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CANADA

# NATIONAL ENERGY BOARD

# FINDINGS

## In the Matter of Phase IV (a) of a Public Hearing Respecting Tariffs and Tolls to be Charged, the Financing of the Pipeline, and Other Related Matters

of

**Foothills Pipe Lines (Yukon) Ltd.**

**March 1980**

NATIONAL ENERGY BOARD

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In the Matter of Phase IV (a) of a
Public Hearing
Respecting Tariffs and Tolls to be Charged
the Financing of the Pipeline,
and Other Related Matters of

FOOTHILLS PIPE LINES (YUKON) LTD.

March 1980

Ce rapport est publié
séparément dans les
deux langues officielles

## NATIONAL ENERGY BOARD

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder, and the Northern Pipeline Act; and

IN THE MATTER OF a public hearing respecting tariffs and tolls to be charged by Foothills Pipe Lines (Yukon) Ltd. (hereinafter referred to as Foothills (Yukon)), the financing of the pipeline and related matters. File No. 1510-2-2.

Phase IV (a)

Heard at Ottawa, Ontario on 19, 20, 21, 22, 25, and 26 February 1980.

BEFORE:

| | |
|---|---|
| C.G. Edge | Presiding Member |
| L.M. Thur | Member |
| R.B. Horner | Member |

APPEARANCES:

| | |
|---|---|
| R.J. Gibbs, Q.C.<br>J.W. Lutes | Foothills Pipe Lines (Yukon) Ltd. |
| John Hopwood, Q.C. | The Alberta Gas Trunk Line Company Limited |
| Steven A. Wakefield | ANB Gas Company |
| François Bregha<br>Nick Shultz | Canadian Artic Resources Committee |
| J.B. Ballem, Q.C. | Canadian Petroleum Association |
| G.D. Nichols | Canadian Superior Oil Ltd. |
| G.D. Nichols | Consolidated Natural Gas Limited |
| J.H. Smellie | Dome Petroleum Limited |
| G.A. Connell | Gulf Canada Resources Inc. |
| John Moriarty | Imperial Oil Limited |
| A.E. Potter | Independent Petroleum Association of Canada |

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|---|---|
| D.O. Sabey, Q.C. | Northern Border Pipeline Company |
| G.D. Nichols | Northern Natural Gas Company |
| E.B. McDougall | Northwest Alaskan Pipeline Company |
| E.B. McDougall | Northwest Pipe Line Corporation |
| Peter Hanschen | Pacific Gas and Electric Company |
| R.J. Gibbs, Q.C. | Pacific Interstate Transmission Company |
| S. Trueman | Pan-Alberta Gas Ltd. |
| D.G. Hart | ProGas Limited |
| Hyman Soloway, Q.C.<br>W.T. Houston | Tennessee Gas Pipeline Division of Tenneco Inc. |
| J.H. Farrell | The Consumers' Gas Company |
| A. Butler | Union Gas Limited |
| Steven A. Wakefield | United Gas Pipeline Company |
| K.J. MacDonald | National Energy Board |

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## ABBREVIATIONS AND DEFINITIONS

| | |
|---|---|
| AGTL | - The Alberta Gas Trunk Line Company Limited |
| ANG | - Alberta Natural Gas Company Ltd. |
| Board or N.E.B. | - The National Energy Board |
| Canada-U.S. Agreement | - Agreement between Canada and the United States of America on Principles Applicable to a Northern Natural Gas Pipeline, dated September 20, 1977. |
| Eastern Leg (in Canada) | - At a point just south of Caroline, Alberta, the pipeline will bifurcate. The "eastern leg" will proceed in a southeasterly direction to the Alberta - Saskatchewan border near Empress, Alberta and then to the Canada - United States border near Monchy, Saskatchewan where it will connect with the facilities of Northern Border Pipeline Company (the United States eastern leg). |
| F.E.R.C. | - The United States Federal Energy Regulatory Commission, formerly the Federal Power Commission. |
| Foothills (Yukon) | - Foothills Pipe Lines (Yukon) Ltd. is the parent company responsible for the Canadian portion of the Alaska Highway Gas Pipeline Project. Foothills (Yukon) is currently sponsored 50 per cent each by AGTL and Westcoast. The ownership of the pipeline is segmented into six federally-incorporated subsidiaries. |
| Foothills (South Yukon) | - Foothills Pipe Lines (South Yukon) Ltd., owned one hundred (100) per cent by Foothills (Yukon), will own, operate and manage the approximately eight hundred and thirty (830) kilometres of pipeline through the Southern Yukon. |

| | | |
|---|---|---|
| Foothills (North B.C.) | - | Foothills Pipe Lines (North B.C.) Ltd. owned fifty-one (51) per cent by Foothills (Yukon) and forty-nine (49) per cent by Westcoast, will own, operate and manage the approximately seven hundred and ten (710) kilometres of pipeline through northern British Columbia. |
| Foothills (Alta.) | - | Foothills Pipe Lines (Alta.) Ltd. owned fifty-one (51) per cent by Foothills (Yukon) and forty-nine (49) per cent by AGTL, will own, operate and manage the approximately thirteen hundred (1300) kilometres of pipeline through Alberta. |
| Foothills (Sask.) | - | Foothills Pipe Lines (Sask.) Ltd., owned one hundred (100) per cent by Foothills (Yukon), will own, operate and manage the approximately two hundred and sixty (260) kilometres of pipeline in Saskatchewan. |
| Foothills (South B.C.) | - | Foothills Pipe Lines (South B.C.) Ltd., owned fifty-one (51) per cent by Foothills (Yukon) and forty-nine (49) per cent by Alberta Natural Gas Company Ltd., will own, operate and manage the approximately one hundred and seventy (170) kilometres of pipeline through southern British Columbia. |
| Foothills (North Yukon) | - | Foothills Pipe Lines (North Yukon) Ltd., owned one hundred (100) per cent by Foothills (Yukon), will own, operate and manage the approximately eleven hundred and eighty (1180) kilometres of pipeline through the Yukon and Northwest Territories to connect Delta gas to Whitehorse along the Dempster Highway. |

