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Our File # 339583-000199

By electronic filing

April 30, 2015

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
27th floor
Toronto, ON M4P 1E4

Dear Ms. Walli

Re:	**Hydro One Networks Inc. ("Hydro One")** **New Cost Allocation Issue**
Board File #:	**EB-2013-0421**

As solicitors for Canadian Manufacturers & Exporters ("CME"), we are writing to respond to the directive in paragraph 3 of Procedural Order No. 4. That directive requires Ontario Energy Board ("OEB" or the "Board") staff and intervenors to indicate whether they intend to file evidence with respect to the Transmission and Distribution Cost Allocation Issues in this proceeding. The Board's decision with respect to these issues may prompt revisions to the Transmission System Code ("TSC") and/or Distribution System Code ("DSC").

Our response to the directive, provided below, is informed by the following circumstances:

(a) The foundation for the Transmission and Distribution Cost Allocation proposals Hydro One asks the Board to approve in this proceeding is the "beneficiary pays" principle;

(b) The Board mentioned this principle at page 43 of its October 18, 2012 Report entitled "Renewed Regulatory Framework for Electricity Distributors: A Performance Based Approach" (the "RRFE Report"). The Board also discussed the principle in its EB-2006-

0189 Decision and Order dated September 6, 2007, and its EB-2011-0043 Notice of Proposal to Amend a Code dated August 26, 2013;[1]

(c) Apart from these materials, there are no materials in the record about either the conceptual nature of the "beneficiary pays" principle or the criteria which should be considered to determine how the principle should be applied in a particular case;

(d) The conceptual nature of the "beneficiary pays" principle needs to be understood before anyone can either:

(i) Determine the most appropriate approach to follow in applying the principle in a particular case; or

(ii) Develop code provisions specifying how the principle is to be applied in all cases.

It is in this context that we advise that, while we will not be adducing any evidence in this proceeding with respect to the generic Cost Allocation issues it raises, we urge the Board to direct either Board staff or Hydro One to sponsor someone possessing appropriate expertise to make a complete presentation on the parameters of and the criteria which should be considered when applying the "beneficiary pays" principle. We submit that this evidence is an essential precursor to the Board's determination of the generic Cost Allocation issues in this case.

The pre-filed evidence and interrogatory responses indicate that the outcome of considering the "beneficiary pays" principle as the rationale for allocating costs is to "apportion" some of the incremental costs associated with an expansion project to existing and new customers on a "rolled-in" basis and to recover the remainder of such incremental costs from the particular customers who cause those costs to be incurred.

The criteria which regulatory tribunals consider to be of relevance when determining whether to recover incremental costs on a rolled-in basis from all customers or on an incremental basis from those particular customers who cause the costs to be incurred have been reviewed by the National Energy Board ("NEB") in 2 cases decided in the late 1980's and early1990's. Excerpts from each of these decisions, being NEB Reasons for Decision in GH-2-87 dated July 1988 and NEB Reasons for Decision in GH-5-89 dated November 1990, pertaining to the rolling-in of costs for recovery from all customers compared to the recovery of incremental costs from those causing such costs to be incurred, are attached. We provide these materials to illustrate that there are precedent decisions listing the criteria which a regulatory tribunal should consider when applying a hybrid methodology such as the "beneficiary pays" principle.

We wish to emphasize that CME has not yet developed its position on how the "beneficiary pays" principle should be applied in a particular case. CME will formulate its position once it has a better understanding of the criteria which are to be considered in an application of the principle.

[1] See Hydro One Response to E3 Coalition Interrogatory No. 2, Exhibit I-P2, Tab 2, Schedule 2, p.1 and its attachments.

We also wish to express support for the request made by counsel for the E3 Coalition for a Technical Conference to obtain elaboration from Hydro One of its responses to interrogatories. We believe that further information from Hydro One could help everyone better understand its perception of the "beneficiary pays" principle, including the criteria to be considered in determining the most appropriate manner for its application.

Please contact us if you require any further information.

Yours very truly

Borden Ladner Gervais LLP

FOR Peter C.P. Thompson, Q.C.

enclosure

c. Erin Henderson (Hydro One)
Michael Engelberg (Hydro One)
All Interested Parties EB-2013-0421
Paul Clipsham and Ian Shaw (CME)

OTT01: 6969858: v2

CANADA

NATIONAL ENERGY BOARD

Reasons for Decision

TransCanada PipeLines Limited

Applications for Facilities and Approval of Toll Methodology and Related Tariff Matters

GH-2-87

July 1988

Overview

(NOTE: This overview is provided solely for the convenience of the reader and does not constitute part of this Decision or the Reasons, to which readers are referred for the detailed text and tables.)

The Applications

By application dated 9 June 1987, as amended on 17 September 1987, TransCanada PipeLines Limited ("TransCanada") applied for new facilities to expand the capacity of its pipeline system in order to serve existing markets and to deliver additional export volumes to the northeastern United States. The new exports underpinning the 9 June 1987 application, as amended, are detailed in Table 1.

The total cost of the proposed facilities was estimated to be $334 million. Details of these facilities are provided in Table 2. (see page xii)

Gas to be delivered at Niagara Falls would be transported on the Tennessee Gas Pipeline Company ("Tennessee") system and require the construction of new facilities on that system. Gas to be delivered at Iroquois would be transported through a proposed new pipeline known as the Iroquois Gas Transmission System ("IGTS"). The IGTS is proposed to extend from the Canada/United States border southeast through the states of New York and Connecticut and then across Long Island Sound to Long Island, New York. In both of these cases, the construction of new facilities in the United States would require FERC approval.

TransCanada also requested that the methods of cost allocation and toll design for export sales and transportation services presently utilized by the Board (the "rolled-in" method[1]) be continued and applied to the proposed facilities.

As a result of subsequent requests by The Consumers' Gas Company Ltd. ("Consumers") and Gaz Métropolitain, inc. ("GMi") for additional service to commence 1 November 1988, as detailed in Table 3, TransCanada applied on 29 March 1988 for the construction of 19.1 km of parallel pipeline on the Montreal Line, and for the temporary relocation of a portable compressor from Station 134 to Station 137 on the Montreal Line and from Station 136 to Station 95 on the Central Section. The capital cost of these facilities was estimated to be $21 million (1988 base - direct and indirect costs included). TransCanada also filed a further amendment to its 9 June 1987 application, the purpose of which was to advance the in-service date of certain facilities.

The facilities proposed in the 9 June 1987 and 29 March 1988 applications would provide, among other things, capacity to enable TransCanada to move the additional Consumers volumes during the 1988-89 contract year. TransCanada indicated at the hearing that a further facilities application would be required in order to provide capacity on a permanent basis for the Consumers volumes commencing 1 November 1989.

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1 Under the "rolled-in" method of cost allocation and toll design, the owning and operating costs of new facilities are included in a pipeline company's total revenue requirement and are allocated among all users of the system.

Toll Methodology

The Board decided that the rolled-in method of cost allocation and toll design will be appropriate in respect of the authorized facilities which are proposed for the transportation of volumes in accordance with TransCanada's General Terms and Conditions.

The Board decided that any incremental costs incurred by TransCanada to guarantee the provision of delivery pressure in excess of 4000 kilopascals (580 pounds per square inch gauge) at any delivery point on the TransCanada system shall be recovered through an incremental two-part delivery pressure toll to be collected from all shippers using that delivery point. The Board directed TransCanada to amend its General Terms and Conditions to provide that the minimum pressure at each delivery point on its system shall be not less than a gauge pressure of 4000 kilopascals (580 pounds per square inch gauge) unless a lesser minimum pressure is agreed to by the parties. The General Terms and Conditions previously specified a minimum delivery pressure of 2800 kilopascals (400 pounds per square inch gauge)

TransCanada/Great Lakes Amending Agreement

The Board approved the amendment dated 1 July 1987 to the T-4 Transportation Contract under which TransCanada transports gas on the Great Lakes Gas Transmission Company system. The amendment, which was reviewed during the hearing, has the effect of continuing to 1 November 2000 an existing arrangement whereby a portion of TransCanada's transportation entitlement on Great Lakes is assigned to the purchasers of gas exported by ProGas Limited at Emerson, Manitoba.

Tariff Matters

At the outset of the hearing, TransCanada's Firm Service ("FS") toll schedule stipulated that TransCanada would not construct additional facilities for the purpose of providing short-term FS. The schedule also allowed TransCanada to reduce the Operating Demand volume of a short-term FS customer to the extent that TransCanada required capacity to provide for long-term FS; this was referred to as the "bumping" clause. TransCanada filed during the hearing a revised FS toll schedule that had the effect of deleting the bumping clause and the stipulation that facilities would not be constructed for short-term FS.

