E.B.R.O. 497-01

IN THE MATTER OF the Ontario Energy Board Act, R.S.O. 1990, c. O.13;

AND IN THE MATTER OF an Application by The Consumers' Gas Company Ltd. for an order or orders approving rates to be charged for the sale, distribution, transmission and storage of gas for its 1999 fiscal year;

AND IN THE MATTER OF an Application by The Consumers' Gas Company Ltd. for approval of an incentive mechanism in relation to the Operation and Maintenance Expense component of its cost of service, effective during the 2000 through 2002 fiscal years, and an incentive mechanism in relation to Demand Side Management.

BEFORE: H.G. Morrison
Presiding Member

P. Vlahos
Member

R.M.R. Higgin
Member

DECISION WITH REASONS

April 22, 1999

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APPENDIX

Appendix A - Portion of the Settlement Proposal Referring to Shared Savings Mechanism

1. INTRODUCTION

The Application and Proceeding

1.0.1 The Consumers' Gas Company Ltd. ("Enbridge Consumers Gas" or "the Company") filed an Application with the Ontario Energy Board ("the Board") dated January 8, 1998 ("the Application"), for relief on a number of matters. The details of the application are contained in the Board's Decision with Reasons in E.B.R.O. 497, issued August 30, 1998. The present Proceeding addresses approvals requested by the Company for an incentive mechanism in relation to the Operation and Maintenance ("O&M") expense component of cost of service effective during fiscal years 2000 through 2002, and a shared savings mechanism in relation to Demand Side Management effective fiscal year 2000.

1.0.2 The procedural framework for this Proceeding was set out in Procedural Order No. 5 issued in October 1998. As a result of this Order, one Proceeding was constituted for the Company's proposals concerning the wind-down of the rental program, the ABC-T program, and related requests for rate-making purposes (E.B.O. 179-14 and E.B.O. 179-15) and another for matters described in this Decision (E.B.R.O. 497-01).

1.0.3 Procedural Order No. 5 provided for the oral hearing into this matter to commence on January 25, 1999; Procedural Order No. 6 set dates for a technical conference, a settlement conference and the exchange of interrogatories.

1.0.4 The Board issued Procedural Order No. 7 on December 23, 1998. This Procedural Order established a revised issues list and amended the date for the commencement of the oral hearing. Due to the length of the aforementioned E.B.O. 179-14 and E.B.O. 179-15 proceeding, the commencement of this Proceeding was rescheduled to January 27, 1999. The oral hearing required seven hearing days, concluding on February 4, 1999. The argument phase was completed on March 18, 1999.

1.0.5 Copies of all the evidence, exhibits and argument filed in the Proceeding, together with a verbatim transcript of the hearing, are available for review at the Board's offices. While the Board has considered all of the evidence and submissions presented in this hearing, the Board has chosen to cite these only to the extent necessary to clarify specific issues on which it has made findings.

The Settlement Proposal

1.0.6 A Settlement Conference for E.B.R.O. 497-01 was held by the parties commencing November 16, 1998 which resulted in the settlement of only one issue, that relating to the shared savings mechanism. The settlement of this issue, as set out in the Settlement Proposal, is described in Appendix A, which appendix also contains the Company's explanation of the mechanics to be applied. The Settlement Proposal was presented to the Board on December 4, 1998. The settlement was accepted by the Board subject to updates, changes necessary as a result of the Board's Decision on unsettled matters, or as a result of unforeseen events.

Parties to the Proceeding

1.0.7 Thirty-five parties intervened. Below is a list of parties, including the Company, and their representatives who participated actively in the oral hearing by cross-examining or filing argument.

The Consumers' Gas Company Ltd. ("Enbridge Consumers Gas")	Fred Cass
Alliance of Manufacturers and Exporters, Canada ("AMEC")	Beth Symes
Canadian Association of Energy Service Companies ("CAESCO")	Thomas Brett
Coalition for Efficient Energy Distribution ("CEED")	Elizabeth DeMarco
Consumers Association of Canada ("CAC")	Robert Warren
Energy Probe Foundation ("Energy Probe")	Mark Mattson
Green Energy Coalition ("GEC")	David Poch

The Heating, Ventilation and Air Conditioning Contractors Coalition Inc. ("HVAC")	Ian Mondrow
Industrial Gas Users Association ("IGUA")	Peter Thomson Guy Pratte
Ontario Association of Physical Plant Administrators ("OAPPA")	Michael Morrison
Ontario Association of School Board Officials/Metropolitan Toronto Separate School Board (“the Schools”)	Thomas Brett
Ontario Coalition Against Poverty ("OCAP")	Philippa Lawson Michael Janigan
Pollution Probe Foundation ("Pollution Probe")	Murray Klippenstein

1.0.8 The Enbridge Consumers Gas’ employees who appeared as witnesses are shown below.

David Charleson	Manager, Accounting Systems
David deJongh	Senior Research Analyst, Regulatory Affairs

James Grant	Director, Regulatory Affairs
John McClintock	Manager, Distribution Planning Services, Operations and Engineering
Stephen McGill	Manager, Customer Accounting Projects
Darryl Seal	Manager, Economic Studies

1.0.9 In addition, the Company called the following witnesses:

M. Fuss	Professor of Economics, University of Toronto and an associate of the Law and Economics Consulting Group
J. Winter	Managing Executive Consultant with AUC Management Consultants, Metzler Group

1.0.10 CAC, IGUA and OCAP called the following witnesses:

J. Norsworthy	Professor of Economics and Finance at Rensselaer Polytechnic Institute and Co-Director of the Center for Finance and Technology
J. Bauer	Associate Professor in the Department of Telecommunication, Michigan State University and a Research Associate in the Institute of Public Utilities.

2. THE COMPANY'S PROPOSAL AND PARTIES' VIEWS

General

2.0.1 In recent years, interest in performance based regulation ("incentive", "PBR") mechanisms as an alternative to cost of service ("COS") regulation has gained increasing popularity with network industries and their regulators. As energy utilities, their customers, regulators and other industry stakeholders seek ways to manage the transition to more competitive markets, part of the focus has been on fostering an environment in which the regulated utility is provided with the opportunity and incentive to act more consistently with the evolving competitive market.

