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MANITOBA

THE PUBLIC UTILITIES BOARD ACT

Order No. 123/98

September 22, 1998

Before:

G. D. Forrest, Chair
D. .L. Barret-Hrominchuk, Member
J. A. MacDonald, Member

**CENTRA GAS MANITOBA INC.
APPLICATION FOR AN ORDER APPROVING
CHANGES IN THE COSTING ASSUMPTIONS
USED IN EXPANSION FEASIBILITY TESTS**

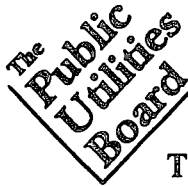


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Executive Summary

General

Centra Gas Manitoba Inc. ("Centra") uses a feasibility test to determine if proposed system expansions, both within existing franchise areas as well as for new franchise areas, are economically viable.

Centra applied to the Board for approval of the use of two new criteria for evaluating system expansions to currently unserved customers. The two requested changes to the feasibility test are:

- i) the use of long-run incremental cost of gas ("LRICOG") and;
- ii) the exclusion on all costs associated with the upgrade or reinforcement of the existing transmission and distribution system.

Centra also requested the Board to vary Order 124/96 so as to allow the related looping costs to be excluded from the feasibility test. A public hearing to consider this application was held in Winnipeg, Manitoba from August 24 to 27, 1998.

Feasibility Test

The feasibility test compares the incremental costs of servicing a proposed new group of customers with the incremental revenue that the new group of customers will produce. If after a period of five years, the rates from the customer group will pay all of the cost of service, including an adequate return to Centra, then the expansion project is considered viable. If the net present value of the revenue stream is not sufficient to cover all of the costs, then a third party contribution may be required to make the project viable.

The feasibility test is a financial assessment tool used to evaluate the costs and benefits of expanding the system to serve a group of potential new customers. The feasibility test is not a rate-setting tool. Rates are determined through a separate regulatory process.

Gas Costs

Centra currently uses weighted average cost of gas ("WACOG") in all feasibility tests for new franchise expansions, and the variable cost of incremental gas supply for all feasibility tests for expansions within existing franchise areas. In Centra's view, WACOG overstates the cost of gas required to supply new customers.

Centra evaluated five alternative gas cost assumption against the criteria of accuracy, fairness, and complexity. Centra's recommendation is to use the LRICOG, as in Centra's view, it most accurately predicts the cost of gas for the new customer and treats new and existing customers fairly.

System Upgrade and Reinforcement Costs

The Board currently requires that all readily identifiable upstream reinforcement costs be included in the feasibility test for system expansions. To the extent these costs are necessary for an expansion to proceed, the required customer contribution for that expansion is greater than would be the case if these costs were excluded from the feasibility test. Centra estimated that approval to exclude upgrade costs from the feasibility tests would result in a reduction of new customer contributions over the next five years of approximately \$18.2 million.

Centra is requesting that all upstream costs of upgrades to the transmission and distribution systems, regardless of origin, be excluded from the feasibility test. Centra also requested that the Board vary its decision in Order 124/96 and allow the system

upgrade costs which were required to bring service to IPL in the R. M. of Pipestone to be excluded from the feasibility test.

Customer Rate Impacts

Any change in costing assumptions used in a feasibility test will have an indirect impact on rates, because the amount of customer contributions will change and a change in customer contribution will impact certain components of revenue requirement, thus impacting rates.

In an attempt to provide an indication of the directional impact of the requested changes on rates, Centra made several high level assumptions regarding the impact on contribution requirements and revenue requirements resulting from both the long-run incremental cost of gas and the exclusion of upgrade costs. Centra estimated that contribution decreases would increase revenue requirement by customer class as follows:

	Year 3	Year 5
Small general service	.559%	0.440%
Large general service	.880%	0.698%
High volume firm	.889%	0.706%
Main line	1.168%	0.928%
Interruptible	.488%	0.388%
Special contract	25.595%	20.369%

CAC/MSOS' Position

CAC/MSOS believes that Centra's approach is logically inconsistent because Centra proposed to use the incremental costing approach for gas costs while ignoring the incremental facilities costs required to accommodate expansion. CAC/MSOS suggested that as a result of the proposal, existing system customers would not be saved harmless. CAC/MSOS also argued that Centra has not discharged the onus of the duty it has to its

existing customers of protecting them from undue impact. CAC/MSOS supported the use of the incremental approach to feasibility testing, but disagreed with Centra's methodology and approach. CAC/MSOS suggested however that if Centra could present a model that represented a more accurate reflection of long-run incremental cost of gas, all parties would be interested in working with that model. In the meantime, WACOG should be used.

Simplot's Position

Simplot argued that they enjoy a statutory duty of fairness from both Centra and the Board, and have a right to be treated fairly. Simplot stated that although Centra speaks for certain customers who would benefit financially from the proposed changes, Centra does not speak in this proceeding for Simplot.

Simplot argued that there are no merits to the specific proposals in the way they have been made by Centra. Simplot pointed out that the conclusions of both expert witnesses are that the proposals are economically flawed and inappropriate.