| | | |
|---|---|---|
| Foothills Pipe Lines Ltd. | - | A company owned 70 per cent by The Alberta Gas Trunk Line Company Limited and 30 per cent by Westcoast Transmission Company Limited. The Company's activities related primarily to the Mackenzie Valley pipeline project. |
| Northern Border Pipeline Company | - | Northern Border (the U.S. eastern leg) is a natural gas pipeline company engaged in transporting gas from an interconnection with the pipeline facilities of Foothills (Sask.) at the international boundary near Monchy, Saskatchewan to points of delivery to the east on Northern Border's system. |
| Northern Pipeline Hearing | - | The hearings held by the National Energy Board during 1976 and 1977 that resulted in a publication of the Board entitled "Reasons for Decision, Northern Pipelines", dated June, 1977, and which led to a certificate of public convenience and necessity, by virtue of the Northern Pipeline Act, to the subsidiaries of Foothills Pipe Lines (Yukon) Ltd. |
| Pan-Alberta | - | Pan-Alberta Gas Ltd. |
| Prebuild Facilities and Prebuilding | - | The facilities of the Foothills (Yukon) pipeline to be built to transmit for export natural gas of Canadian origin before the rest of the pipeline is placed in service for the transmission of Alaska gas. |
| P.G.T. | - | Pacific Gas Transmission Company |
| P.G. & E. | - | Pacific Gas and Electric Company |

| | |
|---|---|
| Western Leg (in Canada) | - At a point just south of Caroline, Alberta, the pipeline will bifurcate. The "western leg" will proceed southward to Coleman on the Alberta - British Columbia border and then in a southwesterly direction to the Canada - United States border near Kingsgate, B.C., where it will connect with the facilities of Pacific Gas Transmission Company (the United States western leg). |
| Zones 1 to 11 | - The zones for the Northern Pipeline and the Dempster Line in Canada, described as follows in the Canada - U.S. Agreement: |

Zone 1 Foothills Pipe Lines (South Yukon) Ltd.

Alaska Boundary to point of interconnection with the Dempster Line at or near Whitehorse.

Zone 2 Foothills Pipe Lines (South Yukon) Ltd.

Whitehorse to Watson Lake.

Zone 3 Foothills Pipe Lines (North B.C.) Ltd.

Watson Lake to point of interconnection with Westcoast's main pipeline near Fort Nelson.

Zone 4 Foothills Pipe Lines (North B.C.) Ltd.

Point of interconnection with Westcoast's main pipeline near Fort Nelson to the Alberta - B.C. border.

Zone 5 Foothills Pipe Lines (Alta.) Ltd.

Alberta - B.C. border to point of bifurcation near Caroline, Alberta.

Zone 6 Foothills Pipe Lines (Alta.) Ltd.

Caroline, Alta. to Alberta - Saskatchewan border near Empress.

Zone 7 Foothills Pipe Lines (Alta.) Ltd.

Caroline to Alberta - B.C. border near Coleman.

Zone 8 Foothills Pipe Lines (South B.C.) Ltd.

Alberta - B.C. border near Coleman to B.C. - United States border near Kingsgate.

Zone 9 Foothills Pipe Lines (Sask.) Ltd.

Alberta - Saskatchewan border near Empress to Saskatchewan - United States border near Monchy.

Zone 10 Foothills Pipe Lines (North Yukon) Ltd.

Mackenzie Delta Gas fields in the Mackenzie Delta, N.W.T. to a point near the junction of the Klondike and Dempster Highways just west of Dawson, Yukon Territory.

Zone 11 Foothills Pipe Lines (South Yukon) Ltd.

A point near the junction of the Klondike and Dempster Highways near Dawson to the connecting point with the Pipeline at or near White-horse.

# 1. Introduction

## 1.1 The Hearing

On 12 April 1979, by Order No. RH-2-79, the National Energy Board ("N.E.B." or the "Board") ordered that a public hearing be held in Ottawa to hear evidence and submissions on the tariffs and tolls to be charged by Foothills Pipe Lines (Yukon) Ltd. ("Foothills (Yukon)"), the financing of the pipeline and other related matters. The Board decided to hear evidence and submissions on these matters in phases.

Phase I of the Hearing, which was completed on 26 June 1979, dealt with the Board's proposed method for the regulation of the tolls and tariffs of the Foothills (Yukon) pipeline, the form and content of the tariff for the pipeline as a whole in Canada excluding provision for "prebuild" facilities, and the preliminary expenditures incurred up to 31 December 1978 with a view to qualifying them for inclusion in the rate base of Foothills (Yukon) and its subsidiary companies.

On 30 July 1979, the Board released its Reasons for Decision on Phase I and issued Order No. TG-1-79, by which the Board disposed of the above issues.

In Phase II of the Hearing, which was completed on 10 August 1979, the Board considered whether the form and content of the tariff for the movement of Alberta gas through the southern portion of the Canadian segments of the Alaska Highway Gas Pipeline System proposed to be prebuilt (i.e., the "prebuild" section) was appropriate for the determination of just and reasonable tolls for such movement.

On 4 October 1979, the Board released its Reasons for Decision on Phase II and issued Order No. TG-4-79, by which the Board approved the form and content of the Foothills (Yukon) tariff subject to certain conditions set out therein.

