

Ex 2A

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Vice President
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September 29, 1996

British Columbia Utilities Commission
6th Floor - 900 Howe Street
Vancouver, British Columbia
V6Z 2N3

Attention: R.J. Pellatt
Commission Secretary

Dear Sirs:

RE: 1996 Rate Design Application - Amendments

Please find attached 15 copies of amended material to be filed in the 1996 Rate Design Application. Please replace the information in Volume 1, Tabs 3, 4, 5 (except the industrial tariffs) and 6 with the attached revised information.

Yours very truly,

BC GAS UTILITY LTD.

A handwritten signature in cursive script, appearing to read "David M. Masuhara".
for David M. Masuhara

BRITISH COLUMBIA UTILITIES COMMISSION		
EXHIBIT 2A		
DAY 7	ENTERED BY BC GAS	DATE Sept 30/96

1 **4.0 RATE DESIGN PROPOSALS**

2
3 **4.1 COST STUDIES**

4
5 The review of BC Gas' rates was conducted using the
6 conventional approaches of analyzing rates through fully
7 distributed cost of service studies ("FDC"), long run
8 incremental cost studies ("LRIC"), price of competitive energy
9 studies, and utility revenue model analyses. The purpose of
10 the rate design review is to help determine if cost burdens
11 are properly borne by each class, if rates reflect the proper
12 economic signals, if rates will provide stability both for the
13 customer and for the utility, if the rates promote simplicity
14 and administrative ease and allow for the recovery of the
15 revenue requirement.

16
17 Similar to Phase B, FDC studies were conducted utilizing
18 coincident peak, non-coincident peak and average and excess
19 demand methodologies. These studies indicate that there is an
20 under-recovery of costs from the residential class. While
21 embedded cost studies are not a sufficient basis to serve as
22 the sole or exclusive element for the determination of rates,
23 they are an important consideration. In particular, any
24 significant departure in the setting of firm rates to
25 customers from the costs to serve them may serve to create the
26 appearance of unfairness or inequity. Accordingly, to
27 overcome unfairness or inequity, the rates proposed have
28 sought to bring a closer relationship between revenues to
29 costs.

30
31 All of the FDC studies indicate that under present rates, Rate
32 5/25 revenue to cost ratios are well in excess of the
33 generally accepted range of reasonableness of 90% to 110%.
34 For example, the coincident peak method indicates that the
35 revenue to cost ratio is 186% for the Rate 5/25 class. This

1 is due, in part, to an updating of the load factors for the
2 various rate classes. General Firm Industrial load factors
3 were previously estimated at 45%. BC Gas' recent review
4 indicates that a 55% load factor is more appropriate for cost
5 allocation purposes. The load factors for all other rate
6 classes remain unchanged. The residential customer class
7 revenue to cost ratios are the lowest relative to all other
8 rate classes under all of the cost allocation methods. Under
9 the coincident peak approach, the revenue to cost ratio for
10 residential customers is approximately 87% whereas the revenue
11 to cost ratios for all other firm rate classes aside from Rate
12 5/25 are within or reasonably close to the 90% to 110% range.

13
14 As a result, a reduction in cost recovery from Rate 5/25
15 should be made up by increases to the residential rates.
16 Because interruptible delivery margins are based on a discount
17 from the general firm industrial service delivery margins, a
18 reduction to Rate 5/25 cost recovery implies further rate
19 reductions for the interruptible rates and therefore a larger
20 reallocation to the residential customer class. However, as
21 revenue responsibility is reallocated more towards the
22 residential customer class, the Rate 1 revenue cost ratio
23 moves upwards to eventually fall within the 90% to 110% target
24 range. At that point, it becomes increasingly difficult to
25 justify further realignment of revenue responsibility to this
26 customer class based on revenue to cost ratios.