Simplot acknowledged that the long-run incremental cost of gas is a correct concept in principle. However, in Simplot's view, it has been manipulated by Centra to produce a lower cost of gas and, therefore, lower contributions from new customers than would otherwise be the case.

On the matter of upgrade costs, Simplot argued that Centra's proposal has no basis in economics. Simplot argued that acceptance of Centra's proposal would amount to a free ride for new customers, which would not be fair to existing customers. Simplot argued that system upgrades should be included in all feasibility tests as currently required by the Board. Simplot agreed however that Centra should use the same test for in-franchise and new franchise areas.

Other Intervenor's and Presenters' Positions

The Cities and Towns supported the position of CAC/MSOS. They contended that the existing customers have already paid for a fully developed system, and questioned Centra's motivation in pursuing expansion.

A number of presenters appeared at the hearing and generally spoke in support of Centra's application. Presenters made reference to increased economic opportunities and competitive advantages resulting from gas expansion in rural Manitoba. In addition to the presenters who appeared at the hearing, the Board also received a number of written representations, generally in support of Centra's application.

Board Findings

i) Consistency in Feasibility Tests

The Board agrees with Centra and all parties at the hearing that there should be consistency between the feasibility tests used to evaluate the financial feasibility of extensions of natural gas service to currently unserved customers. The Board therefore will require that costing assumptions used in all feasibility tests, both in-franchise and new franchise areas, should be the same.

ii) Cost of Gas

The Board accepts that the weighted average cost of gas, which includes the commodity cost of gas plus storage and transportation charges, currently used in all feasibility tests may, in some circumstances, not be the appropriate cost to use because it may not accurately reflect the actual cost of providing supply to new customers. The Board agrees that the long-run incremental cost of gas appears to have merit, and may be theoretically correct.

The Board however agrees with the submissions by Simplot, CAC/MSOS and the Cities and Towns that the assumptions and methodologies employed require greater examination. Until such further examination can occur, WACOG will continue to be used in all feasibility studies filed with the Board for approval.

iii) Upgrade or Reinforcement Costs

The Board is not convinced that a blanket policy of treating all upgrade costs in a similar fashion, no matter what the circumstances, is an appropriate policy. The Board recognizes that in certain circumstances, an upgrade cost would have been incurred without expansion, and in that case, it would be unfair and inappropriate to charge the new customers for the total cost of that upgrade. In other circumstances, but for the planned expansion, the upgrade would never be required. In this circumstance, it seems appropriate to include the total cost of the upgrade as an incremental cost to be included in the feasibility test. This treatment would be generally consistent with the incremental cost approach supported by CAC/MSOS and Simplot.

The Board will therefore order that all incremental system upgrade costs directly associated with a proposed expansion should be included in the feasibility test. If a specific upgrade provides a benefit to the entire system, the Board will consider allocating some of those costs on a system wide basis, but only if the utility can demonstrate, with specificity, the system wide benefits flowing from the upgrade. A fundamental principle is that each proposed expansion should be considered on its own merits, and in each case, the incremental cost of system reinforcement that applies to the proposed expansion should be included in the feasibility test.

iv) Request to Vary Board Order No. 124/96

Centra's request to vary Order 124/96 was denied.

1.0 Appearances

R. F. Peters	Counsel for the Public Utilities Board of Manitoba ("the Board")
M. T. O'Neil	Counsel for Centra Gas Manitoba Inc. ("Centra")
B. J. Merenoek, Q.C.	Counsel for Consumers' Association of Canada (Manitoba) Inc. and the Manitoba Society of Seniors ("CAC/MSOS")
M. J. Hopkins	Counsel for Simplot Canada Limited ("Simplot")
G. M. Wood	Counsel for the Cities of Selkirk, Brandon, Portage La Prairie, Steinbach, Dauphin and the Towns of Morden, Winkler ("Cities and Towns")

2.0 Witnesses

2.1 Centra

I. Anderson	Vice-President, Marketing and Business Development and Regulatory Affairs
G. Barnlund	Manager of Industrial and Large Commercial Markets
H. Stephens	Senior Manager, Gas Supply, Storage and Transportation
G. B. Whitehill	Senior Manager, Regulatory and Business Advisory Services

2.2 CAC/MSOS

J. Todd	President, Econanalysis Consulting Services Inc.
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2.3 Simplot

R. D. Knecht	Principal and Treasurer, Industrial Economics, Incorporated
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3.0 Other Participants and Presenters

Reeve John Giesbrecht	On behalf of the Regional Municipality of La Broquerie
Mr. Sig Peters and Mr. Hiebert	On behalf of the Regional Municipality of Hanover
Mr. George Duncan And Mr. W. T. Raine	On behalf of the Regional Municipality of Macdonald
Mr. Paul Murphy	On behalf of Four Winds Project

Mr. Keith Arthur	On his own behalf
The Town of Swan River	Written presentation
The Town of Minitonas	Written presentation
The Rural Municipality of Minitonas	Written presentation
The Village of Benito	Written presentation
The Rural Municipality of Springfield	Written presentation
The Union of Manitoba Municipalities	Written presentation
Heartland Gas Initiative	Written presentation

4.0 Background

Centra uses a feasibility test to determine if proposed system expansions, both within existing franchise areas as well as for new franchise areas, are economically viable.