In Phase III of the Hearing, which was completed on 29 October 1979, the evidence, submissions and argument were divided into three subject areas:

(1) An application by Foothills (Yukon) for Review and Variation of the Phase I Decision,

(2) The Incentive Rate of Return Scheme (IROR), and

(3) Matters Deferred from Phase II.

On 20 December 1979, the Board released its Reasons for Decision on Phase III, by which it disposed of the above issues and drafted Regulations pursuant to Section 36 of the Northern Pipeline Act respecting the Incentive Rate of Return and Related Tariff Matters.

Phase IV(a)

By Order No. AO-4-RH-2-79, issued on 7 January 1980, the Board amended the description of the subject matter of Phase IV of the hearing to read as follows:

"Phase IV

"(h) to receive evidence and submissions on the financing of the pre-built facilities, which will be dealt with in the following sequence:

(i) Western Leg in the United States

(ii) Northern Border

(iii) Western Leg in Canada

(iv) Eastern Leg in Canada

In each of the segments referred to above, evidence and submissions should be provided to:

(a) describe the facilities to be pre-built and the timetable of construction and completion;

(b) state whether facilities can be financed under present known conditions, and

(c) if they can be financed, provide supporting evidence including:

- the financing plan
- the statement of commitment by sponsors
- commitments of lending institutions, if appropriate, e.g. banks

If the facilities cannot be financed under present known conditions, identify minimum changes needed to achieve financeability and, on the assumption that the changes are approved, provide supporting evidence as described in (c) above.

"(i) To receive evidence and submissions on financing of the pipeline as a whole and more particularly on

(a) the Alaska segment,

(b) the remaining facilities in Canada, and

(c) the remaining facilities on Northern Border and the Western Leg.

"(j) to dispose of matters raised in the Board's Reasons for Decision In the Matter of Phase III of the Public Hearing Respecting Tariffs and Tolls to be Charged by Foothills Pipe Lines (Yukon) Ltd., the Financing of the Pipeline, and Other Related Matters, with regard to who will finance the carrying cost of the investment in the pipeline if it is complete and ready for service, but an extended delay occurs before gas begins to flow in the pipeline,

"(k) to establish to the satisfaction of the Board that the requirements of Condition 12 of Schedule III to the Northern Pipeline Act have been met."

By Order No. PO-5-RH-2-79, as amended, the Board set down the matters referred to in Paragraph (h) above for public hearing commencing in Ottawa on 19 February 1980. This Phase was commonly referred to as Phase IV(a).

The remaining items set forth in paragraphs (i), (j), and (k) will be set down for public hearing later.

1.2 Other Events

(i) The Omnibus Gas Hearing

Concurrent with the Foothills (Yukon) Tariff proceedings, the Board was hearing applications by several companies for licences to export natural gas to the United States of America. On 7 December 1979, the Board released its Decision and Reasons for Decision on these applications (hereinafter referred as the "Decision on the Licence Phase of the Omnibus Gas Hearing" or the "Licence Phase Decision").

By virtue of that Decision, the Board recommended the authorization of several new licences and amendments to existing licences.

Of particular importance to the Foothills (Yukon) hearing was the Board's decision in respect of Pan-Alberta Gas Ltd., which was authorized to export natural gas through the prebuild facilities at Monchy, Saskatchewan (the export point of the Eastern Leg) and Kingsgate, B.C. (the export point of the Western Leg).

The Board's Decision in the Licence Phase with respect to two other Applicants, ProGas and Consolidated, also affects the present proceedings. Both companies had indicated their willingness to use the prebuild facilities of Foothills (Yukon) to export their gas, if such a move were required. The Board stated that it was prepared to consider amendments to the licences of those two companies to allow for exports at Monchy, if such amendments were found to be in the Canadian public interest.

The quantities of gas licensed to Pan-Alberta, ProGas, and Consolidated are summarized as follows:

| | | $m^3$ | Bcf |
|---|---|---|---|
| Pan-Alberta | - export at Monchy | 37 324 800 000 | (1,318) |
| | - export at Kingsgate | 13 685 700 000 | (481) |
| | - total | 51 010 500 000 | (1,800) |
| ProGas | | 17 050 000 000 | ( 602) |
| Consolidated | | 11 373 600 000 | ( 401) |

In making its Decision, the Board had considered the question of surplus and had made its determination using the three tests for surplus which arose from the Board's February 1979 Gas Report - the Current Deliverability Test, the Current Reserves Test, and the Future Deliverability Test. In recommending that licences be issued, the Board considered that the requirements of all those tests were met by the proposed new exports. However, it is useful to quote the Board's views with respect to the Future Deliverability Test, as they appear on page 9-1 and 9-2 of the Licence Phase Decision:

> "Although many of the Applicants applied for authorization of "conditional" exports under the Future Deliverability Test, the Board wishes to reemphasize that this test was included in the new surplus determination procedures to ensure that potential new exports would not cause a future deliverability shortfall to occur within ten years. Additionally, the Board could use this test to grant extended licences on a conditional basis if the Board felt it would be in the public interest to do so. The Board has considered the various applications for extended or conditional exports and has decided that none are merited at this time."

(ii) Additional Applications by Pan-Alberta

On 12 February 1980, Pan-Alberta applied to the Board for new licences to export gas, using the prebuild facilities of Foothills (Yukon), as follows:

"Western Leg" Application

(a) To export at Kingsgate, B.C. for the period 1 November 1983 to 31 October 1987, 6 220 800 000 $m^3$ (220 Bcf).