27 28 **4.2 REVENUE REALIGNMENT**

29
30 BC Gas followed an iterative approach in developing the
31 proposed revenue realignment. A number of scenarios were
32 examined that evaluated various reductions to the Rate 5/25
33 delivery margins, proportionate discounts associated with the
34 interruptible delivery margins and commensurate increases to
35 the residential customer class. The final decision as to what

1 amount of revenue realignment was appropriate was based on a
2 balancing of a number of factors including the level of the
3 various resultant revenue to cost ratios relative to the 90%
4 to 110% range, the customer bill impacts associated with the
5 rate reductions and offsetting rate increases, the customer
6 acceptability associated with the magnitude of the proposed
7 revenue realignment, and the consistency of these rate
8 proposals with the general rate design principles outlined
9 above.

10
11 After weighing these competing factors, BC Gas decided that a
12 reduction of \$4.2 million in cost recovery from the Rate 5/25
13 would be the most appropriate choice of the many different
14 options for correcting the over-recovery of costs from these
15 rate classes. This reduction brings the Rate 5/25 revenue to
16 cost ratio under the coincident peak method in line with the
17 estimated revenue to cost ratio for the Rate 3 customers at
18 117%. While outside of the target range of 90% to 110%, this
19 level of margin reallocation represents an appropriate
20 compromise between the various competing factors described
21 earlier.

22
23 Once the residential rates are increased by the \$4.2 million
24 Rate 5/25 rate reduction (plus associated interruptible rate
25 reductions discussed below) the resulting residential revenue
26 to cost ratio increases to 92% - within the 90% to 100% target
27 range. The total proposed \$11.2 million revenue realignment
28 represents a 5.4% increase in margin or a 2.9% increase in the
29 burner-tip price of gas to the residential customer class (see
30 Tab 3C, Table 1.2 for revenue impact calculations).

31
32 The proposed reduction of \$4.2 million to the Rate 5/25 class
33 represents a 37% reduction in their margins. Table 1.1 found
34 under Tab 3C provides margin impact calculations. BC Gas
35 anticipates that with these significant rate reductions, a

1 large number of Rate 3 customers could be expected to seek to
2 transfer from the Rate 3 Large Commercial service to Rate
3 5/25. This would result in a deterioration of each load
4 factors for both the Rate 3 and Rate 5/25 used to establish
5 the rates and will therefore result in a higher allocation of
6 costs to both rate classes.

7
8 While it is difficult to accurately forecast which customers
9 would be likely to transfer from Rate 3 to Rate 5/25 and what
10 their individual load factors would be, the potential number
11 of candidates is larger than the current size of the Rate 5/25
12 customer class. Given the potential destabilizing effects of
13 further reductions to this customer class, BC Gas advocates
14 that a cautious approach be taken and that the class load
15 factors be monitored and re-evaluated in the future to
16 determine if further adjustments beyond those recommended in
17 this application are warranted.

18
19 Reductions to Rate 7/27 and Rate 22 associated with the \$4.2
20 million margin reduction for Rate 5/25 amount to reductions of
21 \$2.6 million and \$4.3 million respectively. These reductions
22 are broken down by rate class in Table 1.1 of Tab 3C. The
23 proposed small and large interruptible rates reflect the
24 relative value and quality of small and large interruptible
25 service. The total transfer in revenues to the residential
26 customer class is \$11.2 million. While resulting in
27 significant reductions to the various industrial rate
28 schedules, the proposed revenue realignment limits the average
29 residential revenue increase to 2.9%. BC Gas submits that
30 this proposed reallocation of margin strikes an appropriate
31 balance between the various and conflicting rate design
32 objectives.

33
34

1 **4.3 INDUSTRIAL RATE PROPOSALS**

2
3 BC Gas is proposing to eliminate two of the current industrial
4 rate schedules and to simplify the existing transportation
5 service options. In addition, BC Gas is proposing to
6 eliminate the fixed gas price option offered under Schedule
7 10, reduce the transportation service administration fees, and
8 to permit the grouping of customers for gas supply purposes.

9
10 Consistent with the goal of maintaining the stability and
11 integrity of the rate classifications, BC Gas is proposing to
12 introduce a demand/commodity rate structure for Rate 5/25. At
13 present rates, the crossover points (the volume at which one
14 rate becomes relatively less expensive than the other) between
15 Rate 3 and Rate Schedules 5 and 25 are at about 5,500 and
16 16,000 GJ per year respectively (the different crossover
17 points exclude gas cost from the Rate 25 comparison).