2.0.2 According to the Company, criticisms of traditional COS regulation arise from the fact that it tends to influence the prices charged by regulated companies only by looking backwards at the decisions of management and focusing on the costs associated with those decisions, rather than setting prices with a forward perspective on the market. PBR mechanisms, if designed and implemented with care, will, in the Company's view, create an environment in which the Utility is encouraged to assume additional prudent risk in the pursuit of lower operating costs.

2.0.3 The Company did not propose to implement a comprehensive plan under which all of its expenditures would be determined on a performance basis. Rather, it proposed a targeted PBR plan which is designed to adjust O&M expense annually starting from the base year level. The Company believes that its proposal should serve well as the next logical step in the evolution towards a more flexible regulatory and competitive environment in Ontario's energy sector.

2.0.4 The proposed targeted plan seeks to derive a test year O&M budget from a base year budget by adjusting the base year O&M expense by an amount related to customer growth, net of productivity gains and a further amount for inflation. Other factors that may affect the test year O&M budget are classified as positive or negative exogenous offsets to the test year O&M, otherwise termed "Z-factors". The proposed PBR formula is:

Test Year O&M
=[Base Year O&M x (1 + (customer growth - productivity)) x (1 + inflation)] $\pm$ *Z-factors.*

2.0.5 The Company's proposed plan would commence in fiscal year 2000 and continue through until the end of the fiscal year 2002. It would be based on an O&M base budget derived from that approved by the Board for the 1999 test year. Included in the plan were proposed performance measures, monitoring and reporting protocols, one-time adjustment factors ("Z factors") and circumstances which would lead to plan review ("off ramps").

2.0.6 The Company stated that the PBR plan is designed to:

- provide an incentive which aligns and balances rate payer and shareholder interests;

- ensure an ongoing management commitment to service quality, rational system expansion, and productivity;
- make a strong link between management performance and rewards; and
- reduce the cost and complexity of the regulatory process.

2.0.7 It was the Company's view that its proposal would produce four distinct benefits:

1. Guaranteed productivity benefits to ratepayers of $4.7 million and guaranteed service quality;
2. An incentive to the shareholder, for which the shareholder is at risk, to achieve greater than the $4.7 million of benefits guaranteed to ratepayers, without a decline in service quality;
3. Additional productivity benefits to ratepayers if, when rebasing occurs at the end of the plan period, the shareholder has achieved permanent savings greater than $4.7 million; and
4. Benefits to ratepayers and the Board by way of a simplified hearing process for the Company's rates applications during the plan period.

2.0.8 The issues related to the Company's proposal were:

- Scope of the Plan;
- Fiscal 2000 O&M Base;
- The Proposed O&M Formula and Adjustment Factors;
- Performance Measures- Service Quality Indicators;
- Monitoring and Reporting Requirements;
- Implementation of the Plan; and
- Off Ramps.

2.1 SCOPE OF THE PLAN

2.1.1 The primary issue for intervenors related to the scope of the Company's proposed targeted incentive plan was whether the Company should proceed immediately to develop a comprehensive PBR plan for review and approval, rather than proceeding in a step-wise fashion with a targeted plan that addresses only O&M expenditures.

2.1.2 The Company indicated that it viewed its proposed targeted PBR plan as an important step towards development of a more comprehensive plan. It indicated that there were a number of obstacles to developing and implementing a comprehensive plan at this time, including the lack of an appropriate mechanism for including capital-related costs and the relationship of system expansion to the incentive mechanisms in such a comprehensive plan. The Company estimated it would take up to two years to address these constraints; accordingly the Company sought the Board's approval of the targeted plan for three years, following which it expected to make the transition to a comprehensive plan.

2.1.3 In support of its proposal the Company provided a summary of PBR plans that had been approved, or were proposed in other jurisdictions. This information indicated that the majority of jurisdictions had in place, or were developing comprehensive PBR plans based on either a revenue cap or price cap mechanism. The proposed targeted O&M PBR mechanism is similar to one that was initiated in 1994 by B.C. Gas. In British Columbia a step-wise approach to PBR was approved and in 1998 the British Columbia Utilities Commission approved a new comprehensive three-year PBR plan for B.C. Gas.

2.1.4 Dr. Norsworthy appearing on behalf of CAC, OCAP and IGUA had a number of criticisms of the Company's proposed targeted plan. These included the plan's use of multi-factor productivity, instead of total factor productivity, the exclusion of capital-related input and output measures, and the lack of external benchmarks in setting the factors in the proposed PBR formula. He recommended that the Company be required to implement a comprehensive PBR plan. In his view a revenue cap or price cap plan was more appropriate and in line with plans currently in place, or being implemented in most other North American jurisdictions for both gas and electric utilities. Dr. Norsworthy's pre-filed evidence also criticized the Company for excluding gas costs from its PBR plan. During the hearing, on the understanding that gas costs were a pass-through item and not a factor affecting net income or shareholder return, he accepted that exclusion of gas costs may be appropriate.

2.1.5 Dr. Bauer appearing on behalf of the same intervenors characterized the Company's proposed targeted O&M plan as a cautious step towards Performance Based Regulation, noting that if the overall goal of PBR is gradual improvement over traditional COS regulation, the proposed plan design may be adequate. However he cautioned that available experience in other jurisdictions suggests that targeted PBR plans have generated mixed results and have not often led to the expected efficiency improvements. In Dr. Bauer's view if the goal of PBR is a more generic stimulation of efficiency gains, it is advisable to consider moving to a broader incentive scheme such as a comprehensive revenue cap or price cap PBR plan. While recommending that the Company move to a comprehensive PBR plan as soon as possible, Dr. Bauer testified that in his view the current targeted plan was "fixable" provided the Company addressed some shortcomings he identified.