In its decision, the Board found the removal of these provisions to be appropriate. The Board also decided on several tariff matters which required clarification as a result of the filing of TransCanada's revised FS toll schedule. The Board directed TransCanada to:

- include in its FS toll schedule the company's policy to construct facilities, subject to Board approval, for the purpose of providing capacity for any FS with a term of at least one year, provided that there is a reasonable expectation of a long-term requirement for that capacity;

- amend its FS toll schedule to provide for any term of FS of one year or longer;

- amend its FS toll schedule to provide for the continued renewal of all domestic and export FS contracts serving long-term markets, subject to TransCanada receiving written notice from the shipper, not less than six months prior to termination of the contract, or a shorter period as may be stipulated by TransCanada, that it will renew the contract;

Chapter 8
Toll Methodology

8.1 Background

In setting down TransCanada's facilities application for hearing, the Board decided to address at the same time any related toll methodology issues. The decision of the Board in this regard is in keeping with the views expressed earlier by the Board in respect of an application by IPL for new tolls effective 1 January 1987.

In view of its decision to examine toll methodology issues, the Board specified a number of issues which would be addressed at the hearing; these issues included:

(i) the appropriate toll methodology in respect of facilities proposed to serve new export markets and the anticipated domestic market growth;

(ii) the question of whether tolls to be charged for the use of the applied-for facilities, calculated on an incremental basis as opposed to the rolled-in method, would be just and reasonable having regard to section 52 and 52.1 of the Act; and

(iii) the question of whether a toll, rather than a surcharge which would be credited to TransCanada's cost of service, should be set to recover the cost of any facilities on the TransCanada system required to supply natural gas at a delivery pressure higher than that specified in the General Terms and Conditions of TransCanada's tariffs.

The Board requested TransCanada to file its proposed toll design methodology applicable to domestic and export incremental markets, including its justification of such proposals and to submit evidence on the applicable tolls under both incremental and rolled-in methodologies.

In response to the evidence submitted by TransCanada in this regard, the Board further requested TransCanada to examine an alternate toll methodology which would take into account the allocation of the costs of the existing facilities to both existing and incremental volumes and the allocation of the cost of the additional facilities to the incremental volumes only. TransCanada was requested to provide exemplar tolls using this so-called "alternate incremental" methodology.

8.2 Toll Methodologies Considered

The Issue

Under the existing rolled-in methodology, the cost of the new facilities would be added to the existing rate base and the tolls for all traffic, including the new volumes, would be based on the new cost of service for the whole pipeline system including expansion. To the extent that the toll revenues generated by the new volumes are greater (or less) than the costs of owning and operating the new facilities, the new tolls, on a rolled-in basis, will be lower (or higher) than the existing tolls.

Contrasted with the rolled-in method is the incremental method; two approaches to this method were examined. In the first incremental approach, the tolls for the new volumes would be charged with only the costs of the new facilities needed to expand capacity to move them through the system. Under this approach, existing tolls remain unchanged and in effect, no charge is made for the use of existing facilities, although new volumes do make use of them to the extent that spare capacity is available.

Under a second incremental approach, new volumes would be allocated their proportional share of the existing system costs plus all the costs of the new facilities. Using this approach, referred to as the "alternate incremental" toll method, the toll for the existing system would decline due to higher overall throughput but the new volumes would be charged with a higher aggregate toll.

Views of Parties

IGUA proposed that TransCanada's rate base should theoretically be split into two separate rate bases with one for domestic service and one for export service. To achieve this, IGUA suggested that TransCanada's previous capital expansions could be reviewed and allocated to a domestic or export rate base. Each rate base would then operate with its own rolled-in toll. While offering many practical suggestions as to how this might operate, IGUA agreed that its proposal was not fully developed and was presented as a concept for consideration.

It was argued that the IGUA proposal to establish separate rate bases to serve domestic and export markets is discriminatory because there is nothing inherently different between domestic and export markets. While IGUA acknowledged that there is no inherent difference in the nature of the customers in each market, it argued that there are differences in the risks of serving those markets.

TransCanada argued that incremental tolls would be discriminatory and would result in different customers paying different tolls for the same service at the same load factor and at the same delivery point. On the other hand, it argued that under rolled-in tolls, differences in unit costs of transportation only occur as a result of selecting a different quality of service. Shell Canada Limited ("Shell") argued that tolls may discriminate, provided that such discrimination is not unjust. In Shell's view, with respect to TransCanada's proposed facilities expansion, any discrimination in an incremental toll methodology would not be unjust because the new volumes are not moving under substantially similar circumstances. In this regard it pointed to deregulation as a major circumstance that has changed.

The concept of TransCanada as an integrated system was relied upon by proponents of the rolled-in methodology. TransCanada expressed the view that each user of the integrated system benefits from the existence of other users. Rolled-in cost allocation and toll design treats costs and financial benefits in a manner consistent with the operational sharing of facilities and gas flow. TransCanada argued that, in its currently proposed expansion, all new facilities form part of the integrated system and, with the exception of the proposed Iroquois Extension, benefit all users of the pipeline. Shell questioned whether TransCanada's existing customers will benefit from the new facilities in a meaningful way, given that they do not need them and recognizing that there will be no spare capacity on the system after the expansion.

While this facilities expansion has been forecasted to have a negligible impact on existing tolls under the rolled-in methodology proposed by TransCanada, the Board heard testimony that future expansions under the same methodology would result in toll increases for all users. Some parties argued that this would amount to unfair cross-subsidization of the new volumes by the old.

Proponents of incremental tolls, particularly under the alternate approach, recognized that the new volumes would be subject to higher tolls than the existing volumes. They argued that this would be fair because the new volumes should pay for the new facilities required and suggested that the existing facilities somehow belong to, or are dedicated to, the existing shippers. TransCanada argued that cross-subsidization would exist under incremental tolls because the existing shippers would benefit from the increased system security resulting from the new facilities.

As to the existing shippers' rights to existing facilities it was argued that, given the differences between the current netback pricing system and the previous add-on system, it is difficult to say who has really paid for existing facilities. TransCanada expressed the view that facilities are not dedicated to specific customers and that the previous payment of tolls did not confer upon prior tollpayers any rights or privileges beyond the provision of service at that time.

In supporting a continuation of the rolled-in methodology, TransCanada pointed to the Board's past practice, noting the Board's reliance upon the integrated nature of its pipeline system in its 1973 and 1974 rate cases wherein the Board ruled against a TransCanada proposal to split the pipeline into a western and an eastern segment for cost allocation purposes. TransCanada also noted that previous major system expansions in 1972-73 and in 1981-82 were tolled on a rolled-in basis, even though those expansions resulted in higher tolls for all system users.

The witness for ANR who urged the Board to consider the alternate incremental methodology, testified that the rolled-in method is the preferred methodology of the FERC. He did, however, present examples in which the FERC has found the use of incremental tolls to be appropriate.

Consumers noted that the FERC's use of incremental tolls has been primarily restricted to situations when facilities have been installed to provide a custom service to a specific customer or group of customers and in situations when tolls are temporary and subject to review during a company's next rates proceeding.

Compatibility with deregulation and the promotion of industry growth were considered by many to be important factors in the selection of a toll methodology. TransCanada argued that one of the major objectives of deregulation was to enhance the access of supplies to markets, and that incremental tolls would not provide equality of access to the pipeline system. TransCanada further argued that the higher costs under an incremental or alternate incremental toll would discourage market growth and the attendant exploration and economic development. Those arguing for incremental tolls argued that the rolled-in methodology would mask market signals and would not accurately reflect the incremental cost of providing service to new customers.

It was argued that tolls are more stable and predictable under the rolled-in methodology thus allowing market participants, under deregulation, to plan with greater certainty. Concerns were expressed that, under incremental tolls, periods of cheap or expensive expansion could affect decisions on future projects.

There seemed to be general agreement that the rolled-in method is the simplest method to administer and understand. However, it was recognized by those who proposed alternative methodologies that simplicity, although desirable, should not be a major factor in selecting a toll methodology.

ANR suggested that incremental tolls could be developed in an administratively workable manner by grouping this and all subsequent expansions together in a "new vintage" rate base. It argued that this approach would eliminate the problem of having different tolls for each incremental customer and toll fluctuations relating to periods of inexpensive or expensive expansion.

Views of the Board

(i) Practical Considerations

Fairness and Equity

In considering this application, the Board believes that it is important to first consider the legitimacy of the claims of the existing shippers over those of the so-called new shippers. Some parties argued that those who had paid for the existing facilities, in the sense of having been a customer in the past, should be entitled to continue using them without being affected by the addition of new facilities to serve new customers. Because new facilities tend to be more costly than older plant, this entitlement would in reality provide existing shippers with an acquired right to enjoy the use of older facilities at their lower embedded cost. Otherwise, they claim they would be required to cross-subsidize new customers. This theme underpinned a good deal of the arguments presented to the Board in these proceedings. Thus, various approaches were proposed to protect the existing shippers, including the separation of different rate bases for different vintages of shippers based on nothing more than seniority.

