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FACT SHEET REGARDING NATIONAL ENERGY BOARD DECISION ON THE NORTHERN GAS PIPELINE APPLICATIONS

The National Energy Board on 4 July 1977 released its decision on the Northern Gas Pipeline Applications. The following information concerning the functions and responsibilities of the Board, the Applications and the Board's Findings, Decisions and Recommendations is provided for ease of reference.

The Board

- agency established by legislation by the Government of Canada enacted in 1959. The agency consists of nine full-time members and a staff of some 325 employees, among whom are engineers, environmentalists, economists, accountants, lawyers and other specialists, who act as advisers to the Board.
- The Board's responsibility is to control and regulate certain aspects of the energy industry in Canada to ensure that the public interest is protected at all times. It does this by the issuance of certificates

of public convenience and necessity which authorize the construction and operation of interprovincial and international pipelines and international power lines and by the issuance of licences for the export of oil, the import and export of natural gas and the export of electricity.

- No pipeline can be built or operated in Canada across provincial or international boundaries unless a certificate has been issued by the NEB. The certificate becomes effective only with the approval of the Governor in Council.
- Before the Board reaches a decision on any major pipeline project, it holds a public hearing to examine the proposal and to afford an opportunity for those found to be interested persons under the NEB Act to take part in, adduce evidence, and argue their case or otherwise make submissions.

The Applicants

- During 1974 and 1975, the Board received competing applications and submissions related to the planned construction of a northern gas pipeline.
 - The first application to move northern gas to southern markets was submitted in March 1974 by Canadian Arctic Gas Pipeline Limited under Part III of the NEB Act, to construct and operate a new

48-inch diameter main pipeline system and interconnections with existing and proposed new facilities, for the purpose of transporting · Prudhoe Bay and Beaufort Basin gas southward. The most northerly section of mainline would run 178 miles from the Alaska-Yukon border to Tununuk Junction, N.W.T.; a supply line would run 19 miles from the Taglu Field on Richards Island to Tununuk Junction to join the main line. The main line would continue south to Parsons Lake junction where it would be joined by a 30-inch diameter supply lateral from Parsons Lake on the The main line would then proceed south along the Mackenzie River Valley into Alberta where, near Caroline, it would split into two delivery lines - one a 48-inch diameter line to Empress, Alberta and thence a 42-inch diameter line to Monchy, Saskatchewan; and the other a 36-inch diameter line to Coleman, Alberta, where the delivery lines would interconnect with the facilities of other pipeline companies. In June, 1975, Alberta Natural Gas Company Ltd. applied to the Board for a certificate to construct additional facilities required to transport gas to be obtained through the proposed CAGPL system.

- In a competing application, Foothills Pipe Lines Ltd. applied in March of 1975 for a certificate of public convenience and necessity to construct and operate a pipeline and connected works to move natural gas from the Beaufort Basin of the western Arctic to southern Canada and Northwest Territories communities. The proposed pipeline would connect with facilities of Trunk Line (Canada) and Westcoast just north of the 60th parallel. Foothills proposed to construct some 817 miles of 42-inch diameter line from Richards Island along the Mackenzie River Valley. It also proposed to construct 15 miles of 30-inch diameter line as a lateral connection from a point east of Parsons Lake, N.W.T. to a point of connection with the main transmission line some 51 miles south of the Richards Island point of commencement of the main line.
- In May 1975, the Alberta Gas Trunk Line (Canada) Limited applied to construct and operate approximately 81 miles of the Foothills 42-inch diameter line from a point 6.5 miles north of the 60th parallel to existing or new Alberta Gas Trunk Line facilities at a point near Zama Lake, Alberta.
- . The Alberta Gas Trunk Line Company Limited owns and operates a natural gas gathering and transmission

application but in a submission in May 1975 undertook to construct and operate certain facilities of
Trunk Line (Canada) subject to federal jurisdiction.
Originally in the hearings Westcoast Transmission
Company Limited submitted an application with
respect to an extension of its main line as a
companion application in the Foothills project.
On 1 July 1976 Westcoast proposed to extend its
facilities to interconnect with those of CAGPL if
that project were approved.