2.1.6 While a number of parties indicated their support for PBR in general, none supported the targeted three-year approach put forward by the Company. Many parties urged the Board to require the Company to bring forward a comprehensive plan, arguing that the barriers to such a plan were overstated by the Company, and that a targeted plan was no improvement on traditional cost of service regulation. Some intervenors noted the importance of stakeholder consultation and consensus if a plan were to succeed in providing customer satisfaction while at the same time providing the shareholder with incentives to reduce expenditures. Concerns expressed included the potential compromise of regulatory oversight without offsetting benefits to ratepayers, failure of the proposed plan to address the needs of all customers, possible substitution of capital expenditures for O&M given the narrow scope of the plan, and the inappropriate timing of the proposed targeted plan, given the changes that are presently occurring in the industry and its regulation. Specific changes to the proposed plan were put forward by some intervenors, but only as a less satisfactory alternative to rejection of the targeted approach altogether.

2.2 FISCAL 2000 O&M BASE

2.2.1 As noted above, the Company proposed a fiscal year 2000 base O&M budget based on the Board-approved fiscal 1999 test year O&M budget with a number of adjustments to reflect its unbundling proposal as set out in E.B.O. 179-14/15 and to take account of Z-factors. The Company proposed a fiscal 2000 base O&M budget of $240.6 million, following the adjustments shown below.

		$ million
1.	Board approved O&M expense budget	$271.9
2.	Unbundling adjustments	($ 21.5)
3.	Sub-total: 1999 O&M budget (unbundled)	$250.4
	Z-factors	
4.	1999 Y2K program expenses	($ 6.2)
5.	DSM expenses	($ 4.7)
6.	Rental wind down	$ 1.1
7.	Total: PBR base O&M	$240.6

2.2.2 The Company stated that the $21.5 million unbundling adjustment to the base O&M budget reflected the proposed rental equipment maintenance contract between Consumersfirst and Consumers Gas, which was an issue in E.B.O. 179-14/15.

2.2.3 Several parties expressed concern that the base year information to be used for fiscal 2000 was out of date, having been obtained originally for the filing of the 1999 fiscal year rates case. Some urged that the Board require a full presentation of the O&M budget for fiscal 2000; others were prepared to accept a “trueing up” of the budget based on available actual 1999 expenditure figures as the starting point for the targeted plan, if the Board accepted the scope of the plan as proposed.

2.3 ADJUSTMENT FACTORS

Growth Factor

2.3.1 The Company indicated that most PBR plans utilized either throughput volumes or the number of customers as the measure of output growth. Throughput measures the output of the Company based on total volumes by rate class weighted by the associated revenues, excluding gas costs. However in the Company's view, the use of total volumes as a measure of output fails to take account of weather variability and tends to improperly reflect the impacts of DSM on declining average use per customer. The Company stated that it had considered both throughput volume and customer numbers and found that, on balance, the number of customer bills, which is driven by customer numbers, serves as the most appropriate measure of output growth activity in relation to changes in O&M expenditures.

2.3.2 The Company conceded that historic data indicated that less than 50% of O&M expense was directly related to customer growth. However it contended that there was a very high correlation (0.992) between customer growth, as indicated by the number of customer bills, and O&M expense.

2.3.3 Dr. Norsworthy testified that the proper measure of output growth was weighted total volumes and stated that he was unaware of any plans which utilized customer growth as a proxy for the output of the Company. In Dr. Norsworthy's opinion only throughput volumes provided an appropriate measure of output, including risks related to weather variability. He conceded that the trend to declining average use per customer was not a factor he had considered in making this recommendation.

2.3.4 Dr. Bauer also recommended the use of throughput volumes weighted by revenues for each rate class as the appropriate measure for output growth of the Company.

2.3.5 The one-to-one correspondence of growth in O&M costs to customer additions was not accepted by parties. OCAP argued that economies of scale would suggest a progressive reduction of marginal O&M increases as customers were added. OCAP and CAC both suggested that a factor of ½ be applied to customer additions to obtain a growth factor for the PBR formula.

Productivity Factor

2.3.6 The Company proposed to use a single productivity factor for the three-year plan period. The proposed value of the productivity growth rate was 0.63% which was derived from an analysis of the historic productivity growth of the Company over the period from 1987 to 1997.

2.3.7 Dr. Norsworthy and Dr. Bauer both recommended that, rather than use an internal measure, a productivity analysis be conducted to find an appropriate industry-wide measure. They provided evidence that industry-wide productivity growth over the last decade was between 1% and 2% and recommended that a stretch factor of up to 0.5% be added to the historic growth rate.

2.3.8 The Company defended its use of an internal historically attained productivity measure on the basis that the Company had unique attributes which made the use of industry-wide productivity measures inappropriate. It argued that maintaining historic levels of productivity in future would represent a significant challenge.

2.3.9 The Company indicated that another important consideration in setting the appropriate productivity factor for the PBR plan is the current operational efficiency of the Company and its ability to make future productivity gains. The Company presented evidence which indicated that its current O&M expense per customer was significantly below that of U.S. gas utilities and that its 1994 O&M cost per customer of $184 was lower than all Canadian gas utilities except for B.C. Gas. The Company provided an update which indicated that its current O&M cost per customer was now equivalent to that of B.C. Gas. Therefore, according to the Company, its ability to make further productivity gains was significantly less than that of other U.S. and Canadian Gas utilities and maintaining its historic average level of productivity growth represented a significant challenge during the term of the PBR plan.

2.3.10 Dr. Fuss appearing on behalf the Company supported the use of the Company's own historic productivity growth as an appropriate way of determining the growth factor; he also stated, however, that a stretch factor of 15 to 20 basis points should be added to the proposed level of 0.63%.

2.3.11 The historic productivity factor proposed by the Company was unacceptably low, according to many parties, and would provide no incentive for the Company to improve. Suggested acceptable figures for productivity were as high as 2.5%. A number of intervenors expressed concern that unusual past events may have depressed the historic productivity factor which is proposed for use by the Company in the formula, while future unusual events would put upward pressure on O&M costs as Z-factors.