While the Board could well understand the motives of some existing shippers in protecting their own interests, acceptance by the Board of the notion of acquired rights would inevitably mean that past tolls were not just and reasonable in the sense of payment for services rendered. Such a notion would require that past tolls somehow also included payment for an option for the future use of the pipeline on preferential terms. Clearly this is not the case. In the Board's view, the payment of tolls in the past conferred no benefit on tollpayers beyond the provision of services at that time. The Board does not equate those who paid for a service with those who paid for the facilities. Accordingly, the Board rejects the notion that shippers who have used the pipeline in the past are somehow entitled to continue using the existing facilities without being affected by new circumstances.

Having thus placed both existing and new shippers on the same footing, the Board considers the next issue to be the relationship between the proposed new facilities and the existing pipeline system.

The Integral Nature of the System

From the outset the Board has viewed and treated all facilities in the TransCanada system, including those of Great Lakes and Trans Quebec and Maritimes Pipeline Inc. ("TQM"), as integrated. As well, spur lines and laterals to Ottawa, Niagara, etc. have been treated as integral parts of the whole system and for this reason the capital cost of these facilities were rolled into one rate base. In the present case, the Board believes that the service provided by the new facilities contributes to the capacity and integrity of the integrated system as a whole, and the Board finds no reason to deviate from this historical treatment. This finding, however, does not prevent other facilities, such as those designed to deliver extra pressure, from being treated either on a rolled-in or an incremental basis.

Complexity / Simplicity

Although given less weight than the previous two considerations, the Board recognizes that the rolled-in approach avoids the toll design complexity inherent in an incremental approach. The Board finds it impractical to require TransCanada to divide the existing system into component parts, as suggested by IGUA, or multiple incremental rate bases, as proposed by others.

Other

The Board finds that many of the other toll methodology criteria suggested by parties, such as compatibility with deregulation, promotion of growth in the natural gas industry, and stability of tolls over time, while laudable, are not primary considerations in arriving at just and reasonable tolls. Notwithstanding this view, the Board notes that the rolled-in approach is not in conflict with these objectives.

(ii) Legal Considerations

The Board's authority flows entirely from the National Energy Board Act. The Board does not possess any inherent jurisdiction and thus, authority for any and all actions taken by it, must be found in the wording of the Act. The Board's mandate in respect of traffic, tolls and tariff matters is found in Part IV of the Act. The Board must abide by certain fundamental standards of tollmaking that are specified in, inter alia, sections 52 and 55 of the Act: all tolls must be just and reasonable (section 52) and no toll shall result in unjust discrimination (sections 52 and 55).

The "Just and Reasonable" Standard

The "just and reasonable" standard of tollmaking is commonly found in legislation governing the regulation of public utilities. Precisely what this standard embodies has been the subject of considerable debate. That the Board has a wide discretion in choosing the method to be used by it and the factors to be considered by it in assessing the justness and reasonableness of tolls has been confirmed by at least three cases dealing with Board decisions.[1]

In determining just and reasonable tolls, one of the approaches the Board has taken is to allocate costs to various services on the basis of cost causation; tolls are then designed to recover the costs of these services from the customers using them. In the Board's view, although each of the methodologies proposed at the hearing differs in the allocation of the new costs of facilities, each takes into account cost causation and is therefore consistent with one of the Board's approaches to setting just and reasonable tolls.

In considering cost causation as an approach to making tolls just and reasonable, the Board notes that in an integrated system as complex as TransCanada's, it is not always practical to determine the precise costs caused by the provision of a specific service. Accordingly, modifications to a strict cost-causation approach to tollmaking are necessary. One such example is the use of toll zones to deal with a multitude of delivery points within a geographical region. If tolled on a strict cost-causation basis, for example point-to-point, a multiplicity of price differences within each region would result. Furthermore, there are situa-

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1 See:

British Columbia Hydro and Power Authority v. Westcoast Transmission Company Limited, [1981] 2 F.C. 146, 36 N.R. 33 (C.A.).

Trans Mountain Pipeline Company Ltd. v. *National Energy Board,* [1979] 2 F.C. 118, 29 N.R. 44 (C.A.).

Consumers' Association of Canada v. *The Hydro-Electric Power Commission of Ontario (No. 1),* [1974] 1 F.C. 453, 2 N.R. 467 (C.A.).

tions where the cost-causation approach *per se* may not be appropriate. These situations include tolls for one service that reflect its relative value of service in comparison with that of another, rather than its underlying cost. This, in fact, is the basis for the differences among TransCanada's IS-1, IS-2 and FS tolls. Another is a market-oriented approach where competition exists and tolls based on cost causation are not competitive. Such tolls, if implemented, could lead to what is commonly referred to as a "death-spiral" for the company and therefore would not be reasonable.

Unjust Discrimination

Although the Board has a wide discretion in choosing a toll methodology which results in just and reasonable tolls, this discretion is fettered by the requirement (in sections 52 and 55) that tolls shall not be unjustly discriminatory. Section 55 prohibits a company from making any unjust discrimination in tolls against any person or locality. This prohibition is reinforced by section 52 which provides that:

> *"All tolls shall be just and reasonable, and shall always, under substantially similar circumstances and conditions with respect to all traffic of the same description carried over the same route, be charged equally to all persons at the same rate."*

The use of the words "shall always" in legislation indicates a strong desire on the part of the legislators that there be few, if any, differences in rates charged for the same service. Unless there were a genuine concern, there could have been little point in doing more than require that "all tolls shall be just and reasonable".

Differences in tolls between customers for the same class of service even within one toll zone are, *prima facie*, discriminatory. The prohibitions in sections 52 and 55 are however, prohibitions of unjust discrimination and the question is when is discrimination against any person or locality justified? Section 52 provides some guidance in this regard. Section 52 provides that tolls shall be charged equally to all persons at the same rate in respect of traffic of the same description carried over the same route, under substantially similar circumstances and conditions. By implication, tolls may be charged differently where these tolls are:

(i) in respect of traffic of differing descriptions;

(ii) in respect of traffic carried over different routes; or

(iii) in respect of traffic transported under differing circumstances and conditions.

The word "traffic" is not defined in the Act; in the Board's view however, "traffic" refers to the commodity which is being transported. In equating the word "traffic" with the word "commodity", the Board has regard to the fact that "traffic" is defined to be "passengers or goods" in a section of the *Railway Act*, similar to section 52 of the *National Energy Board Act*. In the case of a pipeline like TransCanada, the commodity is, of course, natural gas and all throughput is therefore "traffic of the same description". This is in contrast to a pipeline like IPL which transports traffic of different descriptions (e.g., light, medium or heavy oil or natural gas liquids). In that case, by applying the cost-causation principle, different tolls may be charged to reflect the cost of providing service to each of the various streams.

The Board agrees with Consumers that the phrase "over the same route" refers to a specific domestic toll zone or a specific export point in the context of TransCanada's system. While it could be argued that gas moving to the Eastern Zone through Great Lakes does not take the same route as gas through the Central Section and on to Toronto or via the North Bay Shortcut to Montreal, the co-mingled nature of the gas streams makes it impossible to determine the exact route taken by particular volumes. Notwithstanding this technical problem, the Board finds that because TransCanada is in an integrated system, all gas reaching the Eastern Zone should be regarded as having moved over the same route.

The meaning of the phrase "under substantially similar circumstances and conditions" is more difficult to ascertain. Taken in the context of the whole of section 52, the phrase "circumstances and conditions" may be regarded as referring to circumstances and conditions of transportation of the gas such as the nature and character of the service provided (i.e., FS or IS) and not to the business motives either of the shipper or the carrier nor to circumstances and conditions created by contract (such as the terms of gas sales or purchase contracts), or by government policy (for example, pre- and post- 31 October 1985).

To the extent that the new facilities form part of the integrated system, the Board agrees with those parties to the hearing who submitted that section 52 precludes the adoption of an incremental toll methodology. Each of the alternate and the incremental methodologies would afford different, segregated treatment to new facilities and cost of service components required to deliver all, or a portion of, the incremental volumes. This would result in different tolls being paid for the same service to the same zone, and even to the same delivery point, and would, in the Board's view, violate section 52 of the Act. To adopt, for example, the alternative incremental approach would inescapably result in FS tolls charged at different rates to different shippers in respect of traffic of the same description moving over the same route under substantially similar circumstances and conditions; such a situation is specifically prohibited by section 52.

A finding, in the circumstances of this case, that the integrated nature of TransCanada precludes the adoption of other than a rolled-in methodology does not, in the Board's view, necessarily mean that *all* new facility additions must be treated in a similar fashion. When identifiable facilities which do not increase the throughput capacity on the integrated system are installed to provide a custom service to a specific user or group of users, then such discrete facilities might not form part of the integrated system. In such cases, these facilities can, in the Board's view, be the subject of a separate toll, calculated on the basis of either a rolled-in or incremental methodology; this would not constitute a contravention of section 52 of the Act.