*(b) A "conditional" additional authorization for the period 1 November 1987 to 31 October 1992, for a total of 9 953 200 000 $m^3$ (352 Bcf), to be exported at the same daily and annual rates as for the period 1 November 1986 to 31 October 1987 above.

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* Pan-Alberta states that if the Board authorizes Foothills (Alberta) to write-off 100% of the capital investment of the Western Leg prebuild facilities within the period of firm exports (1980 to 1987) under GL-59 and this application, the conditional exports through 1992 are not needed.

(c) A "conditional" additional authorization for the period 1 November 1987 to 31 October 1988 allowing Pan-Alberta to export any gas not exported under Licence GL-59 during the period 1 November 1980 to 31 october 1981, with total exports in the period 1987-88 not to exceed 7 478 600 $m^3$ (264 MMcf) per day.

(d) A provision authorizing the export of an additional 340 000 000 $m^3$ (12 Bcf) per year during the period 1 November 1980 to 31 October 1983, and such volumes so exported would be taken from the volumes outlined in (a) above.

<u>"Eastern Leg" Application</u>

(a) To export at Monchy, Saskatchewan, for the period 1 November 1984 to 31 October 1987, 7 914 800 000 $m^3$ (279 Bcf).

(b) A "conditional" additional licence for the period 1 November 1986 to 31 October 1988 allowing Pan-Alberta to export any gas not exported under Licence GL-58 during the period 1 November 1981 to 31 October 1982, as follows:

- Period 1986-87: total exports, including Licence GL-58 volumes, not to exceed 24 928 500 $m^3$ (880 MMcf) per day and 8 294 400 000 $m^3$ (292 Bcf) for the year.
- Period 1987-88: total exports not to exceed 24 928 500 $m^3$ (880 MMcf) per day and 8 294 400 000 $m^3$ (292 Bcf) for the year.

The Board set down the Pan-Alberta applications for public hearing on 18 March 1980. At the same time, the Board will deal with an application dated 26 February 1980 from Consolidated for an amendment in its Licence GL-61 to reflect the addition of Monchy as an export point.

(iii) Northern Border and TransCanada

TransCanada PipeLines Limited, TransCanada Border Pipeline Ltd. (a wholly-owned subsidiary of TransCanada), and Northern Border Pipeline Company entered into an agreement on 25 October 1979 (First Supplement to the General Partnership Agreement) which, among other things, committed TransCanada or TransCanada Border to the following:

(a) To acquire 30 percent interest in Northern Border and to contribute 30 percent of the equity required to finance the prebuild facilities of Northern Border.

(b) To arrange the debt financing for the prebuild facilities of Northern Border.

(c) To enter into a "Service Agreement" with Northern Border to "backstop", with TransCanada's own gas, in the event that the flow of Alaska gas is delayed, to effectively ensure that the cost of the facilities will be recovered over a fifteen-year period.

(d) To purchase the prebuild facilities of Northern Border if after approximately 10 years the decision has not been made to complete the pipeline for the movement of Alaska gas.

2. TEST OF FINANCEABILITY

In the Board's view, the first and most important criterion in determining the financeability of the prebuild pipeline is the willingness of potential equity sponsors to invest their money and the willingness of prospective lenders to advance debt funds to finance the project.

Given this, financeability is then governed by that equity sponsor or lender whose preconditions or requirements are the most onerous, e.g., minimum volumes of throughput.

3. FINANCEABILITY OF THE PREBUILD FACILITIES

In the particular circumstances of the prebuild facilities of the Alaska Highway Gas Pipeline System, different provisions or preconditions to financing have been identified as being necessary by the equity sponsors, by the banks providing debt capital, and, especially, by those parties to the project who are providing additional commitments supportive of the financing plans, (e.g., TransCanada through its "back-stopping" plan and AGTL through its undertaking to purchase the assets of Foothills (Alta.). In addition, the preconditions differ between the Western and Eastern Legs.

## 4. SUMMARY OF EVIDENCE AND ARGUMENT

### a. General

At the time of issuance of the Board's "Reasons for Decision" on Phase II of the Foothills (Yukon) Tariff Hearing in October of 1979 and of the Board's Decision on the Licence Phase of the Omnibus Gas Hearing in December of 1979, the financing plan for the prebuild facilities of Foothills (Yukon) appeared to rely on the assurance of the throughput of Alaska gas.

In fact, in the present proceeding, Counsel for Foothills (Yukon), in speaking of the prebuild financing, stated:

> "... it is not and has never been intended in the Canadian sections that pre-build is a stand alone. It has always been conceived of as having two objectives.
>
> "First, to assist in the financing of the main Alaska Highway system, assist through the production of early cash flow, through spreading out the construction timing, the procurement, in the logistics and those kinds of matters.
>
> "Secondly, to assist in moving some of the surplus Alberta gas."

Notwithstanding the foregoing, it is apparent that the nature of the financing plan for the prebuild facilities has changed, moving away from a reliance on the assurance of the flow of Alaska gas towards more "free-standing" financing concepts.

While this move may be partly attributable to uncertainties over the timing of the eventual connection of Alaska gas, it is also attributable to the degree of protection required - by the bankers in particular - prior to the provision of funds.

Despite the increased emphasis on a potential free-standing approach, AGTL argued that the benefits of prebuilding the southern sections of the pipeline are now greater than those set forth in the Licence Phase Decision, because the export price of natural gas had increased considerably since then.

