice** - Any notice, request, statement or bill that is required to be given or that may be given under this rate schedule or under the service agreement will, unless

otherwise specified, be in writing and will be considered as fully delivered when mailed, personally delivered or sent by telecopier to the other in accordance with the following:

if to BC Gas	BC GAS INC.	
MAILING ADDRESS:	1111 West Georgia Street 6th Floor Vancouver, B.C. V6E 4M4	
BILLING AND PAYMENT:	Attention: Telephone: Telecopier:	Manager, Customer Administration (604) 443-6507 (604) 443-6588
CUSTOMER RELATIONS	Attention: Telephone: Telecopier:	Manager, Industrial Markets (604) 443-6491 (604) 443-6770
LEGAL AND OTHER:	Attention: Telephone: Telecopier:	V.P. Legal & Regulatory Affairs (604) 443-6607 (604) 443-6789

if to the customer, then as set forth in the service agreement.

11.2 **Specific Notices** - Notwithstanding section 11.1 (Notice), notices with respect to curtailment, interruption or restoration of deliveries of gas or with respect to force majeure will be sufficient if given by BC Gas in writing by telecopier, or orally in person, or by telephone (to be confirmed in writing) to the person or persons designated from time to time by the customer as authorized to receive such notices.

12. Interpretation

12.1 **Definitions in General Terms and Conditions of BC Gas** - Except where the context requires otherwise or except as otherwise expressly provided in this rate schedule, all words and phrases defined in the general terms and conditions of BC Gas and used in this rate schedule or in a service agreement have the meanings set out in the general terms and conditions of BC Gas.

12.2 **Change in Definition of "Day"** - BC Gas may, in its sole discretion, amend the definition of "day" from time to time.

12.3 **Further Definitions** - Additionally, except where the context requires otherwise, each of the words and phrases described in the definitions have the meanings ascribed thereto in the definitions.

12.4 **Interpretation** - Except where the context requires otherwise or except as otherwise expressly provided, in this rate schedule or in a service agreement

(a) all references to a designated section are to the designated section of this rate schedule unless otherwise specifically stated,

(b) the singular of any term includes the plural, and vice versa, and the use of any term is equally applicable to any gender and, where applicable, body corporate,

(c) any reference to a corporate entity includes and is also a reference to any corporate entity that is a successor to such entity,

(d) all words, phrases and expressions used in this rate schedule or in a service agreement that have a common usage in the gas industry and that are not defined in the general terms and conditions of BC Gas, the definitions or in the service agreement have the meanings commonly ascribed thereto in the gas industry, and

(e) the headings of the sections set forth in this rate schedule or in the service agreement are for convenience of reference only and will not be considered in any interpretation of this rate schedule or the service agreement.

13. Miscellaneous

13.1 **Waiver** - No waiver by either BC Gas or the customer of any default by the other in the performance of any of the provisions of this rate schedule or the service agreement will operate or be construed as a waiver of any other or future default or defaults, whether of a like or different character.

13.2 **Enurement** - The service agreement will enure to the benefit and be binding upon the parties and their respective successors and permitted assigns, including without limitation successors by merger, amalgamation or consolidation.

13.3 **Assignment** - The customer will not assign the service agreement or any of its rights or obligations thereunder without the prior written consent of BC Gas which consent BC Gas will not be unreasonably withheld or delayed. No assignment will release the customer from its obligations under this rate schedule or under the service agreement. This provision applies to every proposed assignment by the customer.

13.4 **Amendments to be in Writing** - Except as set forth in this rate schedule, no amendment or variation of the service agreement will be effective or binding upon the parties unless such amendment or variation is set forth in writing and duly executed by the parties.

13.5 **Proper Law** - The service agreement will be construed and interpreted in accordance with the laws of the Province of British Columbia and the laws of Canada applicable therein.

13.6 **Time is of Essence** - Time is of the essence of this rate schedule, the service agreement and of the terms and conditions thereof.

13.7 **Subject to Legislation** - Notwithstanding any other provision hereof this rate schedule and the service agreement and the rights and obligations of BC Gas and the customer under this rate schedule and the service agreement are subject to all present and future laws, rules, regulations and orders of any legislative body, governmental agency or duly constituted authority now or hereafter having jurisdiction over BC Gas or the customer.

13.8 **Further Assurances** - Each of BC Gas and the customer will, on demand by the other, execute and deliver or cause to be executed and delivered all such further documents and instruments and do all such further acts and things as the other may reasonably require to evidence, carry out and give full effect to the terms, conditions, intent and meaning of this rate schedule and the service agreement and to assure the completion of the transactions contemplated hereby.

13.9 **Form of Payments** - All payments required to be made under statements and invoices rendered pursuant to this rate schedule or the service agreement will be made by telegraphic transfer to, or cheque or bank cashier's cheque drawn on, a Canadian chartered bank or trust company, payable in lawful money of Canada at par in immediately available funds in Vancouver, British Columbia.

13.10 **Change in Day** - If BC Gas amends the meaning of "day" as provided for in section 12.2 (Change in Definition of "Day"), a pro-rata adjustment of quantities of gas and charges to account for any day of more or less than 24 hours will be made and the term of the service agreement will be similarly adjusted.

DEFINITIONS

(a) **BC Gas** - means BC Gas Inc., a body corporate incorporated pursuant to the laws of the Province of British Columbia under number 368681.

(b) **BC Gas system** - means the gas transmission and distribution system owned and operated by BC Gas, as such system is expanded, reduced or modified from time to time.

(c) **British Columbia Utilities Commission** - means the British Columbia Utilities Commission constituted under the *Utilities Commission Act* of British Columbia and includes and is also a reference to

(i) any commission that is a successor to such commission, and

(ii) any commission that is constituted pursuant to any statute that may be passed which supplements or supersedes the *Utilities Commission Act* of British Columbia.

(d) **commencement date** - means the day specified as the commencement date in the service agreement.

(e) **contract year** - means a period of 12 consecutive months commencing at the beginning of the 1st day of November and ending at the beginning of the next succeeding 1st day of November.

(f) **customer** - means a person who enters into a service agreement with BC Gas.

(g) **day** - means, subject to section 12.2 (Change in Definition of "Day"), any period of twenty-four consecutive hours beginning and ending at 8:00 a.m. PST.

(h) **definitions** - means the definitions appended to this rate schedule.

(i) **delivery point** - means the point specified in a service agreement where BC Gas delivers gas to a customer.

(j) **force majeure** - means any acts of God, strikes, lockouts, or other industrial disturbances, civil disturbances, arrests and restraints of rulers or people, interruptions by government or court orders, present or future valid orders of any regulatory body having proper jurisdiction, acts of the public enemy, wars, riots, blackouts, insurrections, failure or inability to secure materials or labour by reason of priority, regulations or orders of government, serious epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, explosions, breakage or accident to

machinery or lines of pipes, or freezing of wells or pipelines, or the failure of gas supply, temporary or otherwise, from a supplier of gas, which act of force majeure was not due to negligence of the party claiming force majeure. Further, force majeure will also include a declaration of force majeure by a transporter that results in gas being unavailable for delivery.

(k) **franchise fees** - means the aggregate of all monies payable by BC Gas to a municipality

(i) for the use of the municipality's streets and other property to construct and operate the utility business of BC Gas,

(ii) relating to the revenues received by BC Gas for services provided and gas consumed within the municipality, and

(iii) relating, if applicable, to the value of gas transported by BC Gas through the municipality.

(l) **gas** - means the residue remaining after raw gas has been subjected to any or all of the following permissible processes

(i) the removal of any of its constituent parts other than methane, and the removal of methane to such extent as is necessary in removing other constituents,

(ii) the compression, regulation, cooling, cleaning or any other chemical or physical process other than the addition of diluents, such as air or nitrogen, to such extent as may be required in its production, gathering, transmission, transportation, storage, removal from storage and delivery, and

(iii) the addition of odorant by BC Gas,

but for greater certainty gas does not include propane.

(m) **general terms and conditions of BC Gas** - means the general terms and conditions of BC Gas from time to time approved by the British Columbia Utilities Commission.

(n) **heat content** - means the gross heating value of the gas, determined on the basis of a temperature of 15° Celsius with the gas free of all water vapour and at an absolute pressure of 101.325 kilopascals, with the products of combustion cooled to the initial temperature of the gas and the water formed by the combustion condensed to the liquid state. The heat content will be expressed in megajoules per cubic metre of gas (MJ/M^3) rounded to two decimal places.

(o) **hour** - means any consecutive 60 minute period.

(p) **interruption period** - means the period or periods during which the customer is required pursuant to section 4 of the transportation agreement or sections 3.2 (Curtailment) or 3.3 (Notice of Curtailment) or to interrupt, cease, limit or curtail the receipt of gas.

(q) **month** - means, subject to any changes from time to time required by BC Gas in the starting time of its gas day, the period beginning at 8:00 a.m. PST on the first day of the calendar month and ending at 8:00 a.m. PST on the first day of the next succeeding calendar month.

(r) **PST** - means Pacific Standard Time.

(s) **rate schedule 7 or this rate schedule** - means all rates, terms and conditions, including the definitions and the table of charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission.

(t) **service agreement** - means an agreement between BC Gas and a customer to provide service pursuant to this rate schedule.

(u) **supplier** - means a party who sells gas to BC Gas pursuant to a gas sales agreement.

(v) **table of charges** - means the table of prices, fees and charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, appended to this rate schedule.

(w) **transporter** - means, in the case of the Columbia service area, Alberta Natural Gas Company, a Canadian corporation, and in the case of the Inland and Lower Mainland service areas, Westcoast Energy Inc., a Canadian corporation, but also means any other gas pipeline supplier connected to the facilities of BC Gas from which BC Gas receives gas for the purposes of gas service or resale.

(x) **unauthorized overrun gas** - means any gas taken on any day by a customer in excess of the quantity specified in any notice from BC Gas to interrupt or curtail the customer's take, and for greater certainty, unauthorized overrun gas includes all gas taken by a customer to the extent that the obligation of BC Gas to deliver such gas is suspended by reason of force majeure.

(y) **"10^3m^3"** means 1,000 Cubic Metres.

TABLE OF CHARGES

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
1.	**Basic Charge** per month	$ 700.00	$ 700.00	$ 700.00
2.	**Delivery Charge** per gigajoule (not in excess of curtailment notice)			
	(a) between April 1 and November 1	$ 0.70	$ 0.70	$ 0.70
	(b) between November 1 and April 1	$ 0.95	$ 0.95	$ 0.95
3.	**Commodity Charge** per gigajoule (not in excess of curtailment notice)			
	(a) between April 1 and November 1	$ 1.10	$ 1.10	$ 1.70
	(b) between November 1 and April 1	$ 1.90	$ 1.90	$ 2.067
4.	**Charge** per gigajoule of **unauthorized overrun gas**	$ 21.50	$ 21.50	$ 8.50

Franchise Fees Charge of 3.09% of aggregate of the charges above, payable if the facilities to which gas is delivered under this rate schedule are located within the municipal boundaries of a municipality to which BC Gas pays franchise fees.

Minimum Charge per month - The minimum charge per month will be the basic charge.

GENERAL INTERRUPTIBLE SERVICE AGREEMENT

DRAFT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Inc. ("BC Gas") and _____ (the "customer").

WHEREAS:

A. BC Gas owns and operates the BC Gas system;

B. The customer is the owner and operator of a _____ located in or near _____ in the Province of British Columbia; and

C. The customer desires to purchase from BC Gas interruptible gas for such facilities in accordance with rate schedule 7.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Commencement Date:_____ Expiry Date:_____
(only specify an expiry date if term of service agreement is not to automatically continue from year to year as set forth in section 6.2 of rate schedule 7)

Delivery Point:_____

_____

Gauge pressure at Delivery Point: not greater than _____ kilopascals and not less than _____ kilopascals

Estimated maximum of _____ gigajoules per day

Address of customer for receiving notices:

_____
(name of customer) Attention:_____

_____ Telephone:_____
(address of customer)

_____ Telecopier:_____

_____

The information set forth above is hereby approved by the parties and each reference in either this agreement or rate schedule 7 to any such information is to the information set forth above.

2. Rate Schedule 7

2.1 **Additional Terms** - All rates, terms and conditions set forth in rate schedule 7 or the general terms and conditions of BC Gas, as either of them may be amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, are in addition to the rates, terms and conditions contained in this service agreement and form part of this service agreement and bind BC Gas and the customer as if set forth herein.

2.2 **Payment of Amounts** - Without limiting the generality of the foregoing, the customer will pay to BC Gas all of the amounts set forth in rate schedule 7 for the services provided under rate schedule 7 and this service agreement.

2.3 **Conflict** - Where anything in either rate schedule 7 or the general terms and conditions of BC Gas conflicts with any of the rates, terms and conditions set forth in this service agreement, this service agreement governs. Where anything in rate schedule 7 conflicts with any of the rates, terms and conditions set forth in the general terms and conditions of BC Gas, schedule 7 governs.

3. Limitation on Liability and Indemnity

3.1 **Limitation on Liability** - Neither BC Gas, its employees, contractors or agents will be liable in damages for or on account of any interruption or curtailment of gas service.

3.2 **Indemnity** - The customer will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of each of the following

(a) franchise fees not otherwise collected by BC Gas under the table of charges, and

(b) all federal, provincial, municipal taxes (or payments made in lieu thereof) and royalties, whether payable on the delivery of gas to BC Gas by the customer or on the delivery of gas to the customer by BC Gas, or on any other service provided by BC Gas to the customer.

4. Force Majeure

4.1 **Force Majeure** - Subject to the other provisions of this section 4, if either party is unable or fails by reason of force majeure to perform in whole or in part any obligation or covenant set forth in this service agreement, the obligations of both BC Gas and the customer will be suspended to the extent necessary for the period of the force majeure condition.

4.2 **Curtailment Notice** - If BC Gas claims suspension pursuant to this section 4, BC Gas will be deemed to have issued to the customer a notice of curtailment.

4.3 **Exceptions** - Neither party will be entitled to the benefit of the provisions of section 4.1 of this agreement under any of the following circumstances

(a) to the extent that the failure was caused by the negligence or contributory negligence of the party claiming suspension,

(b) to the extent that the failure was caused by the party claiming suspension having failed to diligently attempt to remedy the condition and to resume the performance of the covenants or obligations with reasonable dispatch, or

(c) unless as soon as possible after the happening of the occurrence relied on or as soon as possible after determining that the occurrence was in the nature of force majeure and would affect the claiming party's ability to observe or perform any of its covenants or obligations under this service agreement, the party claiming suspension will have given to the other party notice to the effect that the party is unable by reason of force majeure (the nature of which will be specified) to perform the particular covenants or obligations.

4.4 **Notice to Resume** - The party claiming suspension will likewise give notice, as soon as possible after the force majeure condition has been remedied, to the effect that it has been remedied and that the party has resumed, or is then in a position to resume, the performance of the covenants or obligations.

4.5 **Settlement of Labour Disputes** - Notwithstanding any of the provisions of this section 4, the settlement of labour disputes or industrial disturbances will be entirely within the discretion of the particular party involved and the party may make settlement of it at the time and on terms and conditions as it may deem to be advisable and no delay in making settlement will deprive the party of the benefit of section 4.1 of this agreement.

4.6 **No Exemption for Payments** - Notwithstanding any of the provisions of this section 4, force majeure will not relieve or release either party from its obligations to make payments to the other.

4.7 **Periodic Repair by BC Gas** - BC Gas may temporarily shut off the delivery of gas for the purpose of repairing or replacing a portion of the BC Gas system or its equipment and BC Gas will endeavour to give the customer as much notice as possible with respect to such interruption, not to be less than 8 hours' prior notice except when prevented by force majeure. BC Gas will use all diligence to restore service as quickly as possible.

5. Arbitration

5.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

5.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting forth the nature of the dispute.

5.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 7.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a past or present employee, officer or director of any of the parties or their respective successors or affiliates, any customer or supplier of the customer or BC Gas.

5.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 47 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

5.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

IN WITNESS WHEREOF the parties hereto have executed this service agreement.

BC GAS INC.

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

_____
(here insert name of customer)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

WAIVER

To: BC Gas Inc.
1111 West Georgia Street
Vancouver, B.C.
V6E 4M4

("BC Gas")

From: _____

_____

_____

(the "customer")

In consideration of BC Gas waiving the requirement that the customer have an alternative fuel burning installation in order to obtain gas service under rate schedule 7, the customer agrees and acknowledges that any interruption of its operations due to gas discontinuance, interruption, curtailment results solely from the customer's election not to install and maintain standby facilities.

Concurrently with the signing of this waiver, the customer further acknowledges receiving and reading a copy of rate schedule 7.

_____
(here insert name of customer)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

DRAFT

BC GAS INC.

RATE SCHEDULE 27
GENERAL INTERRUPTIBLE TRANSPORTATION

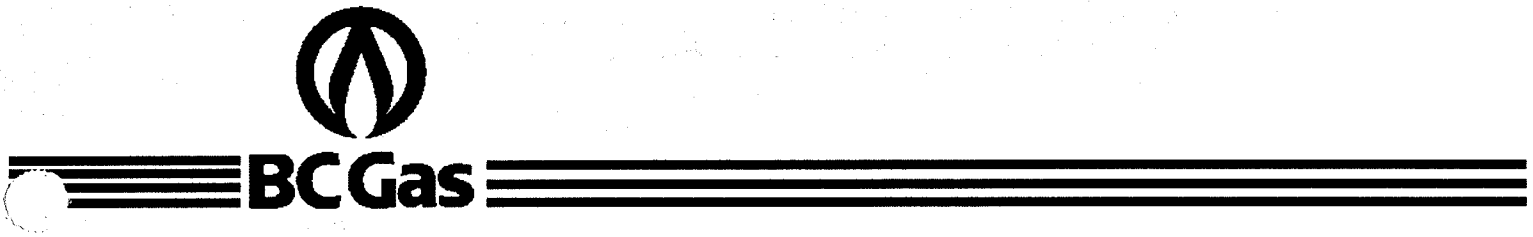


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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the provision of either level 1 or level 2 (but not both) interruptible transportation service through one meter station to one shipper.

1.2 **Transportation Agreement** - BC Gas will only transport gas pursuant to an executed transportation agreement. BC Gas is not offering to provide service as a common carrier.

1.3 **British Columbia Utilities Commission** - This rate schedule is approved by the British Columbia Utilities Commission and may only be amended with the permission of the British Columbia Utilities Commission.

2. Conditions of Service

2.1 **Conditions** - This rate schedule is available in all territory served by BC Gas under the tariff of which this rate schedule is a part if

(a) adequate capacity exists on the BC Gas system,

(b) the shipper has contracted for a supply of gas, which has been approved by the British Columbia Utilities Commission and any other authorities having jurisdiction,

(c) the end-user has and continues to have, to the satisfaction of BC Gas, an alternative fuel burning installation in good operating order with an adequate supply of fuel in order that the end-user can continue its operations on occasions when the transportation of gas is discontinued, interrupted or curtailed. BC Gas may waive this requirement provided that the end-user agrees and acknowledges that any interruption of its operations due to gas discontinuance, interruption or curtailment results solely from the end-user's election not to install and maintain standby facilities,

(d) where the shipper is not an end-user of the gas to be transported pursuant to the transportation agreement

(i) the end-user is specified in to the transportation agreement,

(ii) the shipper does not deliver gas to a party other than the end-user specified in the transportation agreement,

(iii) the term of the transportation agreement is identical to the term of the gas supply contract between the shipper and the end-user, which will be for a period of not less than one contract year, and

(iv) the shipper has provided to BC Gas prior to the commencement of service under this rate schedule in a form acceptable to BC Gas the following

(A) an irrevocable authorization from the end-user permitting BC Gas access to the end-user's property, appropriate easements and right-of-ways on the end-user's property to lay, construct and operate the pipeline and facilities and equipment deemed necessary by BC Gas to provide gas service under this rate schedule, and

(B) a declaration from the end-user agreeing to comply with all instructions, orders, notices, directions and requests by BC Gas that would be applicable to the end-user if the end-user were a shipper under a transportation agreement, and

(e) BC Gas has installed at the delivery point the facilities and equipment referred to in section 12.1 (Facilities and Equipment).

2.2 **Security** - At any time during the term of the transportation agreement BC Gas may require the shipper to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the shipper under this rate schedule and the transportation agreement for a period of 90 days. Where BC Gas requires a shipper to provide a letter of credit and the shipper is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

2.3 **Warning Relating to Firm Sales Rate Schedule** - An end-user wishing to switch at the end of the term of a transportation agreement to a firm gas sales rate schedule must comply with the requirements set forth in the applicable sales rate schedule, including the following

(a) giving 13 months' prior notice to BC Gas of the end-user's desire to do so, and

(b) if BC Gas is subjected to higher gas prices or transportation costs or both, reimbursing BC Gas for any such higher prices or costs.

3. Transportation

3.1 **Transportation of Gas** - Subject to section 13 of the general terms and conditions of BC Gas (Interruption of Service), BC Gas will transport for and deliver to the shipper at one delivery point (except as otherwise specified in the transportation agreement) on each day the quantity of gas, up to the DTQ, received at the interconnection point from the shipper for the charges and on all of the terms and conditions set forth in either this rate schedule or the transportation agreement.

3.2 **Level 1 Curtailment** - If BC Gas at any time determines that it does not have sufficient capacity on the BC Gas system to accommodate the shipper's request for level 1 service under this rate schedule, BC Gas may for any length of time interrupt or curtail the delivery of the shipper's gas to the delivery point.

3.3 **Level 2 Curtailment** - If BC Gas at any time determines either that it does not have sufficient capacity on the BC Gas system to accommodate the shipper's request for level 2 service under this rate schedule, or that it wishes to utilize the shipper's gas in order to serve the firm sales customers of BC Gas, BC Gas may for any length of time interrupt or curtail the delivery of the shipper's gas to the delivery point.

3.4 **Notice of Curtailment** - Each notice from BC Gas to the shipper with respect to the interruption or curtailment by BC Gas of deliveries of gas to the delivery point will specify the quantity of gas to be interrupted or curtailed and the time at which such interruption or curtailment is to be made and BC Gas will endeavour to give the shipper as much notice as possible with respect to such interruption or curtailment, not to be less than 8 hours' prior notice unless prevented by force majeure or unless the transporter does not provide to BC Gas at least 8 hours' prior notice of curtailment.

3.5 **Default Regarding Curtailment** - If the shipper at any time fails or neglects to comply with a notice from BC Gas to interrupt or curtail the shipper's take, BC Gas may, in addition to any other remedy that it may then or thereafter have, at its option, without liability therefor and without any prior notice to the shipper

(a) turn off the valve at the delivery point,

(b) suspend further transportation service to the shipper and may refuse to deliver gas to the shipper,

(c) deliver such gas and charge the shipper for such gas consumed on that day the charge for unauthorized overrun gas set forth in the table of charges, or

(d) if during any one contract year the shipper fails or neglects to comply with three notices from BC Gas to interrupt or curtail the shipper's take, unless the shipper provides to BC Gas assurances, to the complete satisfaction of BC Gas, that the shipper will comply with all further interruption or curtailment notices, BC Gas may, in addition to any other remedy which it may then or thereafter have, at its option and without liability therefor, switch the shipper to a firm gas transportation rate schedule, beginning on the commencement of the next following contract year. If the shipper and BC Gas do not execute a new transportation agreement pursuant to the firm transportation rate schedule, from the date of such switch, the transportation agreement will be deemed to a transportation agreement pursuant to the firm gas transportation rate schedule, with all necessary changes.

3.6 **Acknowledgement** - All shippers transporting gas pursuant to this rate schedule acknowledge and agree that they can accommodate any total or partial interruption of transportation service by BC Gas.

3.7 **Maximum Hourly Quantities** - BC Gas will not be obliged to receive or deliver in one hour more than 5% of the DTQ.

3.8 **Pressure at Interconnection Point** - All gas delivered to BC Gas at the interconnection point by or on behalf of the shipper will not be at less than the pressure specified in the transporter's service terms.

3.9 **Pressure at Delivery Point** - All gas delivered by BC Gas at the delivery point to or on behalf of the shipper will not be at less than the pressure specified in the transportation agreement.

4. Table of Charges

4.1 **Charges** - In respect of all quantities of gas delivered to the delivery point pursuant to this rate schedule and the transportation agreement, the shipper will pay to BC Gas all of the charges set forth in the table of charges.

5. Unauthorized Overrun Rate

5.1 **Charges for Unauthorized Service** - On any day the shipper takes unauthorized overrun gas, the shipper will pay to BC Gas the charge for unauthorized overrun gas set forth in the table of charges.

5.2 **Payments Not License** - Payments made by the shipper to BC Gas for unauthorized overrun gas neither give the shipper the right to take unauthorized overrun gas, nor exclude or limit any other remedies available to BC Gas for the shipper's taking of unauthorized overrun gas.

6. Nomination

6.1 **Supplier** - The shipper will notify BC Gas of the identity of the shipper's supplier on or before the commencement date, and from time to time when the shipper's supplier changes.

6.2 **Requested Quantity** - The shipper will notify BC Gas prior to 7:30 a.m. PST on each day (or such other time as may be specified from time to time by BC Gas) of the quantity of gas the shipper wishes to receive on the next day such that, except in circumstances beyond the shipper's forecasting ability, such quantity will approximately equal the quantity of gas the shipper actually receives on the next day. If the shipper does not notify BC Gas in accordance with the foregoing, then the quantity of gas which the shipper wishes to receive on the next day will be deemed to be the shipper's requested quantity, adjusted as set forth in section 6.3 (Adjustment of Requested Quantity), for the current day.

6.3 **Adjustment of Requested Quantity** - BC Gas will adjust the shipper's requested quantity, described in section 6.2 (Requested Quantity), when in the reasonable opinion of BC Gas any modification is required: in order to minimize the month end balancing quantity; during any period of interruption or curtailment provided for in this rate schedule or the transportation agreement; or on any day between November 1 and April 1 in any contract year when BC Gas wishes to increase the requested quantity to the level available under the shipper's contract with the transporter. On any day BC Gas will be entitled to utilize the balance of the shipper's gas delivered at the interconnection point if not required by the shipper.

6.4 **Request to Transporter** - BC Gas will provide to the transporter the shipper's requested quantity, adjusted as set forth in section 6.3 (Adjustment of Requested Quantity).

6.5 **Delivery to Interconnection Point** - The shipper will cause to be delivered to the interconnection point on each day a quantity of gas at least equal to the shipper's requested quantity, adjusted as set forth in section 6.3 (Adjustment of Requested Quantity).

6.6 **Failure to Deliver to Interconnection Point** - If on any day less gas is delivered at the interconnection point than the quantity provided to the transporter pursuant to

section 6.4 (Request to Transporter), BC Gas may in its discretion interrupt or curtail service hereunder by the amount the shipper fails to deliver or may deliver such gas and charge the shipper for such gas consumed on that day the authorized overrun charge set forth in the table of charges. If BC Gas is unable to ascertain which shipper is responsible for a deficiency, BC Gas may in its discretion interrupt or curtail service to shippers on a basis deemed equitable by BC Gas. BC Gas agrees to reallocate the deficiency to the shipper responsible in the event BC Gas obtains information that allows it to determine responsibility.

6.7 **Form of Notifications** - All notifications provided for in this section 6 will be by telephone or telecopier or such other method as may be agreed upon from time to time by BC Gas and the shipper.

7. Balancing

7.1 **Monthly Adjustments** - BC Gas will make monthly adjustments for the differences between the sum of the authorized quantities for the applicable month and the applicable monthly transportation quantity as follows

(a) for overdeliveries (the sum of the authorized quantities is greater than the monthly transportation quantity) BC Gas will maintain an inventory account for the shipper and will increase the balance in the inventory account by the amount of the excess. BC Gas and the shipper will cooperate to limit the quantity of gas maintained in the shipper's inventory account, and

(b) for underdeliveries (the sum of the authorized quantities is less than the monthly transportation quantity), and subject to availability of gas supply, BC Gas will sell to the shipper the deficiency quantities at the authorized overrun charge set forth in the table of charges.

7.2 **Imbalance Following Termination** - If after termination of a transportation agreement BC Gas has received a quantity of gas in excess of quantities delivered to the shipper, then the shipper will have the right to request these quantities be returned within 90 days following the termination. If not claimed within 90 days, such excess will be forfeited to BC Gas.

8. Group Nomination and Balancing

8.1 **Group Nomination and Balancing** - If a customer agent has executed a customers' agent agreement, and if the members of the customer agent's group are in the same division of BC Gas and receive service under this rate schedule, the members of the

customer agent's group may, in the discretion of BC Gas, nominate and balance on a group basis pursuant to sections 6 (Nomination) and 7 (Balancing), as modified by this section, and the customer agent will be the agent for each of the members of a group for the purposes of any and all matters set forth in sections 6 (Nomination) and 7 (Balancing).

8.2 **Monthly Transportation Quantity** - The monthly transportation quantity for a group is the sum of the monthly transportation quantity for each member of the group.

8.3 **Estimates by Customer Agent** - The customer agent will notify BC Gas of the identity of the supplier and the shipper's requested quantity, described in subsection 6.2 (Requested Quantity), on behalf of all members of the group on an aggregate basis.

8.4 **Charges to be Paid by Customer Agent** - The charges for authorized overrun gas and unauthorized overrun gas, set forth in the table of charges, will be determined based on the quantities transported on behalf of the group as a whole and will be paid to BC Gas by the customer agent as specified in the customers' agent agreement. Notwithstanding the foregoing, each shipper is jointly and severally liable as principal obligant with the customer agent for all charges for authorized overrun gas and unauthorized overrun gas, set forth in the table of charges, applicable to such shipper.