18
19 The current Rate 5 applicability criteria require at least a
20 50% process load as a proxy for a higher load factor. No such
21 applicability criteria apply to Rate 25. BC Gas proposes to
22 eliminate the applicability criteria first proposed for Rate
23 5/25 and to better reward load factor directly through the
24 rates themselves. This modification will allow higher load
25 factor loads, such as some greenhouses, access to this Rate
26 5/25 even though they may not be considered "process loads" as
27 was previously required. These proposals generally maintain
28 the existing volume and load factor relationships between Rate
29 3 and 5/25 and ensure that the same applicability criteria
30 apply equally to firm sales and firm transportation service.

31
32 The proposed reduction in Rate 5/25 margin also requires that
33 the interruptible rates be reduced since they are priced as a
34 discount from firm service. BC Gas is proposing to price the
35 small and large interruptible rates based on the firm rate at

1 an 80% and 100% load factor respectively. The proposed
2 modifications to the industrial tariffs are addressed more
3 fully in Volume 1, Tab 5.
4

5 **4.4 RESIDENTIAL, COMMERCIAL AND SEASONAL RATE PROPOSALS**
6

7 For customers who require firm gas service, BC Gas proposes to
8 maintain the current two-part seasonal rate structure, but to
9 also establish higher basic charges consistent with the
10 customer related costs as set out in the FDC and LRIC studies.
11 The commodity charges would be reduced to offset the increased
12 basic charge revenue. Tables 2.1 and 2.2 included under Tab
13 3C show the revenue neutral impact of the proposed increases
14 to the basic charges and associated reductions in delivery
15 charges proposed in this application. BC Gas is also
16 introducing a commercial transportation service option (Rate
17 23). Rate 23 will be a parallel transportation rate
18 equivalent to Rate 3 and will be subject to similar terms and
19 conditions as Rate 25.
20

21 BC Gas is also proposing to amend the Rate 4 firm seasonal
22 service rate structure to link the delivery margins to a
23 comparable firm service schedule (Rate 5/25) and link the gas
24 cost allocation to the summer gas costs available under the
25 interruptible sales schedule (Rate 7). Details on the
26 proposed residential, commercial and seasonal rate proposals
27 are found in Volume 1 under Tab 4.

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2
3
4 **5.0 GENERAL TERMS AND CONDITIONS**
5

6 BC Gas proposes to make several changes to parts of the
7 General Terms and Conditions. Revised tariff sheets showing
8 the proposed edits or additions to the current General Terms
9 and Conditions are included in Volume 1 under Tab 3B. The
10 terms and conditions BC Gas proposes to amend are discussed
11 below:
12

13 1. Definitions - Basic Charge

14 The proposed change adds clarity to the definition of
15 basic charge and is consistent with BC Gas' existing
16 policy.
17

18 2. Section 5 - Application Fees and Charges

19 BC Gas is proposing to add a new clause that allows the
20 Company to charge those customers requesting the utility
21 to identify the load or premises being served by a meter
22 set in cases where the meter sets are found to be properly
23 identified or where the meter sets were improperly
24 identified as a result of the customer's actions.
25

26 3. Section 11 - Meter Sets and Metering

27 BC Gas is proposing to amend Section 11 to accommodate
28 customers requesting non-standard metering equipment. For
29 example, some customers have requested the installation of
30 daily metering equipment to use with their energy
31 management systems even though daily metering is not
32 required for billing purposes. The proposed amendments
33 will clarify the Company's policy with respect to directly
34 charging those customer requesting non-standard equipment
35 or meter relocation.

conditions that allow paving projects to begin earlier than April 1st or continue beyond October 31st. In cases where BC Gas extends Rate 4 service beyond the off-peak period, BC Gas proposes to charge the Rate 7 winter gas costs.

Rate 4 Delivery Charge

BC Gas proposes that the Delivery Charge per gigajoule be adjusted to the equivalent charge for Rate Schedule 5 - General Firm Service at the class average load factor. This change will better reflect the firm delivery requirements of Rate 4 Seasonal customers and, as a result of the reduction in Rate 5 delivery charges proposed in this Application, will result in a reduction in the delivery charges for Rate 4 customers.