In August and September 1976 a third set of applications for pipeline construction by a group of associated companies generally called the Foothills (Yukon) Project Group was filed with the Board. These applicants, Foothills (Yukon), Westcoast and Alberta Gas Trunk Line (Canada), proposed to move Alaska gas through Canada to markets in the lower 48 states of the United States. This proposal included construction of a Foothills (Yukon) 42-inch diameter line from an interconnection with Alcan Pipeline Company at the Alaska-Yukon border, through the Yukon to the B.C. border where it would connect with a 42-inch diameter extension of Westcoast; a 36-inch diameter Trunk Line (Canada) line

would interconnect existing facilities of Trunk Line in Alberta with another extension of Westcoast, and a Foothills (Yukon) 36-inch diameter line would be constructed from Trunk Line's facilities at Empress, Alberta to the international border near Monchy, Saskatchewan.

- In late February 1977 the Foothills (Yukon) Group filed with the Board an alternative proposal to construct a 48-inch diameter pipeline system, without using the existing Westcoast and Trunk Line facilities. It involved the construction of an "express line" through Yukon, and generally along existing routes in northern British Columbia and Alberta, plus a new Westcoast line parallel to the existing Alberta Natural Gas route in southeastern British Columbia.
- On 16 March 1977 the Foothills (Yukon) Group withdrew the 42-inch diameter system applications; thus the only Foothills (Yukon) system considered by the Board in its report is the 48-inch diameter line.

Findings

Based on all the evidence adduced at hearings and submitted by applicants, intervenors and interested

persons, the Board has made a number of findings, upon which its decisions were based. The more significant of the findings, contained in its Reasons for Decision dated June 1977, are outlined below.

The Board finds that a pipeline to transport Mackenzie Delta gas to Canadian markets will be needed during the first half of the 1980's. In support of this finding the Board came to the following conclusions:

- (1) There will be a need for additional gas for Canadian markets over and above that forecast to be available from conventional areas to meet the "Most Likely" forecast of Canadian demand plus existing export commitments as early as 1981 or as late as 1985 depending on certain policy options open to governments.
- (2) If existing authorized exports of gas were eliminated or were phased out, the "Most Likely" Canadian requirements could be met until about 1990, but the Board does not recommend such action.
- (3) The Board endorses a vigorous conservation policy and in its "Most Likely" forecast of

Canadian gas demand has endeavoured to realistically assess the degree to which Canadians will be responsive to the conserver ethic; however the Board rejects the proposition urged on it by several public interest groups that a pipeline from the Mackenzie Delta should be denied so as to reinforce the limitation in the rate of growth of the demand for energy.

- (4) The current established reserves of the Mackenzie Delta total 5.3 Tcf, with 5.1 of this being economic to connect to planned gas processing plants. Having in mind a pipeline to the south, these reserves would support deliverability of 700 to 800 MMcf per day.
- (5) Of the several new large sources of energy available to Canada in the near future, Delta gas is about the lowest cost, in current dollar terms.
- Although additional work would be required in the final design process for each of the pipelines being applied for, the Board believes that from an engineering point of view any of these could be built to the satisfaction of the Board.

- . The Board has specific socio-economic concerns related to a pipeline route up the Mackenzie Valley.
- The Board has specific environmental concerns related to a pipeline route from the Alaska-Yukon border to Tununuk Junction.
- The social and economic impact of the Foothills (Yukon) project could be held to tolerable levels. The environmental concerns associated with this project can be overcome by avoidance or mitigative measures.
- A crucial question in regard to any land bridge proposal for the transmission of United States gas through Canada is whether the project has the potential for bringing Delta gas to Canadian markets and the Foothills (Yukon) project has such a potential in the form of a Dempster link.
- The precise timing of the need of a Dempster link is not known today, but the planning for the Foothills (Yukon) project should be compatible in all respects with the addition of such a link, if certificated in the near future.
- A necessary complement to the undertaking given by
 the principals of Foothills (Yukon) to undertake
 the construction of a Dempster link would be a rerouting of the Alaska Highway line via Dawson, Yukon.
 Such diverson would reduce the cost of transportation

of Delta gas by some 12 cents per Mcf while increasing the cost of transmission of United States gas by six cents per Mcf or less. In certificating the Foothills (Yukon) project, the Board would require a diversion of the route through Dawson.