In 1991, Centra applied for approval of system expansions to both Elie and Gretna, Manitoba. In Order 118/91, dated August 16, 1991, the Board approved the expansion, which was assessed using the criteria that the revenue to cost ("R/C") ratio would be at a minimum of 80% by the end of the fifth year of the project. The Board expressed concern about the potential for existing customers to subsidize new customers, and directed Centra to file its expansion policy prior to proceeding with any further expansion projects. A new expansion policy which required proposed expansions to new areas to achieve an R/C ratio of at least 1.0 by the end of the fifth year was subsequently approved by the Board in Order 8/94, dated January 26, 1994.

In 1994, Centra embarked on a rural expansion initiative under the Canada Manitoba Infrastructure Initiative to provide natural gas service to 23 rural Manitoba communities. As part of that process, Centra applied to the Board for approval of a revised feasibility test to apply to the planned expansion. The Board approved the use of a 30 year net present value ("NPV") test to determine project feasibility. This approval was subject to Centra using conservative projections, inclusion of all reasonably identifiable upstream costs, and Board review of specific calculations for each franchise expansion requested by Centra.

In 1996, Centra applied for approval to extend service to Interprovincial Pipe Line Inc. ("IPL") located within the Rural Municipality of Pipestone. The feasibility test utilized a 30 year NPV test but excluded the related costs of upstream looping to the existing

distribution system. In Order 124/96, dated December 20, 1996, the Board ordered the use of the current test, which requires the use of a 30 year NPV with a fifth year R/C ratio of 1.0. The Board also rejected the request for rolled-in treatment of the upstream looping costs and required that those costs be included in the feasibility test. The Board did, however, state that it would be prepared to examine the treatment of upstream reinforcement costs in the future.

In Order 89/97, dated November 26, 1997, the Board accepted the feasibility study for the Ste. Agathe franchise extension. In that Order, the Board directed that all future expansions, for both new franchise areas and within existing franchise areas, be assessed by use of a 30 year NPV test, with the additional condition that the revenue to cost ratio is at least 1.0 by the end of the fifth year in normal circumstances.

At the Ste. Agathe hearing, Centra acknowledged that there have been major changes in the business environment in which it operates, and these changes may have significant implications on the gas costs and other components of future feasibility models. The Board agreed with Centra that a review of these issues was required. The Board therefore directed Centra to conduct a detailed study to consider the appropriate gas costs, as well as other costs to use in all future feasibility models, and to report to the Board at the earliest opportunity. The Board further directed that any feasibility models submitted to the Board in the interim were to be prepared using the Weighted Average Cost of Gas ("WACOG").

On January 23, 1998 Centra applied to the Board for approval of the use of two new criteria for evaluating system expansion to currently unserved customers. The two requested changes to the feasibility test are:

- i) the use of long-run incremental cost of gas ("LRICOG") and;
- ii) the exclusion on all costs associated with the upgrade or reinforcement of the existing transmission and distribution system.

It was originally contemplated that this Application would be heard by the Board in conjunction with the 1998 General Rate Application. Subsequent to the filing of the January 23, 1998 application, the parties agreed that additional supporting material was required and that the hearing related to this Application should be postponed until that material was provided by Centra. The additional supporting material required included quantitative analysis of the long-run incremental cost of gas, the rate impact of the Application and a review of the practices in other jurisdictions.

On June 1, 1998, Centra filed its revised Application and evidence in support of the two requested changes. Centra also requested the Board to vary Order 124/96 so as to allow the related looping costs to be excluded from the feasibility test. A public hearing to consider this application was held in Winnipeg, Manitoba from August 24 to 27, 1998.

5.0 The Application

5.1 General

Centra's application stated that there has been a dramatic increase in the demand for natural gas service which has been fueled by the health of, and fundamental shifts in, the Manitoba economy and the price advantage of natural gas over other energy sources. Centra believes it has a role to play in satisfying that demand by providing services to more customers and contributing to the well being and prosperity of the Manitoba economy. Centra has expansion plans, the magnitude of which has not been seen in decades.

In light of the increased demand for expansion, Centra formed a work team to review many aspects of rural expansion. Centra submitted that two key cost assumptions that should be addressed for feasibility tests purposes before Centra proceeds with any significant rural expansion plans are:

- i) the appropriate cost of gas; and
- ii) the treatment of existing transmission and distribution upgrade or reinforcement costs.

As a consequence, Centra has made this application.

There are a number of other issues that the Centra work team may consider in the future. It was Centra's view that other issues that may be brought forward to the Board in the future were independent of the current application and should not preclude the Board from considering this application on its own merits.

5.2 Feasibility Test

The feasibility test compares the incremental costs of servicing a proposed new group of customers with the incremental revenue that the new group of customers will produce. If after a period of five years, the rates from the customer group will pay all of the cost of service, including an adequate return to Centra, then the expansion project is considered viable. If the net present value of the revenue stream is not sufficient to cover all of the costs, then a third party contribution may be required to make the project viable.

The feasibility test is a financial assessment tool used to evaluate the costs and benefits of expanding the system to serve a group of potential new customers. The feasibility test is not a rate-setting tool. Rates are determined through a separate regulatory process.