Inflation Factor

2.3.12 The inflation variable the Company proposed to use in the targeted O&M PBR formula is the Ontario consumer price index ("Ontario CPI"). The Company's analysis showed that the Ontario CPI has historically been a reasonably close match to the inflation components specific to the Company's O&M costs. The inclusion of the inflation variable in the PBR formula is to account for cost increases due to general increases in price levels in the economy. According to the Company economy-wide price increases are beyond the control of management, and therefore should appropriately be reflected in rates. The Company stated that although management has a responsibility to minimize input costs, it cannot be expected to continuously beat general price increases without risking significant decreases in service levels.

2.3.13 The Company stated that it had examined as an alternative the use of a constructed inflation index reflecting the mix of labor and materials that historically made up the Company's operating costs. It stated that, although a constructed index matches historic changes in input costs, there is no guarantee that it will match future changes. The criteria the Company proposed as supporting its selection of the Ontario CPI were:

- transparency;
- availability;
- not subject to manipulation by the Company or other parties;
- published regularly; and
- available on a prospective (forecast) basis.

2.3.14 In the Company's view, the Ontario CPI is a well understood measure of price inflation. It is also an available and published index on both an historic and forecast basis. Because the formula will be applied prospectively, the index must be available on a forecast basis. The Ontario CPI is forecasted by a number of financial and academic institutions and is easily obtained. While the Canadian CPI forecast is more widely available, Ontario CPI has differed from the Canadian CPI historically and the Ontario CPI is a better reflection of the Company's historic and expected future O&M cost pressures. The Company provided an analysis of the Company's historic input costs inflation compared to several published external inflation measures. This analysis confirmed that the Company's O&M inflation over the period 1987 to 1997 closely matched Ontario CPI at 3.1%. However the Canadian CPI was also a close match.

2.3.15 The Company proposed that a simple weighted average of the latest available forecasts be used and that the following institutions be the sources of the forecasts: the Royal Bank, Canadian Imperial Bank of Commerce, Toronto-Dominion Bank and the Conference Board of Canada.

2.3.16 Dr. Norsworthy recommended the use of a constructed index which separated the labor and materials components of the Company's input costs, rather than a single inflation factor for total O&M. The Company maintained that Ontario CPI applied to total O&M probably understated the Company's cost increase pressures, since the labor component of the Company's inputs, comprising about 60% of O&M, had historically increased at rates greater than the Ontario CPI.

2.3.17 The Company noted that there was a definite inter-relationship between the variables in the formula based on the way that the inflation factor had been analysed. The Company stated that it had first estimated the productivity factor and then, knowing the customer growth factor, it calculated the inflation variable and matched this to published indices.

2.3.18 Some intervenors argued that the Canadian CPI was a better reflection of inflationary pressures faced by the Company than the Ontario CPI, others just argued that the inflation index chosen was "too high", while OCAP preferred the use of a materials price index as a better measure of the Company's price pressures.

Z-factors

2.3.19 Z-factors are external events beyond the control of management which have significant cost implications and are not encompassed by the normal factors driving O&M costs in the PBR formula.

2.3.20 The Company initially identified six Z-factor categories to include in the proposed PBR plan:

1. stranded assets (to the extent these affect O&M expense);
2. unforeseen income and/or other tax changes (to the extent these affect O&M expenses);
3. regulatory orders such as costs of meeting new regulatory requirements including safety regulations, OEB costs, environmental rule changes and DSM;
4. changes in accounting rules;
5. uninsured losses and litigation costs; and

6. emerging programs and program refinements (including DSM) such as quality initiatives, environmental requirements, safety measures, health practices, and major system outages.

2.3.21 The Company cited specific examples of Z-factors that it had identified as applicable to the initial PBR plan. These were: costs associated with the Company's customer information system ("CIS") Project; costs associated with the Company's commitment to educate consumers about ongoing industry changes; year 2000 costs required in fiscal 2000; and the Company's costs for post-retirement benefits, related to potential changes in accounting rules. The Company also indicated that other significant changes in O&M expense resulting from capital investment would be considered additional Z-factors if, in aggregate, the total change in O&M expense would be greater than $500,000 in any year.

2.3.22 During the hearing the Company agreed to drop certain categories of Z-factors from the proposed plan. Specifically, the Company would exclude stranded assets, since this was a capital-related item. It would also exclude uninsured losses and litigation costs since these were, to a significant degree, under control of management and also related to the business risk of the Company, a factor in the determination of the allowed return on common equity.

2.3.23 Upon request the Company offered a general mechanism regarding the interplay of Z-factors and deferral accounts to address the Board's concerns expressed in prior proceedings regarding in-year requests for deferral or variance accounts. The Company suggested that as part of this Decision the Board could approve the establishment of a generic Z-factor deferral account to record unforecast test year costs which qualify as Z-factors. Clearing of the account would be requested if the balance exceeded a minimum threshold amount.

2.3.24 As noted earlier, some parties objected to the use of Z-factors for unusual future events in conjunction with a productivity index which had taken into account past such events. A number of intervenors favoured a very narrow range of Z-factors, such as tax increases and the impact of regulatory requirements only. Annual scrutiny of the proposed quantification of Z-factors was argued by some to be essential. IGUA argued that the characterization of CIS expenditures as capital or O&M related was a separate issue, and should be dealt with separately.

2.4 PERFORMANCE MEASURES-SERVICE QUALITY INDICATORS

2.4.1 Maintenance of service quality levels is an important component of a PBR plan. Monitoring of Service Quality Indicators ("SQIs") provides assurance that operating efficiencies achieved in a PBR environment do not occur at the expense of customer service levels or systems safety and integrity.

2.4.2 The Company completed a review of its internal performance indicators and chose those most related to the key areas of service for inclusion in the PBR plan. At the same time, a review of practices of other utilities involved in PBR plans was undertaken. Although there were some differences in the measures identified, the Company asserted that its general approach and selected SQIs were appropriate. The five SQIs chosen are:

1. Telephone service factor;
2. Meter reading;
3. Emergency response time;
4. Distribution system integrity survey; and
5. Gas utilization infractions.

