

Westcoast Transmission Company Limited



SOLUTIONS  
to an  
ENERGY SHORTFALL

*Myriad lakes, uncounted, unnamed, pock the tundra in summer. Beneath this vast and silent land lies an energy inheritance from another age.*



## We use more than we find

Natural gas is one of the world's cheapest, cleanest and most efficient of the fossil fuels. But sooner or later we may have to get by with less because our rate of energy consumption is growing faster than the rate at which new supplies are being developed.

Today a significant proportion of the heat and energy requirements of the homes and industries in Canada and the northern United States is provided by Canadian natural gas. But recent studies by Canada's National Energy Board have shown that gas reserves in the conventional producing areas of Canada will not be adequate in the future to meet both the growing domestic demand and the currently authorized exports. The evidence is clear that if existing export obligations are to be honoured for their full term — and as a trading nation, exports are vital to our economic well-being — new sources of natural gas must be explored, tapped and developed at an early date.

## Curtailing exports is not the answer

As a net exporter of energy, Canada has the option of curtailing or eliminating exports of natural gas and conserving the resource. Unfortunately, even if exports were stopped immediately and the gas diverted for home consumption, a sizeable new natural gas resource base for Canadians will still be needed within the next six to eight years to overcome a predicted domestic deficiency. Curtailing exports would, according to the National Energy Board study, have a severe impact upon the gas producing industry and could reduce dramatically the connection of now unconnected reserves and slow down the exploration for new reserves. Furthermore, curtailing of exports would have a negative impact upon Canada's balance-of-payments as currently (1977 estimate) Canada receives some \$1.8 billion from the sale of natural gas to the United States.

## Energy from the far frontier

On Canada's far northern frontier, beneath the Mackenzie Delta area of the Northwest Territories, lies proved and probable natural gas reserves of 5.7 trillion cubic feet. Offshore in the Beaufort Sea, up to a water depth of six hundred feet, lie other subterranean gas reservoirs estimated to contain another 31 trillion cubic feet. These are the most conservative estimates available to date. They do not take into account additional volumes which may be discovered as a result of other exploratory wells now being drilled in the Canadian arctic.

There appears little doubt of the excellent potential of the Beaufort Basin-Mackenzie Delta area to provide domestic hydrocarbon energy reserves. Geological consultants are confident that far greater reserves of natural gas exist than have been delineated to date. Estimates of the total reserves range from 50 to 110 trillion cubic feet — the latter figure based on studies carried out by the Canadian Petroleum Association. Although the extent of the frontier gas reserves is not firmly established, even the most optimistic estimates fall short of the volumes needed to resolve all future concern about Canada's long-term energy requirements.

## Westcoast Transmission can help

To help overcome the predicted shortfall by transporting the newly found gas from the frontier fields to markets in Canada and the U.S. is a project of paramount

importance to Canadian producers and gas transmission companies. Pending the availability of frontier gas, Westcoast Transmission Company Limited — one of the three largest gas processing and transmission companies in Canada — will do its utmost to bridge the energy gap by maintaining deliverability from currently producing reserves and reaching out to gather gas from new wells discovered in the traditional gas-prone areas in British Columbia and Alberta. At the same time, Westcoast will work diligently to bring frontier gas reserves on stream as quickly as possible, consistent in every respect with the interests of the Canadian public.

## Westcoast's fortunate geography

For the past twenty years, the gathering and processing of natural gas for transmission to the utility distributors in British Columbia and the U.S. Pacific Northwest has been the responsibility of Westcoast Transmission Company Limited, a publicly-owned and federally-incorporated utility. In these times of predicted energy shortfalls, Westcoast does not intend to abrogate its responsibilities.

Westcoast's operations comprise a complex network of thousands of miles of pipelines, meter stations, compressor stations and processing plants maintained by a staff of men and women skilled in a variety of administrative and technical and operational fields. The Westcoast system stretches from the Yukon and Northwest Territories to the international boundary near Vancouver, British Columbia. Of particular significance is the fact that Westcoast has the construction experience needed to work effectively in the far north and a highly trained staff of professionals to carry the projects through regardless of the alternative finally selected.

Being so beneficially located geographically between future arctic gas supplies and growing southern markets, the existing Westcoast pipelines and allied facilities are a logical choice for inclusion in both the proposed Maple Leaf pipeline project and the Canadian Arctic Gas project now under consideration by the National Energy Board of Canada, and also the Alaska Highway pipeline project currently before the Federal Power Commission in the U.S. Westcoast has pledged its resources to assist in the construction of either or both of these frontier pipelines because it supports the principle that existing gas transmission systems should be utilized to the fullest extent possible rather than by-passed by the construction of a totally new gas transmission system. The social and economic benefits of Westcoast's philosophy are obvious when compared to the enormous cost of wastefully duplicating existing pipelines and facilities and hiring and training additional personnel.