Decision

Except where set out in Section 8.3 of these Reasons, all costs of all those facilities either approved under section 44 or exempted under section 49 of the Act, in this proceeding, will be rolled-in to the TransCanada rate base.

8.3 Delivery Pressure Toll

In its 9 June 1987 application, as amended, TransCanada proposed to install facilities to provide at Niagara Falls and Iroquois a minimum delivery pressure in excess of that specified in its General Terms and Conditions.

According to TransCanada, the provision of a guaranteed pressure higher than that stipulated in the General Terms and Conditions is a service which is distinct and different from the other transmission services rendered on its system. Accordingly, TransCanada proposed the imposition of an incremental delivery pressure charge at Iroquois.

TransCanada took the position that the incremental delivery pressure at Niagara Falls should be "grandfathered", even though the contractual obligation to provide incremental pressure on a firm basis would not commence until 1 November 1988. It argued that since the Board had approved, pursuant to section 35(2) of the *National Energy Board Part VI Regulations*, an amendment to the Boundary contract which specified the incremental pressure obligation at Niagara Falls, it would be consistent for the Board to grandfather such obligation.

Noting the different toll treatments of the costs of providing additional pressure at Iroquois, Niagara Falls and other delivery points, the Board decided to review delivery pressure tolls as a generic issue. Accordingly, the List of Issues was amended to include the following:

> "IV-4 *The question of whether a toll, rather than a surcharge which should be credited to TransCanada's cost of service, should be set to recover the costs of any existing or proposed facilities on the TransCanada System which are required to supply natural gas, at existing or proposed delivery points, at a minimum delivery pressure higher than that specified in the General Terms and Conditions. Also, the appropriate methodology to determine the toll or surcharge."*

National Energy Board

Reasons for Decision

In the Matter of

TransCanada PipeLines Limited

GH-5-89

November 1990

Volume 1
Tolling and Economic Feasibility

Minister of Supply and Services Canada 1990

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Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* ("the Act") and the regulations made thereunder;

AND IN THE MATTER OF an application by TransCanada PipeLines Limited for a Certificate under Part III of the Act for certain proposed additional facilities for 1991 and 1992;

AND IN THE MATTER OF various associated applications for licences for the export of natural gas pursuant to Part n of the Act;

AND IN THE MATTER OF applications made by various parties for orders pursuant to s. 71 of the Act;

Chapter 2

Toll Treatment of Capital and Operating Costs of Proposed Facilities

2.1 Toll Treatments Proposed

The Board had before it the issue of the toll treatment of the capital and operating costs of the proposed facilities including an examination of rolled-in and incremental methods.

Under the rolled-in method, the capital and operating costs of new facilities are added to those of the existing facilities and the total costs are then allocated on a volume-distance basis. To the extent that the costs of the new facilities are greater or lower than the corresponding costs of the existing facilities, on a per unit of capacity basis, the rolled-in toll for all shippers will be higher or lower. TransCanada calculated that the addition of the proposed facilities would result in an increase in the Eastern Zone firm service toll of approximately $0.10/GJ.

The Canadian Petroleum Association ("CPA") proposed a method whereby new shippers would pay a rolled-in toll and would also be required to make capital contributions as a direct payment to offset 50 percent of the additional capital burden attributable to the expansion. The additional capital burden was defined as the difference between the present value of constructing and operating the expanded pipeline, and the present value of the maximum capital expenditure which would not cause an increase in the base case rolled-in tolls. The new rolled-in tolls would then be calculated by adding one-half of the additional capital burden to TransCanada's existing rate base. The other half of the additional capital burden would be recovered from the new shippers as a capital contribution. On a per unit basis the capital contribution was calculated to be $0.26/GJ.

IGUA expressed the view that the proposed facilities as well as facilities approved in GH-2-87, GH-4-88 and GH-1-89, would amount to a new pipeline system from Empress, Alberta to Iroquois, Ontario designed to serve a new, regionally distinct United States of America ("U.S.") northeast market. Consequently, it proposed that the cost of all new facilities required to serve the northeast market be included in a separate rate base, distinct from the "traditional rate base". Recognizing that certain parties had already made contractual commitments assuming rolled-in tolls, IGUA proposed that contracts for the transportation of volumes to the U.S. northeast market signed before 12 February 1990, the date of the Federal Court's decision requiring that toll methodology be added to the GH-5-89 List of Issues, would be "ring-fenced". That is, the facilities related to the ring-fenced contracts would be included in the traditional rate base for the duration of the contracts. When the contracts expired the assets related to the ring-fenced contracts would be transferred to the northeast rate base at their original cost net of depreciation to the date of transfer. The ring-fence feature of IGUA's proposal was designed to temporarily insulate certain parties, who had relied on the continuation of the rolled-in methodology, from the impact of toll changes on volumes destined for the U.S. northeast. Ring-fencing would not protect parties who had signed contracts after 12 February 1990 because from that date on all parties should have been aware of the possibility that the rolled-in method might be changed. The assignment of costs to each rate base would be based on a ratio of the shipper volume/distance units for each market. While rate base items would be divided between two cost pools, the actual operations would be integrated with all system operating and maintenance costs shared on a volume-distance basis.

In response to the Board's position that the toll treatment for previously certificated facilities was not an issue in the GH-5-89 proceedings, IGUA applied to the Federal Court for an order clarifying the Court's earlier decision requiring the Board to consider the issue of toll methodology as part of the GH-5-89 proceedings. In a decision delivered on 17 August 1990, the Federal Court confirmed that the Board need consider toll methodology only in respect of the applied-for facilities in the GH-5-89 proceedings. In response to this decision, IGUA revised its toll methodology proposal to include only the applied-for GH-5-89 facilities. However IGUA took the position that the issue of whether traffic to the U.S. northeast through facilities certificated prior to GH-5-89should be subject to the toll methodology proposed by IGUA, is a matter which needs to be considered by the Board but not necessarily decided when considering the IGUA proposal.

The Consumers' Gas Company Limited ("Consumers'") proposed a method by which all shippers would pay a rolled-in toll and new shippers would also pay a demand surcharge. This method recognized that benefits would accrue to the existing shippers as a result of the addition of the proposed facilities. The benefits would be reflected in the calculation of the demand surcharge by means of a benefit factor referred to as a "b-factor". The determination of the b-factor would require the exercise of judgment by the Board. The b-factor would work to reduce the level of the surcharge from what it would be in the absence of benefits accruing to existing shippers. Under Consumers' proposal, the rolled-in tolls for a given test year would be calculated on the revenue requirement for the test year less the total surcharge revenue for the test year. Demand and commodity tolls would be calculated using the cost allocation and toll design methods currently used on TransCanada's system.

Union Gas Limited ("Union") supported a continuation of the current rolled-in toll design methodology with a modification to reduce the risk of under-utilization of the new facilities proposed to serve the export markets. It suggested that tolls could be set based on a forecast of export volumes to the U.S. northeast market with no revenue deferral account to cover any variances between the forecasted and actual volumes. To the extent that contracted volumes to that market vary, TransCanada would bear the resulting loss or retain the additional profit. Union proposed that TransCanada should have the right to flex its rates downward if necessary to retain volumes and to flex rates upward in limited circumstances where permitted by contract.