5.3 Gas Costs

Centra currently uses WACOG in all feasibility tests for new franchise expansions, and the variable cost of incremental gas supply for all feasibility tests for expansions within existing franchise areas.

Centra's view is that new expansion does not proceed in isolation of the existing system, and does not necessarily result in future costs being in the same proportion as historical costs. Commodity costs are generally proportional, while transportation and storage costs are dependent on the load factor of new customers and the year to year change of capacity requirements of existing customers. These capacity requirements will impact the overall increase in capacity, and therefore costs needed to serve the new growth.

Centra's peak day demands experienced over the past three years demonstrate that the peak day requirements do not correlate perfectly with the increase in number of

customers. This is evidenced by the fact that Centra was able to serve approximately 9,500 additional customers over a three year period from 1995 to 1998 without increasing the fixed transportation or storage capacity levels.

In Centra's view, WACOG overstates the cost of gas required to supply new customers. Centra is therefore suggesting a different cost of gas calculation for assessing the feasibility of new expansions.

Centra evaluated five alternative gas cost assumption against the criteria of accuracy (ability to most closely predict the future cost of gas for new customers), Fairness (cost causation), and complexity (degree of effort required to apply appropriate gas cost for new areas). The five alternatives considered were:

1. Weighted Average Cost of Gas ("WACOG")

WACOG is the simple average cost of all gas supplied divided by the total volume delivered. In Centra's view, it tends to overstate the storage and fixed transportation components of gas costs for new customers. Although easy to calculate, Centra's view is that WACOG penalizes new customers, and the calculation is historic as opposed to forward looking.

2. Excluding Gas Costs

The result of excluding cost of gas from the feasibility test totally would, in Centra's view, be the same as using WACOG. Effectively, the revenues would be determined by applying Centra's Transportation rates for each customer class. Centra's view is that it delivers, except for a few transportation service customers, a bundled service for both existing and new customer, but the cost of this bundled service may be different for new customers. Although easy to calculate, exclusion of the commodity cost of gas from both sides of the equation will tend to overstate the cost of serving new customers.

3. Short Run Incremental Cost of Gas ("SRICOG")

SRICOG includes only the commodity cost for Western Canadian supply, commodity pipeline tolls, compressor fuel and commodity storage gas costs. This approach does not

include any incremental fixed storage and transportation costs, as it assumes that existing levels will be sufficient to cover the incremental requirements. Centra's estimates indicate that additional fixed storage and transportation levels will ultimately be needed to serve new customers. As a result, this approach understates gas costs.

4. Stand-alone Cost of Gas

Stand-alone cost of gas assesses the characteristics of each expansion project and would require a separate supply plan, with separate costs, for each project. Centra suggest that this approach may be appropriate in some circumstances, where the characteristics of particular expansions are significantly different from other expansions. Generally, however, Centra rejects this approach because it does not consider the overall changes that occur within the larger scope of all loads in the integrated system. As well, the stand-alone treatment of gas procurement and dispatch overheads ignores the fact that these are already being paid by existing customers and need not be restated for each expansion. A stand-alone calculation would be administratively complex to calculate for each individual expansion.

5. Long-Run Incremental Cost of Gas ("LRICOG")

LRICOG includes the same gas cost components as does short-term incremental gas costs, plus the portion of fixed storage and transportation costs necessary to serve the demands imposed by all changes to system load, over the long run. For 1998, the LRICOG units would be the current tariffs for storage and transportation services, plus estimated 1998 commodity cost of gas, excluding price management impacts. Centra's opinion is that this approach more precisely predicts the incremental storage and transportation needs, as it factors in the impacts of energy conservation and existing customer loss. Centra's view is that LRICOG most accurately portrays the actual cost to the existing system of serving new customers and is therefore fair to both new and existing customers. Although it is more complex than either WACOG or ICOG, it is, in Centra's view, easier to administer than the stand-alone approach.

Centra's recommendation is to use LRICOG, as it most accurately predicts the cost of gas for the new customer and treats new and existing customers fairly. Centra proposes to estimate a detailed LRICOG for a five-year period, and then assume that the cost from year six to 30 will remain at the year five level. LRICOG will be calculated once per year, and this will result in a rolling five year load and cost forecast.

Centra proposed to estimate annual gas costs for each of five years for a particular franchise area, rather than using a five year average. Centra also proposed to use a two part LRICOG for mainline and high volume firm customers to reflect more accurate gas costs for higher load factor customers compared to a single LRICOG for low load factor SGS and LGS customers. The two part LRICOG would consist of a commodity component and a demand component, reflective of the rate structure for these customer classes, while the LRICOG for the SGS and LGS classes would only consist of a single commodity component.

Centra's review of the treatment of gas costs by other utilities indicates that Union Gas, Canadian Western Utilities, and Northwestern Utilities exclude gas costs from both the revenue side and the cost side of the feasibility test. Consumers Gas uses WACOG less commodity portion, while B.C. Gas uses WACOG less commodity and upstream transmission charges.

5.4 System Upgrade and Reinforcement Costs

The Board currently requires that all readily identifiable upstream or reinforcement costs be included in the feasibility test for system expansions. To the extent these costs are necessary for an expansion to proceed, the required customer contribution for that expansion is greater than would be the case if the costs were excluded from the feasibility test.