For those periods where BC Gas extends Rate 4 service beyond the normal off-peak season, BC Gas proposes to apply the equivalent Rate 5 winter delivery margins. Extension of the service beyond the normal off-peak season will continue to be at the sole discretion of BC Gas and customers may not take service during the Peak season without express prior approval from the Company. Penalties for unauthorized use of gas during the peak period will be charged at the \$20.00 UOR rate established in the Rate 7 table of charges.

A revised Rate Schedule 4 is included under Volume 1, Tab 5.

6.0 RATE SCHEDULE 23 - COMMERCIAL TRANSPORTATION SERVICE

In conjunction with the proposed demand/commodity rate structure for Rate 5/25, BC Gas has developed a further transportation option: Rate 23. This rate is intended for commercial customers for whom Rate 5/25 is not practical.

Rate 23 is proposed to have the same structure as Rate 3, except it will include the \$100 transportation service

administration fee. In addition, customers will be required to provide a contribution to recover the incremental cost of installing a daily demand meter. BC Gas does not consider the Rate 3/23 customer class to be sufficiently heterogenous to allow transportation service without demand metering. All transportation service customers must be daily metered in order to ensure that direct purchase customers are not unfairly subsidized by residential and commercial system gas users.

It should be noted that notwithstanding the added cost of demand metering, BC Gas estimates that in addition to the Rate 3 customers who are expected to migrate to Rate 5/25, some Rate 3 customers could have an incentive to move to Rate 23 assuming a \$0.50/GJ gas cost savings relative to Rate 3 gas costs are available through direct purchase.

The basic and delivery charges are proposed to be identical for Rate 3 and Rate 23. The rates are set out below:

	<u>Rate 3</u>	<u>Rate 23</u>
Basic Charge	\$ 75/mth	\$ 75/mth
Administration Fee	N/A	\$100/mth
Winter Delivery Charge	\$1.838/GJ	\$1.838/GJ
Summer Delivery Charge	\$0.919/GJ	\$0.919/GJ
Gas Cost	\$2.396/GJ	N/A

BC Gas proposes that Rate 23 customers be served under essentially the same terms and conditions as Rate 25 customers.

1 to transport gas within the Company's distribution system
2 on either a firm or an interruptible basis and who have
3 monthly volumes of less than 12,000 GJ.
4

5 3.0 REVISIONS 6

7 The following is an overview of the key revisions BC Gas
8 proposes to make, effective November 1, 1996, with respect to
9 the industrial Rate Schedules.
10

11 In order to assist customers with their own review of the
12 proposed revisions to the Rate Schedules, BC Gas has provided
13 blacklined copies of each tariff setting out specifically
14 where and what revisions are being proposed.
15

16 3.1 Rate 5 17

18 Rate Schedule 5 customers, together with those receiving
19 service under Rate Schedules 7, 25 and 27, will see average
20 decreases of up to 35% under the rates proposed in this
21 Application. If the current delivery charge proposals in this
22 Application receive the Commission's approval, Rate 5 and 7
23 customers will receive some \$3.2 million in 1997 rate
24 reductions. This is approximately \$0.46 per GJ in the average
25 delivery charge.
26

27 Service under Rate Schedule 5 is for firm customers who
28 purchase gas from BC Gas. With the exception of the rates
29 themselves, most of the revisions that have been made to
30 Schedule 5 have focused on improving clarity and consistency
31 amongst the various rate schedules offered to industrial
32 customers.
33

34 One revision to be noted relates to the change in the

1 applicability of Rate 5. Rate 5 previously required customers
2 to have a minimum 50% process load. This requirement is no
3 longer required under the proposed demand/commodity rate
4 structure.

5
6 **3.2 Rate 7**

7
8 As with Rate Schedule 5, most of the revisions to this
9 Schedule has been made for clarity and consistency.