Telephone Service Factor

2.4.3 The telephone service factor ("TSF") measures the percentage of customer inquiry calls answered in a specific 30 second period, where the time is measured from the customer's selection of the desired service option to the time the inquiry is responded to.

2.4.4 The Company's historic and forecast TSF performance indicated that TSF levels had generally declined from 84% in 1994 to an estimated 50% in 1998. The Company's TSF does not compare favorably with other utilities: the average TSF achieved as reported in the 1996 American Gas Association survey for 40 utilities was 71% within 93% of calls answered. The average target TSF for these utilities was 80%. The 1999 budget had established the target TSF at 74% and the Company proposed to maintain a level of 70% for the period of the PBR plan.

Meter Reading

2.4.5 The Company has established the practice of reading meters every other month for Rate 1 (residential) customers and the majority of Rate 6 (general service) customers. Consumption for the interim month is estimated. Maintaining the number of consecutive meter reading estimates at a reasonable level is important to both the customer and to the Company. Estimated bills require a true-up and may lead to a significant customer impact if an account is billed based on estimated consumption for an extended period.

2.4.6 The Company believes that an appropriate measure for assessing the meter reading performance is the percentage of meters not read in four consecutive months. The Company's historic data indicated that approximately 0.5% of meters were not read for more than four consecutive months; however the 1998 actual year-to-date number had risen to 0.9%. The Company attributed this decline to the temporary suspension of the "outs program", a program designed to obtain readings for hard to access meters. The Company has reinstated the program in its 1999 O&M budget and the Company proposed a target of 0.5% of meters not read in four consecutive months as an appropriate SQI for the term of the PBR plan.

Emergency Response Time

2.4.7 Enbridge Consumers Gas responds to certain emergency situations when contacted by a customer or government emergency services agency. These situations include reports of gas odours inside buildings, the possibility of fumes from gas fire equipment not being properly vented, and all fires/explosions in which natural gas may be a contributing factor. A 24-hour call center operation is in place to receive calls and utility representatives are available around the clock to respond. The Company is not an emergency response organization like the fire department, police or ambulance service, but in the above situations the Company will respond and attend the site of all emergencies in the interest of public safety.

2.4.8 The Company examined the utilization of an average response time for emergency calls as an SQI, but from a statistical perspective, the deviation associated with the variations in this measure was too high. The data indicated that 83% of the calls are completed within one-hour. The Company proposed that this percentage represented a reasonably accurate assessment of the Company's response performance and therefore proposed an emergency response time SQI of response to not less than 83% of emergency calls within one-hour, during the term of the PBR plan.

Distribution System Integrity Survey

2.4.9 The Company conducts leak surveys and corrosion surveys as part of its ongoing procedures to ensure the maintenance of a safe, reliable natural gas distribution system. The survey programs provide a means of allowing the Company to monitor and assess the condition of its underground piping system.

2.4.10 The leak survey program is important to the operation of a safe and reliable distribution system. As a performance indicator, the Company will insure that the leak survey program is strictly adhered to and completed on schedule each year during the term of the PBR plan.

2.4.11 The corrosion survey program also assists the Company to ensure a high-quality distribution system. Corrosion surveys on the Company's underground pipe system are completed on a regular basis and where deficient readings are obtained corrective actions are taken.

2.4.12 The Company proposed that the corrosion survey program be conducted annually during the term of the PBR plan. Therefore the combined SQI of Distribution System Integrity Survey would require that the Company complete the annual leak and corrosion survey programs each year during the term of the PBR plan.

2.4.13 In response to questions about the qualitative nature of the proposed SQI, the Company provided data which indicated that each year the Distribution Operations group prepares a plan which contains the number of the areas which are to be the subject of leak and corrosion surveys. The data indicated that for the budget year 1999 over 8000 areas would be surveyed. The Company did not concur with establishing a specific level of SQI such as kilometers of distribution pipe to be surveyed, but rather indicated that as part of its PBR monitoring and reporting program, it would file the survey plan for the forward year with the Monitoring and Reporting group of the Board so that actual and plan performance could be compared during the term of the PBR plan.

Gas Utilization Infractions

2.4.14 The Company conducts initial inspections of gas equipment installations under the Ontario Gas Utilization Code. During these inspections installation code infractions may be found. In addition, infractions may be noted while attending the premise for other types of utility service work. If an infraction is found that does not constitute an immediate hazard, the Company has established a "red tagging" procedure that allows the customer up to 90 days to make the necessary corrections.

2.4.15 The Company proposed an SQI of ensuring that there are no outstanding "red tags" beyond 90 days except in those rare cases where customers may encounter hardship in rectifying the problem, and even then only with prior approval of the Technical Standards Safety Authority which has responsibility for the Code.

2.4.16 The Company stated that it had struck a reasonable balance between simplicity and complexity/cost in developing its specific set of SQIs. The chosen SQIs are designed to be well understood and simple to track and quantify. The Company submitted that the Board can be confident that these standards are as transparent and simple as possible. The Company agreed that it should be accountable for its performance measured against the SQIs and noted that it had proposed a process of monitoring and reporting which leaves the Board with the discretion to determine how, based on the specific circumstances, the Company should be accountable for a failure to meet any of the SQIs. In sum, the Company submitted that the chosen SQIs are properly aligned with the Company's core Utility business and reflect customer concerns about service quality.

2.4.17 Parties were concerned that the service quality indicators were not developed in consultation with customers, that they were limited and ill-defined, that they were not challenging enough, and that the consequences of the Company's failure to meet its proposed standards of service were not clearly identified. Some argued that penalties should be available for such failure, and that without penalties, service quality could decline without ratepayers having any recourse.

2.5 MONITORING AND REPORTING REQUIREMENTS

2.5.1 The Company did not prefile a proposal for a monitoring and reporting protocol, but during the hearing a number of related matters were discussed. Since the proposed O&M PBR plan is a partial plan addressing only one component of the cost of service, the Company indicated its expectation that "traditional" cost of service filings and rate reviews will continue. There would therefore be an opportunity to report on the Plan and respond to questions about it as part of rate reviews. The Company expressed the view that for regulatory efficiency there should be an agreed reporting protocol and that only if the Board determined that an issue should be referred to a rates proceeding would this occur.