Reinforcing costs refer to expenditures necessary to increase the capacity of the existing system upstream of a particular expansions project "take-off" point, either from the TCPL pipeline or from Centra's existing system. These expenditures can include looping of existing mains and modification of major system regulating stations and related facilities.

Centra submits that load growth necessitating increased system capacity is caused by attaching customers in new and existing franchise areas and by increasing peak demands of existing customers from new appliance attachments. Additionally, changes in factors such as building codes will cause increased requirements,

Centra submitted that no customer possess a claim on any of the existing system, and that new customers have as much right to existing capacity as existing customers. If an existing customer's annual load increases, that customer is only required to pay incrementally for that volume at the published tariff, and any increase capacity costs are rolled into the existing cost base for all customers. Similarly, if a new customer in an existing franchise area is attached, any contribution necessary to make the attachment economically feasible is calculated only on costs for main extensions and service installations. Any increased capacity requirements would be borne by all existing system customers in the rate determination process.

Centra contends that the existing manner of treating reinforcing costs on an incremental basis is unfair to new customers because:

1. It is inconsistent with the "postage stamp" concept where all customers in a class, regardless of where they are located, pay the same rate and receive the same level of service. Over time, as the system requires upgrading, costs are incurred and allocated to all customers. Centra's view is that the incremental treatment of upgrade costs is unfair as it results in charging some new customers directly for a portion of a system upgrade while other existing customers may receive the benefit of the upgrade.
2. It ignores the interchangeability of capacity between new and existing customers served by common portions of the system. Centra submits that this inequity is caused when some new customers served from a portion of the system have made an additional payment while other existing customers served by the same portion of the

system receive the service simply by paying the published tariff, and no additional contribution.

3. It causes an inequity for new customers who are charged with their specific system upgrade costs and who also pay a share of the costs of other rolled-in upgrades to the system. Under the incremental treatment, new customers pay for the new extension to their location, plus the upgrade costs of the existing system to their own take-off point, and additionally will pay, through system-wide rates, for all other future system capacity increases.

Centra reviewed the practices of other Canadian utilities, and have submitted that Canadian Western and Northwestern Utilities roll in upgrade costs into existing rates, as does Consumers Gas and Union Gas, in their portfolio approach to expansion. The practice of SaskEnergy varies, sometimes rolling in strategic system upgrades. Otherwise costs are included in the cost of extension. B. C. Gas requires the sharing of these costs between existing and new customers based on cost causation

Centra is requesting that all upstream costs of upgrades to the transmission and distribution systems, regardless of origin, be excluded from the feasibility test. Centra also requested that the Board vary its decision in Order 124/96 and allow the system upgrade costs which were required to bring service to IPL in the R. M. of Pipestone to be excluded from the feasibility test.

5.5 Customer Impacts

Any change in costing assumptions used in a feasibility test will have an indirect impact on rates, because the amount of customer contributions will change and a change in customer contribution will impact certain components of revenue requirement, thus impacting rates. Centra contends that the most important consideration, however, is that

the costing assumption used to determine the level of contributions be fair and accurate, and do not result in significant cross subsidy between groups of customers.

Approval of any changes in costing assumptions will not result in rate changes at this time. However, approval of changes in costing assumptions has the potential to impact future rates. Centra submitted that the impact on future rates would depend on the level of expansion activity, timing and location of new growth and on the relative feasibility of the growth. As a result, any estimate of impact on rates related to the two requested changes in costing assumptions are directional, based on Centra's current growth estimates and other necessary assumptions.

In an attempt to provide an indication of the directional impact of the requested changes on rates, Centra made several assumptions regarding the impact on contribution requirements and revenue requirements resulting from both the long-run incremental cost of gas and the exclusion of upgrade costs. As previously stated, any potential rate impact would occur pursuant to a subsequent application by Centra to change its sales rates, and any potential future rate impact as a result of this application results solely from changes to the costing assumptions in the feasibility test that may impact the level of contributions required for future expansions.

Based on a number of high level assumptions, Centra estimates that approval of the requested costing assumptions related to long-run incremental cost of gas will, over the next five years, result in an increase in contributions from existing franchise areas of approximately \$13.7 million, and a reduction in contributions from new franchise areas of approximately \$8.1 million, for a net increase in contributions of \$5.7 million. Centra further estimated that approval to exclude upgrade costs from the feasibility tests would

result in a reduction in contributions of approximately \$18.2 million. The cumulative reduction in customer contributions over the five year period of expansion totalled \$12.5 million.

Centra then developed a high level estimate of rate impacts resulting from the reduction in customer contributions, and estimated that revenue requirement by customer class would increase as follows:

	Year 3	Year 5
Small general service	.555%	0.440%
Large general service	.880%	0.698%
High volume firm	.889%	0.706%
Main line	1.168%	0.928%
Interruptible	.488%	0.388%
Special contract	25.595%	20.369%

As a result of this high level review, Centra concluded that the magnitude of the rate impacts are relatively minor over the five year test period to all customer classes except for the special contract customer class.