10
11 For Rate 7, the most notable revision has been the deletion of
12 clause 2.1 (e) which requires as a condition of service that

13
14 *"the customer has and continues to have, to the*
15 *satisfaction of BC Gas, an alternative fuel burning*
16 *installation..."*

17
18 BC Gas believes conditions or directives of this type are out
19 of place in the current market environment. Industrial
20 customers are capable, and far better equipped, to assess and
21 accept the costs and benefits of their actions rather than
22 have the utility dictate such terms.

23
24 **3.3 Rate Schedule 8**

25
26 This is currently a "burner-tip" bundled service option
27 available to large volume customers who wish to contract for
28 a combined gas supply and transportation service from BC Gas.

1 and their agents will be able to take better advantage of
2 the upstream gas supply diversity benefits that will be
3 available from grouping a wide variety of loads together.
4

5 2. Balancing - Schedule 25 customers will continue to be
6 balanced on a monthly basis. However, if a Schedule 25
7 customer wishes to group with a large industrial, that
8 customer will be subject to the same Schedule 22
9 balancing provisions as those for the large volume
10 industrial. In addition, in keeping with the Company's
11 objective to withdraw from setting gas supply guidelines
12 for customers and their agents, BC Gas will no longer be
13 providing firm peaking as part of its Schedule 25
14 service. BC Gas will provide as much balancing gas as
15 needed, subject to curtailment when that gas is required
16 by the core market. BC Gas believes sufficient market
17 alternatives now exist for customers and their agents to
18 economically contract for peak day supplies from other
19 sources. BC Gas believes it is inappropriate and
20 unnecessary for BC Gas to supply transportation customers
21 with "needle peaking" gas from the core market's supply
22 portfolio.
23

24 3. Rates - as referred to elsewhere in this application,
25 revenue to cost ratios from the FDC study for the Rate
26 5/25 class of customers are high. This required
27 attention, and the proposals in this Application result
28 in rate reductions for the class as a whole. However,
29 because of the proposed demand/commodity rate structure,
30 the individual customer bill impacts will depend on their
31 specific load factors. A demand charge of \$10 per GJ of
32 daily demand per month is proposed for Rate 5/25. The
33 \$10/GJ/month demand charge falls between the LRIC and FDC

1 estimates of demand-related costs. The LRIC value is
2 \$7.25/GJ/month and the FDC value is \$11.50/GJ/month. In
3 deriving the demand/commodity rates, the daily demands
4 were estimated based on the proxy advocated during the
5 workshops (1.25 * winter peak month volume/30.5 days)
6 because daily demand data are not yet available for most
7 existing Rate 5 customers and Rate 3 customers who will
8 migrate to Rate 5/25. BC Gas proposes that once demand
9 metering has been installed, each customer's actual
10 highest winter peak day demand over the previous twelve
11 months be used to establish their daily demand for
12 billing purposes. In the case of summer peaking loads,
13 BC Gas recommends 50% of their summer peak day usage be
14 used to establish their demand level.

15
16 To help limit customer migrations from Rate 3, BC Gas is
17 proposing the Rate 5/25 basic charges be set at \$400 per
18 month. The customer related cost for Rate 2/25 taken
19 from the FDC is \$232/month. The basic charge is
20 currently set at \$366 per month.

21
22 As discussed earlier, the new group nomination and
23 balancing procedures are expected to significantly reduce
24 the administration costs of BC Gas thereby resulting in
25 the \$100 per month charge. This reduction should serve
26 to greatly enhance the competitive options for smaller
27 volume customers.

28 29 **3.11 Rate Schedule 27**

30
31 As the interruptible service equivalent of Schedule 25, this
32 Schedule is available to customers who are prepared to accept
33 capacity curtailments about once or twice a year by switching

1 to an alternative fuel or by accommodating the service
2 interruption by other means. As a General Interruptible
3 Service the customers utilizing this rate schedule are
4 typically smaller volume (less than 12,000 GJ per month)
5 accounts.

6
7 As with Rate Schedule 25, the most significant changes
8 proposed for this schedule relate to Grouping, Balancing and
9 Rates. With respect to Grouping and Balancing, the discussion
10 in the Schedule 25 section above applies equally to Schedule
11 27.