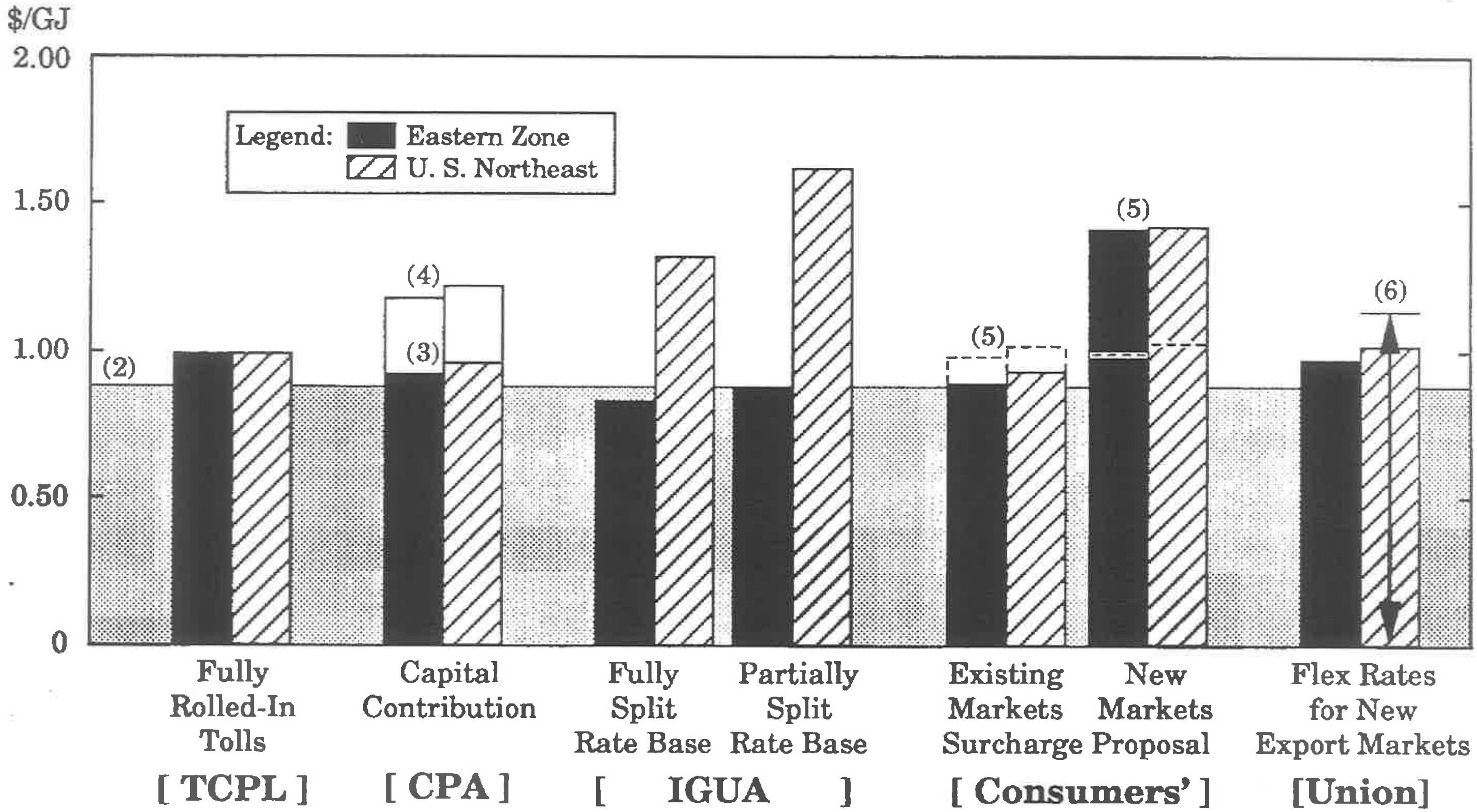
Figure 2-1, shown on page 5, provides a comparison of the estimated impact on tolls of the proposed methodologies. The cost in 1993 of moving gas from Empress to the Eastern Zone, versus to the northeast United States, has been selected as a basis for comparison although the proposals do have significant consequences for other deliveries.

2.2 Views of Interested Parties

2.2.1 Magnitude of the Proposed Expansion

A common concern of those proposing or supporting alternative toll methodologies was the

Figure 2-1: TransCanada's 1993 Tolls[(1)] Under Alternative Methodologies



Notes:
(1) Tolls at 100% load factor, excluding fuel.
(2) Eastern Zone toll without GH-5-89 expansion.
(3) Adjusted rolled-in toll paid by all system users.
(4) Includes effect of capital contribution payable for incremental volumes.
(5) Level of surcharge depends on b-factor. Solid outline represents b=1.0, dashed b=1.5.
(6) Unlimited ability to flex rates down, 15% cap on upward flexing.

magnitude of the proposed expansion and its impact on tolls. They submitted that these costs amount to an exceptional circumstance justifying a change in the Board's current tolling methodology. It was also argued that the costs of the expansion are a relevant matter to be considered by the Board in determining whether traffic is being carried under substantially similar circumstances and conditions because if the traffic and circumstances are different, so should be the toll treatment.

IGUA noted that the $2.6 billion cost of the expansion would double TransCanada's rate base and that by 1993 the rate base, when combined with the costs of facilities previously approved but not yet completed, would swell to approximately $6.3 billion. This expansion would double the annual cost of service to approximately $1.8 billion by 1993. The Minister of Energy for Ontario ("Ontario") argued that the magnitude of the expansion was unprecedented. Natural Gas Pipeline Company of America ("Natural") further argued that, on a per unit of throughput basis, this would be the most expensive expansion to date aside from the 1981/82 North Bay shortcut expansion. However, Natural submitted that this was not a typical expansion because the cost considerations in that expansion were secondary to the overriding government policy that gas markets in eastern Canada must be served.

TransCanada argued that the costs of the expansion are not exceptional. The expansion, as applied for, would result in an increase of 77 percent in net plant value and a resulting increase of 19 percent in throughput which, it argued, compares favourably with the 1981/82 expansion of 93 percent increase in net plant and a resulting 16 percent increase in annual deliveries. Furthermore, TransCanada submitted that to put the applied-for expansion in perspective it was necessary to recognize the impact of inflation. TransCanada calculated that if the existing system were rebuilt today (using improved technology) it would cost approximately $10.3 billion. In that context the applied-for expansion of $2.6 billion represents an increase of approximately 25 percent in net plant cost to give the 19 percent increase in throughput capacity.

TransCanada estimated that this expansion would result in an increase in the 1992/93 Eastern Zone toll of approximately $0.10/GJ using the rolled-in tolling methodology. This would represent a 1.5 percent increase in the residential retail price of gas in the Eastern Zone, and a 2.9 percent increase in the industrial price. AEC Oil and Gas Company, a Division of Alberta Energy Company Ltd. ("AEC") stated that a $0.10/GJ toll increase is the equivalent of about a $0.60 increase in the price of a barrel of oil which, in its view, is hardly significant in today's circumstances.

2.2.2 Riskiness of U.S. Northeast Market

The proponents of incremental tolling held the view that the assignment of risk to those parties who benefit from an expansion is a desirable objective of a toll methodology.

Consumers' argued that the rolled-in methodology would assign too much of the risk associated with the expansion to the existing shippers and not enough to the new shippers. IGUA maintained that its proposal to treat the facilities serving the U.S. northeast as a separate pipeline, with a separate rate base, would address this issue by assigning the risk of the U.S. northeast market to the shippers on that separate notional pipeline. Union's proposal for flexible rates, combined with the elimination of revenue deferral accounts, was aimed primarily at assigning risk to volumes destined to the U.S. northeast.

Consumers' submitted a study of the U.S. northeast demand for Canadian gas prepared for it by Jensen Associates Inc. ("Jensen"). The study identified competition from other pipelines, the use of the new gas supplies for electric power generation and additional regulatory risk as the three principal reasons for viewing this market to be riskier than TransCanada's traditional market. Union, while acknowledging that the U.S. northeast is a good market, pointed to the extent of competition and TransCanada's lack of presence in the market as reasons why it views that market as being riskier.

Enserch Development Corporation ("Enserch") argued that none of the risks of the U.S. northeast market alleged in the Jensen Report were substantiated or quantified and that no extraordinary risk was established for this market. Alberta Northeast Gas Export Project ("ANE") noted that there was no evidence presented on the riskiness of existing markets for the purpose of comparison. Enserch also pointed out that it was freely acknowledged that the demand projections for the U.S. northeast market set forth in the Jensen report would likely be exceeded. JMC Selkirk, Inc. ("Selkirk") and MASSPOWER Joint Venture ("MASSPOWER") argued that the willingness of the new projects to sign long-term contracts is evidence that the new market is good. It argued that if a project is risky, the Board should deny authorization for facilities and that it is not appropriate to attempt to deal with market risk by means of toll methodology.

2.2.3 Cost Causation

A number of parties argued that the shippers who are responsible for causing a facilities expansion should also be responsible for paying the costs of the expansion. However, there was disagreement between parties supporting rolled-in tolls and parties supporting some form of an incremental toll as to which parties are responsible for the expansion.

Parties supporting the rolled-in toll methodology argued that TransCanada is an integrated system operated for the benefit of all system users. The need for expansion of the system arises when the total demand for firm transportation service exceeds the existing capacity. Responsibility for causing an expansion should not be assigned to those shippers requesting new firm service ("FS"). It was argued that existing users of the system can be considered equally responsible for causing an expansion since, if they were to reduce their levels of use, capacity would be freed up and less expansion would be necessary.

PanCanadian Petroleum Limited ("PanCanadian"), which advocated rolled-in tolls, cited a regulatory decision of the New York State Public Service Commission ("NYSPSC") which stated that the marginal cost of use imposed on a system is the same for all users (per unit of capacity for equivalent service) and, hence, the responsibility for a pipeline system expansion should be borne equally by existing and new users of the system. This view of cost causation was supported by TransCanada, the Alberta Petroleum Marketing Commission ("APMC"), the Independent Petroleum Association of Canada ("IPAC"), Selkirk-MASSPOWER, ProGas Limited ("ProGas"), Esso Resources Canada Limited ("Esso") and Western Gas Marketing Limited ("WGML").