The reality of the move towards "free standing" financing is evidenced by:

(1) a request by Pan-Alberta for new firm export licences;

(2) a request by Pan-Alberta for conditional export licences;

(3) the fact that the repayment of a specific portion of the bank loans must be capable of being completed within the period of firm exports of Canadian gas, without reference to Alaska gas;

(4) the fact that the debt financing plan provides for term bank loans only, pending assurance of the connection of Alaska gas;

(5) the inclusion in the financing plan of special features to place the prebuild facilities on a potential free-standing basis should Alaska gas not arrive; these features are the TransCanada throughput agreement and the proposed purchase by ANG and AGTL of the prebuilt assets of Foothills (Yukon) subsidiaries, in Zones 6, 7 and 8 at their net book value.

Foothills (Yukon) indicated that it was becoming increasingly frustrated by delays affecting the project, not only in respect of prebuilding itself, but also of the Alaska segment where there has been a lack of progress in financing and postponements in the target date for start-up of that segment. As a result, Foothills (Yukon) believed that it was becoming exposed to more financial risk because of the money it had spent and was spending on the project, which would not be recoverable until further into the future. The evidence of Foothills (Yukon) indicated that if it does not receive the approvals requested, it will be unwilling to proceed with the project.

Similarly, TransCanada believed that it too was exposed to considerable risk. It has become a partner in Northern Border Pipeline in the United States, providing 30 percent of the equity; it has arranged the debt financing for Northern Border in conjunction with the Canadian Imperial Bank of Commerce as the lead bank; and it has indicated its willingness to provide the key item to the financeability of Northern Border, i.e., a throughput agreement providing for the shipment of Canadian gas through the Northern Border Pipeline if for any reason, Alaska gas should not flow. TransCanada did not ask the Board to approve the agreement. A similar arrangement is proposed by TransCanada for the Foothills (Sask.) segment of the project. TransCanada's evidence indicated that unless its conditions were met, it also would not proceed with the project.

Therefore, the willingness of the co-sponsors of Foothills (Yukon), Westcoast and AGTL, to invest, together with the willingness of TransCanada to provide a throughput agreement in the face of the risks involved, are key to the financeability of the prebuild facilities.

To assure itself that gas will be able to flow to markets on the United States side of the border the Board would normally, to a large extent, rely on the findings concerning financing reached by the Federal Energy Regulatory Commission. It can do this for the part of the United States Western Leg facilities from Kingsgate, B.C. to Stanfield, Oregon. However, F.E.R.C.

regulatory proceedings are still in progress for the remainder of the prebuild system and are partly dependent on findings of this Board both in these proceedings and in those relating to the new applications to export gas, due to start on 18 March 1980. The Board's task has been made somewhat easier by the similarity of the approach to the financing of the Foothills (Sask.) pipeline to that of the Northern Border pipeline in the United States.

b. Western Leg in the United States - P.G.T. et al.

The U.S. sponsors indicated that they were willing to proceed if:

(1) a new firm licence for 6 220 800 000 $m^3$ (220 Bcf) were granted, which, in conjunction with Pan-Alberta Gas Ltd.'s Licence GL-59, would result in a total throughput for an eight-year period of 19 906 500 000 $m^3$ (701 Bcf). It was also acceptable to the U.S. sponsors if the same total volume, which is equivalent to 6 798 700 $m^3$ (240 MMcf) per day, was exported in a seven-year period at higher daily levels;

(2) a new conditional licence is issued to permit the "make-up" by 31 October 1988 of gas not taken under (1) above; in other words, the total quantity licensed would not increase above that in (1), but the throughput of 19 906 500 000 $m^3$ (701 Bcf) would be assured for financing purposes.

P.G.&E. stated that it has a tariff problem to resolve before P.G.T., its subsidiary, would commit to build the line to Stanfield, a portion of the U.S. Western Leg. This problem is expected to be overcome shortly.

c. Western Leg in Canada - Foothills (South B.C.) and Foothills (Alta.) Zone 7

The Western Leg sponsors in Canada specified additional conditions to those identified by the U.S. sponsors. These conditions, which are alternatives, are:

(1) the complete write-off of the Canadian Western Leg facilities over the life of the firm export licences; or

(2) the two-thirds depreciation of the Canadian Western Leg facilities over the life of the firm export licences and, before construction begins, approval by the N.E.B. to permit, at the expiry of the firm licences, the sale of the assets of Foothills (South B.C.) to ANG at their net book value, the inclusion in ANG's rate base of those assets, approval of the same depreciation rate for those assets as now applicable to ANG for use in determining the cost of service of ANG, continuance of the existing certificate of public convenience and necessity of Foothills (South B.C.), similar approvals by, or understanding with, the Alberta Government for

the sale of the assets of Foothills (Alta.) to AGTL, and a new conditional licence for the export of 9 953 200 000 (352 Bcf) between 1988 and 1992.

d. <u>Eastern Leg in the United States - Northern Border</u>

The sponsors of the Northern Border pipeline, including TransCanada, identified the following as essential conditions to the financeability of Northern Border:

(1) a dedication of 57 987 100 000 $m^3$ (2,047 Bcf)* of Alberta gas during the period from the commencement of deliveries to 31 October 1987. The sponsors identified the licences and quantities of gas which could be used to attain these volumes. (see Cases 7 and 8 attached as Annex A of this Report).**

(2) As part of (1), exports of Alberta gas equivalent to 22 662 300 $m^3$ (800 MMcf) per day for six years licensed to Pan-Alberta.

(3) the issuance of a new conditional licence to permit the "make-up" by 31 October 1988 of gas not taken under (1) above.

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* This number differs from the 2,043 Bcf in evidence due to an allowance made for leap years (366 days).

** TCPL indicated in evidence that no significant spare capacity would occur on the TCPL system if 12 747 500 000 $m^3$ (450 Bcf) of gas is transferred from the TCPL system to Northern Border.

TransCanada has agreed to enter into a fifteen-year transportation agreement with Northern Border to ensure that sufficient volumes of throughput are available to Northern Border to insure recovery of the entire investment in the project.