8.5 **Security** - BC Gas may require the customer agent to provide security, as set forth in section 2.2 (Security), with necessary changes, for the performance of the customer agent's obligations under the customers' agent agreement.

9. Term of Transportation Agreement

9.1 **Term** - The initial term of the transportation agreement will begin on the commencement date and

(a) if the shipper is the end-user, will expire at 8:00 a.m. PST on the November 1st next following, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term will instead expire at 8:00 a.m. PST on the November 1st second next following, and

(b) if the shipper is not the end-user, the term of the transportation agreement will be as described in section 2.1(d)(iii).

9.2 **Automatic Renewal Where Shipper is End-User** - If the shipper is the end-user, and except as specified in the transportation agreement, the term of the transportation

agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the shipper upon not less than 2 months' notice prior to the end of the contract year then in effect. If the shipper fails to request an amended DTQ within 2 months prior to the end of the contract year then in effect, the previous DTQ will remain in effect.

9.3 **Early Termination** - The term of the transportation agreement is subject to early termination in accordance with section 15 (Default or Bankruptcy).

9.4 **Survival of Covenants** - Upon the termination of the transportation agreement, whether pursuant to section 15 (Default or Bankruptcy) or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this rate schedule and in the transportation agreement relating to the obligation of any of the parties to account to or indemnify the other and to pay to the other any monies owing as at the date of termination in connection with the transportation agreement,

will survive such termination.

10. Statements and Payments

10.1 **Statements to be Provided** - BC Gas will, on or before the 15th day of each month, deliver to the shipper a statement for the preceding month showing the gas quantities delivered to the shipper and the amount due. BC Gas will, on or before the 45th day after the end of a contract year, deliver to the shipper a separate statement for the preceding contract year showing the amount required from the shipper in respect of any indemnity due under a transportation agreement. Any errors in any statement will be promptly reported to the other party as provided hereunder, and statements will be final and binding unless questioned within one year after the date of the statement.

10.2 **Payment and Interest** - Payment for the full amount of the statement, including federal, provincial and municipal taxes or fees applicable thereon, will be made to BC Gas at its Vancouver, British Columbia office, or such other place in Canada as it will designate, on or before the 1st business day after the 21st calendar day following the billing date. If the shipper fails or neglects to make any payment required under this rate schedule, or any portion thereof, to BC Gas when due, interest on such payment or portion thereof, as the case may be, will accrue from and including the

date when such payment is due to and including the date the same is paid at the rate of 1½% per month (19.56% per annum).

10.3 **Examination of Records** - Each of BC Gas and the shipper will have the right to examine at reasonable times the books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge, computation or demand made pursuant to any provisions of this rate schedule or the transportation agreement.

11. Quality

11.1 **Minimum Standards** - All gas delivered to the interconnection point and all gas delivered to the delivery point will conform to the quality specifications set forth in the transporter's service terms.

11.2 **Failure by Shipper to Meet Specifications** - Whenever any gas delivered by the shipper to the interconnection point fails to conform with any of the specifications required in section 11.1 (Minimum Standards), BC Gas agrees to notify the transporter and the shipper of such failure and if the transporter or the shipper or both of them fail to promptly remedy any such failure BC Gas may, without prejudice to any other right it has, refuse to accept receipt of such gas pending remedy by the transporter or the shipper, or accept receipt of such gas and may make all changes necessary to bring the shipper's gas into conformity with such quality specifications, in which case the shipper will reimburse BC Gas for all reasonable expenses incurred by BC Gas in effecting such changes.

11.3 **Failure by BC Gas to Meet Specifications** - Whenever any gas delivered by BC Gas to the delivery point fails to conform with any of the specifications required in section 11.1 (Minimum Standards), the shipper agrees to notify BC Gas of such failure and if BC Gas fails to promptly remedy any such failure the shipper may, without prejudice to any other right it has, refuse to accept receipt of such gas pending remedy by BC Gas, or accept delivery of such gas and may make all changes necessary to bring such gas into conformity with such quality specifications, in which case BC Gas will reimburse the shipper for all reasonable expenses incurred by the shipper in effecting such changes.

12. Measuring Equipment

12.1 **Facilities and Equipment** - BC Gas may install, maintain and operate at the delivery point such metering and communications facilities and equipment as BC Gas determines are necessary or desirable for measuring the quantity of gas delivered pursuant to this rate schedule to the shipper and the shipper will permit BC Gas,

without cost to BC Gas, to use the shipper's communications lines and power for the purpose of installing, maintaining and operating the measuring equipment of BC Gas.

12.2 **Measuring Site** - If BC Gas reasonably determines that it is necessary to install the facilities and equipment referred to in section 12.1 (Facilities and Equipment) on the shipper's property, the shipper will, without charge, provide a suitable site along with utilities and enclosures for the installation of the facilities and equipment of BC Gas. BC Gas will at all times have clear access to the site and to all of its facilities and equipment. All facilities and equipment installed by BC Gas on the shipper's property will remain the property of BC Gas and may be removed by BC Gas upon termination of the transportation agreement.

12.3 **Calibration and Test of Measuring Equipment** - The accuracy of the measuring equipment of BC Gas will be verified by standard tests and methods at regular intervals and at other times at the initiative of BC Gas or upon the reasonable request of the shipper. Notice of the time and nature of each test conducted in response to communications with or at the request of the shipper will be given by BC Gas to the shipper sufficiently in advance to permit a representative of the shipper to be present. If during a test the measuring equipment is found to be registering inaccurately, it will be adjusted at once to read as accurately as possible. The results of each test and adjustment, if any, made by BC Gas, whether or not the shipper is present for such test, will be accepted until the next test. All tests of such measuring equipment of BC Gas will be made at the expense of BC Gas, except that the shipper will bear the expense of tests made at its request if the measuring equipment is found to be inaccurate by an amount equal to 2% or less.

12.4 **Inaccuracy Exceeding 2%** - If upon any test the measuring equipment is found to be inaccurate by an amount exceeding 2%, any previous readings of such equipment will be corrected to zero error for any period during which it is definitely known or is agreed upon that the error existed. If the period is not definitely known or is not agreed upon, such correction will be for a period covering the last half of the time elapsed since the date of the last test. Provided that under no circumstances will an adjustment be made for a period of more than the preceding 12 months.

12.5 **Correction of Measuring Errors** - If the measuring equipment is out of service or out of repair so that the quantity of gas delivered cannot be correctly determined by the reading thereof, the gas delivered during the period such measuring equipment is out of service or out of repair will be estimated on the basis of the best available data, using the first of the following methods which is feasible

(a) by correcting the error if the percentage of error is ascertained by calibration test or mathematical calculation,

(b) by using the registration of any check measuring equipment if installed and accurately registering, and

(c) by estimating the quantity of gas delivered to the shipper during the preceding periods under similar conditions when the meter was registering accurately.

12.6 **Shipper's Equipment** - The shipper may at its own expense install, maintain and operate its own measuring equipment for the purposes of monitoring or checking the measuring equipment of BC Gas, provided that the shipper will install such equipment so as not to interfere with the operation of the measuring equipment of BC Gas.

12.7 **Right to be Present** - BC Gas and the shipper will have the right to inspect all equipment installed or furnished by the other and the charts and other measurement or test data of the other at all times during business hours, and to be present at the time of any installing, testing, cleaning, changing, repairing, calibrating or adjusting done in connection with the measuring equipment of the other party, but all such activities will be performed by the party furnishing the measuring equipment.

12.8 **Preservation of Records** - Both parties will cause to be preserved each test datum, chart and other record of gas measurement for a period of 2 years.

13. Measurement

13.1 **Unit of Volume** - The unit of volume of gas for all purposes hereunder will be 1 cubic metre at a temperature of 15° Celsius and an absolute pressure of 101.325 kilopascals.

13.2 **Determination of Volume** - Gas delivered hereunder will be metered using metering apparatus approved by the Standards Division, Department of Consumer & Corporate Affairs of Canada and the determination of standard volumes delivered hereunder will be in accordance with terms and conditions pursuant to the *Electricity and Gas Inspection Act* of Canada.

13.3 **Conversion to Energy Units** - In accordance with the *Electricity and Gas Inspection Act* of Canada, volumes of gas delivered each day will be converted to energy units by multiplying the standard volume by the heat content of each unit of gas. Volumes will be specified in 10^3m^3 rounded to two decimal places and energy will be specified in gigajoules rounded to one decimal place.

14. Representations, Warranties and Covenants

14.1 **Title** - The shipper covenants with BC Gas that the shipper will have good title to all gas to be delivered to BC Gas at the interconnection point on behalf of the shipper from suppliers other than BC Gas, free and clear of all liens, encumbrances and claims.

14.2 **Title Not That of BC Gas** - BC Gas agrees that title to all gas transported pursuant to the transportation agreement remains with the shipper.

14.3 **Acknowledgement** - The shipper acknowledges that the gas transported under the transportation agreement will be odorized and commingled with gas within transporter's pipeline system and the BC Gas system and the shipper agrees to accept a proportionate share of any gas lost by pipeline failure, fire or other similar cause that may affect the shipper's gas.

15. Default or Bankruptcy

15.1 **Default** - If the shipper at any time fails or neglects

(a) to make any payment due to BC Gas or to any other person under this rate schedule or the transportation agreement within 30 days after payment is due, or

(b) to cure any default of any of the other terms, covenants, agreements, conditions or obligations imposed upon it under this rate schedule or the transportation agreement, within 30 days after BC Gas gives to the shipper notice of such default or, in the case of a default that cannot with due diligence be cured within a period of 30 days, the shipper fails to proceed promptly after the giving of such notice with due diligence to cure the same and thereafter to prosecute the curing of such default with all due diligence,

BC Gas may in addition to any other remedy that it has, including the rights of BC Gas set forth in section 3.5 (Default Regarding Curtailment), at its option and without liability therefor

(c) suspend further transportation service to the shipper and may refuse to deliver gas to the shipper until the default has been fully remedied, and no such suspension or refusal will relieve the shipper from any obligation under this rate schedule or the transportation agreement, or

(d) terminate the transportation agreement, and no such termination of the transportation agreement pursuant hereto will exclude the right of BC Gas to collect any amount due to it from the shipper for what would otherwise have been the remainder of the term of the transportation agreement.

15.2 **Bankruptcy or Insolvency** - If the shipper becomes bankrupt or insolvent or commits or suffers an act of bankruptcy or insolvency or a receiver is appointed pursuant to a statute or under a debt instrument or the shipper seeks protection from the demands of its creditors pursuant to any legislation enacted for that purpose, BC Gas will have the right, at its sole discretion, to terminate the transportation agreement by giving notice in writing to the shipper and thereupon BC Gas may cease further delivery of gas to the shipper and the amount then outstanding for gas provided under the transportation agreement will immediately be due and payable by the shipper.

16. Notice

16.1 **Notice** - Any notice, request, statement or bill that is required to be given or that may be given under this rate schedule or under the transportation agreement will, unless otherwise specified, be in writing and will be considered as fully delivered when mailed, personally delivered or sent by telecopier to the other in accordance with the following:

if to BC Gas	BC GAS INC.	
MAILING ADDRESS:	1111 West Georgia Street 6th Floor Vancouver, B.C. V6E 4M4	
NOMINATIONS:	Attention: Telephone: Telecopier:	Supervisor, Gas Control (604) 293-8786 (604) 293-8789
BILLING AND PAYMENT:	Attention: Telephone: Telecopier:	Manager, Customer Administration (604) 443-6507 (604) 443-6588
CUSTOMER RELATIONS	Attention: Telephone: Telecopier:	Manager, Industrial Markets (604) 443-6491 (604) 443-6770

LEGAL AND OTHER:	Attention:	V.P. Legal & Regulatory Affairs
	Telephone:	(604) 443-6607
	Telecopier:	(604) 443-6789

if to the shipper, then as set forth in the transportation agreement.

16.2 **Specific Notices** - Notwithstanding section 16.1 (Notice), notices with respect to curtailment, interruption or restoration of deliveries of gas or with respect to force majeure will be sufficient if given by BC Gas in writing by telecopier, or orally in person, or by telephone (to be confirmed in writing) to the person or persons designated from time to time by the shipper as authorized to receive such notices.

17. Interpretation

17.1 **Definitions in General Terms and Conditions of BC Gas** - Except where the context requires otherwise or except as otherwise expressly provided in this rate schedule, all words and phrases defined in the general terms and conditions of BC Gas and used in this rate schedule or in a transportation agreement have the meanings set out in the general terms and conditions of BC Gas.

17.2 **Change in Definition of "Day"** - BC Gas may, in its sole discretion, amend the definition of "day" from time to time.

17.3 **Further Definitions** - Additionally, except where the context requires otherwise, each of the words and phrases described in the definitions have the meanings ascribed thereto in the definitions.

17.4 **Interpretation** - Except where the context requires otherwise or except as otherwise expressly provided, in this rate schedule or in a transportation agreement

(a) all references to a designated section are to the designated section of this rate schedule unless otherwise specifically stated,

(b) the singular of any term includes the plural, and vice versa, and the use of any term is equally applicable to any gender and, where applicable, body corporate,

(c) any reference to a corporate entity includes and is also a reference to any corporate entity that is a successor to such entity,

(d) all words, phrases and expressions used in this rate schedule or in a transportation agreement that have a common usage in the gas industry and that are not defined in the general terms and conditions of BC Gas, the definitions or in the transportation agreement have the meanings commonly ascribed thereto in the gas industry, and

(e) the headings of the sections set forth in this rate schedule or in the transportation agreement are for convenience of reference only and will not be considered in any interpretation of this rate schedule or the transportation agreement.

18. Miscellaneous

18.1 **Waiver** - No waiver by either BC Gas or the shipper of any default by the other in the performance of any of the provisions of this rate schedule or the transportation agreement will operate or be construed as a waiver of any other or future default or defaults, whether of a like or different character.

18.2 **Enurement** - The transportation agreement will enure to the benefit and be binding upon the parties and their respective successors and permitted assigns, including without limitation successors by merger, amalgamation or consolidation.

18.3 **Assignment** - The shipper will not assign the transportation agreement or any of its rights or obligations thereunder without the prior written consent of BC Gas which consent will not be unreasonably withheld or delayed. No assignment will release the shipper from its obligations under this rate schedule or under the transportation agreement. This provision applies to every proposed assignment by the shipper.

18.4 **Amendments to be in Writing** - Except as set forth in this rate schedule, no amendment or variation of the transportation agreement will be effective or binding upon the parties unless such amendment or variation is set forth in writing and duly executed by the parties.

18.5 **Proper Law** - The transportation agreement will be construed and interpreted in accordance with the laws of the Province of British Columbia and the laws of Canada applicable therein.

18.6 **Time is of Essence** - Time is of the essence of this rate schedule, the transportation agreement and of the terms and conditions thereof.

18.7 **Subject to Legislation** - Notwithstanding any other provision hereof this rate schedule and the transportation agreement and the rights and obligations of BC Gas and the

shipper under this rate schedule and the transportation agreement are subject to all present and future laws, rules, regulations and orders of any legislative body, governmental agency or duly constituted authority now or hereafter having jurisdiction over BC Gas or the shipper.

18.8 **Further Assurances** - Each of BC Gas and the shipper will, on demand by the other, execute and deliver or cause to be executed and delivered all such further documents and instruments and do all such further acts and things as the other may reasonably require to evidence, carry out and give full effect to the terms, conditions, intent and meaning of this rate schedule and the transportation agreement and to assure the completion of the transactions contemplated hereby.

18.9 **Form of Payments** - All payments required to be made under statements and invoices rendered pursuant to this rate schedule or the transportation agreement will be made by telegraphic transfer to, or cheque or bank cashier's cheque drawn on, a Canadian chartered bank or trust company, payable in lawful money of Canada at par in immediately available funds in Vancouver, British Columbia.

18.10 **Change in Day** - If BC Gas amends the meaning of "day" as provided for in section 17.2 (Change in Definition of "Day"), a pro-rata adjustment of quantities of gas and charges to account for any day of more or less than 24 hours will be made and the term of the transportation agreement will be similarly adjusted.

DEFINITIONS

(a) **A.N.G.** - means Alberta Natural Gas Company, a Canadian corporation.

(b) **authorized overrun gas** - means any gas taken by the shipper during a month which is in excess of the applicable monthly transportation quantity less any unauthorized overrun gas taken during such month.

(c) **authorized quantity** - means the quantity of energy for each day approved by the transporter for transportation service on the transporter's pipeline system, based on the quantity requested by the shipper, adjusted as set forth in section 6.3 (Adjustment to Requested Quantity).

(d) **BC Gas** - means BC Gas Inc., a body corporate incorporated pursuant to the laws of the Province of British Columbia under number 368681.

(e) **BC Gas system** - means the gas transmission and distribution system owned and operated by BC Gas, as such system is expanded, reduced or modified from time to time.

(f) **British Columbia Utilities Commission** - means the British Columbia Utilities Commission constituted under the *Utilities Commission Act* of British Columbia and includes and is also a reference to

(i) any commission that is a successor to such commission, and

(ii) any commission that is constituted pursuant to any statute that may be passed which supplements or supersedes the *Utilities Commission Act* of British Columbia.

(g) **commencement date** - means the day specified as the commencement date in the transportation agreement.

(h) **contract year** - means a period of 12 consecutive months commencing at the beginning of the 1st day of November and ending at the beginning of the next succeeding 1st day of November.

(i) **customer agent** - means a person who enters into a customers' agent agreement with BC Gas.

(j) **customers' agent agreement** - means an agreement between BC Gas and a customer agent pursuant to which the customer agent agrees to pay to BC Gas the charges for

authorized overrun gas and unauthorized overrun gas, set forth in the table of charges, applicable to the group.

(k) **day** - means, subject to section 17.2 (Change in Definition of "Day"), any period of twenty-four consecutive hours beginning and ending at 8:00 a.m. PST.

(l) **definitions** - means the definitions appended to this rate schedule.

(m) **delivery point** - means the point specified in a transportation agreement where BC Gas delivers gas to a shipper.

(n) **DTQ** - means the maximum quantity of gas that BC Gas is obligated to transport for and deliver to a shipper at the delivery point on any particular day, which in the discretion of BC Gas reasonably reflects the shipper's requirements and which is specified in a transportation agreement.

(o) **end-user** - means a person specified in a transportation agreement who is a consumer of gas within the service area of BC Gas.

(p) **force majeure** - means any acts of God, strikes, lockouts, or other industrial disturbances, civil disturbances, arrests and restraints of rulers or people, interruptions by government or court orders, present or future valid orders of any regulatory body having proper jurisdiction, acts of the public enemy, wars, riots, blackouts, insurrections, failure or inability to secure materials or labour by reason of priority, regulations or orders of government, serious epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, explosions, breakage or accident to machinery or lines of pipes, or freezing of wells or pipelines, or the failure of gas supply, temporary or otherwise, from a supplier of gas to the shipper, which act of force majeure was not due to negligence of the party claiming force majeure. Further, force majeure will also include a declaration of force majeure by a transporter that results in gas being unavailable for delivery at the interconnection point.

(q) **franchise fees** - means the aggregate of all monies payable by BC Gas to a municipality

(i) for the use of the municipality's streets and other property to construct and operate the utility business of BC Gas,

(ii) relating to the revenues received by BC Gas for services provided and gas consumed within the municipality, and

(iii) relating, if applicable, to the value of gas transported by BC Gas through the municipality.

(r) **gas** - means the residue remaining after raw gas has been subjected to any or all of the following permissible processes

(i) the removal of any of its constituent parts other than methane, and the removal of methane to such extent as is necessary in removing other constituents,

(ii) the compression, regulation, cooling, cleaning or any other chemical or physical process other than the addition of diluents, such as air or nitrogen, to such extent as may be required in its production, gathering, transmission, transportation, storage, removal from storage and delivery, and

(iii) the addition of odorant by BC Gas,

but for greater certainty gas does not include propane.

(s) **general terms and conditions of BC Gas** - means the general terms and conditions of BC Gas from time to time approved by the British Columbia Utilities Commission.

(t) **group** - means a group of shippers or end-users who each transport gas under this rate schedule, using a common gas supply pool and common nomination procedure with the transporter, and, in the case of shippers, who have each entered into a transportation agreement or, in the case of end-users, for whom one shipper has entered into transportation agreements.

(u) **heat content** - means the gross heating value of the gas, determined on the basis of a temperature of 15° Celsius with the gas free of all water vapour and at an absolute pressure of 101.325 kilopascals, with the products of combustion cooled to the initial temperature of the gas and the water formed by the combustion condensed to the liquid state. The heat content will be expressed in megajoules per cubic metre of gas (MJ/M^3) rounded to two decimal places.

(v) **hour** - means any consecutive 60 minute period.

(w) **interruption period** - means the period or periods during which the shipper is required pursuant to section 4 of the transportation agreement or sections 3.2 (Curtailment) or 3.3 (Notice of Curtailment) or to interrupt, cease, limit or curtail the receipt of gas.

(x) **interconnection point** - means a point (specified as the "Delivery Point" in the transportation agreement and relied upon by a shipper for the movement of gas through the transporter's pipeline system) where the BC Gas system interconnects with the facilities of one of the transporters of BC Gas, as specified in a transportation agreement.

(y) **month** - means, subject to any changes from time to time required by BC Gas in the starting time of its gas day, the period beginning at 8:00 a.m. PST on the first day of the calendar month and ending at 8:00 a.m. PST on the first day of the next succeeding calendar month.

(z) **monthly transportation quantity or MTQ** - subject to section 8.2 (Monthly Transportation Quantity), means the lesser of the following quantities of gas

(i) the quantity of gas BC Gas has received from a shipper during a month plus any imbalance carried forward from the previous month, and

(ii) the quantity of gas obtained by multiplying the DTQ by the number of days in the month, adjusted to reflect any gas the shipper fails to deliver to the interconnection point and any gas interrupted or curtailed below the DTQ, but in no event will curtailed quantities which the shipper failed to deliver to the interconnection point be double counted.

(aa) **PST** - means Pacific Standard Time.

(ab) **rate schedule 27 or this rate schedule** - means all rates, terms and conditions, including the definitions and the table of charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission.

(ac) **shipper** - means a person who enters into a transportation agreement with BC Gas. If the shipper is not an end-user, then the word "shipper" in the context of each of delivery point, property, deliveries of gas, using of gas, consuming of gas, taking of gas, curtailing of gas, interrupting of gas, limiting the taking of gas, receiving of gas, purchasing of gas, accepting of gas, supplying of gas and requesting quantities of gas, will also mean "end-user".

(ad) **supplier** - means a party who sells gas to a shipper or BC Gas pursuant to a gas sales agreement.

(ae) **table of charges** - means the table of prices, fees and charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, appended to this rate schedule.

(af) **transportation agreement** - means an agreement between BC Gas and a shipper to provide service pursuant to this rate schedule.

(ag) **transporter** - means, in the case of the Columbia service area, A.N.G, and in the case of the Inland and Lower Mainland service areas, Westcoast, but also means any other gas pipeline supplier connected to the facilities of BC Gas from which BC Gas receives gas for the purposes of gas transportation or resale.

(ah) **transporter's service terms** - means the general terms and conditions of the applicable transporter, as filed with and approved from time to time by the National Energy Board or other applicable governmental authority.

(ai) **unauthorized overrun gas** - means any gas taken on any day by a shipper in excess of the quantity specified in any notice from BC Gas to interrupt or curtail the shipper's take, and for greater certainty, unauthorized overrun gas includes all gas taken by a shipper to the extent that the obligation of BC Gas to deliver such gas is suspended by reason of force majeure.

(aj) **Westcoast** - means Westcoast Energy Inc., a Canadian corporation.

(ak) "**10^3m^3**" means 1,000 Cubic Metres.

TABLE OF CHARGES

	Lower Mainland Service Area	Inland Service Area	Columbia Service Area
1. Transportation			
(a) Basic Charge per month	$ 700.00	$ 700.00	$ 700.00
(b) Delivery Charge per gigajoule of MTQ			
(i) between April 1 and November 1			
Level 1	$ .75	$ .75	$ .75
Level 2	$ .70	$ .70	$ .70
(ii) between November 1 and April 1			
Level 1	$ 1.20	$ 1.20	$ 1.20
Level 2	$ 0.95	$ 0.95	$ 0.95
(c) Direct Purchase Administration Charge per month	$ 175.00	$ 175.00	$ 175.00
2. Sales			
(a) Charge per gigajoule of authorized overrun gas			
(i) between 8 a.m. PST April 1 to 8 a.m. PST November 1	$ 1.80	$ 1.80	$ 2.45
(ii) between 8 a.m. PST November 1 to 8 a.m. PST April 1	$ 4.47	$ 4.20	$ 3.78
(b) Charge per gigajoule of unauthorized overrun gas	$ 21.50	$ 21.50	$ 8.50

Franchise Fees Charge of 3.09% of aggregate of the charges above, payable if the facilities to which gas is delivered under this rate schedule are located within the municipal boundaries of a municipality to which BC Gas pays franchise fees.

Minimum Charge per month - The minimum charge per month will be the aggregate of the basic charge, the direct purchase administration charge and the franchise fees charge.

GENERAL INTERRUPTIBLE TRANSPORTATION AGREEMENT

DRAFT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Inc. ("BC Gas") and _____ (the "shipper").

WHEREAS:

A. BC Gas owns and operates the BC Gas system; and

B. The shipper has requested that BC Gas arrange for the transportation of gas on an interruptible basis through the BC Gas system to _____ located in or near _____ in the Province of British Columbia in accordance with rate schedule 27.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Commencement Date:_____ Expiry Date:_____
(only specify an expiry date if term of transportation agreement is not to automatically continue from year to year as set forth in section 9.2 of rate schedule 27 or if shipper is not end-user)

Delivery Point:_____ End-User:_____
(insert name of end-user only if it differs from name of shipper)

_____

Gauge pressure at Delivery Point: not greater than _____ kilopascals and not less than _____ kilopascals

DTQ:_____ gigajoules Level of interruptible service:_____
(insert 1 OR 2, but not both)

Interconnection Point: the point at (_____ km-post_____) where the transporter's pipeline system in British Columbia interconnects with the BC Gas system

Address of shipper for receiving notices:

_____
(name of shipper) Attention:_____

_____ Telephone:_____
(address of shipper)

_____ Telecopier:_____

_____

The information set forth above is hereby approved by the parties and each reference in either this agreement or rate schedule 27 to any such information is to the information set forth above.

2. Rate Schedule 27

2.1 **Additional Terms** - All rates, terms and conditions set forth in rate schedule 27 or the general terms and conditions of BC Gas, as either of them may be amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, are in addition to the rates, terms and conditions contained in this transportation agreement and form part of this transportation agreement and bind BC Gas and the shipper as if set forth herein.

2.2 **Payment of Amounts** - Without limiting the generality of the foregoing, the shipper will pay to BC Gas all of the amounts set forth in rate schedule 27 for the services provided under rate schedule 27 and this transportation agreement.

2.3 **Conflict** - Where anything in either rate schedule 27 or the general terms and conditions of BC Gas conflicts with any of the rates, terms and conditions set forth in this transportation agreement, this transportation agreement governs. Where anything in rate schedule 27 conflicts with any of the rates, terms and conditions set forth in the general terms and conditions of BC Gas, schedule 27 governs.

3. Limitation on Liability and Indemnity

3.1 **Limitation on Liability** - Neither BC Gas, its employees, contractors or agents will be liable in damages for or on account of any interruption or curtailment of transportation service.

3.2 **Indemnity** - The shipper will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of each of the following

(a) any defect in title to any gas delivered to BC Gas at the interconnection point on behalf of the shipper from Suppliers other than BC Gas, or arising from any charges that are applicable to the gas delivered to BC Gas,

(b) franchise fees not otherwise collected by BC Gas under the table of charges,

(c) nominations made in accordance with sections 6 or 8 of rate schedule 27 by BC Gas to the transporter with respect to the shipper's transportation volumes, whether or not the shipper is a member of a group,

(d) gas delivered by the shipper to BC Gas failing to meet the quality specifications set out in section 11.1 of rate schedule 27,

(e) all federal, provincial, municipal taxes (or payments made in lieu thereof) and royalties, whether payable on the delivery of gas to BC Gas by the shipper or on the delivery of gas to the shipper by BC Gas, or on any other service provided by BC Gas to the shipper, and

(f) all charges for authorized overrun gas and unauthorized gas, set forth in the table of charges, whether or not the shipper is a member of a group.

3.3 **Principal Obligant** - If the shipper is a member of a group, the shipper's obligations to pay the charges for authorized overrun gas and unauthorized overrun gas, both set forth in the table of charges, are that of principal obligant and not of surety and are independent of the obligations of the shipper's customer agent pursuant to the customers' agent agreement and a separate action or actions may be brought against the shipper, whether or not an action is brought against the shipper's customer agent and whether or not the customer agent can be or is joined in any such action or actions.

3.4 **Waiver of Defences** - For greater certainty, if the shipper is a member of a group, BC Gas will not be bound to exhaust its recourse against the shipper's customer agent before being entitled to payment from the shipper for the charges for authorized overrun gas and unauthorized overrun gas, both set forth in the table of charges; the shipper waives all diligence, demands, notices, protests, of the shipper's obligations for the charges for authorized overrun gas and unauthorized overrun gas, both set forth in the table of charges, and any and all claims or defences relating to lack of diligence or delays in collection or enforcement of any and all other securities taken by BC Gas and consents to any and all renewals and extensions of the time for payment; and this agreement will not be affected by the dissolution, arrangement, reorganization, assignment for the benefit of creditors, proposal or notice of intention to make a proposal to creditors or bankruptcy of the shipper's customer agent (whether voluntary or compulsory), or by any amalgamation of the customer agent.