The impact on the Special Customer Class results because the existing cost allocation model allocates transmission costs to all customers, and the Special customer class has a proportionately larger share of transmission costs allocated to it than do other customer classes. The impact is exacerbated due to the large expenditures required for transmission facilities to bring natural gas service to various parts of the Province. Centra has commenced a separate process to review this matter with all interested parties with a view to arriving at a permanent solution. Centra has requested that the Board deal with the requested changes in the costing assumptions as these are critical to Centra's expansion plans, and to let the separate cost allocation review process take its course. The Board

notes however that the cost allocation solution will have further rate consequences to some customer classes.

6.0 CAC/MSOS' Position

CAC/MSOS believes that Centra's approach is logically inconsistent because Centra proposed to use the incremental costing approach for gas costs while ignoring the incremental facilities costs required to accommodate expansion. This approach tended to reduce the customer contributions required to make a project economically viable, and thus increase Centra's Rate Base and earnings. CAC/MSOS suggested that as a result of the proposal, existing system customers would not be saved harmless. CAC/MSOS also argued that Centra has not discharged the onus of the duty it has to its existing customers of protecting them from undue impact. CAC/MSOS supported the use of the incremental approach to feasibility testing, but disagreed with Centra's methodology and approach.

CAC/MSOS contended that Centra's proposal for costing assumptions did not accurately portray the nature of a "no subsidy" feasibility test. Centra's view was that new customers were not expected to contribute to the costs of the existing system because the existing customers currently fund the total and fixed variable system costs of the original system through existing rates. CAC/MSOS submitted that each customer, or group of customers, being attached to the system should be expected to pay at least the costs of constructing the dedicated facilities and to contribute to the common costs of the system from which everyone benefits. Any attachments that have a positive NPV will contribute to the common costs. Additionally, since existing ratepayers bear the risk of expansion forecast revenues not being achieved, they should receive the benefits of the overall expansion plans.

CAC/MSOS agrees in principle with Centra that the use of LRICOG is appropriate for feasibility tests. CAC/MSOS contends, however, that the practical application, as

proposed by Centra, is inconsistent with that principle. In particular, CAC/MSOS argued that the inconsistencies include:

1. The use of forecast volumes and capacity requirements and current prices and tariffs to determine revenues which tends to underestimate the LRICOG if prices trend upward over the term of the project.
2. The assumption that the opportunity cost of any existing contract commitments for commodity and storage and transportation is zero. This is considered to be a sunk cost.
3. The use of a five year forecast period for gas costs when the feasibility test period is 30 years, over which time the gas costs for both new and old customers will become indistinguishable.
4. Forecasts assume normal weather and actual costs will vary significantly because of weather.
5. Utilization of current costs for delivered service to meet firm day requirements is not a true reflection of true LRICOG.

The complexity of calculating an appropriate LRICOG might be justified if it could result in a significant impact on the ultimate result. CAC/MSOS suggests that the current marketplace makes all gas, storage and transportation arrangements marketable, and as a consequence, the use of WACOG is a good proxy for causal costs. CAC/MSOS suggests that excluding gas costs from both the revenue and the cost in the feasibility test would achieve the same result as attempting to calculate LRICOG, and would be simpler. CAC/MSOS also suggested that if Centra could present a model that represented a more accurate reflection of long-run incremental cost of gas, all parties would be interested in working with that model. In the meantime, WACOG should be used.

In CAC/MSOS' view, Centra's opinion that it would be inequitable to require new customers to pay for all system upgrades caused by an expansion while also paying for

other system expansions through existing rates is flawed. CAC/MSOS contends that the issue of what costs are included in existing rates is not relevant. The only relevant factors are what revenues will be earned by new customers and what costs are necessitated by that expansion. Should the reinforcement costs be excluded from the feasibility test, existing customers will pay for the full cost of all system reinforcement required for their own use plus a portion of the costs caused by the addition of new customers.

CAC/MSOS submitted that load growth in existing areas by addition of appliances is more than offset by the declining use per customer for various other reasons, and that it is the new customers, not the existing customers, that generally create the need for system reinforcements.

CAC/MSOS stated that if there is a wish to allow some projects to be subsidized, the subsidy should be made explicit. The one thing that cannot be done, however, is to ignore the real costs in the feasibility test, which might result in some bad decisions.

7.0 Simplot's Position

Simplot argued that they enjoy a statutory duty of fairness from both Centra and the Board, and have a right to be treated fairly. Simplot stated that although Centra, in this application, speaks for certain customers who would benefit financially from the proposed changes, Centra does not speak in this proceeding for Simplot. In fact, Simplot criticized Centra in this application for not meeting with Simplot to discuss the proposed changes.

Simplot argued that there are no merits to the specific proposals in the way they have been made by Centra, and further argued that there is no evidence before the Board that supports the proposals. Simplot pointed out that the conclusions of both expert witnesses are that the proposals are economically flawed and inappropriate. In addition, Centra chose not to call any expert evidence, but relied totally on their internal resources to justify the application on the basis of fairness, equity and reasonableness.