12
13 The basic charge of \$600 per month and the administration fee
14 have been determined in much the same manner as for Schedule
15 25. For a detailed discussion of the methodology used to
16 establish the per unit delivery charges, refer to section 4.2
17 under this Tab.

18 19 **4.0 RATES AND RATE STRUCTURE**

20 21 **4.1 Demand Metered Rates**

22
23 BC Gas proposes that all rate changes, whether basic, delivery
24 or administration charges become effective January, 1997. All
25 other proposals related to the Company's industrial service
26 offerings are proposed to take effect November 1, 1996.

27
28 As part of the Company's Phase B Rate Design Application BC
29 Gas applied for seasonal rates for its industrial service
30 schedules. During the hearing, BC Gas indicated that it
31 intended to examine demand metered rates for possible
32 implementation by the Company at its next rate design filing.
33 BC Gas' original filing in this Application did not include a

demand/commodity proposal for Rate 5/25. Instead, applicability criteria were proposed that sought to replicate the results of a demand/commodity rate structure. However, due to the strong support for demand/commodity rate structures and the negative reactions towards the applicability criteria expressed during the stakeholder workshops and negotiations. BC Gas has withdrawn the applicability criteria proposals and is submitting a demand/commodity rate structure for Rate 5/25.

Demand/commodity rates reward customers for reducing their peak day usage and thereby encourage the efficient utilization of the distribution system. In addition, they address the concerns expressed by some intervenors that the applicability criteria were arbitrary and subjective. Demand/commodity firm rates also provide a logical basis for pricing interruptible service on a load factor equivalency basis.

4.2 Interruptible Rates

Service	Schedule	Delivery Charges
Firm	5/25/22	\$0.78
Interruptible	7/27	\$0.64
Interruptible	22	\$0.48

Note: the above rates do not include the effects of revenue requirement increases or riders.

Consistent with the Company's demand/commodity rate proposal for firm industrial service, BC Gas is supporting load factor adjusted interruptible rates. Pricing interruptible capacity

1 at a 100% load factor for large volume customers recognizes
2 the minimum value an interruptible customer might place on
3 transportation service.
4

5 Information provided by the FDC studies supports a large
6 volume/small volume differential. The FDC study indicates
7 that on a unit basis, a difference exists between the
8 distribution costs associated with serving small volume
9 customers versus large volume customers. Similarly, the FDC
10 study also indicates that the demand-related costs, on a non-
11 coincident peak basis, of serving small versus large
12 interruptibles also differ. The FDC study suggests that small
13 volume interruptibles, which tend to have lower load factors,
14 derive greater value from the excess capacity available on the
15 system. Accordingly, BC Gas recommends that a 100% load
16 factor be used in large volume interruptible service and that
17 small volume interruptible service be given a lesser discount
18 and be priced at an 80% load factor.
19

20 The Company's LRIC study provides information that supports
21 the rates and level of the discounts. Current LRIC estimates
22 suggest the value of peak day capacity on BC Gas' system to be
23 \$83 per GJ, or put another way, suggest a maximum discount for
24 interruptible capacity, assuming operation at 100% LF, of
25 \$0.23 per GJ (i.e. $\$83.00 \div 365$). With a load factor of 55%
26 for the rate 5/25 customer class, this discount escalates a
27 maximum of \$0.42. The discounts being proposed neither equal
28 nor exceed the maximum that should be offered with actual firm
29 load factors of 55%.
30

31 BC Gas is of the view that the proposed interruptible rates
32 are fair and reasonable and represent an acceptable estimate
33 of the value of interruptible service.

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18 **4.3 Transportation Administration Fees**

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21

22

23 An issue that has received attention in the past is that of
24 transportation administration fees. Customers and marketers
25 have repeatedly asked that BC Gas re-examine its methodology
26 and the appropriateness of the administration fees in the
27 context of present day circumstances.