4. Force Majeure

4.1 **Force Majeure** - Subject to the other provisions of this section 4, if either party is unable or fails by reason of force majeure to perform in whole or in part any obligation or covenant set forth in this transportation agreement, the obligations of both BC Gas and the shipper will be suspended to the extent necessary for the period of the force majeure condition.

4.2 **Curtailment Notice** - If BC Gas claims suspension pursuant to this section 4, BC Gas will be deemed to have issued to the shipper a notice of curtailment.

4.3 **Exceptions** - Neither party will be entitled to the benefit of the provisions of section 4.1 of this agreement under any of the following circumstances

(a) to the extent that the failure was caused by the negligence or contributory negligence of the party claiming suspension,

(b) to the extent that the failure was caused by the party claiming suspension having failed to diligently attempt to remedy the condition and to resume the performance of the covenants or obligations with reasonable dispatch, or

(c) unless as soon as possible after the happening of the occurrence relied on or as soon as possible after determining that the occurrence was in the nature of force majeure and would affect the claiming party's ability to observe or perform any of its covenants or obligations under this transportation agreement, the party claiming suspension will have given to the other party notice to the effect that the party is unable by reason of force majeure (the nature of which will be specified) to perform the particular covenants or obligations.

4.4 **Notice to Resume** - The party claiming suspension will likewise give notice, as soon as possible after the force majeure condition has been remedied, to the effect that it has been remedied and that the party has resumed, or is then in a position to resume, the performance of the covenants or obligations.

4.5 **Settlement of Labour Disputes** - Notwithstanding any of the provisions of this section 4, the settlement of labour disputes or industrial disturbances will be entirely within the discretion of the particular party involved and the party may make settlement of it at the time and on terms and conditions as it may deem to be advisable and no delay in making settlement will deprive the party of the benefit of section 4.1 of this agreement.

4.6 **No Exemption for Payments** - Notwithstanding any of the provisions of this section 4, force majeure will not relieve or release either party from its obligations to make payments to the other.

4.7 **Periodic Repair by BC Gas** - BC Gas may temporarily shut off the delivery of gas for the purpose of repairing or replacing a portion of the BC Gas system or its equipment and BC Gas will endeavour to give the shipper as much notice as possible with respect to such interruption, not to be less than 8 hours' prior notice except when prevented by force majeure. BC Gas will use all diligence to restore service as quickly as possible.

4.8 **Shipper's Gas** - If BC Gas curtails or interrupts transportation of gas by reason of force majeure the shipper will make its supply of gas available to BC Gas, to the extent required by BC Gas, to maintain service priority to those customers or classes of customers which BC Gas determines should be served.

5. Arbitration

5.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

5.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting forth the nature of the dispute.

5.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 5.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a past or present employee, officer or director of any of the parties or their respective successors or affiliates, any shipper or supplier of the shipper or BC Gas.

5.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 45 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

5.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

IN WITNESS WHEREOF the parties hereto have executed this transportation agreement.

BC GAS INC.

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

_____
(here insert name of shipper)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

WAIVER

To: BC Gas Inc.
1111 West Georgia Street
Vancouver, B.C.
V6E 4M4

("BC Gas")

From: _____

_____

_____

(the "end-user")

In consideration of BC Gas waiving the requirement that the end-user have an alternative fuel burning installation in order to obtain gas service under rate schedule 27, the end-user agrees and acknowledges that any interruption of its operations due to gas discontinuance, interruption, curtailment results solely from the end-user's election not to install and maintain standby facilities.

Concurrently with the signing of this waiver, the end-user further acknowledges receiving and reading a copy of rate schedule 27.

_____
(here insert name of end-user)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

GENERAL TRANSPORTATION CUSTOMERS' AGENT AGREEMENT

DRAFT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Inc. ("BC Gas") and _____ (the "customer agent").

WHEREAS:

A. The customer agent wishes to nominate on behalf of a the members of a group for transportation service on the transporter's pipeline system and on the BC Gas system; and

B. A shipper or shippers have entered into transportation agreements with BC Gas in respect of each of the members of the group.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Members of Group:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(if space is insufficient, continue list on an additional page)

Beginning Date of this agreement:

_____

Expiry Date of this agreement:

_____

(no expiry date need be specified)

Address of Customer Agent for receiving notices:

_____

(name of customer agent)

_____

(address of customer agent)

_____

_____

Attention: _____

Telephone: _____

Telecopier: _____

The information set forth above is hereby approved by the parties and each reference in either this agreement or rate schedule 27 to any such information is to the information set forth above.

2. Rate Schedule 27

2.1 **Definitions in Rate Schedule 27** - Except where the context requires otherwise or except as otherwise expressly provided in this agreement, all words and phrases defined in rate schedule 27 and used in this agreement have the meanings set out in rate schedule 27.

2.2 **Applicable Provisions of Rate Schedule 27** - The terms and conditions set forth in sections 10 (Statements and Payments), 13 (Measurement), 15 (Default or Bankruptcy), 16 (Notice), 17 (Interpretation) and 18 (Miscellaneous) of rate schedule 27 apply to this agreement, with necessary changes, including the substitution of "customer agent" for "shipper", as if set forth in this agreement.

3. Gas Supply Charges

3.1 **Payments by Customer Agent** - The customer agent promises as principal obligant (and not as surety) to pay to BC Gas the charges for authorized overrun gas and the charges for unauthorized overrun gas, both set forth in the table of charges of rate schedule 27, determined based on the quantities transported on behalf of the group from time to time as a whole.

4. Changes to Group

4.1 **Amendment to Agreement Required** - No shipper or end-user may be added to or deleted from the group without amending this agreement in writing and in accordance with the terms of this section.

4.2 **Deletions From Group** - If the customer agent wishes to cease nominating for a shipper or end-user and the customer agent has given to BC Gas 30 days' prior notice that such shipper or end-user wishes to cease to be a member of the group, BC Gas agrees that it will amend this agreement to delete such shipper or end-user from the group and thereafter the customer agent will not be liable for any subsequently incurred charges for authorized overrun gas or unauthorized overrun gas, both set forth in the table of charges of rate schedule 27, in respect of any such shipper or end-user.

5. Term

5.1 **Term** - The term of this agreement will commence on the beginning date specified in section 1 of this agreement and will expire on the earliest to occur of the following

(a) 30 days following notice from the customer agent to BC Gas that the customer agent wishes to cease to nominate for transportation service and balance on behalf of the group,

(b) the expiry or termination of the transportation agreements of all of the members of the group,

(c) the expiry date specified in section 1 of this agreement, and

(d) 30 days following notice from BC Gas to the customer agent that BC Gas no longer wishes the members of the group to nominate and balance on a group basis.

5.2 **Survival of Covenants** - Upon the termination of this agreement, whether pursuant to section 15 (Default or Bankruptcy) of rate schedule 27 or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this agreement relating to the obligation of any of the parties to account to or indemnify the other and to pay to the other any monies owing as at the date of termination in connection with this agreement,

will survive such termination.

6. Representations, Warranties and Covenants

6.1 **Representations and Warranties** - The customer agent represents, warrants and covenants with BC Gas as follows

(a) the members of the group are listed in section 1 of this agreement,

(b) the customer agent is the agent of each of the members of the group and has the authority of each of the members of the group for the purposes of any and

all matters set forth in sections 6 (Nomination), 7 (Balancing) and 8 (Group Nomination and Balancing) of rate schedule 27, and

(c) BC Gas may rely on any act or thing done, or document executed, by the customer agent in connection with of any and all matters set forth in sections 6 (Nomination), 7 (Balancing) and 8 (Group Nomination and Balancing) of rate schedule 27.

6.2 **Changes in Group** - The customer agent will give to BC Gas not less than 30 days' prior notice of each addition to or deletion from the group.

7. Limitation on Liability and Indemnity

7.1 **Limitation on Liability** - None of BC Gas, its employees, contractors and agents will be liable in damages for or on account of any interruption or curtailment of transportation service.

7.2 **Indemnity** - The customer agent will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of nominations made in accordance with sections 6, 7 or 8 of rate schedule 27 by BC Gas to the transporter with respect to the group's transportation volumes.

8. Arbitration

8.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

8.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting forth the nature of the dispute.

8.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 8.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a past or present employee, officer or director of any of the parties or their respective

successors or affiliates, any member or former member of the group or any supplier of any member or former member of the group or BC Gas.

8.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 45 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

8.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

9. Principal Obligant

9.1 **Principal Obligant** - The customer agent's obligations under this agreement are that of principal obligant and not of surety and are independent of the obligations pursuant to the group's transportation agreements and a separate action or actions may be brought against the customer agent, whether or not an action is brought against any members of the group and whether or not any members of the group can be or are joined in any such action or actions.

9.2 **Waiver of Defences** - For greater certainty, BC Gas will not be bound to exhaust its recourse against the members of the group before being entitled to payment from the customer agent hereunder; the customer agent waives all diligence, demands, notices, protests, of the customer agent's obligations under this agreement, and any and all claims or defences relating to lack of diligence or delays in collection or enforcement of any and all other securities taken by BC Gas and consents to any and all renewals and extensions of the time for payment; and this agreement will not be affected by the dissolution, arrangement, reorganization, assignment for the benefit of creditors, proposal or notice of intention to make a proposal to creditors or bankruptcy of any

member of the group (whether voluntary or compulsory), or by any amalgamation of any member of the group.

IN WITNESS WHEREOF the parties hereto have executed this agreement.

BC GAS INC.

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

_____
(here insert name of customer agent)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

BC GAS UTILITY LTD.

RATE SCHEDULE 22
LARGE VOLUME TRANSPORTATION

Revised July 20, 1993



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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the provision of ~~either~~ firm transportation service and/or ~~to~~ level 1 and level 2 interruptible transportation service through the BC Gas system (subject to a minimum of 20,000 gigajoules per month), through one meter station to one Shipper, except as otherwise agreed upon. Unless otherwise agreed to by BC Gas, only Shippers paying the rates set out in the Table of Charges may access level 1 interruptible service. | C

1.2 **Transportation Agreement** - BC Gas will only transport gas pursuant to an executed Transportation Agreement. BC Gas is not offering to provide service as a common carrier.

1.3 **British Columbia Utilities Commission** - This rate schedule may be amended from time to time with the consent of the British Columbia Utilities Commission.

2. Conditions of Service

2.1 **Conditions** - This rate schedule is available in all territory served by BC Gas under the tariff of which this rate schedule is a part if

(a) adequate capacity exists on the BC Gas system,

(b) the Shipper has contracted for a supply of gas, which has been approved by the British Columbia Utilities Commission and any other authorities having jurisdiction,

(c) the Shipper has contracted with the Transporter, or has caused to be contracted with the Transporter, ~~for~~ firm delivery to the Interconnection Point each day over the term of the Transportation Agreement of a quantity of gas equal to the firm DTQ,

(d) the End-User has and continues to have, to the satisfaction of BC Gas, an alternative fuel burning installation in good operating order with an adequate supply of fuel in order that the End-User can continue its operations on occasions when the transportation of gas is interrupted or curtailed and the End-User acknowledges its ability to accommodate such interruption or curtailment. BC Gas ~~may~~ will waive this requirement provided that the End-User agrees and acknowledges that any interruption of its operations due to gas interruption or curtailment results solely from the End-User's election not to install and maintain standby facilities,

(e) where the Shipper is not an End-User of the gas to be transported pursuant to the Transportation Agreement

(i) the End-User is specified in ~~to~~ the Transportation Agreement,

(ii) the Shipper does not deliver gas to a party other than the End-User specified in the Transportation Agreement,

(iii) the term of the Transportation Agreement is identical to the term of the gas supply contract between the Shipper and the end-user, which will be for a period of not less than one Contract Year, and

(iv) the Shipper has provided to BC Gas prior to the commencement of service under this rate schedule in a form acceptable to BC Gas the following

(A) an irrevocable authorization from the end-user permitting BC Gas access to the end-user's property, appropriate easements and right-of-ways on the end-user's property to lay, construct and operate the pipeline and facilities and equipment deemed necessary by BC Gas to provide gas service under this rate schedule, and

(B) a declaration from the end-user agreeing to comply with all instructions, orders, directions and requests by BC Gas that would be applicable to the end-user if the end-user were a Shipper under a Transportation Agreement, and

(f) BC Gas has installed at the Delivery Point the facilities and equipment referred to in section 12.1 (Facilities and Equipment).

2.2 **Security** - ~~At any time during the term of~~In order to secure the prompt and orderly payment of the charges to be paid by Shipper to BC Gas under the Transportation Agreement BC Gas may require the Shipper to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the Shipper under this rate schedule and the Transportation Agreement for a period of 90 days. Where BC Gas requires a Shipper to provide a letter of credit and the Shipper is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

Agreement) the Authorized Quantity, up to the aggregate of the firm DTQ and the interruptible DTQ, received at the Interconnection Point from the Shipper. On each day, if the Shipper's gas received at the Interconnection Point is not consumed by the Shipper or is not authorized for delivery to the Shipper, BC Gas will have the right to access such gas subject to all the terms of this rate schedule and the Transportation Agreement.

~~3.2 **Curtailment of Firm Service** - Subject to section 3.3 (Firm Curtailment Buyout), BC Gas may, in order to serve its firm sales customers, curtail firm transportation under this rate schedule to a daily quantity of ½ the firm DTQ on a maximum of 5 days during each Contract Year. If BC Gas and the Shipper agree, the Shipper may from time to time be curtailed by less than ½ the firm DTQ and may be curtailed the balance of such one day curtailment on a subsequent day.~~

MOVED INTO SCHEDULE 22A

~~3.3 **Firm Curtailment Buyout** - If BC Gas determines that adequate capacity exists on the BC Gas system and in order to avoid the curtailments provided for in section 3.2 (Curtailment of Firm Service), Shipper may elect~~

~~(a) in respect of the Contract Year November 1, 1993 to October 31, 1994 only, to pay the firm curtailment buyout charge set out in the Table of Charges, or~~

~~(b) to execute an agreement with BC Gas to make available to BC Gas peaking supplies equal to ½ the firm DTQ on a maximum of ten days during the period November 1 through March 31 of each Contract Year.~~

MOVED INTO SCHEDULE 22A

3.3 **Level 1 Curtailment** - If at any time BC Gas determines that it does not have sufficient capacity on the BC Gas system to accommodate the Shipper's request for level 1 service under this rate schedule, BC Gas may for any length of time interrupt or curtail level 1 service under this rate schedule. The criterion for capacity curtailment will be as established from time to time by BC Gas' systems planning department. Additional capacity curtailments may occur on the basis of day to day operating conditions experienced on the BC Gas system.

3.4 **Level 2 Curtailment** - If at any time BC Gas determines that it does not have sufficient capacity on the BC Gas system to accommodate the Shipper's request for level 2 service under this rate schedule, or that it wishes to utilize the Shipper's gas in order to serve the firm sales customers of BC Gas, BC Gas may for any length of time interrupt or curtail level 2 service under this rate schedule. If on any three days during a Contract Year the Shipper fails to deliver gas to the Interconnection Point when BC Gas wishes to access the Shipper's gas, upon the

third such day interruptible transportation service to the Shipper will, subject to section 1.1 (Description of Applicability), be switched to level 1 service and the Shipper will become subject to the delivery charge applicable to level 1 service, as set out in the Table of Charges, for all interruptible transportation by the Shipper during the Contract Year, including retroactively to November 1. Any retroactive adjustment to the Shipper's previous bills will be made at the earliest time convenient to BC Gas, and be payable in accordance with section 10 (Statements and Payments).

3.5 **Notice of Curtailment** - Each notice from BC Gas to the Shipper with respect to the interruption or curtailment by BC Gas of deliveries of gas to the Delivery Point ~~may~~ will be by telephone and be confirmed by facsimile when such means of communication are available ~~or other means~~ and will specify the quantity of gas to ~~be interrupted or~~ which the Shipper is curtailed and the time at which such ~~interruption or~~ curtailment is to be made and BC Gas will endeavour to give to the Shipper as much notice as possible with respect to such ~~interruption or~~ curtailment, not to be less than 2 hours' prior notice unless prevented by Force Majeure or unless the Transporter does not provide to BC Gas at least 2 hours' prior notice of ~~curtailment~~ reduced availability of gas.

3.6 **Default Regarding Curtailment** - If the Shipper at any time fails or neglects to comply with a notice or order from BC Gas to interrupt or curtail the Shipper's take, BC Gas may, in addition to any other remedy which it may then or thereafter have, at its option, without liability therefor and without any prior notice to the Shipper

(a) turn off the valve at the Delivery Point, or

~~(b) suspend further transportation service to the Shipper and may refuse to deliver gas to the Shipper, or~~

(b) deliver such gas and charge the Shipper for such gas consumed on that day the charges for Unauthorized Overrun Gas set out in the Table of Charges.

3.7 **Maximum Hourly Quantities** - BC Gas will not be obliged to receive or deliver in one hour more than 5% of the quantity of gas that the Shipper is entitled to receive on any day.

3.8 **Pressure at Interconnection Point** - All gas delivered to BC Gas at the Interconnection Point by or on behalf of the Shipper will not be at less than the pressure specified in the Transporter's Service Terms.

3.9 **Pressure at Delivery Point** - All gas delivered by BC Gas at the Delivery Point to or on behalf of the Shipper will not be at less than the pressure specified in the Transportation Agreement.

4. Table of Charges

4.1 **Charges** - In respect of all quantities of gas delivered to the Delivery Point pursuant to this rate schedule and the Transportation Agreement, the Shipper will pay to BC Gas all of the charges set out in the Table of Charges.

5. Minimum Charge

5.1 **Minimum Charge** - The minimum charge for any month will be based upon ~~the firm DTQ or firm MTQ, where applicable, and~~ a Minimum Quantity of 20,000 gigajoules for that month. The minimum charge will be calculated as the sum of the following:

(a) the Basic Charge and Administration Charge,

(b) the Delivery Charge per month per gigajoule of firm DTQ times the firm DTQ, (if applicable),

(c) the Delivery Charge per gigajoule of firm MTQ times (the firm MTQ or 20,000, whichever is less), (if applicable),

(d) the Delivery Charge per gigajoule of interruptible MTQ times (20,000 less the firm MTQ, if a positive amount),

(e) the Franchise Fee Charge, (if applicable).

5.2 **Minimum Charge Credits** - If on any day either BC Gas fails to deliver to the Shipper the quantity of gas that the Shipper has requested and delivered to the Interconnection Point on that day, or the Shipper is entitled to relief by reason of Force Majeure, then a prorata credit will apply to the applicable delivery charges for firm service and an adjustment will apply ~~and~~ to the Minimum Quantity set out in section 5.1 (Minimum Charge). ~~A prorata credit~~ The adjustment to the Minimum Quantity will ~~apply for a day~~ be made when service is ~~totally~~ interrupted~~, calculated based on the Minimum Quantity divided by the number of days in the month, or for a day of partial curtailment, based additionally on the curtailed quantity divided by the quantity BC Gas would have delivered in the absence of the curtailment.~~ or curtailed. The Minimum Quantity will be reduced by the quantity that would have been delivered in the absence of the curtailment. Provided, however, in the case of Force Majeure arising out of strike or lockout, the credit provisions will apply for no more than 90 days in any Contract Year with the Minimum Quantity for each month prorated by the number of days of Force Majeure in that month.

5.3 **Reduced MTQ** - The firm MTQ will be reduced ~~to reflect~~ by the firm quantities on which credits have been ~~provided under~~ calculated under section 5.2 (Minimum Charge Credits).

5.4 **Delivery Rate during Force Majeure** - In respect of all gas received by the Shipper while the Shipper is entitled to relief by reason of Force Majeure, the Shipper will pay a delivery charge equivalent to three times the applicable delivery charge set out in the Table of Charges (calculated on a per unit basis at 100 percent load factor).

5.5 **Limitation on Minimum Charge Credits** - Notwithstanding section 5.2 (Minimum Charge Credits), no credit will apply in respect of an event of Force Majeure that has occurred upstream of the Transporter, or for gas sold, delivered or transported on an interruptible basis to the Interconnection Point.

6. Unauthorized Gas Use

6.1 **Charges for Unauthorized Service** - On any day the Shipper takes Unauthorized Overrun Gas, the Shipper will pay to BC Gas the charges for Unauthorized Overrun Gas set out in the Table of Charges.

6.2 **Payments Not License** - Payments made by the Shipper to BC Gas for Unauthorized Overrun Gas neither give the Shipper the right to take Unauthorized Overrun Gas, nor exclude or limit any other remedies available to BC Gas for the Shipper's taking of Unauthorized Overrun Gas.

6.3 **Demand Surcharge** - If on three or more days during a Contract Year the Shipper takes gas in excess of the greater of

(a) 110% of a curtailed quantity specified by BC Gas in accordance with Section 3.6 (Notice of Curtailment), or

(b) a curtailed quantity specified by BC Gas in accordance with Section 3.6 (Notice of Curtailment) plus 100 gigajoules,

the demand surcharge set out in the Table of Charges will apply. The demand surcharge will be calculated and become payable at the end of a month of the third or more occurrence, on the average of the two largest quantities of Unauthorized Overrun Gas taken (the "Demand Surcharge Quantity") as follows:

Demand Surcharge equals:

the demand surcharge rate

times 12

times the Demand Surcharge Quantity.

6.4 **Recalculation of Demand Surcharge** - The demand surcharge will be recalculated if the Shipper again uses Unauthorized Overrun Gas which causes the Demand Surcharge Quantity to increase. Any additional demand surcharge will become payable at the end of the month in which a new Demand Surcharge Quantity is established.

~~6.5 **Adjustment to Firm Curtailments** - If the Shipper has a firm DTQ that is subject to curtailment under section 3.2 (Curtailment of Firm Service), commencing on the first day of the month following a month during which the Shipper becomes subject to a demand surcharge or recalculated surcharge, firm curtailments applicable to the Shipper will be modified, subject to the determination by BC Gas that adequate capacity exists on its system. The adjustment will equal the lessor of the Demand Surcharge Quantity calculated in section 6.3 (Demand Surcharge) and the amount otherwise subject to firm curtailment.~~

MOVED TO SCHEDULE 22A

7. Nomination

7.1 ~~**Supplier**~~ **Capacity on Transporter's Pipeline** - The Shipper will on or before the Commencement Date notify BC Gas of the identity of ~~the Shipper's firm and interruptible gas Suppliers on or before the Commencement Date,~~ the party holding capacity for Shipper on the Transporter's pipeline, and from time to time when ~~any of the Shipper's Suppliers change~~ such party changes.

7.2 **Requested Quantity** - The Shipper will provide to BC Gas by facsimile or other method approved by BC Gas, prior to 7:30 a.m. Pacific local time on each day (or such other time as may be specified from time to time by BC Gas) such information as may be requested by BC Gas, including

(a) the estimated quantity of gas ~~the Shipper estimates~~ that will be consumed by the Shipper on the day commencing in approximately 24 hours,

(b) the Shipper's Requested Quantity for the day commencing in approximately 24 hours, and

(c) the ~~Shipper's~~ best estimate of gas consumption by Shipper for the day just ending, and the day just commencing.

It is intended that the Shipper's Requested Quantity for each day will approximately equal the quantity of gas the Shipper will actually consume on such day. If the Shipper does not notify BC Gas in accordance with the foregoing, then the Shipper's Requested Quantity for the day commencing in approximately 24 hours will be deemed to be the Shipper's Requested Quantity, adjusted as set out in section 7.3 (Adjustment of Requested Quantity), for the day just commencing.

7.3 **Adjustment of Requested Quantity** - BC Gas may adjust the Shipper's Requested Quantity, described in section 7.2 (Requested Quantity), when in the reasonable opinion of BC Gas such modification is required: in cooperation with Shipper, ~~in order~~ to ~~maintain reasonable~~ limit the build up of inventory account quantities; during any period of interruption or curtailment; or, subject to the terms of the Shipper's Transportation Agreement, on any day when BC Gas wishes to increase the Requested Quantity to the level available ~~under~~ to the Shipper~~'s contract with the~~ on the Transporter's pipeline.

7.4 **Request to Transporter** - BC Gas will provide to the Transporter the Shipper's Requested Quantity, adjusted as set out in section 7.3 (Adjustment of Requested Quantity).

7.5 **Delivery to Interconnection Point** - The Shipper will cause to be delivered to the Interconnection Point on each day a quantity of gas at least equal to the Shipper's Requested Quantity, adjusted as set out in section 7.3 (Adjustment of Requested Quantity).

7.6 **Failure to Deliver to Interconnection Point** - If on any day the Authorized Quantity from the Transporter is less than the quantity provided pursu~~ant~~ to section 7.4 (Request to Transporter), then, in addition to curtailments permitted under section 3 (Transportation), BC Gas may in its discretion interrupt or curtail service hereunder within each service level by the amount that the Authorized Quantity from the Transporter is less than the amount requested. Alternatively, BC Gas may sell an equivalent amount of gas to the Shipper at the Interconnection Point and charge the Shipper the ~~backstopping~~ charge set out in rate schedule 13. If BC Gas is unable to ascertain which Shipper's supply has caused a deficiency, BC Gas may in its discretion interrupt or curtail service to Shippers on a basis deemed equitable by BC Gas. BC Gas will reallocate the deficiency if it obtains information that allows it to determine responsibility.

7.7 **Authorized Quantity** - BC Gas will each day advise the Shipper if the Authorized Quantity is less than the Customer's request. Unless so advised, the Authorized Quantity will be equal to the Requested Quantity subject to the other provisions

of section 7 (Nomination) and any notice of curtailment pursuant to section 3.6 (Notice of Curtailment).

8. Balancing

8.1 **Daily Adjustments** - In respect of gas received by BC Gas at the Interconnection Point below the level of any interruption or curtailment, BC Gas will make daily adjustments for imbalances as follows

(a) for overdeliveries (the Authorized Quantity on a daily basis is greater than the quantity of gas taken by the Shipper), BC Gas will maintain an inventory account for the Shipper and will increase the balance in the inventory account by the amount of the excess ~~and charge the Shipper a balancing fee as set out in the Table of Charges~~, or

(b) for underdeliveries (the Authorized Quantity on a daily basis is less than the quantity of gas taken by the Shipper), BC Gas will sell to the Shipper the deficiency quantity at ~~a commodity charge equal to, from November 1 to March 31, the average cost of gas assigned to its rate schedule 1 customers and, from April 1 to October 31, the average cost of gas assigned to its rate schedule 4 customers~~ the charge for balancing underdeliveries as set out in the Table of Charges.

Gas balancing hereunder is intended for matching day to day imbalances that cannot be reasonably forecast by the Shipper and not as a source of interruptible sales gas, Backstopping Gas or Peaking Gas.

8.2 **Agreement to Return or Purchase Overdeliveries** - If a Shipper overdelivers gas in accordance with section 8.1(a), then BC Gas will

(a) transfer such gas to the Shipper's inventory account under rate schedule 32, provided the Shipper has executed a Gas Balancing Agreement under rate schedule 32 and such agreement continues to be in effect, or

(b) purchase an amount of gas agreed upon from time to time at the price specified in the Transportation Agreement, or

(c) return such gas to the Shipper on a cooperative basis between BC Gas and Shipper, at no charge to the Shipper.

8.3 **Security of Supply** - It is the responsibility of the Shipper to arrange for a supply of gas with adequate security to meet the needs of the Shipper and its obligations under this rate schedule. This may include a rate schedule 13 Sales Agreement with BC Gas for Peaking Gas and/or a rate schedule 14 Sales Agreement for

Backstopping Gas, to be used when the Shipper's other supplies may be insufficient or unavailable.

8.4 **Imbalance Following Termination** - If BC Gas has received a quantity of gas in excess of the quantity delivered to the Shipper during the term of a Transportation Agreement, then the Shipper may request the excess quantity be returned within 90 days following termination of the Transportation Agreement.

9. Term of Transportation Agreement

9.1 **Term** - The initial term of the Transportation Agreement will begin on the Commencement Date and

(a) if the Shipper is the End-User, will expire at 8:00 a.m. Standard Time on the November 1st next following, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term will instead expire at the end of one further Contract Year, and

(b) if the Shipper is not the End-User, the term of the Transportation Agreement will be as described in section 2.1(e)(iii).

9.2 **Automatic Renewal Where Shipper is End-User** - If the Shipper is the End-User, and except as specified in the Transportation Agreement, the term of the Transportation Agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the Shipper upon not less than 6 months' notice prior to the end of the Contract Year then in effect. If the Shipper fails to request an amended DTQ within 6 months prior to the end of the Contract Year then in effect, the previous DTQ will remain in effect.

9.3 **Early Termination** - The term of the Transportation Agreement is subject to early termination in accordance with section 15 (Default or Bankruptcy).

9.4 **Survival of Covenants** - Upon the termination of the Transportation Agreement, whether pursuant to section 15 (Default or Bankruptcy) or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this rate schedule and in the Transportation Agreement relating to the obligation of any of the parties to account to or indemnify the other and to pay to the other any monies owing as at the date of termination in connection with the Transportation Agreement,

will survive such termination.

10. Statements and Payments

10.1 **Statements to be Provided** - BC Gas will, on or before the 15th day of each month, deliver to the Shipper a statement for the preceding month showing the gas quantities delivered to the Shipper and the amount due. BC Gas will, on or before the 45th day after the end of a Contract Year, deliver to the Shipper a separate statement for the preceding Contract Year showing the amount required from the Shipper in respect of any indemnity due under a Transportation Agreement. Any errors in any statement will be promptly reported to the other party as provided hereunder, and statements will be final and binding unless questioned within one year after the date of the statement.