TransCanada has undertaken, starting with the fifth year of operation, to maintain the throughput in Northern Border at a minimum volume of 22 662 300 $m^3$ (800 MMcf) per day up to a maximum annual obligation of 1 416 400 000 $m^3$ (50 Bcf) in that year increasing by 708 200 000 $m^3$ (25 Bcf) per year each year thereafter to a maximum throughput of 7 790 200 000 $m^3$ (275 Bcf) per year in the fifteenth year of operation.

e. Eastern Leg in Canada - Foothills (Sask.) and Foothills (Alta.) Zone 6

The minimum conditions for the financeability of Foothills (Sask.) were stated to be virtually identical to those for Northern Border. However, the following conditions were also stated to be essential:

(1) The assets of the pipeline in Foothills (Alta.) Zone 6 to be depreciated by 50 percent of the original cost over the term of the firm licences, and the assets of the pipeline in Foothills (Sask.) to be depreciated on the basis of volumes of throughput of 57 873 800 000 $m^3$ (2,043 Bcf) in the same period over a base of 124 076 100 000 $m^3$ (22 662 300 $m^3$ x 365 days x 15 years) (4,380 Bcf) (800 MMCF x 365 days x 15 years)).

(2) Permission for the sale of Foothills (Alta.) Zone 6 assets at net book value to AGTL at the end of the firm licences if Alaska gas does not flow.

f. Other Matters

(i) In argument, counsel for Foothills (Yukon) drew particular attention to two items that appeared in the Licence Phase Decision which, while presented in the context of an understanding that construction of the "pre-build" facilities would proceed without delay, were a source of uncertainty.

On page 9-22 the Board stated that in the event that construction of the western leg was not completed by November 1980, and the eastern leg by November 1981,

> "it would be the intent of the Board to conduct a review of these licences under Section 17 of the Act."

Foothills (Yukon) requested that because this item constituted a problem for their financing, the statement of intent to review be withdrawn.

Then, on page 9-23 it was stated:

> "the Board will condition the Pan-Alberta licences so that they authorize the export through the prebuilt facilities of Foothills only".

The company requested approval of the export through the looped sections, rather than through Foothills (Yukon)'s facilities only because it could not finance a continuous new line on the western leg at this time.

(ii) The current capital costs for the prebuild facilities, taking Zones 6, 7, 8, and 9 together, were estimated by Foothills (Yukon) to be in excess of the adjusted filed capital costs resulting in the incentive rate of return being below the non-incentive rate. Foothills (Yukon) believed that the Canada-U.S. agreement, which established the IROR concept, need not apply to the Canadian prebuild facilities and the transportation of Canadian gas. Therefore, Foothills (Yukon) requested removal of the IROR scheme from the prebuild facilities and approval of the non-incentive rate of return of 17.50 per cent for Zones 6, 7, 8 and 9. In lieu of this proposal, Foothills (Yukon) requested the adoption of a scheme based on the F.E.R.C. scheme for the United States participants which would involve approving the final design estimate and fixing a centre point of 1.0.

5. FINDINGS RELATING TO FINANCEABILITY OF PREBUILD FACILITIES

1. The Board finds that the pre-build facilities of Foothills (Yukon) are not financeable on the basis of presently approved exports and depreciation rates.

2. The Board finds that the Western Leg would be financeable with a total throughput of 19 906 500 000 $m^3$ (701 Bcf) dedicated through firm export licences.

The Board notes that Pan-Alberta's Licence GL-59 now provides 13 685 700 000 $m^3$ (481 Bcf) of firm exports through this Leg and that Pan-Alberta has applied for a new licence for 6 220 800 000 $m^3$ (220 Bcf) of firm natural gas exports. In addition, Pan-Alberta has applied for a conditional licence to make up the volumes not taken in the first licence year of Licence GL-59. The Applicant stated that the conditional nature of any licences that may be granted for make-up gas would not impair financing, and the Board accepts this position.

3. The Board finds that the Eastern Leg would be financeable with a total throughput of 57 987 100 000 $m^3$ (2,047 Bcf) dedicated through firm export licences.

The Board notes that Licence GL-58 now provides some 37 324 800 000 $m^3$ (1,318 Bcf) of firm exports through this Leg and that Pan-Alberta has applied for a new licence for 7 914 800 000 $m^3$ (279 Bcf) of firm natural gas exports. In addition, Pan-Alberta has applied for a conditional licence to make up the volumes not taken in the first year of Licence GL-58.

4. The difference between the required throughput of the Eastern Leg of 57 987 100 000 $m^3$ (2,047 Bcf) and the already issued licence of Pan-Alberta for 37 324 800 000 $m^3$ (1,318 Bcf) plus the applied for firm licence of 7 914 800 000 $m^3$ (279 Bcf) is 12 747 500 000 $m^3$ (450 Bcf).

Therefore, the Board finds that the minimum conditions of financeability would appear to require the transfer of at least 12 747 500 000 $m^3$ (450 Bcf), from already licensed volumes now dedicated to other pipeline systems, to the Eastern Leg, i.e., the Northern Border and Foothills (Sask.) pipelines.

The volumes of gas currently licensed for export and suggested by Foothills (Yukon) for transfer to the Eastern Leg to make up the 12 747 500 000 $m^3$ (450 Bcf) in order to make the pipeline financeable were those of ProGas and Consolidated (See Annex A). The licensed volumes of ProGas are 17 050 000 000 $m^3$ (602 Bcf) and of Consolidated are 11 373 600 000 $m^3$ (401 Bcf).