- The preliminary financing plan of CAGPL would be acceptable to the Board, with two exceptions -
 - (a) CAGPL would have to provide for majorityCanadian control of the equity of itscompany; and
 - (b) the Board rejects the recommendation of CAGPL that the Canadian Government should provide financial backstopping to the project.
- The Board shares the view of the financial advisers to the Foothills project that it could not be financed at this time on the basis of Mackenzie Delta reserves already discovered and could not be justified on economic grounds.
- The Foothills (Yukon) Project Group did not request backstopping by the Canadian Government. There are matters of fundamental concern to the Board, however, in the financing and ownership of the Foothills (Yukon) project. These relate to the possible impairment of the credit capability of Trunk Line and Westcoast by

their unequivocal undertakings to complete the project irrespective of cost overruns, in providing a land bridge for United States gas. The Board believes some restructuring of the corporate setup of the Foothills (Yukoń) project would be necessary. Furthermore, the financial plan of the project should exclude any possible inhibition in providing a Dempster link at a later stage. To ensure that the objectives of the companies owning and operating each segment of the Foothills (Yukon) project would be consistent with the broader purposes of an integrated interprovincial pipeline, with uniformity of design and tariffs but with decentralization of construction and operation to those companies operating pipelines in the same area, the Board would favour having the pipeline segments south of the 60th parallel owned by federally incorporated subsidiaries of Foothills (Yukon) with, say, 51 per cent ownership and the remainder, say 49 per cent ownership, vested in the pipeline company operating in the area. The Board believes that construction of the pipeline segments south of the 60th parallel should be carried out by the companies familiar with the areas concerned and would favour the proposed ANG pipeline subject to the

corporate restructuring mentioned above. Similarly, while having no corresponding application, the Board would look with favour on the construction and operation of the pipeline segment in Saskatchewan by TransCanada on a basis similar to that outlined for Trunk Line, Westcoast and ANG.

- The Board believes that innovative tariffs would be needed to provide for maximum private sector financing of a northern pipeline. To this end, for this project, it endorses the principle of an "all events" tariff and the need for supplemental agreements with shippers covering the period before the tariff proper comes into effect.
- Using the unit costs of transportation filed by the Applicants, and recognizing some limits on comparability, the Board finds that:
 - (1) for the transportation of Alaska gas from
 Prudhoe Bay to the 49th parallel, the
 differences in the unit costs of transportation via CAGPL and via Foothills (Yukon)
 are relatively small;
 - (2) the CAGPL project would provide significantly lower unit costs for the transportation of Delta gas to Empress than the Foothills project;

- (3) providing the Dempster link to Dawson, which would involve the re-routing of the Foothills (Yukon) 48-inch diameter pipeline in the Yukon, would increase the unit cost of transporting Prudhoe Báy gas to the lower 48 states slightly while providing significantly lower transportation costs to Canadian shippers of Delta gas;
 - (4) with a throughput of 1.2 Bcf per day from the Delta and 2 Bcf per day from Alaska, the cost of transmission of Delta gas to Empress appears to be approximately the same for the CAGPL and Foothills (Yukon) projects.
 - As to the total estimated capital costs, due to the difficult conditions for the northern Yukon and Cross-Delta sections, the Board could visualize a cost overrun of 20 to 35 per cent occurring in the CAGPL project. In the case of Foothills (Yukon) the Board judges that the cost of construction has been under-estimated and it could visualize a cost overrun of 20 to 30 per cent occurring.

 The Applicants all estimated relatively high levels of Canadian content for their proposed pipelines in the range of 80 to 90 per cent. The Board's overall

assessment is that Foothills and Foothills (Yukon) projects showed overall Canadian content estimates averaging somewhat higher than those indicated by CAGPL.

- The evidence of the effect of the pipeline projects on the macro-economy of Canada was uniform in assessing that none of them would cause severe problems.
- The results of cost-benefit analyses, which excluded environmental and social costs and which would differ between CAGPL and Foothills (Yukon), indicate that the net economic benefits would be somewhat greater for the CAGPL project than for the Foothills (Yukon) project.
- The Board is not involved in the merits of native land claims per se, or their settlement; these are matters under direct negotiation between the native peoples and the federal government. The Board was concerned, however, with the interrelation of the resolution of a land claims settlement with the perceptions of Northerners of whether a pipeline should be built and, if so, where and when.
- The Board's assessment of the socio-economic impact of a pipeline in the north is one of broad judgment.

 The north at this time may be said to be a land in

transition and for the individual native northerner, the situation seems to be one of turmoil caused by fear of further white encroachment, and a striving to retain the essentials of a life close to the land from a non-viable base in a community. added problems relating to the possible construction of a pipeline only compound an already confused In the Yukon, the opening up of the situation. Alaska Highway in 1942 and the fact that the Yukon economy and institutions are more developed, that the land claims negotiations appear to be more advanced, that a smaller number of native peoples would be affected and that the Yukon Indians do not appear to be passing through the phase of a major restructuring of their society, as the Dene appear to be, lead the Board to conclude that the socio-economic impact on the pipeline corridors would, on balance, be more favourable along the Alaska Highway than in the Mackenzie Valley.