28

29 As recently as June 1995, BC Gas submitted, in response to
30 Commission Order G-42-94, a review of administration fees then
31 in effect. However, since that time, customers and marketers
32 have regularly appealed to BC Gas to further review the
33 administration process, the Company's methodology and its

REVISIONS TO GAS COST ALLOCATIONS UNDER THE PROPOSED RATE DESIGN CHANGES

1 By letter dated April 18, 1996, BC Gas indicated that the 1996
2 Rate Design Application would not apply for any gas cost
3 allocation methodology changes which suggest a departure from
4 the methodology approved in the February 1992 BCUC Phase A
5 Rate Design Decision. The following material addresses the
6 gas cost allocation impact of updating the load factor for
7 Rate Schedule 5 customers, but does not introduce any change
8 in principle to the approved Phase A methodology.

9
10 In the preparation of the current rate design application, the
11 input factors in the gas cost allocation methodology were
12 examined for their current applicability. With the exception
13 of the Schedule 5 load factor, all of these factors were
14 either quite similar to their previous level or such that
15 introducing the updated factor had little or no impact on the
16 allocated gas costs by rate class.

17 18 1.0 SCHEDULE 5 LOAD FACTOR INCREASE

19
20 The rate class load factors determine the allocation of fixed
21 gas supply costs to each class. Fixed costs, including
22 transportation demand tolls, supplier reservation fees and
23 storage fixed charges, are allocated to the firm sales classes
24 based on each class' share of coincident peak demand. In the
25 Phase A Rate Design Decision, initial load factors were
26 approved based on the rate classes in existence in the former
27 service areas of BC Gas prior to consolidation as approved in
28 Phase B of Rate Design. In Rate Design Phase B revised load
29 factors were adopted for commercial/general service customers
30 consistent with the load characteristics of the new Schedules
31 2, 3 and 5. The initial load factors for these classes were
32 identified as 27.9%, 33.9% and 44.6%, respectively (Phase B
33 Application, Volume 1, Tab 11, Page 2, Lines 8-10).

1 It should be noted that the load factor estimates for
2 Schedules 2, 3 and 5 in the Phase B Application were prepared
3 in advance, based on the Company's best estimates of which
4 class the customers would move to. The Schedule 5 load factor
5 in particular was susceptible to movement based on the number
6 of customers and customer mix since it was expected to be a
7 small rate class in terms of both customer numbers and sales
8 volumes compared to Schedules 2 and 3. Load factor studies
9 conducted by BC Gas since the establishment of the Phase B
10 customer classes in 1994, using the same linear regression
11 methodology as in the Phase A and Phase B load factor studies,
12 confirm the validity of the load factors adopted for Schedules
13 2 and 3 (as well as for Schedule 1 - Residential). The
14 current Schedule 5 load factor, however, appears to be too low
15 according to the post-Phase B studies, which suggest a load
16 factor of 65% (before any migration of customers from Rate 3)
17 would be more appropriate rather than the current level of
18 about 45%. When evaluated in conjunction with the proposed
19 rates which could see a significant migration of Rate 3
20 customers to Rate 5, a load factor of 55% is a reasonable
21 estimate of the average load factor for Rate 5. While using
22 the average load factor may be appropriate for pricing the
23 monopoly delivery service component of the rate, BC Gas agrees
24 with the views expressed by some intervenors that this load
25 factor may not be appropriate for pricing the cost of gas when
26 competitive options are available for T-service customers. In
27 this regard, we note that the proposed demand/commodity rates
28 allow customers with less than a 50% load factor to access
29 Rate 5/25. For these customers, a 55% load factor may result
30 in too low a gas cost allocation.

31
32 Conversely, using a lower load factor for pricing gas may
33 result in too high a gas cost for some high load factor Rate
34 5 customers. However, if gas costs from BC Gas are too high,
35 customers have the option to contract directly with producers

1 or marketers for less expensive gas supplies. Accordingly, BC
2 Gas recommends that a load factor of 50% be used for gas cost
3 allocation purposes. BC Gas proposes to revise the Schedule
4 5 load factor to 50% for gas cost flow-through purposes
5 commencing with the next application to pass through gas cost
6 changes.