2.5.2 The Company stated that deficiencies in meeting performance standards would be discussed with the Board's Monitoring and Reporting group and corrective action taken, if necessary. Progress on making improvements could be regularly reported to the Board through the Board's Energy Returns Officer. The Company does not intend any review of the plan other than as noted, unless an "off ramp" factor requires this.

2.5.3 In response to questions regarding changes to the SQIs or to specific performance standards during the term of the plan the Company stated that it would first discuss the matter with Board Staff and then prepare a written report regarding the proposed change. The Board could then determine how best to deal with the matter from a regulatory perspective, including the appropriate process and the degree of public involvement.

2.5.4 Intervenors submitted that the Company's proposed reporting and monitoring protocols were likely to be ineffective and would exclude appropriate ratepayer oversight.

2.6 IMPLEMENTATION OF THE PLAN

2.6.1 The Company provided an example of the way the proposed O&M PBR Formula would work in setting the O&M expense for the term of the PBR plan.

The general form of the proposed O&M PBR formula is as follows:

Test Year O&M
= Base Year O&M x [1+ (customer growth - productivity)]
x [1+ inflation] ± Z-factors

For Fiscal 2000:

2.6.2 As noted earlier, in the calculation to determine the fiscal 2000 O&M expense the Company proposes to use $250.4 million as the Base Year O&M. This level is then adjusted for Y2K and Legacy Customer System costs as well as the removal of the O&M component of the DSM budget, and results in an adjusted Base Year O&M of $240.6 million, the starting point for the PBR formula.

2.6.3 The most current forecasts of customer growth and Ontario CPI, as well as a current forecast of Z-factors for fiscal 2000 will be filed with the Board on the same timetable as the process used to determine the Company's Return on Equity. With respect to the variables used in the PBR calculations, the latest information and forecasts are available in August of the year preceding the test year and the timing allows for inclusion of the expense in the Board's Rate Order. For the purposes of this example, Z-factor (including DSM) have been excluded to illustrate the operation of the formula over the controllable components of O&M.

2.6.4 For example, from the base of $240.6 million and assuming 2% inflation, 3.5% customer growth, and a productivity offset of 0.63%, then:

Test Year 2000 O&M Expense

= $240.6 million x (1 + 3.5% - 0.63%) x (1 + 2%) ± Z-factors

= $252.5 million ± Z-factors

For Fiscal 2001:

2.6.5 In August 2000, the 2001 Base Year O&M will be calculated by applying actual customer growth, Ontario CPI, and Z-factor costs along with the agreed upon productivity factor, to the fiscal 2000 O&M levels, adjusting the base amount for actual inflation and customer growth.

2.6.6 Since the fiscal year customer growth and CPI numbers will not be completely final as of August, it is proposed that the growth for the full ten months of the fiscal year as of August is used as a proxy for the fiscal year actuals. For example, the average of the CPI inflation for the months August 1999 through July 2000 shall be used as the "actual" inflation for fiscal 2000. Z-factor costs will also be actuals-to-date, plus an estimate for the remainder of the year.

2.6.7 As an example, suppose actual 2000 customer growth was only 3.0% (instead of the forecast 3.5%), inflation was 1.5% (instead of the forecast 2%). The 2000 Base O&M level would be adjusted as follows:

$240.6 million x (1 + 3.0% - 0.63%) x (1 + 1.5%) ± Z-factors

= $250.0 million ± Z-factors

which compares with the forecast of $252.5 million.

2.6.8 The O&M expense forecast for 2001 will then be determined according to the mechanism using the adjusted base year, and incorporating customer growth and inflation forecasts, say, 4.0% and 1.6% respectively. Therefore the Test Year 2001 O&M expense would be determined as follows:

$250.0 million x (1 + 4.0% - 0.63%) x (1 + 1.6%) ± Z-Factors
= $262.6 million ± Z-factors

For Fiscal 2002:

2.6.9 Again, the previous year's O&M levels would be adjusted to reflect actual growth and would become the starting point for 2002. If customer growth exceeded the forecast and was found to be 4.2% and inflation 1.8% for 2001, with the forecast for 2002 of growth set at 3.8% and inflation 1.5% the base and resultant 2002 Test Year O&M would be as follows:

2001 Base O&M Adjustment:
$250.0 million x (1 + 4.2% - 0.63%) x (1 + 1.8%) ± Z-factors
= $263.6 million ± Z-factors, and

Test Year 2002 O&M =
$263.6 million x (1 + 3.8% - 0.63%) x (1 + 1.5%) ± Z-factors
= $276.0 million ± Z-factors.

2.7 OFF RAMPS

2.7.1 Off ramps are exogenous events which result in such a significant deviation in O&M costs that the PBR formula may no longer apply and accordingly the PBR plan must either be discontinued and/or undergo major revision to account for the matters causing the formula to become unworkable.

2.7.2 The Company proposed six conditions which could lead to a decision to use the off ramp provisions of its plan:

1. Discontinuance of a published index used in the PBR Formula;
2. Change in CPI of more than a predetermined percentage;
3. Extreme volatility in financial markets;
4. Regulatory change inconsistent with the provisions of the PBR plan;
5. Impending or actual downgrade in credit rating; and
6. Failure or impending failure in meeting the new issues test covenant in debt agreements.

2.7.3 In the event that one of these conditions arises, the Company would make an application to the Board to re-examine the appropriateness of the plan given the change in circumstances.

2.7.4 During the hearing, the Company agreed that the change in CPI and extreme volatility in financial markets were not circumstances that should lead to an *automatic* review of the PBR plan. The Company submitted that the reasonable range for Ontario CPI would be from 0% to 6%, which reflected the inflation rate environment within which the Company has operated for the past ten years and which would reasonably be expected to prevail over the three year term of the PBR plan. The Company noted that the regulatory change off ramp would be triggered in the event that the Company were to bring an application for a comprehensive PBR plan and the Board were to approve that application. The complete exit from the merchant function during the term of the PBR Plan could also trigger the regulatory change off ramp.