Conversely, those parties who supported some form of incremental toll methodology argued that the shippers requesting new long-term FS cause the need for expansion on TransCanada. The CPA recognized that all users are responsible for the expansion in the sense that if existing users were to reduce their demands, capacity would be freed up for new users. It also stated that it did not believe that a firm transportation contract in any way conferred a right of ownership of capacity on the system to existing shippers. However, it noted that many existing users are currently committed to long-term sales contracts and longterm transportation contracts on TransCanada and, because of these commitments, they are not free to leave the system. The CPA argued that it is only new shippers who are faced with a decision to use or not to use the system. Hence, it argued that a common sense interpretation of cost causation is that the new users are responsible.

Consumers' argued that existing shippers who do not reduce their levels of demand should not be considered as causing the need for expansion. The reason for this is that pipeline facilities were originally installed to satisfy the long-term

market demands served by existing shippers and, when these facilities were installed, there was an expectation that this market demand would continue for the economic life of the facilities.

IGUA argued that the purpose of the construction of the majority of the applied-for facilities is to satisfy requests for long-term FS to serve a regionally distinct new market, i.e., the U.S. northeast. Given the size of this market, and given that it is not a market that has been traditionally served by TransCanada, IGUA contended that the facilities required to serve this market would essentially comprise a new pipeline system.

IGUA recognized that the new facilities would be physically integrated with the existing facilities but argued that most of the new facilities were being constructed to serve a new export market and, hence, should be considered to be separate from the existing system. Given this characterization of the new facilities, IGUA argued that the shippers requesting long-term FS to the U.S. northeast are responsible for causing most of the applied-for expansion and therefore should be responsible for bearing the associated costs. IGUA argued that a separate cost pool should be established for all traffic to the U.S. northeast and tolls for transportation service to this market should be calculated based on the costs allocated to this separate pool.

2.2.4 Distributional Impacts

The cost of the proposed facilities additions and the impact on rolled-in tolls, estimated to be $0.10/GJ, were referred to by IGUA, the CPA and Consumers' as their major concerns prompting them to propose alternative toll methodologies. They argued that the rolled-in toll would not reflect the real cost of providing service to the new shippers and that the toll increase would in fact be a subsidy by the existing shippers to the new shippers. IGUA estimated the amount of the potential subsidy as approximately $100 million per year and expressed concerns about the probable impact this increase could have on the continued use of gas by industrial markets in the Eastern Zone. ICI Canada Inc. ("ICI") testified that, under rolled-in tolls, its annual costs would increase by an additional $1.3 to $1.4 million per year. Similarly, General Chemical Canada Inc. ("General Chemical") calculated that its costs would increase by about $600,000 per year under rolled-in tolls. IGUA submitted that this burden is unjust and unfair and could result in lower energy costs for U.S. northeast industries which compete with IGUA members. The CPA and Consumers' also argued that existing shippers would be subsidizing new shippers.

Consumers' retained Econanalysis & Associates to assess the distributive effects of the proposed expansion under rolled-in tolls. Their study concluded that the net present value of the burden to existing shippers of the entire expansion under rolled-in tolls would be $877 million, with domestic customers bearing $524 million and export customers bearing $353 million. At Consumers' request, the study was done working from the basic assumption that none of the toll increase would be absorbed by the producers. Consumers' submitted that gas-on-gas competition at the Alberta border will be the primary driver of gas prices for the majority of the eastern Canadian market throughout the forecast period.

Union submitted that the distributive effects of the toll increase should not affect decisions on toll methodology. Union and TransCanada argued that, pursuant to Part III of the Act, the Board will examine, as important and legitimate public interest considerations, the distributional impacts of increased tolls on the utilization of the system.

The proponents of rolled-in tolls took the view that the new shippers are not being subsidized by the existing shippers. They argued that, to the extent that the rolled-in toll is lower than the marginal cost of service, all shippers are benefitting from a form of subsidy which results from a sharing of the benefit of depreciation and the lower historical cost rate base. PanCanadian, WGML and others argued that the recognition of a subsidy by one group of tollpayers to another would be tantamount to recognition of acquired rights.

2.2.5 Discrimination

Many advocates of rolled-in tolls argued that the incremental toll proposals advanced would produce discriminatory tolls which would not be in compliance with the requirements of the NEB Act. IPAC, PanCanadian, Gaz Metropolitain, inc. ("GMi") and the APMC in particular submitted extensive legal arguments which were used as the basis for asserting that different circumstances with respect to timing, price elasticity, costs and end-use are not sufficient reasons to justify discriminatory tolls. It was argued that the CPA and Consumers' proposals create two classes of shippers and that the IGUA proposal discriminates on the basis of market.

The CPA submitted that unjust discrimination is a matter of judgment. In its view, its proposal to allocate the added costs equally to the existing shippers and the new shippers would result in just and reasonable tolls which do not discriminate unjustly against any party. Consumers' argued that a different toll treatment is justified and would not be discriminatory, let alone unduly so, because the new shippers, who caused the need for expansion, are different from the existing shippers. IGUA maintained that its proposal was not discriminatory because it viewed gas moving to different markets to be different traffic. Consumers' and IGUA added that it would be discriminatory to treat two unlike parties the same.

General Chemical and ICI argued that in making a finding on discrimination, the Board is not restricted to its previously stated view that the terms of access for new shippers should be consistent over time. Rather they argued that new shippers are non-shippers until they commence shipping and that "to extend the concept of undue discrimination from the NEB Act to persons who are not shipping gas on a regulated pipeline is not justified."

2.2.6 Acquired Rights

Proponents of rolled-in tolls were of the view that the incremental methodologies proposed imply the existence of prior rights for existing shippers or some claim by them to the lower embedded costs associated with existing facilities relative to the higher costs of new facilities. The proponents of the incremental methodologies denied that their proposals were based on the notion of prior rights. The CPA submitted that once the additional capital payment was made everybody would be treated equally. Consumers' acknowledged that existing shippers have no particular rights to existing capacity and agreed that under its surcharge proposal there would be a differentiation between the customers who, in its view, caused the need for the expansion and those who did not. However, Consumers' did not see this distinction as a recognition of any special rights for existing shippers. It merely reflects the fact that there is no room on the existing pipeline and it must be expanded to accommodate the new customer.

IGUA testified that there was nothing in its proposal that would suggest that a shipper serving the traditional market, either an existing shipper or a new shipper, would have any prior rights beyond what is in the tariff or in the contract. IGUA argued that the distinction upon which one must focus is between an existing shipper that already has an operative contract for service and a prospective shipper that does not yet have an operative contract for such service because capacity must be added to serve that prospective shipper.

2.2.7 Operational Integration

The Board heard the argument by those who supported rolled-in tolls that, on an integrated system such as TransCanada's, it is not possible to say that any particular facilities are used to provide service to a particular customer and therefore the only tolls compatible with such a system are rolled-in tolls. IGUA, however, argued that the existence of operational integration cannot, in and of itself, preclude the adoption of a tolling methodology other than the fully rolled-in method.

TransCanada argued that the new facilities would provide increased system efficiency, operational flexibility and reliability for the integrated system and thus benefit all system users. This point was advanced by all parties arguing in favour of rolled-in tolls and there was general agreement from IGUA, the CPA, and Consumers' that the new facilities would provide some benefits to the integrated system. However, they argued that the additional benefits are either not required or not worth the additional cost.

TransCanada acknowledged that the prospective benefits to existing shippers would not equal the costs.

2.2.8 Consistency with Deregulation and Free Trade

Many parties supporting rolled-in tolls argued that the process of deregulation, as embodied in the 31 October 1985 Agreement on Natural Gas Markets and Prices ("the Agreement"), envisaged greater access to markets as a trade-off for deregulated gas prices. PanCanadian pointed to the wording of the second paragraph of the Agreement as Support for this position:

"Access will be immediately enhanced for Canadian buyers to natural gas supplies and for Canadian producers to natural gas markets ...."

A view commonly held by proponents of rolled-in tolls is that incremental tolls are a barrier to trade. Trans Quebec & Maritimes Pipeline Inc. ("TQM") argued that the imposition of higher tolls on new shippers wishing access to an existing shipper's market, as contemplated under the CPA or Consumers' proposals, would constitute an artificial regulatory barrier for new shippers while at the same time conferring a competitive advantage upon the existing shipper.

In contrast, the CPA argued that, as the utilization of the pipeline changes, so should the terms of access. According to the CPA, an incremental toll would more closely reflect the price of transportation which would emerge in a competitive market and, hence, would be more compatible with a deregulated market for gas than the rolled-in toll methodology.

IGUA argued that producers seeking access to a new market area have no right to obtain access at the expense of other tollpayers. In its view, incremental tolls would require participants in the market to pay the full cost of transporting gas to the market.