7
8 Further confirmation on the customer class load factors is
9 being gained through load factor studies using demand meters
10 at approximately one thousand sites throughout the BC Gas
11 service territory. While these demand meters have been in
12 place for less than a year, the preliminary results confirm
13 the load factors presently being used for Schedules 1 and 2.
14 Schedules 3 and 5 have higher load factors based on the
15 preliminary demand meter results, than those currently in use.
16 The Schedule 3 results do not tie in well with what is
17 determined by the existing method of load factor
18 determination. There may be problems with the
19 representativeness of the sample of Schedule 3 customers in
20 the demand meter study relative to all Schedule 3 customers.
21 In the case of Schedule 5, the higher load factor resulting
22 from the demand meter study gives preliminary confirmation of
23 the results being obtained using the existing method and
24 provides additional support for the decision to raise the load
25 factor from 45% to 55%. Periodic reviews of the demand meter
26 results are planned as this program matures.

27
28 The table on Page 4 of this tab provides an example of the gas
29 cost shifts based on 1996 gas costs caused by this Schedule 5
30 load factor increase. Overall, Schedule 5 customers would
31 experience a \$462,900 decrease in gas costs while Schedules 1,
32 2 and 3 gas costs would increase by amounts of \$226,900,
33 \$72,900 and \$78,000 respectively.

R455111FC

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07/25/96

16:20

BC GAS UTILITY LTD.

1996 RATE DESIGN APPLICATION

COST OF GAS SHIFTS ARISING FROM SCHEDULES 4 AND 5 CHANGES (1)

Line No.	Particulars	1996 Volumes (TJ)	Unit Gas Cost – (\$/GJ)		Increase (Decrease) (4) – (3)	Gas Cost Shift (2) x (5) (\$000)
			Existing	Revised		
	(1)	(2)	(3)	(4)	(5)	(6)
1	Lower Mainland Service Area					
2	Schedule 1 – Residential	54,524.2	\$2.5911	\$2.5943	\$0.0032	\$174.5
3	Schedule 2 – Small Commercial	15,123.1	2.7330	2.7366	0.0036	54.4
4	Schedule 3 – Large Commercial	23,265.4	2.3925	2.3955	0.0030	69.8
5	Schedule 4 – Seasonal	242.2	1.1656	1.3500	0.1844	44.7
6	Schedule 5 – General Firm	2,339.7	2.0120	1.8778	(0.1342)	(314.0)
7	Schedule 6 – NGV and VRA	777.8	1.3450	1.3430	(0.0020)	(1.6)
8	Total Lower Mainland	96,272.4				27.8
9						
10	Inland Service Area					
11	Schedule 1 – Residential	17,559.5	2.4045	2.4072	0.0027	47.4
12	Schedule 2 – Small Commercial	5,429.8	2.5331	2.5361	0.0030	16.3
13	Schedule 3 – Large Commercial	4,101.6	2.2247	2.2271	0.0024	9.8
14	Schedule 4 – Seasonal	177.7	1.1154	1.3500	0.2346	41.7
15	Schedule 5 – General Firm	1,157.2	1.8802	1.7583	(0.1219)	(141.1)
16	Schedule 6 – NGV and VRA	76.8	1.2787	1.2761	(0.0026)	(0.2)
17	Total Inland	28,502.6				(26.1)
18						
19	Columbia Service Area					
20	Schedule 1 – Residential	1,997.3	2.4328	2.4353	0.0025	5.0
21	Schedule 2 – Small Commercial	742.1	2.5624	2.5654	0.0030	2.2
22	Schedule 3 – Large Commercial	400.1	2.2502	2.2537	0.0035	1.4
23	Schedule 4 – Seasonal	0.0	1.1150	1.3500	0.2350	0.0
24	Schedule 5 – General Firm	65.4	1.8959	1.7766	(0.1193)	(7.8)
25	Schedule 6 – NGV and VRA	0.7	1.2904	1.2828	(0.0076)	0.0
26	Total Columbia	3,205.6				0.8
27						
28	Rounding Differences	0.0				(2.5)
29	Total Cost of Gas Shifts	127,980.6				\$0.0
30						
31						

32 Notes: (1) Rate 5 load factor set at 50% and Rate 4 charged Rate 7 seasonal (summer) gas cost.