2.7.5 Some parties questioned the appropriateness of the Company's chosen off ramps. Many expressed a concern that there was no provision for anyone other than the Company to bring forward proposed off ramps.

3. **BOARD FINDINGS**

Scope of the Plan

3.0.1 On October 2, 1998 the Board issued a draft policy on the development of PBR for gas and electric utilities. The policy indicates that the Board will encourage a move to PBR for Enbridge Consumers Gas and Union Gas Limited, in response to applications from the two utilities. The draft policy does not specify the type of gas utility PBR plan that will be accepted by the Board. Rather the policy implies that the Board will judge each application on its own merit.

3.0.2 Since the Company filed its evidence in E.B.R.O. 497-01 there have been a number of important developments in the legislation regulating the electricity and the gas sectors in Ontario. The stated objectives of the changes are the fostering of competition while at the same time protecting consumer interests.

3.0.3 The new legislative framework also facilitates the regulation of remaining monopoly components of the energy sector and enables the Board to apply new regulatory approaches to both the gas and electricity "pipes" and "wires" companies. The Board has indicated that, given the significant number of monopoly service providers in electricity sector, Performance Based Regulation is an important objective in order to reduce regulatory burden while protecting consumer interests in reasonable rates and service quality. The Board anticipates that unbundling of monopoly and competitive services will continue in the gas sector and that the remaining monopoly functions will be regulated by a move towards the use of incentive mechanisms such as PBR. The new regulatory environment formed the framework for the discussion of the Company's proposal in the hearing.

3.0.4 The Board agrees with intervenors that the end state of PBR for Enbridge Consumers Gas should be a comprehensive PBR plan based on either revenue cap and/or rate cap principles. However, the Company has indicated that it is not in a position to bring forward a comprehensive PBR plan at this time. The Board notes that many of the criticisms that have been leveled at the Company's proposed targeted O&M PBR plan, are in reality a call for immediate implementation of a comprehensive PBR plan.

3.0.5 The Board accepts, in principle, the targeted O&M PBR plan proposed by the Company as a transitional step towards development and implementation of a comprehensive PBR plan. The Board also accepts the three year term of the plan, with the expectation that the Company will have developed, in consultation with stakeholders, and be ready to implement, an appropriate comprehensive PBR plan at the end of this term. The Board notes that during this period annual rate reviews of the utility will continue, although the O&M component will be determined by the application of the approved O&M adjustment formula. The Company's proposal can be viewed simply as a mechanism for adjusting the Company's O&M budget within a cost of service framework, a concept similar to the application of the Board's guidelines for a formulaic approach to determining the return on common equity.

3.0.6 The proposed O&M adjustment formula is of a well recognized form. The Board's findings below on the specific attributes of the proposed plan will require the plan's modification before it can be finally approved for determining the O&M component of the Company's cost of service for the plan period commencing in fiscal year 2000.

Fiscal 2000 O&M Base

3.0.7 The Board agrees in principle with the Company's approach to calculation of the fiscal 2000 O&M expense base. The Board will not require any other adjustment, such as a true-up. However the specific details of the unbundling adjustment and the rental wind down adjustment are derivative of the Board's Decision in E.B.O. 179-14/15. Based on the Board's findings in that decision the Company must re-submit the estimated year 2000 O&M base as part of its rates filing for the 2000 test year to reflect the Company's decision or proposals regarding the future of its rental program and associated issues.

The Formula

3.0.8 In determining the appropriateness of individual factors in the formula for the proposed plan, the Board notes that the Company acknowledged a definite relationship between the various variables it proposed. The Company made an historical estimation of productivity, applied its proxy for growth, and then compared the resulting inflation factor to recognized indices. In the Board's view there is a certain circularity in this approach. The Company has acknowledged that an overstatement of one factor may be offset by understatement through another factor. Given this interrelationship, any adjustments the Board makes to any of the factors may be used to directionally achieve a particular desired effect. While the Board sets out below its view on each of the factors, the specific adjustment it has made is intended to directionally reflect appropriate adjustments to other factors in the formula. The Board also wishes to stress that in considering a comprehensive PBR Plan for this Company, or for other utilities, the parameters for growth, inflation and productivity will need to be properly assessed within a comprehensive context.

Customer Growth Factor

3.0.9 The Board finds that the selection of the number of bill paying customers as the representative output growth factor is appropriate only as a proxy for a direct output measure such as total volume delivered. For a utility with a large number of residential customers each consuming roughly equal amounts of gas delivery services, the number of bill paying customers might be a very close proxy for the growth in delivery services provided by the utility. However the Board agrees with Dr. Norsworthy and Dr. Bauer that the Company is sufficiently diversified that the change in the number of customers may represent a less than adequate proxy for the output growth of the Company.

3.0.10 The Board has additional concerns with the proposed growth factor. In the short-term, as confirmed by the Company, less than 50% of the O&M expense is directly customer-related. The Company's evidence is that there is a high correlation between customer growth and O&M expense. However the Board believes this reflects the longer term relationship and questions whether such a direct one-on-one relationship will hold over the three-year term of the proposed PBR plan. If, as the Board believes, the growth in O&M expenses is not directly related to customer growth in the short term, then the use of customer growth (or weighted delivery volumes) in the formula will significantly overstate the required increases in O&M expense over the three year plan.

3.0.11 The Board notes the Company's statement that although the growth factor may overstate the required year over year increases in O&M expense, the Ontario CPI under-states the historic change in O&M expense, particularly for the labor-related component of O&M expenses. The Board is not convinced that these two factors will offset one another appropriately as claimed by the Company. Rather the Board finds that there is a greater likelihood that the net result will be unreasonable overstatement of the O&M budget required. The Board has chosen to deal with these concerns through its adjustment to the proposed productivity factor, rather than changing the proposed growth factor directly.