10.2 **Payment and ~~Late Payment Charge~~ Interest** - Payment for the full amount of the statement, including federal, provincial and municipal taxes or fees applicable thereon, will be made to BC Gas at its Vancouver, British Columbia office, or such other place in Canada as it will designate, on or before the 1st business day after the ~~21st~~ 10th calendar day following the billing date. If the Shipper fails or neglects to make any payment required under this rate schedule, or any portion thereof, to BC Gas when due, ~~BC Gas may include in the next bill to the Shipper a late payment charge of 1½% per month (19.56% per annum)~~ interest on the outstanding amount will accrue from and including the date when such payment is due to and including the date the same is paid, at the rate of interest declared by the chartered bank in Canada principally used by BC Gas, for loans in Canadian dollars to its most creditworthy commercial borrowers payable on demand and commonly referred to as its "prime rate", plus 5%.

10.3 **Examination of Records** - Each of BC Gas and the Shipper will have the right to examine at reasonable times the books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge, computation or demand made pursuant to any provisions of this rate schedule or the Transportation Agreement.

11. Quality

11.1 **Minimum Standards** - All gas delivered to the Interconnection Point by or on behalf of the Shipper and all gas delivered to the Delivery Point will conform to the quality specifications set out in the Transporter's Service Terms.

~~11.2 **Failure by Shipper to Meet Specifications** - Whenever any gas delivered by the Shipper to the Interconnection Point fails to conform with any of the specifications required in section 11.1 (Minimum Standards), BC Gas agrees to notify the Transporter and the Shipper of such failure and if the Transporter or the Shipper or both of them fail to promptly remedy any such failure BC Gas may, without prejudice to any other right it has, refuse to accept receipt of such gas pending remedy by the Transporter or the Shipper, or accept receipt of such~~

~~gas and may make all changes necessary to bring the Shipper's gas into conformity with such quality specifications, in which case the Shipper will reimburse BC Gas for all reasonable expenses incurred by BC Gas in effecting such changes.~~

~~11.3 **Failure by BC Gas to Meet Specifications** - Whenever any gas delivered by BC Gas to the Delivery Point fails to conform with any of the specifications required in section 11.1 (Minimum Standards), the Shipper agrees to notify BC Gas of such failure and if BC Gas fails to promptly remedy any such failure the Shipper may, without prejudice to any other right it has, refuse to accept receipt of such gas pending remedy by BC Gas, or accept delivery of such gas and may make all changes necessary to bring such gas into conformity with such quality specifications, in which case BC Gas will reimburse the Shipper for all reasonable expenses incurred by the Shipper in effecting such changes.~~

12. Measuring Equipment

12.1 **Facilities and Equipment** - BC Gas ~~may~~ will install, maintain and operate at the Delivery Point such metering and communications facilities and equipment as BC Gas determines are necessary or desirable for measuring the quantity of gas delivered pursuant to this rate schedule to the Shipper and the Shipper will permit BC Gas, without cost to BC Gas, to use the Shipper's communications lines and power for the purpose of installing, maintaining and operating the measuring equipment of BC Gas.

12.2 **Measuring Site** - If BC Gas reasonably determines that it is necessary to install the facilities and equipment referred to in section 12.1 (Facilities and Equipment) on the Shipper's property, the Shipper will, without charge, provide a suitable site along with utilities and enclosures for the installation of the facilities and equipment of BC Gas. BC Gas will at all times have clear access to the site and to all of its facilities and equipment. All facilities and equipment installed by BC Gas on the Shipper's property will remain the property of BC Gas and may be removed by BC Gas upon termination of the Transportation Agreement.

12.3 **Calibration and Test of Measuring Equipment** - The accuracy of the measuring equipment of BC Gas will be verified by standard tests and methods at regular intervals and at other times at the initiative of BC Gas or upon the reasonable request of the Shipper. Notice of the time and nature of each test conducted in response to communications with or at the request of the Shipper will be given by BC Gas to the Shipper sufficiently in advance to permit a representative of the Shipper to be present. If during a test the measuring equipment is found to be registering inaccurately, it will be adjusted at once to read as accurately as possible. The results of each test and adjustment, if any, made by BC Gas, whether or not the Shipper is present for such test, will be accepted until the next test. All tests of such measuring equipment of BC Gas will be made at the

expense of BC Gas, except that the Shipper will bear the expense of tests made at its request if the measuring equipment is found to be inaccurate by an amount equal to 2% or less.

12.4 **Inaccuracy Exceeding 2%** - If upon any test the measuring equipment is found to be inaccurate by an amount exceeding 2%, any previous readings of such equipment will be corrected to zero error for any period during which it is definitely known or is agreed upon that the error existed. If the period is not definitely known or is not agreed upon, such correction will be for a period covering the last half of the time elapsed since the date of the last test. Provided that under no circumstances will an adjustment be made for a period of more than the preceding 12 months.

12.5 **Correction of Measuring Errors** - If the measuring equipment is out of service or out of repair so that the quantity of gas delivered cannot be correctly determined by the reading thereof, the gas delivered during the period such measuring equipment is out of service or out of repair will be estimated on the basis of the best available data, using the first of the following methods which is feasible

(a) by correcting the error if the percentage of error is ascertained by calibration test or mathematical calculation,

(b) by using the registration of any check measuring equipment if installed and accurately registering, and

(c) by estimating the quantity of gas delivered to the Shipper during the preceding periods under similar conditions when the meter was registering accurately.

12.6 **Shipper's Equipment** - The Shipper may at its own expense install, maintain and operate its own measuring equipment for the purposes of monitoring or checking the measuring equipment of BC Gas, provided that the Shipper will install such equipment so as not to interfere with the operation of the measuring equipment of BC Gas.

12.7 **Right to be Present** - BC Gas and the Shipper will have the right to inspect all equipment installed or furnished by the other and the charts and other measurement or test data of the other at all times during business hours, and to be present at the time of any installing, testing, cleaning, changing, repairing, calibrating or adjusting done in connection with the measuring equipment of the other party, but all such activities will be performed by the party furnishing the measuring equipment.

12.8 **Preservation of Records** - Both parties will cause to be preserved each test datum, chart and other record of gas measurement for a period of 2 years.

13. Measurement

13.1 **Unit of Volume** - The unit of volume of gas for all purposes hereunder will be 1 cubic metre at a temperature of 15° Celsius and an absolute pressure of 101.325 kilopascals.

13.2 **Determination of Volume** - Gas delivered hereunder will be metered using metering apparatus approved by the Standards Division, Department of Consumer & Corporate Affairs of Canada and the determination of standard volumes delivered hereunder will be in accordance with terms and conditions pursuant to the *Electricity and Gas Inspection Act* of Canada.

13.3 **Conversion to Energy Units** - In accordance with the *Electricity and Gas Inspection Act* of Canada, volumes of gas delivered each day will be converted to energy units by multiplying the standard volume by the heat content of each unit of gas. Volumes will be specified in 10^3m^3 rounded to one decimal place and energy will be specified in gigajoules rounded to the nearest gigajoule.

14. Representations, Warranties and Covenants

14.1 **Title** - The Shipper covenants with BC Gas that the Shipper will have good title to all gas to be delivered to BC Gas at the Interconnection Point on behalf of the Shipper from Suppliers other than BC Gas, free and clear of all liens, encumbrances and claims.

14.2 **Title Not That of BC Gas** - BC Gas agrees that title to all gas transported pursuant to the Transportation Agreement remains with the Shipper.

14.3 **Acknowledgement** - The Shipper acknowledges that the gas transported under the Transportation Agreement will be odorized and commingled with gas within Transporter's pipeline system and the BC Gas system and the Shipper agrees to accept a proportionate share of any gas lost by pipeline failure, fire or other similar cause that may affect the Shipper's gas.

14.4 **Shipper's Gas** - The Shipper acknowledges that part of the gas to be transported under this rate schedule forms an important and integral part of the gas supply of BC Gas used to meet its commitments to serve its Customers. The Shipper acknowledges that it is reasonably foreseeable that BC Gas may be unable to meet all its gas delivery commitments to its firm Customers if the Shipper fails to meet its commitment hereunder or under the Transportation Agreement to deliver gas during periods in which BC Gas is entitled to interrupt or curtail and in which the Shipper is to make its supply of gas available to BC Gas. The Shipper acknowledges that as a consequence of BC Gas being unable to meet all

its gas delivery commitments to its firm Customers BC Gas may suffer damages in that

(a) the Customers of BC Gas or other persons might have claims against BC Gas resulting from such failure to deliver, or arising from the efforts of BC Gas made to minimize such failure, and

(b) BC Gas may incur expenses to acquire an alternate gas supply or other expenses to minimize such failure, and losses arising from its inability to deliver gas.

15. Default or Bankruptcy

15.1 **Default** - If the Shipper at any time fails or neglects

(a) to make any payment due to BC Gas or to any other person under this rate schedule or the Transportation Agreement within 30 days after payment is due, or

(b) to cure any default of any of the other terms, covenants, agreements, conditions or obligations imposed upon it under this rate schedule or the Transportation Agreement, within 30 days after BC Gas gives to the Shipper notice of such default or, in the case of a default that cannot with due diligence be cured within a period of 30 days, the Shipper fails to proceed promptly after the giving of such notice with due diligence to cure the same and thereafter to prosecute the curing of such default with all due diligence,

then BC Gas may in addition to any other remedy that it has, including the rights of BC Gas set out in sections 3.5 (Level 2 Curtailment), 3.7 (Default Regarding Curtailment) and 6 (Unauthorized Gas Use), at its option and without liability therefor

(a) suspend further transportation service to the Shipper and may refuse to deliver gas to the Shipper until the default has been fully remedied, and no such suspension or refusal will relieve the Shipper from any obligation under this rate schedule or the Transportation Agreement, or

(b) terminate the Transportation Agreement, and no such termination of the Transportation Agreement pursuant hereto will exclude the right of BC Gas to collect any amount due to it from the Shipper for what would otherwise have been the remainder of the term of the Transportation Agreement.

15.2 **Bankruptcy or Insolvency** - If the Shipper becomes bankrupt or insolvent or commits or suffers an act of bankruptcy or insolvency or a receiver is appointed pursuant to a statute or under a debt instrument or the Shipper seeks protection from the demands of its creditors pursuant to any legislation enacted for that purpose, BC Gas will have the right, at its sole discretion, to terminate the Transportation Agreement by giving notice in writing to the Shipper and thereupon BC Gas may cease further delivery of gas to the Shipper and the amount then outstanding for gas provided under the Transportation Agreement will immediately be due and payable by the Shipper.

16. Notice

16.1 **Notice** - Any notice, request, statement or bill that is required to be given or that may be given under this rate schedule or under the Transportation Agreement will, unless otherwise specified, be in writing and will be considered as fully delivered when mailed, personally delivered or sent by telecopier to the other in accordance with the following:

if to BC Gas	BC GAS UTILITY LTD.	
MAILING ADDRESS:	1111 West Georgia Street ~~6th Floor~~ Vancouver, B.C. V6E 4M4	
NOMINATIONS AND FORCE MAJEURE:	Attention: Telephone: Telecopier:	Transportation Coordinators (604) 443-6950 (604) 443-6952
BILLING AND PAYMENT:	Attention: Telephone: Telecopier:	Manager, Customer~~-~~ Administration (604) 443-6507 (604) 443-6588
CUSTOMER RELATIONS	Attention: Telephone: Telecopier:	Manager, Industrial ~~Markets~~ Services (604) 443-6491 (604) 443-6770
LEGAL AND OTHER:	Attention: Telephone: Telecopier:	V.P. Legal & Regulatory Affairs (604) 443-6607 (604) 443-6789

if to the Shipper, then as set out in the Transportation Agreement.

16.2 **Specific Notices** - Notwithstanding section 16.1 (Notice), notices with respect to Force Majeure will be sufficient if

(a) given by BC Gas in writing by facsimile, or orally in person, or by telephone (to be confirmed in writing) to the person or persons designated from time to time by the Shipper as authorized to receive such notices, or

(b) given by the Shipper by telephone (to be confirmed by facsimile) in the following manner

To claim Force Majeure..."Please be advised that (name of company and location of plant) has (reason for claiming Force Majeure as provided in the Transportation Agreement) and hereby claims suspension by reason of Force Majeure in accordance with the terms of the Transportation Agreement effective 8 a.m. Standard Time (date Force Majeure suspension to become effective, but not to be retroactive)."

To terminate Force Majeure..."Please be advised that (name of company and location of plant) requests ~~that natural gas be made available in~~ a return to normal natural gas service in accordance with the Transportation Agreement effective 8 a.m. Standard Time (date Force Majeure suspension to end, but not to be retroactive) whereby the suspension by reason of Force Majeure currently in force will be terminated."

17. Interpretation

17.1 **Definitions in General Terms and Conditions of BC Gas** - Except where the context requires otherwise or except as otherwise expressly provided in this rate schedule, all words and phrases defined in the general terms and conditions of BC Gas and used in this rate schedule or in a Transportation Agreement have the meanings set out in the general terms and conditions of BC Gas.

17.2 **Change in Definition of "Day"** - BC Gas may~~, in its sole discretion,~~ amend the definition of "day" from time to time to suitably align its operations with those of its Transporters. If BC Gas amends the meaning of "day", a pro-rata adjustment of quantities of gas and charges to account for any day of more or less than 24 hours will be made and the term of the Transportation Agreement will be similarly adjusted.

17.3 **Further Definitions** - Additionally, except where the context requires otherwise, each of the words and phrases described in the definitions have the meanings ascribed thereto in the definitions.

17.4 **Interpretation** - Except where the context requires otherwise or except as otherwise expressly provided, in this rate schedule or in a Transportation Agreement

(a) all references to a designated section are to the designated section of this rate schedule unless otherwise specifically stated,

(b) the singular of any term includes the plural, and vice versa, and the use of any term is equally applicable to any gender and, where applicable, body corporate,

(c) any reference to a corporate entity includes and is also a reference to any corporate entity that is a successor to such entity,

(d) all words, phrases and expressions used in this rate schedule or in a Transportation Agreement that have a common usage in the gas industry and that are not defined in the general terms and conditions of BC Gas, the definitions or in the Transportation Agreement have the meanings commonly ascribed thereto in the gas industry, and

(e) the headings of the sections set out in this rate schedule or in the Transportation Agreement are for convenience of reference only and will not be considered in any interpretation of this rate schedule or the Transportation Agreement.

18. Miscellaneous

18.1 **Waiver** - No waiver by either BC Gas or the Shipper of any default by the other in the performance of any of the provisions of this rate schedule or the Transportation Agreement will operate or be construed as a waiver of any other or future default or defaults, whether of a like or different character.

18.2 **Enurement** - The Transportation Agreement will enure to the benefit and be binding upon the parties and their respective successors and permitted assigns, including without limitation successors by merger, amalgamation or consolidation.

18.3 **Assignment** - The Shipper will not assign the Transportation Agreement or any of its rights or obligations thereunder without the prior written consent of BC Gas which consent will not be unreasonably withheld or delayed. No assignment will release the Shipper from its obligations under this rate schedule or under the Transportation Agreement that existed prior to date on which the assignment takes effect. This provision applies to every proposed assignment by the Shipper.

18.4 **Amendments to be in Writing** - Except as set out in this rate schedule, no amendment or variation of the Transportation Agreement will be effective or binding upon the parties unless such amendment or variation is set out in writing and duly executed by the parties.

18.5 **Proper Law** - The Transportation Agreement will be construed and interpreted in accordance with the laws of the Province of British Columbia and the laws of Canada applicable therein.

18.6 **Time is of Essence** - Time is of the essence of this rate schedule, the Transportation Agreement and of the terms and conditions thereof.

18.7 **Subject to Legislation** - Notwithstanding any other provision hereof this rate schedule and the Transportation Agreement and the rights and obligations of BC Gas and the Shipper under this rate schedule and the Transportation Agreement are subject to all present and future laws, rules, regulations and orders of any legislative body, governmental agency or duly constituted authority now or hereafter having jurisdiction over BC Gas or the Shipper.

18.8 **Further Assurances** - Each of BC Gas and the Shipper will, on demand by the other, execute and deliver or cause to be executed and delivered all such further documents and instruments and do all such further acts and things as the other may reasonably require to evidence, carry out and give full effect to the terms, conditions, intent and meaning of this rate schedule and the Transportation Agreement and to assure the completion of the transactions contemplated hereby.

18.9 **Form of Payments** - All payments required to be made under statements and invoices rendered pursuant to this rate schedule or the Transportation Agreement will be made by telegraphic transfer to, or cheque or bank cashier's cheque drawn on, a Canadian chartered bank or trust company, payable in lawful money of Canada at par in immediately available funds in Vancouver, British Columbia.

~~18.10 **Change in Day** - If BC Gas amends the meaning of "day" as provided for in section 17.2 (Change in Definition of "Day"), a pro-rata adjustment of quantities of gas and charges to account for any day of more or less than 24 hours will be made and the term of the Transportation Agreement will be similarly adjusted.~~ This section has been moved to the end of Section 17.2

DEFINITIONS

(a) **A.N.G.** - means Alberta Natural Gas Company, a Canadian corporation.

(b) **Authorized Quantity** - means, subject to interruptions or curtailments as provided in section 3 (Transportation) or due to provisions of the Transportation Agreement, the quantity of energy (in gigajoules) for each day approved by the Transporter for transportation service on the Transporter's pipeline system, based on the quantity requested by the Shipper, adjusted as set out in section 7.3 (Adjustment to Requested Quantity) or the quantity of energy approved for sale by BC Gas under rate schedules 10 and 13, or any component or aggregate of these quantities, as the context requires.

(c) **Backstopping Gas** - means gas sold by BC Gas under rate schedule ~~13~~4 as an interruptible backup supply to gas obtained by the Shipper from other Suppliers.

(d) **BC Gas** - means BC Gas Utility Ltd., a body corporate incorporated pursuant to the laws of the Province of British Columbia under number 368681.

(e) **BC Gas system** - means the gas transmission and distribution system owned and operated by BC Gas, as such system is expanded, reduced or modified from time to time.

(f) **British Columbia Utilities Commission** - means the British Columbia Utilities Commission constituted under the *Utilities Commission Act* of British Columbia and includes and is also a reference to

(i) any commission that is a successor to such commission, and

(ii) any commission that is constituted pursuant to any statute that ~~may~~ be passed which supplements or supersedes the *Utilities Commission Act* of British Columbia.

(g) **Commencement Date** - means the day specified as the Commencement Date in the Transportation Agreement or a Sales Agreement, as the context requires.

(h) **Contract Year** - means a period of 12 consecutive months commencing at the beginning of the 1st day of November and ending at the beginning of the next succeeding 1st day of November.

(i) **Customer** - means ~~a person~~ an End-User who enters into a Sales Agreement with BC Gas under either rate schedule 10, 13 or 14 ~~or rate schedule 13~~, as the context requires.

(j) **day** - means, subject to section 17.2 (Change in Definition of "Day"), any period of twenty-four consecutive hours beginning and ending at 8:00 a.m. Standard Time.

(k) **definitions** - means the definitions appended to this rate schedule.

(l) **Delivery Point** - means the point specified in a sales or Transportation Agreement where BC Gas delivers gas to a Customer or Shipper.

(m) **Demand Surcharge Quantity** - has the meaning ascribed thereto in section 6.3 (Demand Surcharge).

(n) **DTQ or daily transportation quantity** - means the firm DTQ or the interruptible DTQ or both, as the context requires.

(o) **End-User** - means a person specified in a sales or Transportation Agreement who is a consumer of gas within the service area of BC Gas.

(p) **firm DTQ** - means the maximum quantity of gas that BC Gas is obligated to transport for and deliver on a firm basis to a Shipper at the Delivery Point on any particular day, which reasonably reflects the Shipper's requirements and is specified in a Transportation Agreement.

(q) **firm MTQ** - means the firm transportation quantity delivered during a month under this rate schedule, more specifically described as the lesser of the following quantities of gas

(i) the quantity of gas BC Gas has sold to or received from a Shipper during a month plus any imbalance carried forward from the previous month, and

(ii) the quantity of gas obtained by multiplying the firm DTQ by the number of days in the month, adjusted to reflect any quantity of gas the Shipper fails to deliver to the Interconnection Point when provided by BC Gas to the Transporter and any adjustment pursuant to section 5.3 (Reduced MTQ), such adjustments, if overlapping, to only count once.

(r) **Force Majeure** - means any acts of God, strikes, lockouts, or other industrial disturbances, civil disturbances, arrests and restraints of rulers or people, interruptions by government or court orders, present or future valid orders of any regulatory body having proper jurisdiction, acts of the public enemy, wars, riots, blackouts, insurrections, failure or inability to secure materials or labour by reason of priority, regulations or orders of government, serious epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, explosions, breakage or accident to machinery or lines of pipes, or freezing of wells or pipelines, or the failure of gas supply, temporary or otherwise, from a Supplier of gas ~~to the Shipper~~. C

which act of Force Majeure was not due to negligence of the party claiming Force Majeure. Further, Force Majeure will also include a declaration of Force Majeure by a Transporter that results in gas being unavailable for delivery at the Interconnection Point.

(s) **Franchise Fees** - means the aggregate of all monies payable by BC Gas to a municipality

(i) for the use of the municipality's streets and other property to construct and operate the utility business of BC Gas,

(ii) relating to the revenues received by BC Gas for services provided and gas consumed within the municipality, and

(iii) relating, if applicable, to the value of gas transported by BC Gas through the municipality.

(t) **gas** - means the residue remaining after raw gas has been subjected to any or all of the following permissible processes

(i) the removal of any of its constituent parts other than methane, and the removal of methane to such extent as is necessary in removing other constituents,

(ii) the compression, regulation, cooling, cleaning or any other chemical or physical process other than the addition of diluents, such as air or nitrogen, to such extent as may be required in its production, gathering, transmission, transportation, storage, removal from storage and delivery, and

(iii) the addition of odorant by BC Gas,

but for greater certainty gas does not include propane.

(u) **Gas Balancing Agreement** - means an agreement between BC Gas and a Shipper to provide gas balancing service pursuant to rate schedule 32.

(v) **general terms and conditions of BC Gas** - means the general terms and conditions of BC Gas from time to time approved by the British Columbia Utilities Commission.

(w) **heat content** - means the gross heating value of the gas, determined on the basis of a temperature of 15° Celsius with the gas free of all water vapour and at an absolute pressure of 101.325 kilopascals, with the products of combustion cooled to the initial temperature of the gas and the water formed by the combustion

condensed to the liquid state. The heat content will be expressed in megajoules per cubic metre of gas (MJ/m^3) rounded to two decimal places.

(x) **hour** - means any consecutive 60 minute period.

(y) **Interconnection Point** - means a point (specified as the "Delivery Point" in the Transportation Agreement relied upon by a Shipper for the movement of gas through the Transporter's pipeline system) where the BC Gas system interconnects with the facilities of one of the Transporters of BC Gas, as specified in a Transportation Agreement.

(z) **interruptible DTQ** - means the maximum quantity of gas that BC Gas is obligated to transport for and deliver on an interruptible basis to a Shipper at the Delivery Point on any particular day, which reasonably reflects the Shipper's requirements and is specified in a Transportation Agreement.

(aa) **interruptible MTQ** - means the interruptible transportation quantity delivered during a month under this rate schedule, more specifically described as the quantity of gas delivered to a Shipper at the Delivery Point during a month, less the firm MTQ and any Unauthorized Overrun Gas taken during that month.

(ab) **Minimum Quantity** - means 20,000 gigajoules per month modified by any adjustments for curtailment or Force Majeure as set out in section 5.2 (Minimum Charge Credits).

(ac) **month** - means, subject to any changes from time to time required by BC Gas in the starting time of its gas day, the period beginning at 8:00 a.m. Standard Time on the first day of the calendar month and ending at 8:00 a.m. Standard Time on the first day of the next succeeding calendar month.

(ad) **MTQ or monthly transportation quantity** - means the firm monthly transportation quantity or the interruptible monthly transportation quantity, or both, as the context requires.

(ae) **Peaking Gas** - means gas sold by BC Gas under rate schedule 13 as an interruptible peaking supply in the event a Shipper requires gas in addition to other interruptible gas available from BC Gas or in addition to quantities normally available to the Shipper from Suppliers other than BC Gas.

(af) **rate schedule 10** - means rate schedule 10, including all rates, terms and conditions, and the Table of Charges appended thereto, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission.

(ag) **rate schedule 13** - means rate schedule 13, including all rates, terms and conditions, and the Table of Charges appended thereto, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission.

(ah) **rate schedule 22 or this rate schedule** - means this rate schedule, including all rates, terms and conditions, the definitions and the Table of Charges, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission.

(ai) **rate schedule 22A** - means rate schedule 22A, including all rates, terms and conditions, and the Table of Charges appended thereto, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission.

(aj) **rate schedule 22B** - means rate schedule 22B, including all rates, terms and conditions, and the Table of Charges appended thereto, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission.

(ak) **rate schedule 32** - means rate schedule 32, including all rates, terms and conditions, and the Table of Charges appended thereto, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission.

(al) **Requested Quantity** - means the quantity of energy for each day requested by Shipper for firm and interruptible transportation under schedule 22, or for sales under rate schedules 10, ~~or~~ 13 or 14 , or any component or aggregate of these quantities, as the context requires.

(am) **Sales Agreement** - means an agreement between BC Gas and the Shipper for the sale of gas pursuant to either rate schedule 10, 13 or 14 ~~or rate schedule 13~~, as the context requires.

(an) **Shipper** - means a person who enters into a Transportation Agreement with BC Gas. If the Shipper is not an end-user, then the word "Shipper" in the context of each Delivery Point, property, deliveries of gas, using of gas, consuming of gas, taking of gas, curtailing of gas, interrupting of gas, limiting the taking of gas, receiving of gas, purchasing of gas, accepting of gas, supplying of gas and daily nomination for gas, will also mean "End-User".

(ao) **Standard Time** - means Pacific Standard Time for the Inland and Lower Mainland service areas and Mountain Standard Time for the Columbia service area.

(ap) **Supplier** - means a party who sells gas to a Shipper or BC Gas or has access to its own supplies of gas.

(aq) **Table of Charges** - means the table of prices, fees and charges, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission, appended to this rate schedule, or in the specific context of rate schedules 10, 13, 22A, 22B and 32, the Table of Charges appended to such respective rate schedule.

(ar) **Transportation Agreement** - means an agreement between BC Gas and a Shipper to provide service pursuant to this rate schedule.

(as) **Transporter** - means, in the case of the Columbia service area, A.N.G. and Nova Corporation of Alberta, and in the case of the Inland and Lower Mainland service areas, Westcoast, and any other gas pipeline transportation company connected to the facilities of BC Gas from which BC Gas receives gas for the purposes of gas transportation or resale.

(at) **Transporter's Service Terms** - means the general terms and conditions of the applicable Transporter, as filed with and approved from time to time by the National Energy Board or other applicable governmental authority.

(au) **Unauthorized Overrun Gas** - means any gas taken on any day by a Shipper in excess of the curtailed quantity specified in any notice or order from BC Gas, to interrupt or curtail the Shipper's take, and for greater certainty, Unauthorized Overrun Gas includes all gas taken by a Shipper to the extent that the obligation of BC Gas to deliver such gas is suspended by reason of Force Majeure.

(av) **Westcoast** - means Westcoast Energy Inc., a Canadian corporation.

(aw) "**10^3m^3**" means 1,000 Cubic Metres.

Table of Charges

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
Transportation				
(a)	Basic Charge per month	$1350.00	$1350.00	$1350.00
(b)	Delivery Charge per gigajoule of firm MTQ or per month per gigajoule of firm DTQ	subject to negotiation	subject to negotiation	subject to negotiation
(c)	Delivery Charge per gigajoule of interruptible MTQ			
	(i) between April 1 and November 1			
	Level 1	$ 0.70	$ 0.70	$ 0.70
	Level 2	$ 0.50	$ 0.50	$ 0.50
	(ii) between November 1 and April 1			
	Level 1	$ 0.95	$ 0.95	$ 0.95
	Level 2	$ 0.75	$ 0.75	$ 0.75
~~**(d)**~~	~~Firm Curtailment Buyout charge per month per gigajoule of firm DTQ~~	~~$ 7.92~~	~~$ 6.63~~	~~$ 2.24~~
(d)	Charges for Unauthorized Overrun Gas			
	(i) Per gigajoule charge on first ~~2.5~~ 5 percent of specified quantity	$ 2.93	$ 2.66	$ 2.24
	(ii) Per gigajoule charge on all gas over ~~2.5~~ 5 percent of specified quantity	$ 19.93	$ 19.66	$ 8.24
	(iii) Demand Surcharge per gigajoule of Demand Surcharge Quantity	$ 17.00[1]	$ 17.00[1]	$ 6.00[1]

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~~(i) Charge for Balancing of overdeliveries~~	~~$ 0.0~~	~~$ 0.0~~	~~$ 0.0~~
(e) Charge per gigajoule for Balancing of Underdeliveries (Schedule 7 Commodity Charge)			
- Winter [2]	$ 1.90	$ 1.90	$ 2.067
- Summer [2]	$ 1.10	$ 1.10	$ 1.70
(f) ~~Direct Purchase~~ Administration Charge per month	$ 500.00	$ 500.00	$ 500.00

Franchise Fee Charge of 3.09% of the aggregate of the above charges ~~above,~~ is payable (in addition to the above charges) if the facilities to which gas is delivered under this rate schedule are located within the municipal boundaries of a municipality to which BC Gas pays Franchise Fees.