The Board notes that Consolidated has applied to have its licence amended to include Monchy as an export point, and also notes its willingness to commit for shipment on the Northern Border system 40 percent of the required 12 747 500 000 $m^3$ (450 Bcf) provided that ProGas agrees to have its licence amended in a similar way and to commit to ship the remaining 60 percent of the required amount on the same pipeline system.

The Board notes that ProGas has on a number of occasions indicated its support of the prebuild concept and its preparedness to take the necessary steps to assist the project moving forward, if found necessary by the Board. ProGas in evidence stated that it was negotiating with United States companies to provide a contractual basis to permit its licence to be reviewed in order to commit volumes to the Northern Border system, but these negotiations may not be complete by 18 March 1980. Accordingly, it was not prepared at this time to apply for an amendment to its licence.

5. The Board, having found that prebuilding of the Foothills (Yukon) pipeline is in the public interest* and that additional throughputs are necessary for the financing of the Northern Border pipeline, believes that it would be desirable for ProGas to file an application, similar to the one filed by Consolidated, for an amendment to its licences.

6. The Board finds that the assets of the pipeline in Foothills (Alta.) Zone 6 need to be depreciated by 50 percent of the original cost over the term of the firm licences and the assets of the pipeline in Foothills (Sask.) need to be depreciated on the basis of volumes of throughput of 57 873 800 000 $m^3$ (2,043 Bcf) in the same period over a base of 124 076 100 000 $m^3$ (22 662 300 $m^3$ x 365 days x 15 years) if the pipeline is to be financed. The Board believes that the need for the 50 percent depreciation in Zone 6 is conditional on the Board approving the transfer of the assets of Foothills (Alta.) in Zone 6 to AGTL at the end of the term of the firm licences if Alaska gas does not flow. (See Finding No. 8).

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* On page 9-22 of the Licence Phase Decision, the Board states: "The Board has found that prebuilding of the Foothills pipeline system is in the public interest and that the export of Alberta gas through prebuild facilities until Alaska gas flows, would foster the financing of the whole project."

The Board notes that the depreciation rate applied for in Zone 6 compared with a four percent rate would add a maximum of 0.7 cents per GJ (0.7 cents per Mcf) to the uniform price at the border for exports of natural gas and, in Zone 9, a maximum of 0.3 cents per GJ (0.3 cents per Mcf).

7. The Board finds that with regard to the Western Leg facilities of Foothills (Alta.) Zone 7 and Foothills (South B.C.), the depreciation rate based on 100 percent write-off of the assets over the life of the firm licences, as requested under the alternative proposal of Foothills (Yukon), subject to modifications of the rate on the first flow of Alaska gas, is necessary to finance the Western Leg.

The Board notes that the rate of depreciation applied for in Zones 7 and 8 compared with a four percent rate would add a maximum of 0.8 cents per GJ (0.8 cents per Mcf) to the uniform price at the border for exports of natural gas.

8. The Board notes in respect of the alternative to a 100 percent write-off of the assets of Foothills (South B.C.) and Foothills (Alta.) Zone 7 over the firm licences, that there was no application and no evidence in respect of the various regulatory rulings sought from the Board. Therefore, the Board finds

that it has no basis for granting the regulatory rulings requested. It believes therefore that the financing alternative which required these rulings will no longer be acceptable to Foothills (Yukon).

For similar reasons, the Board cannot grant the regulatory ruling sought by Foothills (Alta.) in Zone 6.

However, should the absence of a ruling in respect of the sale of the assets of Foothills (Alta.) to AGTL prejudice the financeability of the Eastern Leg in Alberta, the Board would, upon application, be prepared to consider a depreciation proposal for Zone 6 similar to that approved for Zone 7.

9. The Board finds that the TransCanada throughput agreement is necessary for the financeability of the Foothills (Sask.) pipeline in Canada and the Northern Border Pipeline in the United States, but that the Board's approval of the agreement is not.*

10. The Board finds that the rate of depreciation in prebuild facilities in Zones 6, 7, 8, and 9 will require adjustment when Alaska Gas flows.

The manner of making the adjustment and the determination of what the rate of depreciation should be at that time depends on the way the export price of natural gas will be established.

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* Foothills (Sask.) would be financeable without the TransCanada throughput agreement if the assets were to be depreciated at a rate to write them off over the period of the firm export licences. However, the throughput agreement is believed necessary for Northern Border in order to maintain the tariff at a low enough level to ensure the marketability of the natural gas.

The export price is determined by the Governor in Council after considering a report from the Board under Regulation 14 (formerly Regulation 11A) of the National Energy Board Part VI Regulations. At the present time, the export price is determined on the basis of the substitution value of natural gas in relation to the price of oil imported into eastern Canada, and the cost of moving natural gas destined for export markets to the international boundary is incorporated in the price formula. Under this system the cost of transporting export volumes on prebuild facilities would be included in the uniform export price and be borne by United States importers of natural gas. However, the pricing regime is currently under study by the United States and Canadian Governments.

Under the present pricing formula, the depreciation rate, when Alaska gas flows, will be based on recovering the net book value of the prebuild assets at that time over the life of the contracts for Alaska gas. It will therefore result in a low tariff when Alaska gas is flowing; this would tend to offset the higher tariff borne by United States shippers in the period before Alaska gas flows.

If a new pricing formula were to be instituted, the Board is confident that means can be found to ensure that just and reasonable tolls prevail, taking into account the situations prevailing before and after Alaska gas begins to flow. Whether the high depreciation rates identified as being necessary for financing of prebuild facilities require correcting once Alaska gas begins to flow is not a matter which needs to be addressed in this proceeding.