Productivity Factor

3.0.12 The Board notes that the Company has proposed to use a constant three-year productivity factor of 0.63%, based on an average historic productivity growth calculated by the Company over the period 1987 to 1997. The Board also notes the criticisms leveled at the Company's choice of a historic multi-factor productivity measure, rather than a total factor productivity measure based on an external benchmark. However, given the limited scope of the Company's plan, and the fact that capital-related cost of service matters will continue to be reviewed under the traditional regulatory framework for the duration of the plan, the Board does not find the use of a multi-factor productivity measure to be a significant concern.

3.0.13 The Board however notes that the Company's historic productivity growth was determined in a period during which O&M expenses were scrutinized rigorously during the Company's rate applications. In most of these proceedings the Company's proposed O&M budget was significantly reduced by the Board in arriving at an appropriate cost of service for the forward test year. This external "constraint" on the Company's expenditures would, in the Board's view, have made it more difficult to achieve productivity savings than would have been the case if the Company's proposed budgets had been approved.

3.0.14 The Board also notes because of the Company's proposal to use the historic value of 0.63% without a "stretch factor", should unbundling and other changes to the Company's business plan result in greater operating efficiencies, as has been claimed by the Company, these would not be appropriately captured.

3.0.15 Accordingly, the Board finds that the proposed productivity factor of 0.63% is not acceptable for the forward three-year period of the PBR plan. The Board will require addition of a stretch factor to better reflect opportunities for future efficiency gains and to provide a challenge to the Company's management. The Board notes that opinions on the level of stretch factor to be applied to the proposed productivity stretch factor varied from 15 to 20 basis points as proposed by Dr. Fuss up to 50 to 100 basis points proposed by Drs. Bauer and Norsworthy. The Board believes that an increase of 50 basis points will both better reflect obtainable efficiency and offset possible overstatement that might result from the use of the Ontario CPI as noted below. The Board will therefore require as a condition of approval that the Company set the productivity growth factor at 1.1% for the term of the Plan.

Inflation Factor

3.0.16 The Company proposed to use the Ontario CPI as a reasonable reflection of the inflationary pressures it expects over the period of the plan. The Board agrees with intervenors that an inflation factor based on consumer prices is not the most appropriate factor to reflect the inflation of inputs to the Company's processes. Ideally, a constructed index reflecting actual product consumed in the Company's processes should be used. It appears to the Board that such an index, were it available, would have the result of lowering O&M expenditures resulting from the application of the formula. The Board's adjustment to the productivity factor through the addition of a stretch factor is intended to offset to some degree the overstatement of inflation that will result from the use of the Ontario CPI.

Z-Factors

3.0.17 The Board accepts the amended list of Z-factor categories presented by the Company during the hearing, noting that the specific quantum relating to each Z-factor will be brought forward for approval from year to year in the rates proceedings. In the upcoming proceeding for rates for year 2000, for example, the Board will expect to consider the amounts proposed for such unusual expenditures as Y2K costs and CIS expenditures.

3.0.18 The Board does not accept the suggestion for the creation of a generic Z-factor deferral account at this time. The Board prefers to await the implementation of the PBR Plan so as to better assess the possible benefits of the existence of such account.

Performance Measures- Service Quality Indicators

3.0.19 The Board finds that the telephone service factor target of 70% does not provide a sufficient challenge to the Company to bring its call center performance to either industry standards or to the Company's average historic performance prior to the recent decline. As a condition of approval, the Board requires the Company to increase the target TSF to 75%.

3.0.20 The Board's other main specific concern with the chosen SQIs relates to the Distribution System Integrity Survey. The Board finds that this proposed measure is only reasonable as an SQI if as indicated in response to questions in the hearing, some quantitative aspects of the survey are set out as targets for the succeeding year in the Monitoring and Reporting plan. The Board therefore will require the Company to propose some quantitative targets for this measure as part of its resubmission to the Board.

3.0.21 Subject to the findings above, the Board accepts the proposed SQIs. The Board expects that additional measures will be considered as part of a comprehensive PBR Plan.

Monitoring and Reporting Requirements

3.0.22 The Board accepts that the monitoring and reporting requirements are related to the performance and maintenance of the SQIs relative to target. The Board will expect to review specific results and any proposed changes during main rates cases, and determine what, if any, remedial action is appropriate.

Implementation of the Plan

3.0.23 As conditions of approval of this plan, the Company shall file in conjunction with its rate filing a restatement of the base year O&M budget reflecting unbundling adjustments from E.B.O. 179-14/15, the Board's findings in this Decision regarding the parameters in the formula, and the updated forecasts of those parameters. As well the Company shall file, as noted above, a proposed quantification of system integrity survey objectives.

3.0.24 For years 2001 and 2002, the Company shall implement the formula as proposed subject to the Board's comments and adjustments contained in this Decision.

Off Ramps

3.0.25 While the Board accepts that situations may arise which would warrant the abandonment of the PBR Plan, the types of situations justifying such action can only be viewed as speculative at this time. The Board therefore will not comment further in this Decision in respect of this issue, except to note that a party could request the Board to consider whether a situation constitutes justification to abandon the PBR Plan.

4. COST AWARDS

4.0.1 The following parties applied for an award of costs: AMEC, CAC, CEED, Energy Probe, GEC, HVAC, IGUA, OAPPA, OCAP, Pollution Probe and the Schools.

4.0.2 In order to expedite the issuance of this Decision, the Board will address cost claims in a supplementary decision which will be issued in due course.

DATED AT Toronto April 22, 1999.

H. G. Morrison
Presiding Member

P. Vlahos
Member

R. M. R. Higgin
Member

E.B.R.O. 497-01
Appendix A

A Portion of the Settlement Conference Referring to SSM (Exhibit C, Section 9.0, page 7-13), and also Exhibit I 3.1 Filed by Enbridge Consumers Gas, dated January 29, 1999 (Transcript Vol.3 p 415).

AVAILABLE IN HARD COPY ONLY.