Notes:

1. The Demand Surcharge is calculated in accordance with section 6.3. A sample calculation is attached to the tariff.

2. The charge for balancing of underdeliveries is subject to change effective on November 1 of each Contract Year.

EXAMPLE CALCULTATIONS:

1. Minimum Charge (Section 5.1) Calculation

For an interruptible Level 2 Shipper, the Minimum Charge for November (assuming no curtailments) will be:

Minimum Charge

-Basic Charge and Administration Charge	$ 1,850.00
-Delivery Charge for Level 2 Interruptible MTQ ($0.95/GJ x 20,000)	$19,000.00
	$20,850.00
-If the Shipper is located in one of the Interior service areas, in most cases a Franchise Fee charge will also apply ($20,850 x 0.0309%)	$ 644.27
	$21,494.27

Provincial and Federal taxes (Social security tax and G.S.T.) will apply to the applicable total bill as calculated above.

2. Demand Surcharge (Section 6.3) Calculation

Assume an Inland service area Shipper is curtailed to 1/2 the firm DTQ on December 7, 8 and 9, equal to 1,000 gigajoules (the "curtailed quantity").

On those days, Shipper actually consumes 1,150, 1,200 and 1,300 gigajoules, so has exceeded 110% of its curtailed quantity on three occasions in December.

The Demand Surcharge Quantity, based on the maximum 2 days of UOR, is:

$$= \frac{(1{,}200 - 1{,}000) + (1{,}300 - 1{,}000)}{2}$$

$$= \frac{500}{2}$$

$$= 250 \text{ gigajoules}$$

The Demand Surcharge is:

$$= \$17.00 \times 12 \times 250$$

$$= \$51{,}000$$

BC GAS UTILITY LTD.

RATE SCHEDULE 22A
LARGE VOLUME TRANSPORTATION (CLOSED)
INLAND SERVICE AREA

Revised July 22, 1993



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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the provision of firm and interruptible transportation service through one meter station (except as otherwise specified in the Transportation Agreement) to the following existing large industrial Shippers.

NAME OF CUSTOMER	LOCATION OF CUSTOMER
Celgar Pulp Company	Castlegar
Cominco Ltd.	Trail
Pope & Talbot Ltd.	Castlegar
Weyerhaeuser Canada Ltd.	Kamloops
Consumers Packaging Inc.	Lavington
Federated Co-operatives Limited	Canoe
FMC of Canada Limited	Prince George
Highland Valley Copper	Logan Lake
Moly-Cop Canada	Kamloops
Northwood Pulp & Timber Ltd.	Prince George
Tolko Industries Ltd.	Kamloops
Cariboo Pulp & Paper Company	Quesnel
Finlay Forest Industries Ltd.	Mackenzie
Fletcher Challenge Canada Limited	Mackenzie
Husky Oil Operations Ltd. Prince George Refinery	Prince George
Louisiana-Pacific Canada Ltd.	Chetwynd
Canadian Forest Products Ltd. (Canfor) Prince George Pulp	Prince George
Northwood Pulp and Timber Limited	Prince George
Quesnel River Pulp Company	Quesnel

1.2 **Transportation Agreement** - BC Gas will only transport gas under this schedule pursuant to an executed transportation agreement under rate schedule 22.

1.3 **British Columbia Utilities Commission** - This rate schedule may be amended from time to time with the consent of the British Columbia Utilities Commission.

2 Table of Charges

2.1 **Charges** - In respect of transportation pursuant to rate schedule 22A and the transportation agreement, the shipper will pay to BC Gas all of the charges set out in the table of charges attached hereto, and for greater certainty it is expressly confirmed that the Table of Charges attached to rate schedule 22 does not apply to this rate schedule 22A.

3 Terms and Conditions

3.1 **Other Terms and Conditions** - The ~~rates,~~ terms and conditions set out in rate schedule 22~~, except as provided in the table of charges attached hereto,~~ apply to the provision of service under this rate schedule except as excluded by operation of section 3.2 (Inapplicable Terms and Conditions).

3.2 **Inapplicable Terms and Conditions** - The following terms and conditions set out in rate schedule 22 do not apply, and are not incorporated by reference, to this rate schedule 22A

- section 1 (Applicability)
- section 4 (Table of Charges)

3.3 **Shippers on Bypass Rates** - Shippers who have executed long term service agreements on rates, terms and conditions competitive with a bypass pipeline alternative remain subject to the rates, terms and conditions set out in the respective long term service agreement.

3.4 **Curtailment of Firm Service** - Subject to section 3.5 (Firm Curtailment Buyout), BC Gas may, in order to serve its firm sales customers, curtail firm transportation under this rate schedule to a daily quantity of ½ the firm DTQ on a maximum of 5 days during each Contract Year. If BC Gas and the Shipper agree, the Shipper may from time to time be curtailed by less than ½ the firm DTQ and may be curtailed the balance of such one day curtailment on a subsequent day.

3.5 **Firm Curtailment Buyout** - If BC Gas determines that adequate capacity exists on the BC Gas system and in order to avoid the curtailments provided for in section 3.4 (Curtailment of Firm Service), Shipper may elect

(a) in respect of the Contract Year November 1, 1993 to October 31, 1994 only, to pay the firm curtailment buyout charge set out in the Table of Charges, or

(b) to execute an agreement with BC Gas to make available to BC Gas peaking supplies equal to ½ the firm DTQ on a maximum of ten days during the period November 1 through March 31 of each Contract Year.

3.6 **Adjustment to Firm Curtailments** - If the Shipper has a firm DTQ that is subject to curtailment under section 3.4 (Curtailment of Firm Service), commencing on the first day of the month following a month during which the Shipper becomes subject to a demand surcharge or recalculated surcharge, firm curtailments applicable to the Shipper will be modified, subject to the determination by BC Gas that adequate capacity exists on its system. The adjustment will equal the lessor of the demand surcharge quantity calculated in section 6.3 of rate schedule 22 (Demand Surcharge) and the amount otherwise subject to firm curtailment.

TABLE OF CHARGES

		Inland Service Area
Transportation		
(a)	Basic Charge per month	$2,700.00
(b)	Delivery Charges for firm transportation	
(i)	per month per gigajoule of firm DTQ	$ 6.60
(ii)	per gigajoule of firm MTQ	$ 0.044
(c)	Delivery Charges per gigajoule of interrupible MTQ	
(i)	between April 1 and November 1	
	Level 1	$ 0.55
	Level 2	$ 0.38
(ii)	between November 1 and April 1	
	Level 1	$ 0.55
	Level 2	$ 0.38
(d)	Firm Curtailment Buyout charge per month per gigajoule of firm DTQ	$ 6.632
(e)	Charges for Unauthorized Overrun Gas	
(i)	Per gigajoule charge on first ~~2.5~~ 5 percent of specified quantity	$ 2.66
(ii)	Per gigajoule charge on all gas over ~~2.5~~ 5 percent of specified quantity	$ 19.66
(iii)	Demand Surcharge per gigajoule of demand surcharge quantity	$ 17.00[1] | C
(f)	Charge per gigajoule for Balancing ~~overdeliveries~~ underdeliveries (Schedule 7 Commodity Charge)	~~$ 0.00~~
	- Winter[2]	$ 1.90 | C
	- Summer[2]	$ 1.10

(g) ~~Direct Purchase~~ Administration Charge per month $ 500.00

Franchise Fee Charge of 3.09% of the aggregate of the above charges ~~above,~~ is payable (in addition to the above charges) if the facilities to which gas is delivered under rate schedule ~~32~~ 22A are located within the municipal boundaries of a municipality to which BC Gas pays Franchise Fees.

Notes:

1. The Demand Surcharge is calculated in accordance with section 6.3 of rate schedule 22.

2. The charge for balancing of underdeliveries is subject to change effective on November 1 of each Contract Year.

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BC GAS UTILITY LTD.

INTERIM RATE SCHEDULE 22B
LARGE VOLUME TRANSPORTATION (CLOSED)
COLUMBIA SERVICE AREA



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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the provision of firm and interruptible transportation service through one meter station (except as otherwise specified in the Transportation Agreement) to the following existing large industrial Shippers.

NAME OF CUSTOMER	LOCATION OF CUSTOMER
Cominco Fertilizers, division of Cominco Ltd.	Kimberley
Crestbrook Forest Industries Ltd.	Skookumchuck
Fording Coal Limited (Fording River)	Elkford
Elkview Coal Corporation (Balmer)	Sparwood
Fording Coal Limited (Greenhills)	Elkford
Line Creek Resources Ltd.	Sparwood

1.2 **Transportation Agreement** - BC Gas will only transport gas under this schedule pursuant to an executed Transportation Agreement under rate schedule 22.

1.3 **British Columbia Utilities Commission** - This rate schedule may be amended from time to time with the consent of the British Columbia Utilities Commission.

2 Table of Charges

2.1 **Charges** - In respect of transportation pursuant to rate schedule 22B and the Transportation Agreement, the Shipper will pay to BC Gas all of the charges set out in the Table of Charges attached hereto, and for greater certainty it is expressly confirmed that the Table of Charges attached to rate schedule 22 does not apply to this rate schedule 22B.

3 Terms and Conditions

3.1 **Other Terms and Conditions** - The terms and conditions set out in rate schedule 22 apply to the provision of service under this rate schedule except as excluded by operation of section 3.2 (Inapplicable Terms and Conditions).

3.2 **Inapplicable Terms and Conditions** - The following terms and conditions set out in rate schedule 22 do not apply, and are not incorporated by reference, to this rate schedule 22B

- section 1 (Applicability)
- section 2.1 Clause (c)
- section 4 (Table of Charges)
- section 7 (Nomination), and
- section 8 (Balancing).

4 Nominations

4.1 **Arrangements for Delivery to Interconnection Point** - The relevant terms of Shippers arrangements to deliver its gas to the Interconnection Point will be specified in an Appendix to the Transportation Agreement.

4.2 **Delivery to Interconnection Point** - The Shipper will cause to be delivered to the Interconnection Point on each day a quantity of gas approximately equal to the quantity of gas the Shipper will actually consume on such day.

4.3 **Failure to Deliver to Interconnection Point** - If on any day the Authorized Quantity from the Transporter is less than the quantity required by the Shipper for firm transportation then, in addition to curtailments permitted under section 3 of schedule 22 (Transportation), BC Gas may in its discretion interrupt or curtail service hereunder by the amount that the Authorized Quantity from the Transporter is less than the amount required. Alternatively, BC Gas may sell an equivalent amount of gas to the Shipper at the Interconnection Point and charge the Shipper the charge set out in rate schedule 14 if Shipper has executed a rate schedule 14 Sales Agreement, and otherwise as set out in rate schedule 13. If BC Gas is unable to ascertain which Shipper's supply has caused a deficiency, BC Gas may in its discretion interrupt or curtail service to Shippers on a basis deemed equitable by BC Gas. BC Gas will reallocate the deficiency if it obtains information that allows it to determine responsibility.

5 Balancing

5.1 **Daily Adjustments** - In respect of gas received by BC Gas at the Interconnection Point below the level of any interruption or curtailment, BC Gas will make daily adjustments for imbalances as follows

(a) for overdeliveries (the Authorized Quantity on a daily basis is greater than the quantity of gas taken by the Shipper), BC Gas or the Transporter (on

behalf of the Shipper and BC Gas) will maintain an inventory account for the Shipper and will increase the balance in the inventory account by the amount of the excess, or

(b) for underdeliveries (the Authorized Quantity on a daily basis is less than the quantity of gas taken by the Shipper), BC Gas will sell to the Shipper the deficiency quantity at the commodity charges as set out in the Table of Charges.

5.2 **Security of Supply** - It is the responsibility of the Shipper to arrange for a supply of gas with adequate security to meet the needs of the Shipper. This may include a rate schedule 13 Sales Agreement with BC Gas for Peaking Gas and/or a rate schedule 14 Sales Agreement for Backstopping Gas, to be used when the Shipper's other supplies may be insufficient or unavailable.

5.3 **Imbalance Following Termination** - If BC Gas has received a quantity of gas in excess of the quantity delivered to the Shipper during the term of a Transportation Agreement, then the Shipper may request the excess quantity be returned within 90 days following termination of the Transportation Agreement.

TABLE OF CHARGES

Columbia Service Area

Transportation

(a) Basic Charge per month — N/A

(b) (i) Applicable firm transportation volumes (10^3M^3/day)

	Volume Nomination 10^3M^3 /day	Direct Purchase Volume	Interruptible Sales Volume
Cominco Fertilizers, a division of Cominco Ltd.	83.13	32.0	51.13
Crestbrook Forest Industries Ltd.	216.93	216.9	0.00
Fording Coal Limited (Fording River)	121.65	47.0	74.65
Elkview Coal Corporation Balmer)	139.31	67.0	72.31
Fording Coal Limited (Greenhills)	138.81	136.0	2.81
Line Creek Resources Ltd.	48.00	48.0	0.00
	747.83	546.9	200.90

(ii) Applicable firm transportation quantities (firm volumes in (b)(i) x 37.8 MJ/m^3)

	Firm DTQ GJ/day	Direct Purchase Volume	Interruptible Sales Volumes
Cominco Fertilizers, a division of Cominco Ltd.	3,142	1,210	1,932
Crestbrook Forest Industries Ltd.	8,200	8,200	0
Fording Coal Limited (Fording River)	4,598	1,777	2,821
Elkview Coal Corporation (Balmer)	5,266	2,533	2,733
Fording Coal Corporation (Greenhills)	5,247	5,141	106
Line Creek Resources Ltd.	1,814	1,814	0
	28,267	20,675	7,592

(iii) Delivery Charges for firm transportation per month	$/Month
Cominco Fertilizers, a division of Cominco Ltd.	$19,084
Crestbrook Forest Industries Ltd.	$45,744
Fording Coal Limited (Fording River)	$21,481
Elkview Coal Corporation (Balmer)	$ 8,998
Fording Coal Corporation (Greenhills)	$24,744
Line Creek Resources Ltd.	$12,264

(c) Delivery Charges per gigajoule of Level 2 interruptible MTQ	Level 2 Interruptible Delivery Charge
Cominco Fertilizers, a division of Cominco Ltd.	$0.6795
Crestbrook Forest Industries Ltd.	$0.2562
Fording Coal Limited (Fording River)	$0.8118
Elkview Coal Corporation (Balmer)	$0.1704
Fording Coal Corporation (Greenhills)	$0.2391
Line Creek Resources Ltd.	$0.3116

(d) Charges for Unauthorized Overrun Gas	$/Month	
(i) Per gigajoule on first 5 percent of specified quantity	$2.24	
(ii) Per gigajoule on all gas over 5 percent of specified quantity	$8.24	
(iii) Demand surcharge per gigajoule of Demand Surcharge Quantity	$6.00 [1]	C
(e) Charge per gigajoule for Balancing of Underdeliveries [2]	The Sales Commodity Charge under rate schedule 10 or 13.	C

Franchise Fee Charge of 3.09% of the aggregate of the above charges, is payable (in addition to the above charges) if the facilities to which gas is delivered under this rate schedule 22B are located within the municipal boundaries of a municipality to which BC Gas pays Franchise Fees.

Notes:

1. The Demand Surcharge is calculated in accordance with section 6.3 of rate schedule 22. C

2. The charge for balancing of underdeliveries is subject to change effective on November 1 of each Contract Year. The level 2 Sales Commodity Charge under rate schedule 10 will apply if Shipper has executed a rate schedule 10 Sales Agreement and BC Gas is not incurring peaking gas costs; otherwise the Sales Commodity Charge under rate schedule 13 will apply.

LARGE VOLUME
TRANSPORTATION AGREEMENT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Utility Ltd. ("BC Gas") and _____ (the "Shipper").

WHEREAS:

A. BC Gas owns and operates the BC Gas system; and

B. The Shipper has requested that BC Gas arrange for the transportation of gas through the BC Gas system to _____ located in or near _____ in the Province of British Columbia in accordance with rate schedule 22 and subject to the amending conditions of rate schedule 22A or 22B if Shipper is an End-User under either of these rate schedules.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Applicable Rate Schedule:	Rate schedule _____
Firm DTQ:	_____ gigajoules per day
Interruptible DTQ - Level 1 service:	_____ gigajoules per day
- Level 2 service:	_____ gigajoules per day
Nomination for Firm Curtailment Buyout:	_____ gigajoules per day
~~Imbalance gas price:~~	_____ ~~per gigajoule~~
Commencement Date:	_____
Expiry Date:	_____ (only specify expiry date if term not automatically renewed as set out in section 9.2 of rate schedule 22 or if Shipper is not End-User)
End-User:	_____ (insert name of End-User only if it differs from name of Shipper)
Delivery Point:	_____
Gauge Pressure at the Delivery Point:	_____

Interconnection Point: the point at (_____ km-post_____) where the Transporter's pipeline system in British Columbia interconnects with the BC Gas system

Address of Shipper for receiving notices:

_____ (name of Shipper) Attention: _____

_____ (address of Shipper) Telephone: _____

_____ Telecopier: _____

_____

_____

Gas Price for sales to BC Gas under section 7.3 of rate schedule 22: _____

Consent by Shipper to supply gas under section 7.3 of rate schedule 22: _____ (signature of Shipper)

The information set out above is hereby approved by the parties and each reference in either this agreement or rate schedule 22 to any such information is to the information set out above.

2. Rate Schedule 22/22A/22B

2.1 **Additional Terms** - All rates, terms and conditions set out in the applicable rate schedule (22, 22A or 22B) or the general terms and conditions of BC Gas, as either of them may be amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, are in addition to the rates, terms and conditions contained in this Transportation Agreement and form part of this Transportation Agreement and bind BC Gas and the Shipper as if set out herein.

2.2 **Payment of Amounts** - Without limiting the generality of the foregoing, the Shipper will pay to BC Gas all of the amounts set out in the applicable rate schedule ~~22~~ for the services provided under such rate schedule ~~22~~ and this Transportation Agreement.

2.3 **Conflict** - Where anything in either the applicable rate schedule ~~22~~ or the general terms and conditions of BC Gas conflicts with any of the rates, terms and conditions set out in this Transportation Agreement, this Transportation Agreement governs. Where anything in the applicable rate schedule ~~22~~ conflicts with any of the rates, terms and conditions set out in the general terms and conditions of BC Gas, the rate schedule ~~22~~ governs.

3. Limitation on Liability and Indemnity

3.1 **Limitation on Liability** - Neither BC Gas, its employees, contractors or agents will be liable in damages for or on account of any interruption or curtailment permitted under the general terms and conditions of BC Gas, this Transportation Agreement or the applicable rate schedule ~~22~~.

3.2 **Indemnity** - The Shipper will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of each of the following

(a) any defect in title to any gas delivered to BC Gas at the Interconnection Point on behalf of the Shipper from Suppliers other than BC Gas, or arising from any charges that are applicable to the gas delivered to BC Gas,

(b) Franchise Fees not otherwise collected by BC Gas under the Table of Charges,

(c) nominations made in accordance with section 7 of rate schedule 22 by BC Gas to the Transporter with respect to the Shipper's transportation volumes,

(d) gas delivered by the Shipper to BC Gas failing to meet the quality specifications set out in section 11.1 of rate schedule 22,

(e) all federal, provincial, municipal taxes (or payments made in lieu thereof) and royalties, whether payable on the delivery of gas to BC Gas by the Shipper or on the delivery of gas to the Shipper by BC Gas, or on any other service provided by BC Gas to the Shipper, and

(f) failure by the Shipper to meet its commitment hereunder or under rate schedule 22 to deliver gas during periods in which BC Gas is entitled to interrupt or curtail and in which the Shipper is to make its supply of gas available to BC Gas.

4. Force Majeure

4.1 **Force Majeure** - Subject to the other provisions of this section 4, if either party is unable or fails by reason of force majeure to perform in whole or in part any obligation or covenant set out in the rate schedule ~~22~~ under which service is

rendered or in this Transportation Agreement, the obligations of both BC Gas and the Shipper will be suspended to the extent necessary for the period of the Force Majeure condition.

4.2 **Curtailment Notice** - If BC Gas claims suspension pursuant to this section 4, BC Gas will be deemed to have issued to the Shipper a notice of curtailment.

4.3 **Exceptions** - Neither party will be entitled to the benefit of the provisions of section 4.1 of this agreement under any of the following circumstances

(a) to the extent that the failure was caused by the negligence or contributory negligence of the party claiming suspension,

(b) to the extent that the failure was caused by the party claiming suspension having failed to diligently attempt to remedy the condition and to resume the performance of the covenants or obligations with reasonable dispatch, or

(c) unless as soon as possible after the happening of the occurrence relied on or as soon as possible after determining that the occurrence was in the nature of Force Majeure and would affect the claiming party's ability to observe or perform any of its covenants or obligations under this Transportation Agreement, the party claiming suspension will have given to the other party notice to the effect that the party is unable by reason of Force Majeure (the nature of which will be specified) to perform the particular covenants or obligations.

4.4 **Notice to Resume** - The party claiming suspension will likewise give notice, as soon as possible after the Force Majeure condition has been remedied, to the effect that it has been remedied and that the party has resumed, or is then in a position to resume, the performance of the covenants or obligations.

4.5 **Settlement of Labour Disputes** - Notwithstanding any of the provisions of this section 4, the settlement of labour disputes or industrial disturbances will be entirely within the discretion of the particular party involved and the party may make settlement of it at the time and on terms and conditions as it may deem to be advisable and no delay in making settlement will deprive the party of the benefit of section 4.1 of this agreement.

4.6 **No Exemption for Payments** - Notwithstanding any of the provisions of this section 4, Force Majeure will not relieve or release either party from its obligations to make payments to the other.

4.7 **Periodic Repair by BC Gas** - BC Gas may temporarily shut off the delivery of gas for the purpose of repairing or replacing a portion of the BC Gas system or its

equipment and BC Gas will endeavour to give the Shipper as much notice as possible with respect to such interruption, not to be less than 8 hours' prior notice except when prevented by Force Majeure. BC Gas will use all diligence to restore service as quickly as possible.

4.8 **Shipper's Gas** - If BC Gas curtails or interrupts transportation of gas by reason of Force Majeure the Shipper will make its supply of gas available to BC Gas, to the extent required by BC Gas, to maintain service priority to those customers or classes of customers which BC Gas determines should be served.

4.9 **Alteration of Facilities** - The Shipper will pay to BC Gas all reasonable costs associated with the alteration of facilities made at the discretion of BC Gas to measure quantities reduced by reason of Force Majeure and to restore such facilities after the Force Majeure condition ends.

5. Arbitration

5.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

5.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting out the nature of the dispute.

5.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 5.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a past or present employee, officer or director of any of the parties or their respective successors or affiliates, any Shipper or Supplier of the Shipper or BC Gas.

5.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 45 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

5.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

IN WITNESS WHEREOF the parties hereto have executed this Transportation Agreement.

BC GAS UTILITY LTD.

_____
(here insert name of Shipper)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

WAIVER

To: BC Gas Utility Ltd.
1111 West Georgia Street
Vancouver, B.C.
V6E 4M4

("BC Gas")

From: _____

_____

_____

(the "End-User")

In consideration of BC Gas waiving the requirement that the End-User have an alternative fuel burning installation in order to obtain gas service under rate schedule 22, the End-User agrees and acknowledges that any interruption of its operations due to gas discontinuance, interruption or curtailment results solely from the End-User's election not to install and maintain standby facilities.

Concurrently with the signing of this waiver, the End-User further acknowledges receiving and reading a copy of rate schedule 22.

_____
(here insert name of End-User)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

BC GAS UTILITY LTD.

RATE SCHEDULE 32
LARGE VOLUME GAS BALANCING

Revised July 20, 1993

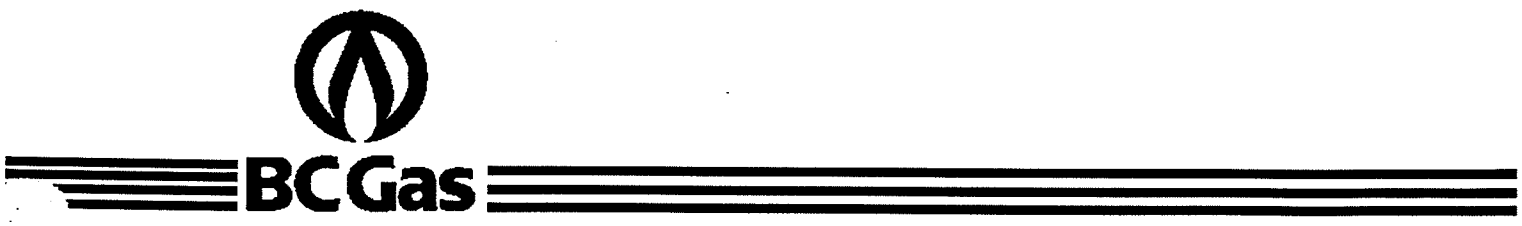


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1. Applicability

1.1 **Description of Applicability** - Rate schedule 32 applies to the provision of interruptible gas balancing service to one Shipper who is receiving service pursuant to a rate schedule 22 Transportation Agreement. Gas balancing service hereunder is intended for matching day to day gas imbalances under rate schedule 22 that cannot be reasonably forecast by the Shipper and not as a source of interruptible sales gas, Backstopping Gas or Peaking Gas.

1.2 **Gas Balancing Agreement** - BC Gas will only balance gas pursuant to an executed Gas Balancing Agreement.

1.3 **British Columbia Utilities Commission** - Rate schedule 32 may be amended from time to time with the consent of the British Columbia Utilities Commission.

2. Conditions of Service

2.1 **Conditions** - Rate schedule 32 is available in all territory served by BC Gas under the tariff of which rate schedule 32 is a part if

(a) adequate gas volumes for such service are available,

(b) the Shipper has entered into a Transportation Agreement under rate schedule 22 and such agreement continues to be in effect,

(c) where the Shipper is not an End-User of the gas to be transported pursuant to a Transportation Agreement under rate schedule 22,

(i) gas balancing is provided only for gas being delivered to the End-User specified in the Transportation Agreement, and

(ii) the Shipper has provided to BC Gas prior to the commencement of service under rate schedule 32 in a form acceptable to BC Gas a declaration from the End-User agreeing to comply with all instructions, orders, directions and requests by BC Gas that would be applicable to the End-User if the End-User were a Shipper under a Gas Balancing Agreement.

2.2 **Security** - ~~At any time during the term of~~ In order to secure the prompt and orderly payment of the charges to be paid by Shipper to BC Gas under the Gas Galancing Agreement BC Gas may require the Shipper to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum

amount payable by the Shipper under rate schedule 32 and the Gas Balancing Agreement for a period of 90 days. Where BC Gas requires a Shipper to provide a letter of credit and the Shipper is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

3. Gas Balancing

3.1 **Gas Balancing** - Subject to all the terms of rate schedule 32, BC Gas will on each day balance for the Shipper at the Interconnection Point the difference between the Shipper's Authorized Quantity under the Transportation Agreement and its actual consumption of gas at one Delivery Point (except as otherwise specified in the Transportation Agreement).

3.2 **Adjustments to Inventory** - In respect of quantities of gas received by BC Gas at the Interconnection Point (in excess of the quantities taken by the Shipper under the Transportation Agreement), BC Gas will maintain an inventory account for the Shipper and will increase the balance in the account by the amount received. BC Gas reserves the right to limit gas quantities maintained in the Shipper's inventory account under rate schedule 32 and may from time to time in cooperation with the Shipper return excess inventory at no charge to the Shipper.

3.3 **Provision of Gas Balancing** - When on any day the Shipper requires gas for balancing, BC Gas will

(a) when gas is available in the Shipper's inventory account under rate schedule 32, return to the Shipper up to 20 percent of the Shipper's Authorized Quantity under the Transportation Agreement, at the charge set out in the Table of Charges, and

(b) sell to the Shipper any quantity of gas which exceeds either 20 percent of the Shipper's Authorized Quantity under the Transportation Agreement or the amount available in the Shipper's inventory account under rate schedule 32, at the charge set out in the Table of Charges.

3.4 **Curtailment of Gas Balancing** - BC Gas may for any reason and for any length of time interrupt or curtail gas balancing under rate schedule 32.

3.5 **Security of Supply** - It is the responsibility of the Shipper to arrange for a supply of gas with adequate security to meet the needs of the Shipper. This may include a rate schedule 13 Sales Agreement with BC Gas for Peaking Gas and/or a rate schedule 14 Sales Agreement for ~~or~~ Backstopping Gas, to be used when the Shipper's other gas supplies may be insufficient or unavailable.

4. Table of Charges

4.1 **Charges** - In respect of gas balancing pursuant to rate schedule 32 and the Gas Balancing Agreement, the Shipper will pay to BC Gas all of the charges set out in the Table of Charges.

5. Term of Gas Balancing Agreement

5.1 **Term** - Unless specified in the Gas Balancing Agreement, the term of the Gas Balancing Agreement will be identical to the term of the Transportation Agreement, but in no event will the term specified be for a period of less than one Contract Year.

6. Measurement

6.1 **Determination of Volume and Quantities** - Gas volumes delivered hereunder will be determined based upon volumes measured and energy quantities delivered under the Shipper's schedule 22 Transportation Agreement.

7. Rate Schedule 22

7.1 **Definitions in Rate Schedule 22** - Except where the context requires otherwise or except as otherwise expressly provided in rate schedule 32, all words and phrases defined in rate schedule 22 and used in rate schedule 32 or in a Gas Balancing Agreement have the meanings set out in rate schedule 22, with necessary changes.