Many parties, GMi in particular, argued that the Agreement did not contemplate the deregulation of transportation, nor should the Board adopt a proposal such as the CPA's which would require that the Board withdraw from regulating transportation.

Consumers' held that the scope and impact of the changes resulting from deregulation were not known at the time of the 31 October 1985 Agreement.

The proponents of incremental methodologies maintained that their proposals were congruent with the Free Trade Agreement ("FTA"). Their views were consistent with the view expressed by General Chemical that it failed to see how the FTA could be construed to require existing shippers to subsidize gas consumers in export markets. IGUA argued that its methodology would not contravene the FTA because its reasons for proposing different treatments were founded on a principled basis, not nationality. It also advanced the idea that with the advent of the FTA, the doctrine of reciprocity should be given more importance. In this regard it maintained that in the U.S., different traffic, such as that to the U.S. northeast, would attract incremental tolls. Union argued that its proposal would not contravene the FTA because it proposed no differentiation in treatment based on nationality, it promoted the movement toward a new market and could not result in the imposition, but rather the negotiation of a higher price. On the other hand, proponents of rolled-in tolls took the view that rolled-in tolls are congruent with the FTA, but that the incremental proposals are not because they are directed primarily at the export market. PanCanadian argued that incremental tolls would contravene article 902, paragraph 4, of the FTA to avoid "... undue interference with or distortion of pricing, marketing and distribution arrangements in the other Party".

2.2.9 Price Signals and Economic Effiecincy

Several parties argued that the economic efficiency implications of alternative toll methodologies should be a relevant criterion in choosing the appropriate toll methodology.

The discussion on economic efficiency considerations was largely expressed in terms of choosing a toll methodology which would send the correct price signals to shippers on the system.

Most parties who commented on the issue agreed that economic efficiency would be attained if shippers were charged a toll which reflected the real marginal cost of providing incremental service on TransCanada; i.e., a toll which reflected marginal cost would send the correct price signal to shippers. Parties agreed, however, that it would not be possible to charge a marginal cost toll to all shippers because marginal cost exceeds the rolled-in toll and, consequently, TransCanada would over-recover its cost of service. Therefore, a choice must be made between various "second best" options. In general, the choice would be between rolled-in tolls and some form of incremental tolls.

Many parties agreed that, if the rolled-in toll understated the marginal cost of expansion, it would send an incorrect price signal to shippers and, hence, it would not lead to the economically efficient result. It was argued that shippers would respond to this toll by selling more gas into markets served by TransCanada than if they had to pay a toll which reflected the real incremental cost of service. The concern expressed by some parties was that this could result in uneconomic expansions of the TransCanada system.

The CPA and Consumers' argued that an incremental toll methodology would be more efficient than the rolled-in toll methodology because it is more important that shippers who are contemplating new sales see the correct price signal than for existing shippers to be charged the correct price signal. Their reasoning was that shippers who are already committed to long-term gas transportation and sales contracts cannot change past decisions in response to changes in tolls. Shippers will only be responsive to the level of tolls at the time they are making a decision on whether or not to enter into new sales agreements. Therefore, the CPA and Consumers' maintained that considerable efficiency gains could be obtained by charging some form of incremental toll for all incremental shipments because the shippers would be very sensitive to the toll charged. At the same time, the fact that the toll charged for existing sales would be further from marginal cost than the rolled-in toll would not result in any significant efficiency losses on these sales because existing sales would be insensitive to changes in the tolls.

IGUA argued that an incremental toll should be charged for sales to the U.S. northeast market in order that shippers better see the real costs of accessing this market.

Most parties who supported the continuation of the rolled-in toll methodology disagreed with the CPA's and Consumers' claim that an incremental toll would lead to more economically efficient results than would occur under rolled-in tolls, but only PanCanadian and TransCanada submitted extensive evidence on this issue.

PanCanadian and TransCanada agreed that, if there were significant differences between the price sensitivity of demand in different markets, economic efficiency could, in theory, be enhanced by charging a toll closer to marginal cost in the more price-sensitive markets. TransCanada also stated that, in cases where an expansion included a larger proportion of proposed sales to an export market than the existing volumes being sold in that market, as is the case for this application, efficiency gains could theoretically be obtained by charging an incremental toll for all incremental sales. However, for a number of reasons, both PanCanadian and TransCanada argued that, in practice, rolled-in tolls would be more efficient.

First, they noted that to enhance economic efficiency by charging different tolls to different market segments, one must estimate the relative price sensitivity of demand in the various markets and then match the tolling scheme to these differing elasticities. Given that demand elasticities are difficult to measure and that they change over time, PanCanadian and TransCanada both suggested that it would be most unlikely that a correct matching could be obtained. They also noted that demand is likely more price-sensitive in industrial markets than in residential and commercial markets, but there is no reason to believe that demand is, on average, more pricesensitive in the export market than in the domestic market. Thus, any scheme which proposed charging an incremental toll for all new sales, regardless of the market to be served, would not likely result in enhanced efficiency.

Secondly, TransCanada and PanCanadian both argued that incremental tolls could distort endusers' decisions to use natural gas or alternate fuels. Further, existing shippers who had access to transportation capacity at the lower rate could profit by selling this space through unapproved brokering on a "black market". In addition, charging more than one price for the same service would not be compatible with the principles of a competitive market.

Finally, PanCanadian argued that, if one believes that the applied-for facilities will be fully utilized for their useful economic life, the rolled-in toll is a good approximation of the levelized incremental toll. Therefore, PanCanadian was of the view that, for this application, the rolled-in toll will send the appropriate price signal to all shippers on the TransCanada system.

2.2.10 Practicality, Stability and Administrative Simplicity

In terms of practicality and administrative simplicity, TransCanada argued that alternative toll methodologies would be significantly more complex. It noted that a proper incremental toll is not calculated on the basis of only an incremental rate base, but rather on the basis of an incremental analysis of each distinct component of the cost of service. It believed that the administrative complexity of incremental tolling methodologies would increase over time. GMi argued that the difficulty of calculating the "b-factor" would make the Consumers' proposal unworkable. ProGas argued that the IGUA separate rate base proposal would lead to difficulties in determining which rate base applied to which volumes. There were also general concerns about the need for longer, more complex hearings and the difficulties posed for prospective shippers in forecasting their probable costs. Proponents of incremental methodologies argued that, in fact, none of the alternative methodologies presented to the Board involved the level of complexity envisaged by TransCanada.

From an historical perspective, TransCanada and Canadian Hunter Exploration Ltd. ("Canadian Hunter") pointed out that tolls have been set on a rolled-in basis for 32 years and that the Board has upheld this methodology in several prior decisions including rate cases in 1973, 1974, its 1981 decision to roll in TQM costs, and most recently in GH-2-87. Others, including Natural, argued that most of this history is not particularly relevant since the Board has actively regulated tolls only since 1973 and that prior to 1985, prices were administered. It was argued that the question of toll methodology has had significance only in the past five years.

GMi suggested that stability is an important objective of toll design because historical precedent is an important factor in guiding parties' investment decisions. It argued that, if the Board adopts a new tolling methodology, it should have some prospect of meeting the same the Board adopts a new tolling methodology, it should have some prospect of meeting the same test of time. It was argued that consistency in regulatory decision-making can add value to Canadian gas exports and New England Power Company ("NEPC") stated that the history of regulatory stability was one of its reasons for seeking a Canadian gas supply.

2.3 Views of the Board

The Board does not agree with those submittors who argue that the size of this particular proposed expansion is a circumstance justifying a change in toll methodology. With regard to cost, the Board notes TransCanada's submission that to rebuild the existing pipeline system at today's costs using current technology would cost approximately $10.3 billion. In this context, the Board does not consider the proposed 25 percent increase at a cost of $2.6 billion for a 19 percent increase in capacity to be exceptional. The pipeline system has experienced relatively constant growth since its inception over thirty years ago and this increase is seen as a normal result of the continuing growth of the natural gas industry in Canada.