Simplot's position is that the principles of fairness, equity and reasonableness mean different things to different people, and do not belong embedded in a feasibility test. Simplot urged the Board not to consider fairness, equity and reasonableness as legitimate components of a feasibility test, and expressed the view that Centra's proposals left a lot to be desired from the point of view of the existing customers. Simplot argued in support of a feasibility test that is economically correct and accurate.

Simplot acknowledged that the long-run incremental cost of gas is a correct concept in principle. However, in Simplot's view, it has been manipulated by Centra to produce a lower cost of gas and, therefore, lower contributions from new customers than would otherwise be the case. Simplot argued that Centra's concept of long-run incremental cost

of gas is not incremental at all, because Centra has not taken a no-expansion case and compared it to an expansion case. Simplot also stated that there are a number of other issues related to the cost of gas that must be investigated before adopting this approach, including the use of the optimisation model, opportunity costs related to excess pipeline or storage capacity and assumptions of incremental costs beyond the five year forecast period.

On the matter of upgrade costs, Simplot argued that Centra's proposal has no basis in economics. Simplot argued that acceptance of Centra's proposal would amount to a free ride for new customers, which would not be fair to existing customers. Simplot argued that system upgrades should be included in all feasibility tests as currently required by the Board. Simplot agreed however that Centra should use the same test for in-franchise and new franchise areas. For the same reason that Simplot opposes Centra's proposed treatment of upgrade costs, they also oppose Centra's request to vary Order 124/96.

Simplot refutes Centra's position that including existing system upgrade cost in the feasibility test violates the principle of postage stamp rates. Simplot's opinion is that the basic premise of a feasibility test is inconsistent with postage stamp rates and whether or not upgrade costs are included is irrelevant. Additionally, the proposal has the potential to create a situation where the contribution required from a particular expansion is dependent on the route of the system expansion. This approach creates a disincentive for new locations to be served first, and could create inefficient system expansion planning. Simplot's recommendation is to include all readily identifiable existing system extensions and upgrades in feasibility test in all areas.

Simplot emphasized that their opposition to this application should not be confused with opposition to rural expansion, and reaffirmed that Simplot is not opposed to rural expansion.

8.0 Other Intervenor's and Presenters' Positions

The Cities and Towns supported the position of CAC/MSOS. They contended that the existing customers have already paid for a fully developed system, and questioned Centra's motivation in pursuing expansion. The Cities and Towns suggested that there would be financial benefits to Centra if the two costing assumptions are changed as requested. They submitted that the Board should not be swayed by the suggestion that expansions would not proceed in certain areas of the Province if the requested changes were not adopted.

The Cities and Towns further argued that Centra had an obligation to its existing customers greater than that owing to potential customers, and suggested that Centra had reversed these obligations in their request for change. The Cities and Towns also submitted that the system reinforcing costs should be prorated to both existing and future customers, depending on which segment benefited from the upgrades, even if this allocation was difficult to determine.

A number of presenters appeared at the hearing and generally spoke in support of Centra's application. Presenters made reference to increased economic opportunities and competitive advantages resulting from gas expansion in rural Manitoba. In addition to the presenters who appeared at the hearing, the Board also received a number of written representations, generally in support of Centra's application.

9.0 Board Findings

9.1 Consistency in Feasibility Tests

The Board agrees with Centra and all parties at the hearing that there should be consistency between the feasibility tests used to evaluate the financial feasibility of extensions of natural gas service to currently unserved customers. In Order No. 89/97 the Board directed that all future expansions, for both new franchises and within existing franchise areas, should be assessed by the use of a 30 year NPV test, with the additional condition that the revenue to cost ratio is at least 1.00 by the end of the fifth year in normal circumstances. The costing assumptions used in the feasibility test with respect to expansion to new franchise areas should be the same as the costing assumptions used to evaluate main extensions in existing franchise areas. The Board will therefore require that costing assumptions used in all feasibility tests, both in-franchise and new franchise areas, should be the same.

9.2 Cost of Gas

All parties at the hearing agreed with Centra that the feasibility test is an incremental test used only to determine the financial feasibility of a proposed project, and to ensure that the proposed project has no undue impact both on existing customers and on potential new customers. The cost of gas is a major component of the costs that are incurred in adding new customers, and therefore is a critical component of the feasibility test. The Board accepts that the weighted average cost of gas, which includes the commodity cost of gas plus storage and transportation charges, currently used in all feasibility tests may, in some circumstances, not be the appropriate cost to use because it may not accurately reflect the actual cost of providing supply to new customers.

Centra evaluated five different alternatives in determining the most appropriate cost assumption against the criteria of accuracy, fairness and complexity. The five alternatives were weighted average cost of gas, exclude the cost of gas entirely, stand alone cost of gas, short-run incremental cost of gas and long run incremental cost of gas. Centra concluded that long-run incremental cost of gas is fair to all customers in that total system requirements are considered in determining incremental cost, and this alternative is most consistent with the manner in which an integrated utility system serves its customers.

All parties agreed that the long-run incremental cost of gas is theoretically the appropriate cost of gas to use. What parties did not agree with is how the long-run incremental cost of gas should be calculated. The Board agrees that the long-run incremental cost of gas, including transportation and storage costs, appears to have merit, and may be theoretically correct. However, the Board is not convinced that the assumptions and the method of calculating this cost proposed by Centra is acceptable. The Board is also not convinced that all the methodologies suggested by the intervenors offer an acceptable alternative.