7.2 **Applicable Provisions of Rate Schedule 22** - The terms and conditions set out in the following sections of rate schedule 22 apply to rate schedule 32, with necessary changes, as if set out in rate schedule 32:

- section 3.6 (Notice of Curtailment)
- section 8.4 (Imbalance Following Termination)
- section 9.3 (Early Termination)
- section 9.4 (Survival of Covenants)
- section 10 (Statements and Payments)
- section 11 (Quality)
- section 13 (Measurement)
- section 15 (Default or Bankruptcy)
- section 16 (Notice)
- section 17 (Interpretation) and
- section 18 (Miscellaneous).

TABLE OF CHARGES

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
Gas Balancing				
(a)	Basic Charge per month	$175.00	$175.00	$175.00
(b)	~~Delivery~~Balancing Charge per gigajoule returned from shipper's inventory (0 - 20% of schedule 22 Authorized Quantity)			
	(i) between April 1 and November 1	$ .00	$ .00	$ .00
	(ii) between November 1 and April 1	$ .00	$ .00	$ .00
(c)	~~Price~~Balancing Commodity Charge per gigajoule of ~~interruptible balancing~~ gas supplied (over 20% of Schedule 22 Authorized Quantity, or when insufficient Shipper's inventory to return gas)			
	(i) between April 1 and November 1	$ 1.38	$ 1.29	$ 2.07
	(ii) between November 1 and April 1	$ 2.93	$ 2.66	$ 2.24

Franchise Fee Charge of 3.09% of aggregate of the above charges ~~above,~~ is payable (in addition to the above charges) if the facilities to which gas is delivered under rate schedule 32 are located within the municipal boundaries of a municipality to which BC Gas pays Franchise Fees.

LARGE VOLUME
GAS BALANCING AGREEMENT

The Shipper hereby agrees to balance gas pursuant to rate schedule 32. The term of this Gas Balancing Agreement will: (tick only one box)

☐ be identical to the term of the Transportation Agreement, OR

☐ commence on _____ and expire on _____.

This Gas Balancing Agreement is an addendum to the Transportation Agreement and, accordingly, the terms and conditions set out in the Transportation Agreement apply to this Gas Balancing Agreement, with necessary changes.

_____
(here insert name of Shipper)

BY: _____
(Signature)

DATE: _____

DRAFT

BC GAS INC.

RATE SCHEDULE 4
SEASONAL SERVICE



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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the sale of gas, no portion of which may be resold, through one meter station to one customer who, pursuant to this rate schedule, consumes gas principally during the off-peak period.

1.2 **Service Agreement** - BC Gas will only sell gas pursuant to an executed service agreement.

1.3 **British Columbia Utilities Commission** - This rate schedule may be amended from time to time with the consent of the British Columbia Utilities Commission.

2. Conditions of Service

2.1 **Conditions** - This rate schedule is available in all territory served by BC Gas under the tariff of which this rate schedule is a part if

(a) adequate gas volumes for such service are available,

(b) adequate capacity exists in the BC Gas system,

(c) at all times during the off-peak period, the customer will use gas as the only fuel for the facilities specified in the service agreement, and

(d) BC Gas has installed at the delivery point the facilities and equipment referred to in section 7.1 (Facilities and Equipment).

2.2 **Security** - At any time during the term of the service agreement BC Gas may require the customer to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the customer under this rate schedule and the service agreement for a period of 90 days. Where BC Gas requires a customer to provide a letter of credit and the customer is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

3. Sales

3.1 **Sale of Gas** - Subject to section 13 of the general terms and conditions of BC Gas (Interruption of Service), BC Gas will sell to the customer and the customer will buy from BC Gas at one delivery point such quantity of gas as is required by the

customer for the operation of the customer's facilities specified in the service agreement, estimated to be the maximum quantity per day set out in the service agreement, for the charges and on all of the terms and conditions set out in either this rate schedule or the service agreement.

3.2 **Curtailment** - If at any time during the peak period BC Gas determines that it does not have sufficient capacity on the BC Gas system to accommodate the customer's request for service under this rate schedule, BC Gas may for any length of time curtail the delivery of gas to the delivery point or turn off the valve serving the customer, and may request the customer switch to an interruptible rate schedule.

3.3 **Notice of Curtailment** - Each notice from BC Gas to the customer with respect to the interruption or curtailment by BC Gas of deliveries of gas to the delivery point will specify the quantity of gas to be interrupted or curtailed and the time at which such interruption or curtailment is to be made and BC Gas will endeavour to give the customer as much notice as possible with respect to such interruption or curtailment, not to be less than 8 hours' prior notice unless prevented by force majeure or unless the transporter does not provide to BC Gas at least 8 hours' prior notice of curtailment.

3.4 **Acknowledgement** - All customers purchasing gas pursuant to this rate schedule acknowledge and agree that they can accommodate any total or partial interruption of gas service by BC Gas.

3.5 **Maximum Hourly Quantities** - BC Gas will not be obliged to deliver in any one hour more than 5% of the maximum quantity per day set out in the service agreement.

3.6 **Pressure at Delivery Point** - All gas delivered by BC Gas at the delivery point to the customer will be at not less than the pressure specified in the service agreement.

3.7 **Extension of Off-Peak Period** - BC Gas may in its sole discretion extend the off-peak period in response to a request by the customer.

4. Table of Charges

4.1 **Charges** - In respect of all quantities of gas delivered to the delivery point pursuant to this rate schedule and the transportation agreement, the customer will pay to BC Gas all of the charges set out in the table of charges.

5. Term of Service Agreement

5.1 **Term** - The initial term of the service agreement will begin on the commencement date and, except if otherwise specified in the service agreement, will expire at 8:00 a.m. Standard Time on the November 1st next following, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term shall instead expire at the end of one further contract year.

5.2 **Automatic Renewal** - Except as specified in the service agreement, the term of the service agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the customer upon not less than 2 months' notice prior to the end of the contract year then in effect.

5.3 **Early Termination** - The term of the service agreement is subject to early termination in accordance with section 9 (Default or Bankruptcy).

5.4 **Survival of Covenants** - Upon the termination of the service agreement, whether pursuant to section 9 (Default or Bankruptcy) or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this rate schedule and in the service agreement relating to the obligation of any of the parties to account to or indemnify the other and to pay to the other any monies owing as at the date of termination in connection with the service agreement,

will survive such termination.

6. Statement and Payments

6.1 **Statements to be Provided** - BC Gas will, on or before the 15th day of each month, deliver to the customer a statement for the preceding month showing the gas quantities delivered to the customer and the amount due. BC Gas will, on or before the 45th day after the end of a contract year, deliver to the customer a separate statement for the preceding contract year showing the amount required from the customer in respect of any indemnity due under a service agreement. Any errors in any statement will be promptly reported to the other party as provided hereunder, and statements will be final and binding unless questioned within one year after the date of the statement.

6.2 **Payment and Late Payment Charge** - Payment for the full amount of the statement, including federal, provincial and municipal taxes or fees applicable thereon, will be made to BC Gas at its Vancouver, British Columbia office, or

such other place in Canada as it will designate, on or before the 1st business day after the 21st calendar day following the billing date. If the customer fails or neglects to make any payment required under this rate schedule, or any portion thereof, to BC Gas when due, BC Gas may include in the next bill to the shipper a late payment charge of 1½% per month (19.56% per annum).

6.3 **Examination of Records** - Each of BC Gas and the customer will have the right to examine at reasonable times the books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge, computation or demand made pursuant to any provisions of this rate schedule or the service agreement.

7. Measuring Equipment

7.1 **Facilities and Equipment** - BC Gas may install, maintain and operate at the delivery point such metering and communications facilities and equipment as BC Gas determines are necessary or desirable for measuring the quantity of gas delivered pursuant to this rate schedule to the customer and the customer will permit BC Gas, without cost to BC Gas, to use the customer's communications lines and power for the purpose of installing, maintaining and operating the measuring equipment of BC Gas.

7.2 **Measuring Site** - If BC Gas reasonably determines that it is necessary to install the facilities and equipment referred to in section 7.1 (Facilities and Equipment) on the customer's property, the customer will, without charge, provide a suitable site along with utilities and enclosures for the installation of the facilities and equipment of BC Gas. BC Gas will at all times have clear access to the site and to all of its facilities and equipment. All facilities and equipment installed by BC Gas on the customer's property will remain the property of BC Gas and may be removed by BC Gas upon termination of the service agreement.

7.3 **Calibration and Test of Measuring Equipment** - The accuracy of the measuring equipment of BC Gas will be verified by standard tests and methods at regular intervals and at other times at the initiative of BC Gas or upon the reasonable request of the customer. Notice of the time and nature of each test conducted in response to communications with or at the request of the customer will be given by BC Gas to the customer sufficiently in advance to permit a representative of the customer to be present. If during a test the measuring equipment is found to be registering inaccurately, it will be adjusted at once to read as accurately as possible. The results of each test and adjustment, if any, made by BC Gas, whether or not the customer is present for such test, will be accepted until the next test. All tests of such measuring equipment of BC Gas will be made at the expense of BC Gas, except that the customer will bear the expense of tests made

at its request if the measuring equipment is found to be inaccurate by an amount equal to 2% or less.

7.4 **Inaccuracy Exceeding 2%** - If upon any test the measuring equipment is found to be inaccurate by an amount exceeding 2%, any previous readings of such equipment will be corrected to zero error for any period during which it is definitely known or is agreed upon that the error existed. If the period is not definitely known or is not agreed upon, such correction will be for a period covering the last half of the time elapsed since the date of the last test. Provided that under no circumstances will an adjustment be made for a period of more than the preceding 12 months.

7.5 **Correction of Measuring Errors** - If the measuring equipment is out of service or out of repair so that the quantity of gas delivered cannot be correctly determined by the reading thereof, the gas delivered during the period such measuring equipment is out of service or out of repair will be estimated on the basis of the best available data, using the first of the following methods which is feasible

(a) by correcting the error if the percentage of error is ascertained by calibration test or mathematical calculation,

(b) by using the registration of any check measuring equipment if installed and accurately registering, and

(c) by estimating the quantity of gas delivered to the customer during the preceding periods under similar conditions when the meter was registering accurately.

7.6 **Customer's Equipment** - The customer may at its own expense install, maintain and operate its own measuring equipment for the purposes of monitoring or checking the measuring equipment of BC Gas, provided that the customer will install such equipment so as not to interfere with the operation of the measuring equipment of BC Gas.

7.7 **Right to be Present** - BC Gas and the customer will have the right to inspect all equipment installed or furnished by the other and the charts and other measurement or test data of the other at all times during business hours, and to be present at the time of any installing, testing, cleaning, changing, repairing, calibrating or adjusting done in connection with the measuring equipment of the other party, but all such activities will be performed by the party furnishing the measuring equipment.

7.8 **Preservation of Records** - Both parties will cause to be preserved each test datum, chart and other record of gas measurement for a period of 2 years.

8. Measurement

8.1 **Unit of Volume** - The unit of volume of gas for all purposes hereunder will be 1 cubic metre at a temperature of 15° Celsius and an absolute pressure of 101.325 kilopascals.

8.2 **Determination of Volume** - Gas delivered hereunder will be metered using metering apparatus approved by the Standards Division, Department of Consumer & Corporate Affairs of Canada and the determination of standard volumes delivered hereunder will be in accordance with terms and conditions pursuant to the *Electricity and Gas Inspection Act* of Canada.

8.3 **Conversion to Energy Units** - In accordance with the *Electricity and Gas Inspection Act* of Canada, volumes of gas delivered each day will be converted to energy units by multiplying the standard volume by the heat content of each unit of gas. Volumes will be specified in 10^3m^3 rounded to two decimal places and energy will be specified in gigajoules rounded to one decimal place.

9. Default or Bankruptcy

9.1 **Default** - If the customer at any time fails or neglects

(a) to make any payment due to BC Gas or to any other person under this rate schedule or the service agreement within 30 days after payment is due, or

(b) to cure any default of any of the other terms, covenants, agreements, conditions or obligations imposed upon it under this rate schedule or the service agreement, within 30 days after BC Gas gives to the customer notice of such default or, in the case of a default that cannot with due diligence be cured within a period of 30 days, the customer fails to proceed promptly after the giving of such notice with due diligence to cure the same and thereafter to prosecute the curing of such default with all due diligence,

BC Gas may in addition to any other remedy that it has, including the rights of BC Gas set out in section 3.2, at its option and without liability therefor

(c) suspend further service to the customer and may refuse to deliver gas to the customer until the default has been fully remedied, and no such suspension or refusal will relieve the customer from any obligation under this rate schedule or the service agreement, or

(d) terminate the service agreement, and no such termination of the service agreement pursuant hereto will exclude the right of BC Gas to collect any amount due to it from the customer for what would otherwise have been the remainder of the term of the service agreement.

9.2 **Bankruptcy or Insolvency** - If the customer becomes bankrupt or insolvent or commits or suffers an act of bankruptcy or insolvency or a receiver is appointed pursuant to a statute or under a debt instrument or the customer seeks protection from the demands of its creditors pursuant to any legislation enacted for that purpose, BC Gas will have the right, at its sole discretion, to terminate the service agreement by giving notice in writing to the customer and thereupon BC Gas may cease further delivery of gas to the customer and the amount then outstanding for gas provided under the service agreement will immediately be due and payable by the customer.

10. Notice

10.1 **Notice** - Any notice, request, statement or bill that is required to be given or that may be given under this rate schedule or under the service agreement will, unless otherwise specified, be in writing and will be considered as fully delivered when mailed, personally delivered or sent by telecopier to the other in accordance with the following:

if to BC Gas	BC GAS INC.	
MAILING ADDRESS:	1111 West Georgia Street 6th Floor Vancouver, B.C. V6E 4M4	
BILLING AND PAYMENT:	Attention: Telephone: Telecopier:	Manager, Customer Administration (604) 443-6507 (604) 443-6588
CUSTOMER RELATIONS	Attention: Telephone: Telecopier:	Manager, Industrial Markets (604) 443-6491 (604) 443-6770
LEGAL AND OTHER:	Attention: Telephone: Telecopier:	V.P. Legal & Regulatory Affairs (604) 443-6607 (604) 443-6789

if to the customer, then as set out in the service agreement.

10.2 **Specific Notices** - Notwithstanding section 10.1 (Notice), notices with respect to curtailment, interruption or restoration of deliveries of gas or with respect to force majeure will be sufficient if given by BC Gas in writing by facsimile, or orally in person, or by telephone (to be confirmed in writing) to the person or persons designated from time to time by the customer as authorized to receive such notices.

11. Interpretation

11.1 **Definitions in General Terms and Conditions of BC Gas** - Except where the context requires otherwise or except as otherwise expressly provided in this rate schedule, all words and phrases defined in the general terms and conditions of BC Gas and used in this rate schedule or in a service agreement have the meanings set out in the general terms and conditions of BC Gas.

11.2 **Change in Definition of "Day"** - BC Gas may, in its sole discretion, amend the definition of "day" from time to time.

11.3 **Further Definitions** - Additionally, except where the context requires otherwise, each of the words and phrases described in the definitions have the meanings ascribed thereto in the definitions.

11.4 **Interpretation** - Except where the context requires otherwise or except as otherwise expressly provided, in this rate schedule or in a service agreement

(a) all references to a designated section are to the designated section of this rate schedule unless otherwise specifically stated,

(b) the singular of any term includes the plural, and vice versa, and the use of any term is equally applicable to any gender and, where applicable, body corporate,

(c) any reference to a corporate entity includes and is also a reference to any corporate entity that is a successor to such entity,

(d) all words, phrases and expressions used in this rate schedule or in a service agreement that have a common usage in the gas industry and that are not defined in the general terms and conditions of BC Gas, the definitions or in the service agreement have the meanings commonly ascribed thereto in the gas industry, and

(e) the headings of the sections set out in this rate schedule or in the service agreement are for convenience of reference only and will not be considered in any interpretation of this rate schedule or the service agreement.

12. Miscellaneous

12.1 **Waiver** - No waiver by either BC Gas or the customer of any default by the other in the performance of any of the provisions of this rate schedule or the service agreement will operate or be construed as a waiver of any other or future default or defaults, whether of a like or different character.

12.2 **Enurement** - The service agreement will enure to the benefit and be binding upon the parties and their respective successors and permitted assigns, including without limitation successors by merger, amalgamation or consolidation.

12.3 **Assignment** - The customer will not assign the service agreement or any of its rights or obligations thereunder without the prior written consent of BC Gas which consent will not be unreasonably withheld or delayed. No assignment will release the customer from its obligations under this rate schedule or under the service agreement. This provision applies to every proposed assignment by the customer.

12.4 **Amendments to be in Writing** - Except as set out in this rate schedule, no amendment or variation of the service agreement will be effective or binding upon the parties unless such amendment or variation is set out in writing and duly executed by the parties.

12.5 **Proper Law** - The service agreement will be construed and interpreted in accordance with the laws of the Province of British Columbia and the laws of Canada applicable therein.

12.6 **Time is of Essence** - Time is of the essence of this rate schedule, the service agreement and of the terms and conditions thereof.

12.7 **Subject to Legislation** - Notwithstanding any other provision hereof this rate schedule and the service agreement and the rights and obligations of BC Gas and the customer under this rate schedule and the service agreement are subject to all present and future laws, rules, regulations and orders of any legislative body, governmental agency or duly constituted authority now or hereafter having jurisdiction over BC Gas or the customer.

12.8 **Further Assurances** - Each of BC Gas and the customer will, on demand by the other, execute and deliver or cause to be executed and delivered all such further

documents and instruments and do all such further acts and things as the other may reasonably require to evidence, carry out and give full effect to the terms, conditions, intent and meaning of this rate schedule and the service agreement and to assure the completion of the transactions contemplated hereby.

12.9 **Form of Payments** - All payments required to be made under statements and invoices rendered pursuant to this rate schedule or the service agreement will be made by telegraphic transfer to, or cheque or bank cashier's cheque drawn on, a Canadian chartered bank or trust company, payable in lawful money of Canada at par in immediately available funds in Vancouver, British Columbia.

12.10 **Change in Day** - If BC Gas amends the meaning of "day" as provided for in section 11.2 (Change in Definition of "Day"), a pro-rata adjustment of quantities of gas and charges to account for any day of more or less than 24 hours will be made and the term of the service agreement will be similarly adjusted.

DEFINITIONS

(a) **BC Gas** - means BC Gas Inc., a body corporate incorporated pursuant to the laws of the Province of British Columbia under number 368681.

(b) **BC Gas system** - means the gas transmission and distribution system owned and operated by BC Gas, as such system is expanded, reduced or modified from time to time.

(c) **British Columbia Utilities Commission** - means the British Columbia Utilities Commission constituted under the *Utilities Commission Act* of British Columbia and includes and is also a reference to

(i) any commission that is a successor to such commission, and

(ii) any commission that is constituted pursuant to any statute that may be passed which supplements or supersedes the *Utilities Commission Act* of British Columbia.

(d) **commencement date** - means the day specified as the commencement date in the service agreement.

(e) **contract year** - means a period of 12 consecutive months commencing at the beginning of the 1st day of November and ending at the beginning of the next succeeding 1st day of November.

(f) **customer** - means a person who enters into a service agreement with BC Gas.

(g) **day** - means, subject to section 11.2 (Change in Definition of "Day"), any period of twenty-four consecutive hours beginning and ending at 8:00 a.m. Standard Time.

(h) **definitions** - means the definitions appended to this rate schedule.

(i) **delivery point** - means the point specified in a service agreement where BC Gas delivers gas to a customer.

(j) **force majeure** - means any acts of God, strikes, lockouts, or other industrial disturbances, civil disturbances, arrests and restraints of rulers or people, interruptions by government or court orders, present or future valid orders of any regulatory body having proper jurisdiction, acts of the public enemy, wars, riots, blackouts, insurrections, failure or inability to secure materials or labour by reason of priority, regulations or orders of government, serious epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, explosions, breakage or accident to machinery or lines of pipes, or freezing of wells or pipelines, or the failure of gas supply, temporary or otherwise, from a supplier of gas, which act of

force majeure was not due to negligence of the party claiming force majeure. Further, force majeure will also include a declaration of force majeure by a transporter that results in gas being unavailable for delivery.

(k) **franchise fees** - means the aggregate of all monies payable by BC Gas to a municipality

(i) for the use of the municipality's streets and other property to construct and operate the utility business of BC Gas,

(ii) relating to the revenues received by BC Gas for services provided and gas consumed within the municipality, and

(iii) relating, if applicable, to the value of gas transported by BC Gas through the municipality.

(l) **gas** - means the residue remaining after raw gas has been subjected to any or all of the following permissible processes

(i) the removal of any of its constituent parts other than methane, and the removal of methane to such extent as is necessary in removing other constituents,

(ii) the compression, regulation, cooling, cleaning or any other chemical or physical process other than the addition of diluents, such as air or nitrogen, to such extent as may be required in its production, gathering, transmission, transportation, storage, removal from storage and delivery, and

(iii) the addition of odorant by BC Gas,

but for greater certainty gas does not include propane.

(m) **general terms and conditions of BC Gas** - means the general terms and conditions of BC Gas from time to time approved by the British Columbia Utilities Commission.

(n) **heat content** - means the gross heating value of the gas, determined on the basis of a temperature of 15° Celsius with the gas free of all water vapour and at an absolute pressure of 101.325 kilopascals, with the products of combustion cooled to the initial temperature of the gas and the water formed by the combustion condensed to the liquid state. The heat content will be expressed in megajoules per cubic metre of gas (MJ/M^3) rounded to two decimal places.

(o) **hour** - means any consecutive 60 minute period.

(p) **month** - means, subject to any changes from time to time required by BC Gas in the starting time of its gas day, the period beginning at 8:00 a.m. Standard Time on the first day of the calendar month and ending at 8:00 a.m. Standard Time on the first day of the next succeeding calendar month.

(q) **off-peak period** - means, subject to section 3.7 (Extension of Off-Peak Period), the period commencing 8:00 a.m. Standard Time April 1 to 8:00 a.m. Standard Time November 1.

(r) **peak period** - means the period beginning at the expiry of one off-peak period and ending at the commencement of the next following off-peak period.

(s) **Standard Time** - means Pacific Standard Time for the Inland and Lower Mainland service areas and Mountain Standard Time for the Columbia service area.

(t) **rate schedule 4 or this rate schedule** - means this rate schedule, including all rates, terms and conditions, the definitions and the table of charges, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission.

(u) **service agreement** - means an agreement between BC Gas and a customer to provide service pursuant to this rate schedule.

(v) **supplier** - means a party who sells gas to BC Gas pursuant to a gas sales agreement.

(w) **table of charges** - means the table of prices, fees and charges, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission, appended to this rate schedule.

(x) **transporter** - means, in the case of the Columbia service area, Alberta Natural Gas Company, a Canadian corporation, and in the case of the Inland and Lower Mainland service areas, Westcoast Energy Inc., a Canadian corporation, and any other gas pipeline transportation company connected to the facilities of BC Gas from which BC Gas receives gas for the purposes of gas service or resale.

(y) "10^3m^3" means 1,000 Cubic Metres.

TABLE OF CHARGES

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
1.	**Basic Charge** per month	$ 300.00	$ 300.00	$ 300.00
2.	**Commodity Charge** per gigajoule			
	(a) off-peak period	$ 1.98	$ 1.89	$ 2.067
	(b) peak period	$ 8.94	$ 8.40	$ 7.56

Franchise Fees Charge of 3.09% of aggregate of the charges above, payable if the facilities to which gas is delivered under this rate schedule are located within the municipal boundaries of a municipality to which BC Gas pays franchise fees.

Minimum Charge per month - The minimum charge per month, applicable only to months in which gas is consumed, will be the aggregate of the basic charge and the franchise fee charge.

SEASONAL
SERVICE AGREEMENT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Inc. ("BC Gas") and _____ (the "customer").

WHEREAS:

A. BC Gas owns and operates the BC Gas system;

B. The customer is the owner and operator of a _____ located in or near _____ in the Province of British Columbia; and

C. The customer desires to purchase from BC Gas interruptible gas for such facilities in accordance with rate schedule 4.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Maximum quantity of gas: _____gigajoules per day

Commencement Date: _____

Expiry Date: _____
(only specify expiry date if term not automatically renewed as set out in section 5.2 of rate schedule 4)

Delivery Point: _____

Gauge Pressure at Delivery Point: not greater than _____ kilopascals
and not less than _____ kilopascals

Address of customer for receiving notices:

_____ Attention: _____
(name of customer)

_____ Telephone: _____
(address of customer)

_____ Telecopier: _____

_____

_____

The information set out above is hereby approved by the parties and each reference in either this agreement or rate schedule 4 to any such information is to the information set out above.

2. Rate Schedule 4

2.1 **Additional Terms** - All rates, terms and conditions set out in rate schedule 4 or the general terms and conditions of BC Gas, as either of them may be amended by BC Gas and consented to from time to time by the British Columbia Utilities Commission, are in addition to the rates, terms and conditions contained in this service agreement and form part of this service agreement and bind BC Gas and the customer as if set out herein.

2.2 **Payment of Amounts** - Without limiting the generality of the foregoing, the customer will pay to BC Gas all of the amounts set out in rate schedule 4 for the services provided under rate schedule 4 and this service agreement.

2.3 **Conflict** - Where anything in either rate schedule 4 or the general terms and conditions of BC Gas conflicts with any of the rates, terms and conditions set out in this service agreement, this service agreement governs. Where anything in rate schedule 4 conflicts with any of the rates, terms and conditions set out in the general terms and conditions of BC Gas, rate schedule 4 governs.

3. Limitation on Liability and Indemnity

3.1 **Limitation on Liability** - Neither BC Gas, its employees, contractors or agents will be liable in damages for or on account of any interruption or curtailment of gas service.

3.2 **Indemnity** - The customer will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of each of the following

(a) franchise fees not otherwise collected by BC Gas, under the table of charges, and

(b) all federal, provincial, municipal taxes (or payments made in lieu thereof) and royalties, whether payable on the delivery of gas to BC Gas by the customer or on the delivery of gas to the customer by BC Gas, or on any other service provided by BC Gas to the customer.

4. Force Majeure

4.1 **Force Majeure** - Subject to the other provisions of this section 4, if either party is unable or fails by reason of force majeure to perform in whole or in part any obligation or covenant set out in this service agreement, the obligations of both BC Gas and the customer will be suspended to the extent necessary for the period of the force majeure condition.

4.2 **Curtailment Notice** - If BC Gas claims suspension pursuant to this section 4, BC Gas will be deemed to have issued to the customer a notice of curtailment.

4.3 **Exceptions** - Neither party will be entitled to the benefit of the provisions of section 4.1 of this agreement under any of the following circumstances

(a) to the extent that the failure was caused by the negligence or contributory negligence of the party claiming suspension,

(b) to the extent that the failure was caused by the party claiming suspension having failed to diligently attempt to remedy the condition and to resume the performance of the covenants or obligations with reasonable dispatch, or

(c) unless as soon as possible after the happening of the occurrence relied on or as soon as possible after determining that the occurrence was in the nature of force majeure and would affect the claiming party's ability to observe or perform any of its covenants or obligations under this service agreement, the party claiming suspension will have given to the other party notice to the effect that the party is unable by reason of force majeure (the nature of which will be specified) to perform the particular covenants or obligations.

4.4 **Notice to Resume** - The party claiming suspension will likewise give notice, as soon as possible after the force majeure condition has been remedied, to the effect that it has been remedied and that the party has resumed, or is then in a position to resume, the performance of the covenants or obligations.

4.5 **Settlement of Labour Disputes** - Notwithstanding any of the provisions of this section 4, the settlement of labour disputes or industrial disturbances will be entirely within the discretion of the particular party involved and the party may make settlement of it at the time and on terms and conditions as it may deem to be advisable and no delay in making settlement will deprive the party of the benefit of section 4.1 of this agreement.

4.6 **No Exemption for Payments** - Notwithstanding any of the provisions of this section 4, force majeure will not relieve or release either party from its obligations to make payments to the other.

4.7 **Periodic Repair by BC Gas** - BC Gas may temporarily shut off the delivery of gas for the purpose of repairing or replacing a portion of the BC Gas system or its equipment and BC Gas will endeavour to give the customer as much notice as possible with respect to such interruption, not to be less than 8 hours' prior notice except when prevented by force majeure. BC Gas will use all diligence to restore service as quickly as possible.

5. Arbitration

5.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

5.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting out the nature of the dispute.

5.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 5.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a past or present employee, officer or director of any of the parties or their respective successors or affiliates, any customer or supplier of the customer or BC Gas.

5.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 45 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

5.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

IN WITNESS WHEREOF the parties hereto have executed this service agreement.

BC GAS INC.

_____
(here insert name of customer)

BY: _____
(Signature)

BY: _____
(Signature)

_____
(Title)

_____
(Title)

_____
(Name - Please Print)

_____
(Name - Please Print)

DATE: _____

DATE: _____

BC GAS UTILITY LTD.

RATE SCHEDULE 10
LARGE VOLUME INTERRUPTIBLE SALES

Revised July 20, 1993



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1. Applicability

1.1 **Description of Applicability** - Rate schedule 10 applies to the sale at the Interconnection Point of interruptible gas at two levels of priority, no portion of which may be resold, for transportation through the BC Gas system ~~through one meter station~~ to one Customer, except as otherwise agreed upon. | C

1.2 **Sales Agreement** - BC Gas will only sell gas pursuant to an executed Sales Agreement.

1.3 **British Columbia Utilities Commission** - Rate schedule 10 may be amended from time to time with the consent of the British Columbia Utilities Commission.