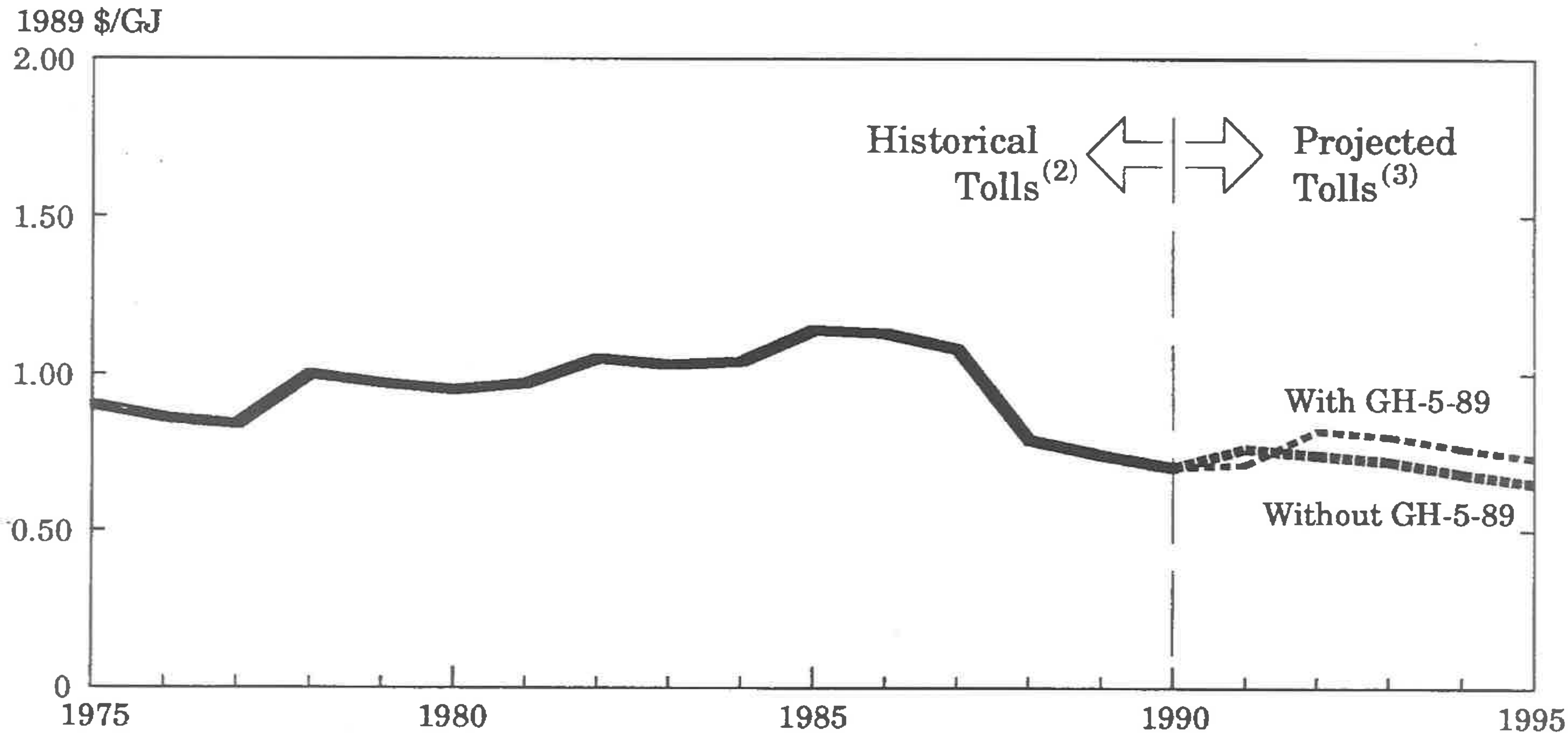
With respect to the cost to shippers, the Board notes that the forecast 1993 Eastern Zone toll will increase by $0.10/GJ over the toll without the expansion and that in comparison to the current 1990 toll of $0.73 the increase will be $0.24 or 33 percent. However, when compared to the historical toll for the Eastern Zone of $0.989/GJ set in July 1987, the forecast 1992/93 toll of $0.97/GJ is actually somewhat lower even without adjusting for the effects of inflation.

In this regard, the Board believes it is more appropriate to compare historical tolls in constant dollars. Figure 2-2 (next page) shows the level of the Eastern Zone toll at 100 percent load factor since 1975 in constant 1989 dollars. It can be noted that even with the toll impact of the proposed GH-5-89 facilities included, the toll in 1995 would be lower in real terms than it was two decades ago.

The Board considers that the effect of alternatives to the current toll design methodology which were presented by intervenors is to shield existing shippers from some or all of the additional costs associated with the new facilities.

In this regard, the Board agrees with those who submitted that the payment of tolls confers no future benefit on tollpayers beyond the provision of service. In other words, previous tollpayers have no acquired rights. Therefore, they cannot expect to be exempted from a toll increase simply

Figure 2-2: Historical and Projected TransCanada Tolls[1] to the Eastern Zone



Notes:

(1) Tolls at 100% load factor, excluding fuel, expressed in constant 1989 dollars.
(2) Consumer Price Index from Statistics Canada.
(3) Inflation between 1990 and 1995 assumed to be 5% p.a.

because they have paid tolls in the past. In this proceeding parties have not laid claim to any acquired rights, *per se*. Rather, the proponents of alternative toll methodologies have asserted that the sheer size and cost of the proposed facilities together with the impact on tolls and the nature of the market to be served, are unique circumstances which justify some level of toll protection for the existing shippers. While factors such as the size, cost or impact on tolls of the proposed facilities may be relevant to the Board's decision on whether to authorize the construction of facilities, they do not in this case justify discriminating among shippers on the basis of when they commenced, or will commence, paying tolls and receiving service.

Both the CPA proposal for a capital contribution and the Consumers' proposal for a demand surcharge make a distinction based on vintages of shippers. This implies the existence of certain rights for existing shippers which, in the Board's view, they do not have. In addition, the requirement of a capital contribution or a demand surcharge would serve as a barrier to entry for new participants in the marketplace, would limit competition and would give existing shippers an undue competitive advantage.

Similarly, though the Board will examine market characteristics when considering the economic feasibility of the proposed facilities, it does not consider that shippers to the U.S. northeast market should pay a different toll merely because they are shipping to that market.

The IGUA proposal to treat the portion of the new facilities required to serve exports to the U.S. northeast as a separate rate base depends partly upon the notion of the U.S. northeast as a new, regionally distinct market relative to TransCanada's current domestic and export market. The Board does not view the U.S. northeast market to be new since Canadian gas has been flowing to that market since 1984, nor to be a distinct market relative to Ontario, Quebec, or U.S. midwest markets. All markets have their own individual characteristics but the Board fails to see any features in the U.S. northeast market which would require a distinct toll treatment on the TransCanada system. To consider the new facilities to the U.S. northeast as the equivalent of a separate pipeline would be a denial of the realities of the integrated system. The facilities cannot be physically separated.

In the Board's opinion, when the new facilities are completed they will become an integral part of TransCanada's pipeline system and will not be associated with or dedicated to any individual shipper's gas. While it is possible to notionally associate the cost of certain facilities with certain gas volumes, it would not be a true reflection of how the Board views the way the system operates.

Given the Board's views on the characteristics of the U.S. northeast market as they are relevant to toll methodology and on the integrated nature of the system, it would not be appropriate to authorize the use of flexible tolls only for certain volumes.

With regard to the debate as to who caused the need for the new facilities, the Board is persuaded by the argument that it is the aggregate demand of all shippers that gives rise to the need for additional pipeline capacity.

Since the deregulation process began in 1985, the Board has brought about many changes to

TransCanada's tariff to implement open access to the pipeline. Tolls that are just and reasonable and non-discriminatory will, undoubtedly, have contributed to this process. However, the Board does not believe that facilitating the deregulation process, *per se,* is a legitimate consideration for toll methodology.

Given the information and data-processing technology available today, simplicity in toll design is not as important a factor in the administration of tolls as it once was. Nevertheless, the ease with which a toll methodology can be understood and the practical problems of administration are factors which the Board considers.However, theBoard did not reject any of the proposals before it on the basis of impracticality or lack of simplicity.

With respect to arguments about the economic efficiency aspects of alternative toll methodologies, the Board agrees with the CPA and Consumers' that there is some theoretical support for the idea that charging an incremental toll to the most price-sensitive customers served by TransCanada would achieve economic efficiency results superior to those that would be obtained under rolled-in tolls. The Board also agrees with the CPA and Consumers' that it is likely that the price sensitivity of demand for transportation service on TransCanada of shippers who are currently committed to longterm transportation and sales contracts is less than the price sensitivity of demand of shippers who are contemplating new sales.

However, the Board also agrees with PanCanadian and TransCanada that, in practice, it would be very difficult to assign incremental tolls only to the most price-sensitive markets. The Board notes that there are no data available on the relative price sensitivities of demand in the markets served by TransCanada. Further, the Board is of the view that shippers who are renewing their contracts and industrial gas users in the domestic market may be equally sensitive to the toll charged on TransCanada as are new shippers. None of the proposals for incremental tolls suggested that an incremental toll be charged to industrial users on short-term contracts nor that an incremental toll be charged to renewals. Finally, the Board notes that there was no empirical evidence submitted which demonstrated that an incremental toll methodology would yield economic efficiency improvements over the rolled-in toll methodology.

In summary, the Board is not persuaded that the implementation of any of the proposed incremental toll methodologies would yield significant economic efficiency improvements over the rolled-in tolling methodology.

Decision

All facilities, either approved under section 52 or exempted under section 58 of the Act in this proceeding, will be rolled in to TransCanada's rate base for toll purposes.