11. In respect of the Incentive Rate of Return Scheme, and the provision for variation contained on Page 5-2 of the "Reasons for Decision" in Phase III of these proceedings, the Board finds that circumstances have arisen in respect of Zones 6, 7, 8, and 9, which were unforeseen at that time and which make a modification of the scheme desirable. Accordingly, the scheme for prebuild facilities in these zones will be based on a centre point of 1.0. The final design costs for the prebuild facilities in these zones as approved by the Northern Pipeline Agency, and as accepted by the National Energy Board, expressed in constant dollars, i.e., excluding any provision for inflation, will replace the "Filed Capital Costs" for cost performance measurement

purposes, but will be subject to similar adjustments, including the Provision for Funds Used During Construction of 11.7 percent. The final design costs may be modified by scope changes mandated by the Northern Pipeline Agency after construction is underway.

For purposes of establishing the cost performance ratio, the Actual Capital Costs will be deflated to the constant dollars used in the final design cost estimate by using the GNP price deflator in a manner determined by the Board.

The IROR Scheme for the incremental facilities in Zones 6, 7, 8, and 9 needed for the throughput of Alaska gas will be on a basis similar to that outlined above.

All other aspects of the Incentive Rate of Return Scheme will remain as set forth in the Board's Decision on Phase III of this hearing.

12. The Board finds that the stated intent of the Board at page 9-22 of the Licence Phase Decision to review licences if construction of prebuild facilities were to be delayed, is inhibiting to financing. Therefore, a review of the licences under Section 17 of the Act is no longer desirable.

13. The proposed limited looping of the AGTL and ANG systems, to comprise the Foothills (Alta.) Zone 7 and Foothills (South B.C.) systems respectively with respect to the prebuild facilities on the Western Leg, is acceptable to the Board. Although a continuous pipeline for the Western Leg in Canada has the potential for being more economic over the long run, there was no evidence that it could be financed under current conditions. It is noted that Condition 5 of Licence GL-59 reads as follows:

> "Gas exported under the authority of and in accordance with this licence shall be delivered to the point of export near Kingsgate, in the Province of British Columbia, through the pipeline systems of Foothills Pipe Lines (Alta.) Ltd. and Foothills Pipe Lines (South B.C.) Ltd."

The Board finds that lack of clarity in the present wording of Condition 5 is inhibiting to financing. Accordingly, on application by Pan-Alberta, the Board is prepared to consider an amendment to Condition 5 of Licence GL-59.

14. On the basis of the foregoing findings, the Board finds that the conditional Licence applied for by Pan-Alberta for exports of gas, with respect to the Western Leg, from 1988-1992, of 9 953 200 000 $m^3$ (352 Bcf) are not required for the financing of the pipeline.

Foothills (Yukon) may modify its prebuild tariff in a form acceptable to the Board in conformity with these findings.

The foregoing constitutes the Board's findings in respect of Phase IV A of the Hearing under Order No. RH-2-79.

C.G. Edge
Presiding Member

L.M. Thur
Member

R.B. Horner
Member

NEB INFORMATION REQUEST

Illustrating ProGas and CNG Volumes in Relation to Prebuild
Case 7, Based on: Maximum use of surplus/Nov. 1, 1981 Completion/Total quantities shipped 2043 Bcf
(Bcf/year)

| Years | Pan-Alberta Volumes: Currently Authorized | Pan-Alberta Volumes: Firm Additional Requested | Pan-Alberta Volumes: Conditional Additional Requested | Pan-Alberta Volumes: Total | ProGas and Consolidated Volumes | Total Northern Border Volumes |
|---|---|---|---|---|---|---|
| 1981/82 | 292 | - | - | 292 | 36 | 328 |
| 1982/83 | 292 | - | - | 292 | 92 | 384 |
| 1983/84 | 292 | - | - | 292 | 92 | 384 |
| 1984/85 | 219 | 73 | - | 292 | 92 | 384 |
| 1985/86 | 146 | 146 | - | 292 | 92 | 384 |
| 1986/87 | 73 | 60 | - | 133 | 46 | 179 |
| 1987/88 | - | - | - | - | - | - |
| TOTALS | 1314 | 279 | - | 1593 | 450 | 2043 |

Position of Partners and Bankers on this case

| Bankers Providing Debt | Sponsors Providing Equity | TCPL Providing Backstopping |
|---|---|---|
| ACCEPTABLE | ACCEPTABLE | ACCEPTABLE |

NEB INFORMATION REQUEST

Illustrating ProGas and CNG Volumes in Relation to Prebuild
Case 8, Based on: Maximum use of surplus/Nov. 1, 1982 Completion/Total quantities shipped 2043 Bcf
(Bcf/year)

| Years | Pan-Alberta Volumes | | | | ProGas and Consolidated Volumes | Total Northern Border Volumes |
|---|---|---|---|---|---|---|
| | Currently Authorized | Firm Additional Requested | Conditional Additional Requested | Total | | |
| 1981/82 | - | - | - | - | - | - |
| 1982/83 | 292 | - | - | 292 | 104 | 396 |
| 1983/84 | 292 | - | - | 292 | 104 | 396 |
| 1984/85 | 219 | 73 | - | 292 | 104 | 396 |
| 1985/86 | 146 | 146 | - | 292 | 92 | 384 |
| 1986/87 | 73 | 60 | 159 | 292 | 46 | 338 |
| 1987/88 | - | - | 133 | 133 | - | 133 |
| TOTALS | 1022 | 279 | 292 | 1593 | 450 | 2043 |

Position of Partners and Bankers
on this case

| Bankers Providing Debt | Sponsors Providing Equity | TCPL Providing Backstopping |
|---|---|---|
| ACCEPTABLE | ACCEPTABLE | ACCEPTABLE |