1.4 **Peaking and Backstopping** - Peaking Gas and Backstopping Gas are supplied under rate schedules 13 and 14 respectively, and are not available under rate schedule 10.

2. Conditions of Sales

2.1 **Conditions** - Rate schedule 10 is available to customers in all territory served by BC Gas under the tariff of which rate schedule 10 is a part if

(a) adequate gas volumes for such sales are available, and

(b) at all times when adequate quantities of gas are available from BC Gas to the Customer at the facilities specified in the Sales Agreement and subject to section 3.5 (Exception to Exclusivity), the Customer will only use gas delivered under this rate schedule as fuel for such facilities, and

(c) the Customer has entered into a Transportation Agreement pursuant to rate schedule 22 and such agreement continues to be in effect~~, or the Customer consumes a minimum of 240,000 gigajoules per Contract Year and has entered into a Transportation Agreement pursuant to rate schedule 27 and such agreement continues to be in effect.~~

2.2 **Security** - ~~At any time during the term of~~In order to secure the prompt and orderly payment of the charges to be paid by ~~Shipper~~ Customer to BC Gas under the Sales Agreement BC Gas may require the Customer to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the Customer under rate schedule 10 and the Sales Agreement for a period of 90 days. Where BC Gas requires a Customer to provide a letter of credit and the Customer is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit. | C

3. Sales

3.1 **Sale of Gas** - Subject to all of the terms and conditions set out in this rate schedule and to section 3.5 (Exception to Exclusivity), BC Gas will sell to the Customer and the Customer will buy from BC Gas on each day the quantity of gas required by the Customer for the operation of the Customer's facilities specified in the Sales Agreement.

3.2 **Priority 1 Curtailment** - ~~BC Gas may interrupt or curtail priority 1 sales under rate schedule 10 provided that BC Gas has first interrupted priority 2 sales to all Customers under rate schedule 10.~~ The circumstances and duration of curtailment under priority 1 sales ~~may, for a specified term,~~ will be set out in the Sales Agreement.

3.3 **Priority 2 Curtailment** - BC Gas may at any time, for any reason and for any length of time, interrupt or curtail priority 2 sales under rate schedule 10.

3.4 **Notice of Curtailment** - Each notice from BC Gas to the Customer with respect to the interruption or curtailment by BC Gas of deliveries of gas to the Interconnection Point ~~may~~ will be by telephone and be confirmed by facsimile ~~or other means~~ and will specify the quantity of gas to ~~be interrupted or~~ which the ~~Shipper~~ Customer is curtailed and the time at which such ~~interruption or~~ curtailment is to be made and BC Gas will endeavour to give to the Customer as much notice as possible with respect to such ~~interruption or~~ curtailment, not to be less than 2 hours' prior notice unless prevented by Force Majeure or unless the Transporter does not provide to BC Gas at least 2 hours' prior notice of ~~curtailment~~ reduced gas supply availability. I C

3.5 **Exception to Exclusivity** - The Customer may purchase directly from other Suppliers a daily quantity of gas ~~specified in the Sales Agreement which will normally be~~ equal to the Customer's firm DTQ under rate schedule 22. BC Gas and the Customer may agree on an alternative daily quantity to be contracted from other Suppliers (which may include ~~both firm and~~ interruptible gas), ~~when such agreement~~ subject to the following:

(a) to the extent BC Gas is unable to supply gas hereunder on any day, or

(b) such agreement provides a greater net contribution to BC Gas with respect to recovery of the gas supply costs or other costs of service of BC Gas in respect of firm gas Customers, or

(c) such agreement provides incremental peak shaving to BC Gas.

4. Table of Charges

4.1 **Charges** - In respect of all Authorized Quantities of gas sales to the Customer, as described in section 5.2 (Authorized Quantity), the Customer will pay to BC Gas all of the charges set out in the Table of Charges.

5. Nomination

5.1 **Requested Quantity** - The Customer will provide to BC Gas by facsimile or other method approved by BC Gas, prior to 7:30 a.m. Pacific local time on each day (or such other time as may be specified from time to time by BC Gas) the Customer's Requested Quantity for the day commencing in approximately 24 hours. If the Customer does not notify BC Gas in accordance with the foregoing, then the Customer's Requested Quantity for the day commencing in approximately 24 hours will be deemed to be the Customer's quantity pursuant to Section 5.2 (Authorized Quantity) for the day just commencing.

5.2 **Authorized Quantity** - BC Gas will each day, giving consideration to the Customer's request pursuant to section 5.1 (Requested Quantity), ~~advise the Customer of~~determine the Authorized Quantity to be made available under rate schedule 10 and will advise the Customer if such Authorized Quantity is less than the Customer's request.

6. Term of Sales Agreement

6.1 **Term** - The initial term of the Sales Agreement will begin on the Commencement Date and, except if otherwise specified in the ~~service~~ Sales Agreement, will expire at 8:00 a.m. Standard Time on the November 1st next following, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term will instead expire at the end of one further Contract Year.

6.2 **Automatic Renewal** - Except as specified in the Sales Agreement, the term of the Sales Agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the Customer upon not less than 2 months' notice prior to the end of the Contract Year then in effect.

7. Transportation Rate Schedule

7.1 **Definitions in Rate Schedule** - Except where the context requires otherwise or except as otherwise expressly provided in the rate schedule under which the Customer receives transportation service, all words and phrases defined in the

transportation rate schedule and used in rate schedule 10 or in a Sales Agreement have the meanings set out in the transportation rate schedule, with necessary changes.

7.2 **Applicable Provisions of Transportation Rate Schedule** - The terms and conditions set out in the following sections of rate schedule 22 or 27 (as applicable) apply to rate schedule 10, with necessary changes, as if set out in rate schedule 10

- section 9.3 (Early Termination)
- section 9.4 (Survival of Covenants)
- section 10 (Statements and Payments)
- section 13 (Measurement)
- section 15 (Default or Bankruptcy)
- section 16 (Notice)
- section 17 (Interpretation) and
- section 18 (Miscellaneous).

8. Title to Gas

8.1 **Warranty** - BC Gas warrants generally the title to all gas delivered to the Customer under rate schedule 10 and the right of BC Gas to sell such gas, and warrants that such gas will be free and clear of all liens and adverse claims.

8.2 **Transfer of Title** - Title to gas delivered under rate schedule 10 will pass to the Customer at the Interconnection Point.

TABLE OF CHARGES

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
(a)	**Sales Commodity Charge** per gigajoule			
	(i) between April 1 and November 1			
	Priority 1	Negotiable	Negotiable	Negotiable
	Priority 2	$ 1.10	$ 1.10	$ 1.60
	(ii) between November 1 and April 1			
	Priority 1	Negotiable	Negotiable	Negotiable
	Priority 2	$ 1.60	$ 1.60	$ 1.80

Franchise Fee Charge of 3.09% of the aggregate of the above charges ~~above~~, is payable (in addition to the above charges) if the location of the facilities to which the gas sold under rate schedule 10 is delivered is within the municipal boundaries of a municipality to which BC Gas pays Franchise Fees.

Minimum Charge per month - The minimum charge per month for priority 1 sales will be as set out in the Sales Agreement ~~and~~ plus the Franchise Fee charge. There is no minimum charge for priority 2 sales.

LARGE VOLUME INTERRUPTIBLE SALES AGREEMENT

This Agreement is dated the ___ day of _____, 19___, between BC Gas Utility Ltd. ("BC Gas") and _____ (the "Customer").

WHEREAS:

A. BC Gas owns and operates the BC Gas system;

B. The Customer is the owner and operator of a _____ located in or near _____ in the Province of British Columbia; and

C. The Customer desires to purchase from BC Gas interruptible gas for such facilities in accordance with rate schedule 10.

NOW THEREFORE THIS AGREEMENT WITNESSES THAT in consideration of the terms, conditions and limitations contained herein, the parties agree as follows:

1. Specific Information

Maximum quantity from suppliers other than BC Gas (if applicable):	_____gigajoules per day
Maximum quantity of priority 1 gas:	_____gigajoules per day
Maximum quantity of priority 2 gas:	_____gigajoules per day
Special Provisions:	_____
Commencement Date:	_____
Expiry Date:	_____ (only specify expiry date if term not automatically renewed as set out in section 6.2 of rate schedule 10)
Delivery Point of Customer's Transportation Agreement:	_____
Interconnection Point:	the point at (_____ km-post_____) where the Transporter's pipeline system in British Columbia interconnects with the BC Gas system

Address of Customer for receiving notices:

_____ Attention: _____
(name of Customer)

_____ Telephone: _____
(address of Customer)

_____

_____ Telecopier: _____

The information set out above is hereby approved by the parties and each reference in either this agreement or rate schedule 10 to any such information is to the information set out above.

2. Rate Schedules 10

2.1 **Additional Terms** - All rates, terms and conditions set out in rate schedule 10 or the general terms and conditions of BC Gas, as they may be amended by BC Gas and consented to from time to time by the British Columbia Utilities Commission, are in addition to the rates, terms and conditions contained in this Sales Agreement and form part of this Sales Agreement and bind BC Gas and the Customer as if set out herein.

2.2 **Payment of Amounts** - Without limiting the generality of the foregoing, the Customer will pay to BC Gas all of the amounts set out in rate schedules 10 for the services provided under rate schedule 10 and this Sales Agreement.

2.3 **Conflict** - Where anything in either rate schedule 10, or the general terms and conditions of BC Gas, conflicts with any of the rates, terms and conditions set out in this Sales Agreement, this Sales Agreement governs. Where anything in rate schedules 10 conflicts with any of the rates, terms and conditions set out in the general terms and conditions of BC Gas, rate schedule 10 governs.

3. Limitation on Liability and Indemnity

3.1 **Limitation on Liability** - Neither BC Gas, its employees, contractors or agents will be liable in damages for or on account of any interruption or curtailment of gas service.

3.2 **Indemnity** - The Customer will indemnify and hold harmless each of BC Gas, its employees, contractors and agents from and against any and all adverse claims, losses, suits, actions, judgements, demands, debts, accounts, damages, costs, penalties and expenses (including all legal fees and disbursements) arising from or out of each of the following

(a) Franchise Fees not otherwise collected by BC Gas, under the table of charges, and

(b) all federal, provincial, municipal taxes (or payments made in lieu thereof) and royalties, whether payable on the delivery of gas to the Customer by BC Gas or on the delivery of gas to BC Gas by the Customer, or on any other service provided by BC Gas to the Customer.

4. Force Majeure

4.1 **Force Majeure** - Subject to the other provisions of this section 4, if either party is unable or fails by reason of Force Majeure to perform in whole or in part any obligation or covenant set out in this Sales Agreement, the obligations of both BC Gas and the Customer will be suspended to the extent necessary for the period of the Force Majeure condition.

4.2 **Curtailment Notice** - If BC Gas claims suspension pursuant to this section 4, BC Gas will be deemed to have issued to the Customer a notice of curtailment.

4.3 **Exceptions** - Neither party will be entitled to the benefit of the provisions of section 4.1 of this agreement under any of the following circumstances

(a) to the extent that the failure was caused by the negligence or contributory negligence of the party claiming suspension,

(b) to the extent that the failure was caused by the party claiming suspension having failed to diligently attempt to remedy the condition and to resume the performance of the covenants or obligations with reasonable dispatch, or

(c) unless as soon as possible after the happening of the occurrence relied on or as soon as possible after determining that the occurrence was in the nature of Force Majeure and would affect the claiming party's ability to observe or perform any of its covenants or obligations under this Sales Agreement, the party claiming suspension will have given to the other party notice to the effect that the party is unable by reason of Force Majeure (the nature of which will be specified) to perform the particular covenants or obligations.

4.4 **Notice to Resume** - The party claiming suspension will likewise give notice, as soon as possible after the Force Majeure condition has been remedied, to the effect that it has been remedied and that the party has resumed, or is then in a position to resume, the performance of the covenants or obligations.

4.5 **Settlement of Labour Disputes** - Notwithstanding any of the provisions of this section 4, the settlement of labour disputes or industrial disturbances will be entirely within the discretion of the particular party involved and the party may make settlement of it at the time and on terms and conditions as it may deem to be advisable and no delay in making settlement will deprive the party of the benefit of section 4.1 of this agreement.

4.6 **No Exemption for Payments** - Notwithstanding any of the provisions of this section 4, Force Majeure will not relieve or release either party from its obligations to make payments to the other.

5. Arbitration

5.1 **Arbitration** - Any dispute between the parties arising from this agreement will be resolved by a single arbitrator pursuant to the *Commercial Arbitration Act* of British Columbia or successor legislation, save as expressly provided herein.

5.2 **Demand for Arbitration** - Either party may commence arbitration proceedings by sending to the other party a demand for arbitration setting out the nature of the dispute.

5.3 **Arbitrator** - The parties will have 10 days from receipt of the demand referred to in section 5.2 of this agreement to agree upon the arbitrator, failing which either party may apply to the Supreme Court of British Columbia to select the arbitrator. The arbitrator must be sufficiently qualified by education and training to decide the particular questions in dispute. Unless otherwise agreed, the arbitrator may not be a past or present employee, officer or director of any of the parties or their respective successors or affiliates, any Customer or supplier of the Customer or BC Gas.

5.4 **Commencement and Decision** - The arbitrator will proceed immediately to hear and determine the matter in dispute and will render a written decision, signed by the arbitrator, within 45 days after the appointment, subject to any reasonable delay due to unforeseen circumstances. Notwithstanding the foregoing, if the arbitrator fails to render a decision within 60 days after the appointment then either party may elect to have a new arbitrator appointed in like manner as if none had previously been appointed.

5.5 **Decision** - The decision of the arbitrator will be final and binding upon the parties and the parties will abide by the decision and perform the terms and conditions thereof.

IN WITNESS WHEREOF the parties hereto have executed this schedule 10 Sales Agreement.

BC GAS UTILITY LTD.

_____
(here insert name of Customer)

BY: _____
(Signature)

BY: _____
(Signature)

_____
(Title)

_____
(Title)

_____
(Name - Please Print)

_____
(Name - Please Print)

DATE: _____

DATE: _____

BC GAS UTILITY LTD.

RATE SCHEDULE 13
INTERRUPTIBLE PEAKING SALES

Revised July 20, 1993



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1. Applicability

1.1 **Description of Applicability** - Rate schedule 13 applies to the sale at the Interconnection Point of gas from peaking and storage sources, no portion of which may be resold, for transportation through the BC Gas system ~~through one meter station~~ to one Customer, except as otherwise agreed upon. Gas ~~sold~~ under rate schedule 13 is ~~made available~~ sold interruptibly on ~~an~~ a first come, first served ~~interruptible~~ basis ~~and may be used~~ to provide gas to a Customer when the Customer is otherwise unable to secure a sufficient supply of gas. | C

1.2 **Sales Agreement** - BC Gas will only sell gas pursuant to an executed Sales Agreement.

1.3 **British Columbia Utilities Commission** - Rate schedule 13 may be amended from time to time with the consent of the British Columbia Utilities Commission.

2. Conditions of Sales

2.1 **Conditions** - Rate schedule 13 is available to Customers in all territory served by BC Gas under the tariff of which rate schedule 13 is a part if

(a) adequate gas volumes for such sales are available, and

(b) the Customer has entered into a Transportation Agreement pursuant to a rate schedule that provides interruptible service and such agreement continues to be in effect.

2.2 **Security** - ~~At any time during the term of~~In order to secure the prompt and orderly payment of the charges to be paid by ~~Shipper~~ Customer to BC Gas under the Sales Agreement BC Gas may require the Customer to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the Customer under rate schedule 13 and the Sales Agreement for a period of 15 days. Where BC Gas requires a Customer to provide a letter of credit and the Customer is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit. | C

3. Sales

3.1 **Sale of Gas** - Subject to all of the terms and conditions set out in this rate schedule, BC Gas will sell to the Customer and the Customer will buy from BC Gas on each day the quantity of gas authorized by BC Gas in accordance with section 5 (Nomination).

3.2 **Curtailment** - BC Gas may at any time, for any reason and for any length of time interrupt or curtail sales under rate schedule 13.

3.3 **Notice of Curtailment** - Each notice from BC Gas to the Customer with respect to the interruption or curtailment by BC Gas of deliveries of gas to the Interconnection Point ~~may~~ will be by telephone and be confirmed by facsimile ~~or other means~~ and will specify the quantity of gas to ~~be interrupted of~~ which the Customer is curtailed and the time at which such ~~interruption or~~ curtailment is to be made and BC Gas will endeavour to give to the Customer as much notice as possible with respect to such ~~interruption or~~ curtailment, not to be less than 2 hours' prior notice unless prevented by Force Majeure or unless the Transporter does not provide to BC Gas at least 2 hours' prior notice of ~~curtailment~~ reduced gas supply availability.

4. Table of Charges

4.1 **Charges** - In respect of all authorized quantities of gas sales to the Customer as described in section 5.2 (Authorized Quantity), and subject to section 4.2 (Increased Charges), the Customer will pay to BC Gas all of the charges set out in the Table of Charges.

4.2 **Increased Charges** - On days when the costs of gas for ~~gas~~ sales hereunder exceed the charges set out in the Table of Charges, ~~BC Gas may specify the charges which will apply to the authorized quantities~~ the charges applying to the authorized quantities will be adjusted to equal such costs.

5. Nomination

5.1 **Requested Quantity** - The Customer may provide to BC Gas by facsimile or other method approved by BC Gas, a request for a quantity of gas under rate schedule 13.

5.2 **Authorized Quantity** - Within 2 hours of receipt of a request from a Customer pursuant to section 5.1 (Requested Quantity), BC Gas will advise the Customer of

the price and the Authorized Quantity to be made available under rate schedule 13, and the Customer may modify its request if such price exceeds the charge set out in the Table of Charges.

5.3 **Adjusted Quantity** - BC Gas ~~and the Customer~~ may agree to increase or decrease the authorized quantities described in section 5.2 (Authorized Quantity) when BC Gas, after advising the Customer of the Authorized Quantity, considers it has additional supply available to it or requires additional supply for its other Customers.

6. Term of Sales Agreement

6.1 **Term** - The initial term of the Sales Agreement will begin on the Commencement Date and, except if otherwise specified in the ~~service~~ Sales Agreement, will expire at 8:00 a.m. Standard Time on the November 1st next following~~, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term will instead expire at the end of one further Contract Year~~. C

6.2 **Automatic Renewal** - Except as specified in the Sales Agreement, the term of the Sales Agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the Customer upon not less than 2 months' notice prior to the end of the Contract Year then in effect.

7. Transportation Rate Schedule

7.1 **Definitions in Rate Schedule** - Except where the context requires otherwise or except as otherwise expressly provided in the rate schedule under which the Customer receives transportation service, all words and phrases defined in the transportation rate schedule and used in rate schedule 13 or in a Sales Agreement have the meanings set out in the transportation rate schedule, with necessary changes.

7.2 **Applicable Provisions of Transportation Rate Schedule** - The terms and conditions set out in the following sections of rate schedule 22 or 27 (as applicable) apply to rate schedule 13, with necessary changes, as if set out in rate schedule 13

- section 9.3 (Early Termination)
- section 9.4 (Survival of Covenants)
- section 10 (Statements and Payments)

- section 13 (Measurement)
- section 15 (Default or Bankruptcy)
- section 16 (Notice)
- section 17 (Interpretation) and
- section 18 (Miscellaneous).

8. Title to Gas

8.1 **Warranty** - BC Gas warrants generally the title to all gas delivered to the Customer under rate schedule 13 and the right of BC Gas to sell such gas, and warrants that such gas will be free and clear of all liens and adverse claims.

8.2 **Transfer of Title** - Title to gas delivered under rate schedule 13 will pass to the Customer at the Interconnection Point.

TABLE OF CHARGES

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
(a)	**Sales Commodity Charge** per gigajoule	$ 3.71	$ 3.44	$ 2.99

Franchise Fee Charge of 3.09% of the aggregate of the above charges ~~above~~, is payable (in addition to the above charges) if the location of the facilities to which gas sold under rate schedule 13 is delivered is within the municipal boundaries of a municipality to which BC Gas pays Franchise Fees.

Minimum Charge per month - There is no minimum charge under rate schedule 13.

RATE SCHEDULE 13
(SHORT FORM) PEAKING SALES AGREEMENT

(May be attached to a Large Volume Interruptible Sales Agreement under rate schedule 10)

The Customer hereby agrees to purchase gas pursuant to rate schedule 13. The term of this rate schedule 13 Sales Agreement will: (tick only one box)

☐ be identical to the term of the Transportation Agreement, OR

☐ commence on _____ and expire on _____.

The terms and conditions set out in the rate schedule 10 Sales Agreement apply to this agreement, with necessary changes.

IN WITNESS WHEREOF the parties hereto have executed this rate schedule 13 Sales Agreement.

BC GAS UTILITY LTD.

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

_____
(here insert name of Customer)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

BC GAS UTILITY LTD.

RATE SCHEDULE 14
INTERRUPTIBLE BACKSTOPPING SALES
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1. Applicability

1.1 **Description of Applicability** - Rate schedule 14 applies to the sale at the Interconnection Point of interruptible Backstopping Gas, no portion of which may be resold, for transportation through the BC Gas system ~~through one meter station~~ to one Customer, except as otherwise agreed upon. Gas ~~sold~~ under rate schedule 14 is ~~made available~~ sold interruptibly on ~~an~~ a first come, first served ~~interruptible~~ basis ~~and may be used~~ to provide a supply of gas to a Customer when the Customer's usual supply of gas is not available. | C

1.2 **Sales Agreement** - BC Gas will only sell gas pursuant to an executed Sales Agreement.

1.3 **British Columbia Utilities Commission** - Rate schedule 14 may be amended from time to time with the consent of the British Columbia Utilities Commission.

2. Conditions of Sales

2.1 **Conditions** - Rate schedule 14 is available to Customers in all territory served by BC Gas under the tariff of which rate schedule 14 is a part if

(a) adequate gas volumes for such sales are available, and

(b) the Customer has entered into a Transportation Agreement pursuant to a rate schedule that provides interruptible service and such agreement continues to be in effect.

2.2 **Security** - ~~At any time during the term of~~ In order to secure the prompt and orderly payment of the charges to be paid by ~~Shipper~~ Customer to BC Gas under the Sales Agreement BC Gas may require the Customer to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the Customer under rate schedule 14 and the Sales Agreement for a period of 90 days. Where BC Gas requires a Customer to provide a letter of credit and the Customer is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

3. Sales

3.1 **Sale of Gas** - Subject to all of the terms and conditions set out in this rate schedule, BC Gas will sell to the Customer and the Customer will buy from BC Gas on each day the quantity of gas authorized by BC Gas in accordance with section 5 (Nomination).

3.2 **Minimum Quantity** - A minimum sales quantity may be specified in the Sales Agreement consistent with prevailing spot market availability of supply and pricing.

3.3 **Curtailment** - BC Gas may at any time, for any reason and for any length of time, interrupt or curtail sales under rate schedule 14.

3.4 **Notice of Curtailment** - Each notice from BC Gas to the Customer with respect to the interruption or curtailment by BC Gas of deliveries of gas to the Interconnection Point ~~may~~ will be by telephone and be confirmed by facsimile ~~or other means~~ and will specify the quantity of gas to ~~be interrupted or~~ which the Customer is curtailed and the time at which such ~~interruption or~~ curtailment is to be made and BC Gas will endeavour to give to the Customer as much notice as possible with respect to such ~~interruption or~~ curtailment, not to be less than 2 hours' prior notice unless prevented by Force Majeure or unless the Transporter does not provide to BC Gas at least 2 hours' prior notice of ~~curtailment~~ reduced gas supply availability.

4. Table of Charges

4.1 **Charges** - In respect of all Authorized Quantities of gas sales to the Customer as described in section 5.2 (Authorized Quantity) and subject to the minimum quantity, if applicable, specified in the Sales Agreement and to section 4.2 (Increased Charges), the Customer will pay to BC Gas the charges set out in the Sales Agreement as determined by the Table of Charges.

4.2 **Increased Charges** - On days when the costs of gas for ~~gas~~ sales hereunder exceed the charges set out in the Table of Charges~~, BC Gas may specify the charges which will apply to the Authorized Quantities~~ the charges applying to the Authorized Quantities will be adjusted to equal such costs.

5. Nomination

5.1 **Requested Quantity** - The Customer will provide to BC Gas by facsimile or other method approved by BC Gas, prior to 7:30 a.m. Pacific local time on each day (or such other time as may be specified from time to time by BC Gas) the Customer's Requested Quantity for the day commencing in approximately 24 hours. If the Customer does not notify BC Gas in accordance with the foregoing, then the Customer's Requested Quantity for the day commencing in approximately 24 hours will be deemed to be the Customer's quantity pursuant to Section 5.2 (Authorized Quantity) for the day just commencing.

5.2 **Authorized Quantity** - BC Gas will each day, giving consideration to the Customer's request pursuant to section 5.1 (Requested Quantity), advise the Customer of the price and the Authorized Quantity to be made available under rate schedule 14.

5.3 **Adjusted Quantity** - BC Gas ~~and the Customer~~ may agree to increase or decrease the Authorized Quantities described in section 5.2 (Authorized Quantity) when BC Gas, after advising the Customer of the Authorized Quantity, considers it has additional supply available to it or requires additional supply for its other Customers.

6. Term of Sales Agreement

6.1 **Term** - The initial term of the Sales Agreement will begin on the Commencement Date and, except if otherwise specified in the ~~service~~ Sales Agreement, will expire at 8:00 a.m. Standard Time on the November 1st next following~~, provided that if foregoing would result in the initial term being for a period of less than one year, then the initial term will instead expire at the end of one further Contract Year~~. C

6.2 **Automatic Renewal** - Except as specified in the Sales Agreement, the term of the Sales Agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the Customer upon not less than 2 months' notice prior to the end of the Contract Year then in effect.

7. Transportation Rate Schedule

7.1 **Definitions in Rate Schedule** - Except where the context requires otherwise or except as otherwise expressly provided in the rate schedule under which the Customer receives transportation service, all words and phrases defined in the transportation rate schedule and used in rate schedule 14 or in a Sales Agreement have the meanings set out in the transportation rate schedule, with necessary changes.

7.2 **Applicable Provisions of Transportation Rate Schedule** - The terms and conditions set out in the following sections of rate schedule 22 or 27 (as applicable) apply to rate schedule 14, with necessary changes, as if set out in rate schedule 14

- section 9.3 (Early Termination)
- section 9.4 (Survival of Covenants)
- section 10 (Statements and Payments)

- section 13 (Measurement)
- section 15 (Default or Bankruptcy)
- section 16 (Notice)
- section 17 (Interpretation) and
- section 18 (Miscellaneous).

8. Title to Gas

8.1 **Warranty** - BC Gas warrants generally the title to all gas delivered to the Customer under rate schedule 14 and the right of BC Gas to sell such gas, and warrants that such gas will be free and clear of all liens and adverse claims.

8.2 **Transfer of Title** - Title to gas delivered under rate schedule 14 will pass to the Customer at the Interconnection Point.

TABLE OF CHARGES

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
(a)	**Sales Commodity Charge** per gigajoule	Inside F.E.R.C. Index Price [1] for gas delivered to Northwest Pipeline at the Canadian border (Huntingdon/Sumas)	Inside F.E.R.C. Index Price [1] for gas delivered to Northwest Pipeline at the Canadian border (Huntingdon/Sumas)	Inside F.E.R.C. Index Price [1] for gas delivered to Northwest Pipeline at Rocky Mountain

The Inside F.E.R.C. Index Price will be subject to adjustments due to pipeline toll differentials, $US to Canadian dollar conversion, and other adjustments reflecting delivery terms consistent with prevailing market conditions. The period of time during which each publication of the Inside F.E.R.C. Index Price will be applicable is as specified in the Sales Agreement.

Franchise Fee Charge of 3.09% of the aggregate of the above charges ~~above,~~ is payable (in addition to the above charges) if the location of the facilities to which gas sold under rate schedule 14 is delivered is within the municipal boundaries of a municipality to which BC Gas pays Franchise Fees.

Minimum Charge per month - There is no minimum charge under rate schedule 14 except as determined from the Sales Agreement.

[1] The Inside F.E.R.C. Index Price will be as set out in Inside F.E.R.C.'s Gas Market Report.

RATE SCHEDULE 14
(SHORT FORM) BACKSTOPPING SALES AGREEMENT

(May be attached to a Large Volume Interruptible Sales Agreement under rate schedule 10)

The Customer hereby agrees to purchase gas pursuant to rate schedule 14. The term of this rate schedule 14 Sales Agreement will: (tick only one box)

☐ be identical to the term of the Transportation Agreement, OR

☐ commence on _____ and expire on _____.

The terms and conditions set out in the rate schedule 10 Sales Agreement apply to this agreement, with necessary changes.

IN WITNESS WHEREOF the parties hereto have executed this rate schedule 13 Sales Agreement.

BC GAS UTILITY LTD.

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

_____
(here insert name of Customer)

BY: _____
(Signature)

_____
(Title)

_____
(Name - Please Print)

DATE: _____

DRAFT

BC GAS UTILITY LTD.