The Board believes that identifiable indirect costs of a pipeline project north of the 60th parallel should be borne by the pipeline company. These costs, related to such things as in-migration, provision of additional municipal, social and health services, are difficult to measure with precision, and

it would recommend to the government than an agreement be entered into with a certificate holder to provide funds for such costs. The Board would further recommend that the obligation be limited to \$200 million.

- There would be need of a government agency to monitor socio-economic matters, and if a certificate were granted, the Board would recommend to the government that it immediately create effective machinery for this purpose.
- has concluded that the CAGPL Prime Route, both the northern Yukon coastal and Cross-Delta sections, would be environmentally unacceptable. The Interior Route, presented as a less desirable alternative by CAGPL, would also be environmentally unacceptable to the Board.
- The Board has concluded that the environmental concerns associated with the Foothills (Yukon) route relate to impacts which can be overcome by avoidance or mitigative measures.
- Environmental information on a Dempster link is sparse and an application for a certificate to construct and operate a pipeline from the Delta to connect with the 48-inch diameter pipeline

would have to be supported by detailed environmental studies. Likewise, environmental studies related to a diversion of the 48-inch diameter pipeline through Dawson would require the immediate study of related environmental impacts and subsequent filing of such studies with the Board.

Decisions and Recommendations

The Board's decisions and recommendations to the Governor in Council follow -

- (1) The Foothills pipeline cannot be financed; it would not offer the lowest cost means of transporting Mackenzie Delta gas to market and a pipeline should not be built along the Mackenzie Valley at this time. The Board therefore denies the application of Foothills Pipe Lines Ltd.
- (2) For the reasons stated in (1), the Board also denies the applications of Westcoast Transmission Company Limited and Alberta Gas Trunk Line (Canada) Limited for certificates for facilities which would interconnect with those of Foothills.
- (3) The CAGPL project is based on incompatible time constraints; on the one hand the urgent need to connect Alaska gas to United States markets and

- on the other, the need for more time to resolve socio-economic concerns before a pipeline could be built in the Mackenzie Valley.
- (4) The Prime Route proposed by CAGPL from the Alaska-Yukon border to Tununuk Junction, including the Cross-Delta segment, is environmentally unacceptable to the Board, as is the alternative Interior Route.
- (5) For the reasons stated in (3) and (4), the Board denies the application of CAGPL.
- (6) The Foothills (Yukon) project generally offers the preferred route for transporting Alaska gas to markets in the lower 48 states. However, the Board believes certain changes to the project as applied for are desirable in the Canadian public interest.
- of public convenience and necessity for the various pipeline segments of the Foothills (Yukon) project subject to conditions. The Board is recommending to the Governor in Council, however, that approval be withheld until the following have been accomplished:
 - (i) That appropriate amendments to existing applications have been filed with the Board by 26 August 1977, seeking the

issuance of the certificates in
the names of subsidiary companies of
Foothills (Yukon) for the segments of
the project in northern British Columbia,
Alberta and southeastern British Columbia.
Fifty-one per cent of the voting shares
in each of the subsidiary companies
would be owned by Foothills (Yukon)
and 49 per cent in each by Westcoast,
Alberta Gas Trunk Line and ANG (or
Westcoast, if not acceptable to ANG),
respectively.

- (ii) That agreements have been entered into by Foothills (Yukon) with the Government of Canada whereby Foothills (Yukon) or any successor, would undertake the following:
 - (a) to conduct feasibility studies with respect to the construction of a gas pipeline of no less than 30-inch diameter from the Mackenzie Delta parallel to the Dempster Highway connecting Delta gas to the Foothills (Yukon) system near Dawson City, Yukon, and on or before 1 July 1979 make an

- application to the National Energy Board for a certificate of public convenience and necessity for such pipeline;
- (b) to agree to provide capacity in the main 48-inch diameter pipeline from the point of connection of the Dempster lateral to such point or points on the 48-inch diameter system in Canada deemed necessary to effect delivery of Delta gas to southern Canadian markets, such capacity to be provided by 1 January 1984 or such later date as deemed necessary by the government; and
- of the Government of Canada of a sum of money which would be used by the government to pay for socio-economic indirect costs of the pipuline project north of the 60th parallel incurred during a period expiring two years after leave had been granted by the Board to open the pipeline. The Board recommended that the obligation be limited to \$200 million.