The principles put forward by Centra to move from using the weighted average costs of gas to a long-run incremental cost of gas appears on the surface reasonable. However, the Board agrees with the submissions by Simplot, CAC/MSOS and the Cities and Towns that the assumptions and methodologies employed require greater examination. Until such further examination can occur, WACOG will continue to be used in all feasibility studies filed with the Board for approval.

The Board is in the same position as the intervenors in that the Board could not test the basic assumptions and methodologies employed in Centra's model to any acceptable extent. The Board also found Centra's filing of exhibit Centra #10 by Mr. John Little to

raise a number of interesting considerations. While this filing was not tested in the hearing because of its late filing, some issues raised in the document were in part complimentary to the positions taken by Simplot and CAC/MSOS witnesses. Should Centra wish to move forward with changes to the gas costing assumptions in the feasibility studies, the Company should more thoroughly consider a number of issues including:

1. Consider removal of the commodity gas costs from both the revenue and expenses side of the test.
2. As previously ordered, file the gas supply optimization plan for examination and testing.
3. File quantitative analysis on costs scenarios both with and without expansion.
4. Consider if the base year should roll forward annually.
5. Reconsider the assumption that long-run incremental costs will remain significantly different than WACOG beyond the five year test period.
6. Consider moving the DCF method from 30 years to a short payback period.
7. Consider opportunity costs attached to storage and transportation.

9.3 Upgrade and Reinforcement Costs

Centra has requested that any and all costs associated with constructing additional capacity on the existing transmission and distribution system should be excluded from the feasibility test. Intervenors to the proceeding did not support that position. The Board also notes that a number of jurisdictions surveyed treat upgrade costs in a variety of ways, although the practice of rolling-in upstream reinforcement costs seems to be a more common treatment. The Board acknowledges that it is inconsistent to make new

customers pay for system upgrades associated with their expansion when existing customers can currently increase their loads or trigger a major upgrade that would be rolled in to rates. The Board is not convinced that a blanket policy of treating all upgrade costs in a similar fashion, no matter what the circumstances, is an appropriate policy. The Board recognizes that in certain circumstances, an upgrade cost would have been incurred without expansion, and in that case, it would be unfair and inappropriate to charge the new customers for the total cost of that upgrade. In other circumstances, but for the planned expansion, the upgrade would never be required. In this circumstance, it seems appropriate to include the total cost of the upgrade as an incremental cost to be included in the feasibility test. This treatment would be generally consistent with the incremental cost approach supported by CAC/MSOS and Simplot.

The Board will therefore order that all incremental system upgrade costs directly associated with a proposed expansion should be included in the feasibility test. If a specific upgrade provides a benefit to the entire system, the Board will consider allocating some of these costs on a system wide basis, but only if the utility can demonstrate with specificity, the system wide benefits flowing from the upgrade-reinforcement. The extent to which the new facilities are integrated and system benefits accrued will determine the extent to which upgrade costs are rolled in. The utility will be required to demonstrate such system benefits with particularity and indicate its value to existing customers. In the case where an upgrade which also has system wide benefits has to be moved forward in time because of the expansion, the cost would be allocated on a pro-rata time sensitive basis. Upgrade costs that can be clearly demonstrated to be required in any event with or without expansion may be excluded from the feasibility test.

The Board recognizes that considerable judgement may have to be exercised by Centra in determining a reasonable allocation of upstream costs to a project or on a system wide basis. A fundamental principle is that each proposed expansion should be considered on its own merits, and in each case, the incremental cost of system reinforcement should be included in the feasibility test as an incremental cost.

9.4 Request to Vary Board Order No. 124/96

The Board believes that the costs for upgrading Centra's existing system between Virden and Miniota associated with the extension of service to the R.M. of Pipestone, and in particular, the extension of service to IPL, is a good example of a cost that, but for that specific expansion, would likely never otherwise be required. In addition, this upgrade represents little if any benefit to other system customers. Therefore, the inclusion of the upgrade costs in the feasibility test is appropriate, and Centra's request to vary Order 124/96 will be denied.

10. IT IS THEREFORE ORDERED THAT:

1. The costing assumptions used in all feasibility tests should be the same, whether for evaluating expansion in existing franchise areas, or for evaluating expansion to a new franchise area.
2. Weighted average cost of gas will continue to be used as the cost of gas assumption in all feasibility tests filed with the Board for approval, until further examination of Centra's proposed assumptions and method of calculating long-run incremental cost of gas can occur,
3. All direct incremental system upgrade costs associated with a proposed expansion should be included in the feasibility test. If a specific upgrade cost provides a benefit to the entire system, and would be required in any event, with or without the proposed expansion, that cost may be excluded from the feasibility test.
4. Centra's request to vary Board Order No. 124/86 BE AND IS HEREBY DENIED.

THE PUBLIC UTILITIES BOARD

"G. D. Forrest"
Chairman

"Hollis Singh"
Acting Secretary

Certified a true copy of
Order No. 123/98 issued by
The Public Utilities Board

Hollis Singh
Acting Secretary