RATE SCHEDULE 8
LARGE VOLUME INTERRUPTIBLE SERVICE

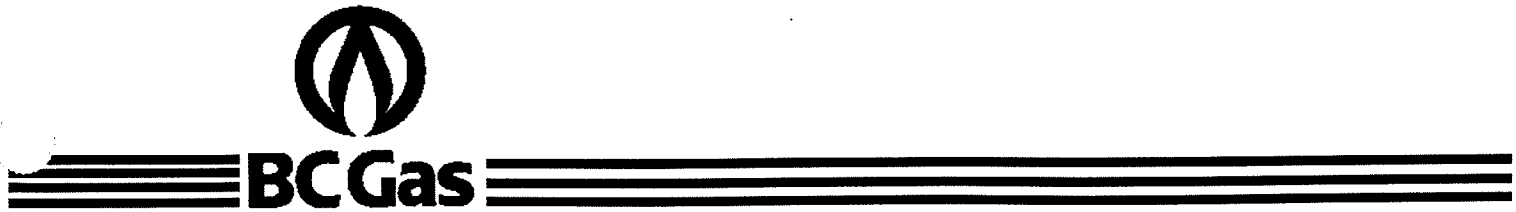


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1. Applicability

1.1 **Description of Applicability** - This rate schedule applies to the sale of interruptible gas, no portion of which may be resold (subject to a minimum of 20,000 gigajoules per month), through one meter station to one Customer.

1.2 **Service Agreement** - BC Gas will only sell gas pursuant to an executed service agreement.

1.3 **British Columbia Utilities Commission** - This rate schedule may be amended from time to time with the consent of the British Columbia Utilities Commission.

2. Conditions of Service

2.1 **Conditions** - This rate schedule is available in all territory served by BC Gas under the tariff of which this rate schedule is a part if

(a) adequate gas volumes for such service are available,

(b) adequate capacity exists in the BC Gas system,

(c) at all times when adequate quantities of gas are available from BC Gas to the Customer at the facilities specified in the service agreement, the Customer will use such gas as the only fuel for such facilities,

(d) BC Gas has installed at the Delivery Point the facilities and equipment referred to in section 8.1 (Facilities and Equipment), and

(e) the Customer has and continues to have, to the satisfaction of BC Gas, an alternative fuel burning installation in good operating order with an adequate supply of fuel in order that the Customer can continue its operations on occasions when gas service is discontinued, interrupted or curtailed. BC Gas will waive this requirement provided that the Customer agrees and acknowledges that any interruption of its operations due to gas discontinuance, interruption or curtailment results solely from the Customer's election not to install and maintain standby facilities.

2.2 **Security** - In order to secure the prompt and orderly payment of the charges to be paid by the Customer to BC Gas under the service agreement BC Gas may require the Customer to provide, and at all times maintain, an irrevocable letter of credit in favour of BC Gas issued by a financial institution acceptable to BC Gas in an amount equal to the maximum amount payable by the Customer under this rate schedule and the service agreement for a period of 90 days. Where BC

Gas requires a Customer to provide a letter of credit and the Customer is able to provide alternative security acceptable to BC Gas, BC Gas may accept such security in lieu of a letter of credit.

2.3 **Warning Relating to Firm Sales Rate Schedule** - A Customer wishing to switch at the end of the term of a service agreement to a firm gas sales rate schedule must comply with the requirements set out in the applicable sales rate schedule, including the following

(a) giving 13 months' prior notice to BC Gas of the Customer's desire to do so, and

(b) if BC Gas is subjected to higher gas prices or transportation costs or both, reimbursing BC Gas for any such higher prices or costs.

3. Sales

3.1 **Sale of Gas** - Subject to section 13 of the general terms and conditions of BC Gas (Interruption of Service), BC Gas will sell to the Customer and the Customer will buy from BC Gas at one Delivery Point such quantity of gas as is required by the Customer for the operation of the Customer's facilities specified in the service agreement, estimated to be the maximum quantity per day set out in the service agreement, for the charges and on all of the terms and conditions set out in either this rate schedule or the service agreement.

3.2 **Notice of Change in Requirements** - The Customer will provide to BC Gas by facsimile or other method approved by BC Gas, 24 hours notice of any significant change in the Customer's gas consumption requirements (such as due to plant operating curtailments, shutdowns or startups, or a change in gas equipment utilization). This will not be taken to include changes in consumption due to weather, except when such circumstances alter a plant's operating requirements.

3.3 **Curtailment** - If BC Gas at any time determines either that it does not have sufficient capacity on the BC Gas system, or that adequate volumes of gas are not available, to accommodate the Customer's request for service under this rate schedule, BC Gas may for any length of time interrupt or curtail the delivery of gas to the Delivery Point.

3.4 **Notice of Curtailment** - Each notice from BC Gas to the Customer with respect to the interruption or curtailment by BC Gas of deliveries of gas to the Delivery Point will specify the quantity of gas to which the Customer is curtailed and the time at which such curtailment is to be made and BC Gas will endeavour to give the Customer as much notice as possible with respect to such curtailment, not to

be less than 2 hours' prior notice unless prevented by Force Majeure or unless the Transporter does not provide to BC Gas at least 2 hours' prior notice of reduced availability of gas.

3.5 **Default Regarding Curtailment** - If the Customer at any time fails or neglects to comply with a notice from BC Gas to interrupt or curtail the Customer's take, BC Gas may, in addition to any other remedy that it may then or thereafter have, at its option, without liability therefor and without any prior notice to the Customer

(a) turn off the valve at the Delivery Point,

(b) deliver such gas and charges the Customer for such gas consumed on that day the charge for Unauthorized Overrun Gas set out in the Table of Charges, or

3.6 **Acknowledgement** - All Customers purchasing gas pursuant to this rate schedule acknowledge and agree that they can accommodate any total or partial interruption of gas service by BC Gas.

3.7 **Maximum Hourly Quantities** - BC Gas will not be obliged to deliver in any one hour more than 5% of the maximum quantity per day set out in the service agreement.

3.8 **Pressure at Delivery Point** - All gas delivered by BC Gas at the Delivery Point to the Customer will be at not less than the pressure specified in the service agreement.

4. Table of Charges

4.1 **Charges** - In respect to all quantities of gas delivered to the Delivery Point pursuant to this rate schedule and the Transportation Agreement, the Customer will pay to BC Gas all of the charges set out in the Table of Charges.

4.2 **Alternative Fuels** - BC Gas may, in its sole discretion, reduce the charges set out in the Table of Charges to any Customer to compete with the price of alternative fuels.

5. Minimum Charge

5.1 **Minimum Charge** - The minimum charge for any month will be based upon a Minimum Quantity of 20,000 gigajoules for that month. The minimum charge will be calculated as the sum of the following:

(a) the Basic Charge,

(b) the Delivery Charge per gigajoule times the Minimum Quantity,

(c) the Franchise Fee Charge, (if applicable), plus

(d) the applicable Commodity Charges and associated charges on the quantity of gas actually delivered to the Customer at the Delivery Point.

5.2 **Minimum Charge Credits** - If on any day either BC Gas interrupts or curtails the delivery of gas to the Customer, or the Customer is entitled to relief by reason of Force Majeure, then an adjustment will apply to the Minimum Quantity set out in section 5.1 (Minimum Charge). The Minimum Quantity will be reduced by the quantity that would have been delivered in the absence of the curtailment. Provided, however, in the case of Force Majeure arising out of strike or lockout, the credit provisions will apply for no more than 90 days in any Contract Year with the Minimum Quantity for each month prorated by the number of days of Force Majeure in that month.

5.3 **Delivery Rate during Force Majeure** - In respect of all gas received by the Customer while the Customer is entitled to relief by reason of Force Majeure, the Customer will pay a delivery charge equivalent to three times the applicable delivery charge set out in the Table of Charges.

5.4 **Limitation on Minimum Charge Credits** - Notwithstanding section 5.2 (Minimum Charge Credits), no credit will apply in respect of an event of Force Majeure that has occurred upstream of the Transporter.

6. Unauthorized Overrun Rate

6.1 **Charges for Unauthorized Service** - On any day the Customer takes Unauthorized Overrun Gas, the Customer will pay to BC Gas the charges for Unauthorized Overrun Gas set out in the Table of Charges.

6.2 **Payments Not License** - Payments made by the Customer to BC Gas for Unauthorized Overrun Gas neither give the Customer the right to take Unauthorized Overrun Gas, nor exclude or limit any other remedies available to BC Gas for the Customer's taking of Unauthorized Overrun Gas.

6.3 **Demand Surcharge** - If on three or more days during a Contract Year the Customer takes gas in excess of the greater of

(a) 110% of a curtailed quantity specified by BC Gas in accordance with Section 3.4 (Notice of Curtailment), or

(b) a curtailed quantity specified by BC Gas in accordance with Section 3.4 (Notice of Curtailment) plus 100 gigajoules,

the demand surcharge set out in the Table of Charges will apply. The demand surcharge will be calculated and become payable at the end of a month of the third or more occurrence, on the average of the two largest quantities of Unauthorized Overrun Gas taken (the "Demand Surcharge Quantity") as follows:

Demand Surcharge equals:

the demand surcharge rate

times 12

times the Demand Surcharge Quantity.

6.4 **Recalculation of Demand Surcharge** - The demand surcharge will be recalculated if the Customer again uses Unauthorized Overrun Gas which causes the Demand Surcharge Quantity to increase. Any additional demand surcharge will become payable at the end of the month in which a new Demand Surcharge Quantity is established.

7. Term of Service Agreement

7.1 **Term** - The initial term of the service agreement will begin on the Commencement Date and will expire at 8:00 a.m. Standard Time on the November 1 next following, provided that if the foregoing would result in the initial term being for a period of less than one year, then the initial term will instead expire at the end of one further Contract Year.

7.2 **Automatic Renewal** - Except as specified in the service agreement, the term of the service agreement will continue on a year to year basis after the expiry of the initial term until cancelled by either BC Gas or the Customer upon not less than 2 months' notice prior to the end of the Contract Year then in effect.

7.3 **Early Termination** - The term of the service agreement is subject to early termination in accordance with section 11 (Default or Bankruptcy).

7.4 **Survival of Covenants** - Upon the termination of the service agreement, whether pursuant to section 11 (Default or Bankruptcy) or otherwise,

(a) all claims, causes of action or other outstanding obligations remaining or being unfulfilled as at the date of termination, and,

(b) all of the provisions in this rate schedule and in the service agreement relating to the obligation of any of the parties to account to or indemnify the other and to pay to the other any monies owing as at the date of termination in connection with the service agreement,

will survive such termination.

8. Statement and Payments

8.1 **Statements to be Provided** - BC Gas will, on or before the 15th day of each month, deliver to the Customer a statement for the preceding month showing the gas quantities delivered to the Customer and the amount due. BC Gas will, on or before the 45th day after the end of a Contract Year, deliver to the Customer a separate statement for the preceding Contract Year showing the amount required from the Customer in respect of any indemnity due under a service agreement. Any errors in any statement will be promptly reported to the other party as provided hereunder, and statements will be final and binding unless questioned within one year after the date of the statement.

8.2 **Payment and Interest** - Payment for the full amount of the statement, including federal, provincial and municipal taxes or fees applicable thereon, will be made to BC Gas at its Vancouver, British Columbia office, or such other place in Canada as it will designate, on or before the 1st business day after the 10th calendar day following the billing date. If the Customer fails or neglects to make any payment required under this rate schedule, or any portion thereof, to BC Gas when due, interest on the outstanding amount will accrue from and including the date when such payment is due to and including the date the same is paid, at the rate of interest declared by the chartered bank in Canada principally used by BC Gas, for loans in Canadian dollars to its most creditworthy commercial borrowers payable on demand and commonly referred to as its "prime rate", plus 5%.

8.3 **Examination of Records** - Each of BC Gas and the Customer will have the right to examine at reasonable times the books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge, computation or demand made pursuant to any provisions of this rate schedule or the service agreement.

9. Measuring Equipment

9.1 **Facilities and Equipment** - BC Gas will install, maintain and operate at the Delivery Point such metering and communications facilities and equipment as BC Gas determines are necessary or desirable for measuring the quantity of gas delivered pursuant to this rate schedule to the Customer and the Customer will permit BC Gas, without cost to BC Gas, to use the Customer's communications lines and power for the purpose of installing, maintaining and operating the measuring equipment of BC Gas.

9.2 **Measuring Site** - If BC Gas reasonably determines that it is necessary to install the facilities and equipment referred to in section 9.1 (Facilities and Equipment) on the Customer's property, the Customer will, without charge, provide a suitable site along with utilities and enclosures for the installation of the facilities and equipment of BC Gas. BC Gas will at all times have clear access to the site and to all of its facilities and equipment. All facilities and equipment installed by BC Gas on the Customer's property will remain the property of BC Gas and may be removed by BC Gas upon termination of the service agreement.

9.3 **Calibration and Test of Measuring Equipment** - The accuracy of the measuring equipment of BC Gas will be verified by standard tests and methods at regular intervals and at other times at the initiative of BC Gas or upon the reasonable request of the Customer. Notice of the time and nature of each test conducted in response to communications with or at the request of the Customer will be given by BC Gas to the Customer sufficiently in advance to permit a representative of the Customer to be present. If during a test the measuring equipment is found to be registering inaccurately, it will be adjusted at once to read as accurately as possible. The results of each test and adjustment, if any, made by BC Gas, whether or not the Customer is present for such test, will be accepted until the next test. All tests of such measuring equipment of BC Gas will be made at the expense of BC Gas, except that the Customer will bear the expense of tests made at its request if the measuring equipment is found to be inaccurate by an amount equal to 2% or less.

9.4 **Inaccuracy Exceeding 2%** - If upon any test the measuring equipment is found to be inaccurate by an amount exceeding 2%, any previous readings of such equipment will be corrected to zero error for any period during which it is definitely known or is agreed upon that the error existed. If the period is not definitely known or is not agreed upon, such correction will be for a period covering the last half of the time elapsed since the date of the last test. Provided that under no circumstances will an adjustment be made for a period of more than the preceding 12 months.

9.5 **Correction of Measuring Errors** - If the measuring equipment is out of service or out of repair so that the quantity of gas delivered cannot be correctly determined by the reading thereof, the gas delivered during the period such measuring equipment is out of service or out of repair will be estimated on the basis of the best available data, using the first of the following methods which is feasible

(a) by correcting the error if the percentage of error is ascertained by calibration test or mathematical calculation,

(b) by using the registration of any check measuring equipment if installed and accurately registering, and

(c) by estimating the quantity of gas delivered to the Customer during the preceding periods under similar conditions when the meter was registering accurately.

9.6 **Customer's Equipment** - The Customer may at its own expense install, maintain and operate its own measuring equipment for the purposes of monitoring or checking the measuring equipment of BC Gas, provided that the Customer will install such equipment so as not to interfere with the operation of the measuring equipment of BC Gas.

9.7 **Right to be Present** - BC Gas and the Customer will have the right to inspect all equipment installed or furnished by the other and the charts and other measurement or test data of the other at all times during business hours, and to be present at the time of any installing, testing, cleaning, changing, repairing, calibrating or adjusting done in connection with the measuring equipment of the other party, but all such activities will be performed by the party furnishing the measuring equipment.

9.8 **Preservation of Records** - Both parties will cause to be preserved each test datum, chart and other record of gas measurement for a period of 2 years.

10. Measurement

10.1 **Unit of Volume** - The unit of volume of gas for all purposes hereunder will be 1 cubic metre at a temperature of 15° Celsius and an absolute pressure of 101.325 kilopascals.

10.2 **Determination of Volume** - Gas delivered hereunder will be metered using metering apparatus approved by the Standards Division, Department of Consumer & Corporate Affairs of Canada and the determination of standard volumes

delivered hereunder will be in accordance with terms and conditions pursuant to the *Electricity and Gas Inspection Act* of Canada.

10.3 **Conversion to Energy Units** - In accordance with the *Electricity and Gas Inspection Act* of Canada, volumes of gas delivered each day will be converted to energy units by multiplying the standard volume by the heat content of each unit of gas. Volumes will be specified in 10^3m^3 rounded to one decimal place and energy will be specified in gigajoules rounded to the nearest gigajoule.

11. Default or Bankruptcy

11.1 **Default** - If the Customer at any time fails or neglects

(a) to make any payment due to BC Gas or to any other person under this rate schedule or the service agreement within 30 days after payment is due, or

(b) to cure any default of any of the other terms, covenants, agreements, conditions or obligations imposed upon it under this rate schedule or the service agreement, within 30 days after BC Gas gives to the Customer notice of such default or, in the case of a default that cannot with due diligence be cured within a period of 30 days, the Customer fails to proceed promptly after the giving of such notice with due diligence to cure the same and thereafter to prosecute the curing of such default with all due diligence,

then BC Gas may in addition to any other remedy that it has, including the rights of BC Gas set out in section 3.5 (Default Regarding Curtailment), at its option and without liability therefor

(a) suspend further service to the Customer and may refuse to deliver gas to the Customer until the default has been fully remedied, and no such suspension or refusal will relieve the Customer from any obligation under this rate schedule or the service agreement, or

(b) terminate the service agreement, and no such termination of the service agreement pursuant hereto will exclude the right of BC Gas to collect any amount due to it from the Customer for what would otherwise have been the remainder of the term of the service agreement.

11.2 **Bankruptcy or Insolvency** - If the Customer becomes bankrupt or insolvent or commits or suffers an act of bankruptcy or insolvency or a receiver is appointed pursuant to a statute or under a debt instrument or the Customer seeks protection

from the demands of its creditors pursuant to any legislation enacted for that purpose, BC Gas will have the right, at its sole discretion, to terminate the service agreement by giving notice in writing to the Customer and thereupon BC Gas may cease further delivery of gas to the Customer and the amount then outstanding for gas provided under the service agreement will immediately be due and payable by the Customer.

12. Notice

12.1 **Notice** - Any notice, request, statement or bill that is required to be given or that may be given under this rate schedule or under the service agreement will, unless otherwise specified, be in writing and will be considered as fully delivered when mailed, personally delivered or sent by telecopier to the other in accordance with the following:

if to BC Gas	BC GAS UTILITY LTD.	
MAILING ADDRESS:	1111 West Georgia Street Vancouver, B.C. V6E 4M4	
BILLING AND PAYMENT:	Attention: Telephone: Telecopier:	Manager, Customer Administration (604) 443-6507 (604) 443-6588
CURTAILMENT AND FORCE MAJEURE:	Attention: Telephone: Telecopier:	Transportation Coordinators (604) 443-6950 (604) 443-6952
CUSTOMER RELATIONS	Attention: Telephone: Telecopier:	Manager, Industrial Services (604) 443-6491 (604) 443-6770
LEGAL AND OTHER:	Attention: Telephone: Telecopier:	V.P Legal & Regulatory Affairs (604) 443-6607 (604) 443-6789

if to the Customer, then as set out in the service agreement.

12.2 **Specific Notices** - Notwithstanding section 12.1 (Notice), notices with respect to curtailment, interruption or restoration of deliveries of gas and with respect to Force Majeure will be sufficient if given by BC Gas in writing by telecopier, or orally in person, or by telephone (to be confirmed in writing), to the person or persons designated from time to time by the Customer as authorized to receive such notices.

13. Interpretation

13.1 **Definitions in General Terms and Conditions of BC Gas** - Except where the context requires otherwise or except as otherwise expressly provided in this rate schedule, all words and phrases defined in the general terms and conditions of BC Gas and used in this rate schedule or in a service agreement have the meanings set out in the general terms and conditions of BC Gas.

13.2 **Change in Definition of "Day"** - BC Gas may amend the definition of "day" from time to time to suitably align its operations with those of its Transporters. If BC Gas amends the meaning of "day", a pro-rate adjustment of quantities of gas and charges to account for any day of more or less than 24 hours will be made and the term of the service agreement will be similarly adjusted.

13.3 **Further Definitions** - Additionally, except where the context requires otherwise, each of the words and phrases described in the definitions have the meanings ascribed thereto in the definitions.

13.4 **Interpretation** - Except where the context requires otherwise or except as otherwise expressly provided, in this rate schedule or in a service agreement

(a) all references to a designated section are to the designated section of this rate schedule unless otherwise specifically stated,

(b) the singular of any term includes the plural, and vice versa, and the use of any term is equally applicable to any gender and, where applicable, body corporate,

(c) any reference to a corporate entity includes and is also a reference to any corporate entity that is a successor to such entity,

(d) all words, phrases and expressions used in this rate schedule or in a service agreement that have a common usage in the gas industry and that are not defined in the general terms and conditions of BC Gas, the definitions or in the service agreement have the meanings commonly ascribed thereto in the gas industry, and

(e) the headings of the sections set out in this rate schedule or in the service agreement are for convenience of reference only and will not be considered in any interpretation of this rate schedule or the service agreement.

14. Miscellaneous

14.1 **Waiver** - No waiver by either BC Gas or the Customer of any default by the other in the performance of any of the provisions of this rate schedule or the service agreement will operate or be construed as a waiver of any other or future default or defaults, whether of a like or different character.

14.2 **Enurement** - The service agreement will enure to the benefit and be binding upon the parties and their respective successors and permitted assigns, including without limitation successors by merger, amalgamation or consolidation.

14.3 **Assignment** - The Customer will not assign the service agreement or any of its rights or obligations thereunder without the prior written consent of BC Gas which consent BC Gas will not be unreasonably withheld or delayed. No assignment will release the Customer from its obligations under this rate schedule or under the service agreement. This provision applies to every proposed assignment by the Customer.

14.4 **Amendments to be in Writing** - Except as set out in this rate schedule, no amendment or variation of the service agreement will be effective or binding upon the parties unless such amendment or variation is set out in writing and duly executed by the parties.

14.5 **Proper Law** - The service agreement will be construed and interpreted in accordance with the laws of the Province of British Columbia and the laws of Canada applicable therein.

14.6 **Time is of Essence** - Time is of the essence of this rate schedule, the service agreement and of the terms and conditions thereof.

14.7 **Subject to Legislation** - Notwithstanding any other provision hereof this rate schedule and the service agreement and the rights and obligations of BC Gas and the Customer under this rate schedule and the service agreement are subject to all present and future laws, rules, regulations and orders of any legislative body, governmental agency or duly constituted authority now or hereafter having jurisdiction over BC Gas or the Customer.

14.8 **Further Assurances** - Each of BC Gas and the Customer will, on demand by the other, execute and deliver or cause to be executed and delivered all such further documents and instruments and do all such further acts and things as the other may reasonably require to evidence, carry out and give full effect to the terms, conditions, intent and meaning of this rate schedule and the service agreement and to assure the completion of the transactions contemplated hereby.

14.9 **Form of Payments** - All payments required to be made under statements and invoices rendered pursuant to this rate schedule or the service agreement will be made by telegraphic transfer to, or cheque or bank cashier's cheque drawn on, a Canadian chartered bank or trust company, payable in lawful money of Canada at par in immediately available funds in Vancouver, British Columbia.

DEFINITIONS

(a) **BC Gas** - means BC Gas Utility Ltd., a body corporate incorporated pursuant to the laws of the Province of British Columbia under number 368681.

(b) **BC Gas system** - means the gas transmission and distribution system owned and operated by BC Gas, as such system is expanded, reduced or modified from time to time.

(c) **British Columbia Utilities Commission** - means the British Columbia Utilities Commission constituted under the *Utilities Commission Act* of British Columbia and includes and is also a reference to

(i) any commission that is a successor to such commission, and

(ii) any commission that is constituted pursuant to any statute that may be passed which supplements or supersedes the *Utilities Commission Act* of British Columbia.

(d) **Commencement Date** - means the day specified as the Commencement Date in the service agreement.

(e) **Contract Year** - means a period of 12 consecutive months commencing at the beginning of the 1st day of November and ending at the beginning of the next succeeding 1st day of November.

(f) **Customer** - means a person who enters into a service agreement with BC Gas.

(g) **day** - means, subject to section 13.2 (Change in Definition of "Day"), any period of twenty-four consecutive hours beginning and ending at 8:00 a.m. Standard Time.

(h) **definitions** - means the definitions appended to this rate schedule.

(i) **Delivery Point** - means the point specified in a service agreement where BC Gas delivers gas to a Customer.

(j) **Force Majeure** - means any acts of God, strikes, lockouts, or other industrial disturbances, civil disturbances, arrests and restraints of rulers or people, interruptions by government or court orders, present or future valid orders of any regulatory body having proper jurisdiction, acts of the public enemy, wars, riots, blackouts, insurrections, failure or inability to secure materials or labour by reason of priority, regulations or orders of government, serious epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, explosions, breakage or accident to machinery or lines of pipes, or freezing of wells or pipelines, or the

failure of gas supply, temporary or otherwise, from a Supplier of gas, which act of Force Majeure was not due to negligence of the party claiming Force Majeure. Further, Force Majeure will also include a declaration of Force Majeure by a Transporter that results in gas being unavailable for delivery.

(k) **Franchise Fees** - means the aggregate of all monies payable by BC Gas to a municipality

(i) for the use of the municipality's streets and other property to construct and operate the utility business of BC Gas,

(ii) relating to the revenues received by BC Gas for services provided and gas consumed within the municipality, and

(iii) relating, if applicable, to the value of gas transported by BC Gas through the municipality.

(l) **gas** - means the residue remaining after raw gas has been subjected to any or all of the following permissible processes

(i) the removal of any of its constituent parts other than methane, and the removal of methane to such extent as is necessary in removing other constituents,

(ii) the compression, regulation, cooling, cleaning or any other chemical or physical process other than the addition of diluents, such as air or nitrogen, to such extent as may be required in its production, gathering, transmission, transportation, storage, removal from storage and delivery, and

(iii) the addition of odorant by BC Gas,

but for greater certainty gas does not include propane.

(m) **general terms and conditions of BC Gas** - means the general terms and conditions of BC Gas from time to time approved by the British Columbia Utilities Commission.

(n) **heat content** - means the gross heating value of the gas, determined on the basis of a temperature of 15° Celsius with the gas free of all water vapour and at an absolute pressure of 101.325 kilopascals, with the products of combustion cooled to the initial temperature of the gas and the water formed by the combustion condensed to the liquid state. The heat content will be expressed in megajoules per cubic metre of gas (MJ/M^3) rounded to two decimal places.

(o) **hour** - means any consecutive 60 minute period.

(p) **interruption period** - means the period or periods during which the Customer is required pursuant to section 4 of the service agreement or sections 3.3 (Curtailment) or 3.4 (Notice of Curtailment) to interrupt, cease, limit or curtail the receipt of gas.

(q) **month** - means, subject to any changes from time to time required by BC Gas in the starting time of its gas day, the period beginning at 8:00 a.m. Standard Time on the first day of the calendar month and ending at 8:00 a.m. Standard Time on the first day of the next succeeding calendar month.

(r) **rate schedule 8 or this rate schedule** - means this rate schedule, including all rates, terms and conditions, the definitions and the Table of Charges, as amended from time to time by BC Gas with the consent of the British Columbia Utilities Commission.

(s) **service agreement** - means an agreement between BC Gas and a Customer to provide service pursuant to this rate schedule.

(t) **Supplier** - means a party who sells gas to BC Gas pursuant to a gas Sales Agreement.

(u) **Table of Charges** - means the table of prices, fees and charges, as amended by BC Gas and approved from time to time by the British Columbia Utilities Commission, appended to this rate schedule.

(v) **Transporter** - means, in the case of the Columbia service area, Alberta Natural Gas Company, a Canadian corporation, and in the case of the Inland and Lower Mainland service areas, Westcoast Energy Inc., a Canadian corporation, but also means any other gas pipeline Supplier connected to the facilities of BC Gas from which BC Gas receives gas for the purposes of gas service or resale.

(w) **Unauthorized Overrun Gas** - means any gas taken on any day by a Customer in excess of the quantity specified in any notice from BC Gas to interrupt or curtail the Customer's take, and for greater certainty, Unauthorized Overrun Gas includes all gas taken by a Customer to the extent that the obligation of BC Gas to deliver such gas is suspended by reason of Force Majeure.

(x) "**10^3m^3**" means 1,000 Cubic Metres.

TABLE OF CHARGES

		Lower Mainland Service Area	Inland Service Area	Columbia Service Area
1.	Basic Charge per month	$ 700.00	$ 700.00	$ 700.00
2.	Delivery Charge per gigajoule			
	(a) between April 1 and November 1	$ 0.70	$ 0.70	$ 0.70
	(b) between November 1 and April 1	$ 0.95	$ 0.95	$ 0.95
3.	Commodity Charge per gigajoule [1] (when rate schedule 10 gas is available)			
	(a) between April 1 and November 1	$ 1.10	$ 1.10	$ 1.60
	(b) between November 1 and April 1	$ 1.60	$ 1.60	$ 1.80
4.	Commodity Charge per gigajoule [2] for Peaking Service (when rate schedule 10 gas is not available).	$ 3.71	$ 3.44	$ 2.99
5	Charges for Unauthorized Overrun Gas			
	(i) Per gigajoule charge on first 5 percent of specified quantity	$ 2.93	$2.66	$2.24
	(ii) Per gigajoule charge on all gas over 5 percent of specified quantity	$19.93	$19.66	$8.24
	(iii) Demand Surcharge per gigajoule of Demand Surcharge Quantity Charge per gigajoule of Unauthorized Overrun Gas	$17.00	$17.00	$6.00

Franchise Fees Charge of 3.09% of the aggregate of the above charges is payable (in addition to the above charges) if the facilities to which gas is delivered under this rate schedule are located within the municipal boundaries of a municipality to which BC Gas pays Franchise Fees.

Notes:

1. Price will be amended from time to time in accordance with those posted in the Company's Large Volume Interruptible Sales rate schedule 10.

2. These charges will apply under some circumstances when rate schedule 10 is not available. For greater supply reliability, the Customer is advised to execute a rate schedule 13 Sales Agreement with BC Gas, which allows BC Gas to at times acquire more expensive gas on the Customer's behalf in order to minimize curtailments under cold weather conditions.