Westcoast's position in this respect has been well enunciated and there is no basis for a reversal of principles regarding the transport of Canadian gas. However, the company has responded with a degree of co-operative flexibility in the case of facilities to be built solely for Alaska gas, provided the United States gas user is willing to pay the cost of such exclusivity. Accordingly, Westcoast, The Alberta Gas Trunk Line Company Limited (Alberta Gas Trunk), and Foothills Pipe Lines Ltd. (Foothills) have recently submitted for National Energy Board of Canada consideration a "48-inch express line alternative" to carry Alaska gas across Canada to markets in the lower 48 states of the United States without the utilization of existing capacity in the Westcoast and Alberta Gas Trunk pipelines in B.C. and Alberta respectively. This alternative meets U.S. Federal Power Commission Judge Litt's criticisms of the Alaska Highway pipeline project as expressed in his recent decision in the matter.

*Like an outpost of tomorrow an exploratory drilling rig springs up on Canada's far frontier. Probed for natural gas only in winter, the frozen tundra sustains no damage.*



- Alcan Pipeline Co.
- Foothills Pipe Lines (Yukon) Ltd.
- Foothills Pipe Lines Ltd. Maple Leaf Route
- Westcoast Transmission Co. Ltd.
- Alberta Gas Trunk Line (Canada) Ltd.

- The Alaska Highway Project
- The Alaska Highway Project (Alternative)
- The Maple Leaf Project
- Existing Facilities



## Maple Leaf and Alaska Highway pipelines: solutions to an energy shortfall

In 1974, Westcoast joined with Alberta Gas Trunk in a venture to transport frontier gas southward to Canadian markets. The joint venture company is known as Foothills Pipe Lines Ltd. (Foothills).

Westcoast and Alberta Gas Trunk operate two of the largest gas transmission systems in Canada. Between the two companies they have constructed, and now operate, 6,400 miles of large-diameter transmission and gas gathering pipelines. In addition, Westcoast's Fort Nelson gas processing plant is one of the largest in the world and the most northerly located plant in North America. Jointly, Westcoast and Alberta Gas Trunk initially carry over 90 percent of all the natural gas produced in Canada. It makes sound economic sense for the two companies to join their transmission systems at their northern end and extend a pipeline 800 miles farther north to the Mackenzie Delta to obtain additional supplies of Canadian natural gas.

Westcoast has been very active in the study of arctic pipelines and is the only company in Canada that has successfully built and operated a natural gas transmission pipeline in the environmentally sensitive muskeg and permafrost areas north of the 60th parallel. This invaluable northern experience will stand Westcoast in good stead during construction of the Maple Leaf and Alaska Highway gas arteries envisaged in the two separate Foothills proposals.

The preparatory work for these projects has been co-ordinated by Foothills with a full-time staff of experienced and qualified employees and with assistance from the extensive permanent staffs of Westcoast and Alberta Gas Trunk. In addition, Foothills is utilizing the services of many Canadian consulting firms in a variety of environmental, engineering and related disciplines.

### The Maple Leaf project: an all-Canadian pipeline

The Maple Leaf project is a plan to construct a wholly Canadian owned and operated natural gas transmission mainline to bring Canadian frontier gas to Canadian markets. The plan has a number of significant advantages over competitive proposals:

- It ensures that Canada has a separate and independent gas transmission system which will be subject to present and future regulation by only one sovereign jurisdiction.
- It provides Canada with the means by which it can tap its northern resources on its own without the need to be dependent upon United States participation. The present proved and probable reserves of almost 6 trillion cubic feet will show sufficient increase, by the time the supplies are needed in Canada, to finance a properly-sized pipeline exclusively for Canadian gas.
- It provides the populated areas of Canada with additional much-needed energy — a major contribution towards making the nation self-reliant in energy.
- It brings substantial economic benefits to Canadians.
- It is environmentally preferable and to a large extent follows existing pipeline rights-of-way where they are available instead of breaking new ground all the way.

- It is conservative in size and design and utilizes existing facilities and organizations to the fullest extent possible.
- It makes use of the maximum Canadian financial contribution in terms of materials, engineering expertise and construction labour.
- It utilizes cautious, proven and well-tested pipeline technology that poses little threat to the environment, safety, or continuity of service.

As part of the Maple Leaf project, Foothills plans to build a 42-inch pipeline from the Mackenzie Delta southward for 817 miles to a point north of the 60th parallel near the common boundary of Alberta and British Columbia. A 30-inch pipeline would extend southwesterly from this point for a distance of 141 miles to inter-connect with the existing transmission system of Westcoast.

Lateral lines will also be built by Foothills to bring natural gas services to eleven communities in the Mackenzie Valley region. These communities have a combined population of approximately half the total population of the Northwest Territories.

Another new section of 42-inch diameter pipeline would extend from the end of the Foothills pipeline 81 miles to the south to connect with the northern Alberta system of Alberta Gas Trunk. Since the Alberta Gas Trunk transmission system is interconnected with that of TransCanada Pipelines Limited (TransCanada) at Empress, Alberta, the Maple Leaf project would provide a means of serving all Canadian markets with gas from the Mackenzie Delta. Gas from the Mackenzie Delta would be carried through the Westcoast, Alberta Gas Trunk and Trans-Canada pipeline network by progressive expansion of these systems as required.

If approved, the Maple Leaf project could commence gas transmission operations in November 1982 at a level of 800 million cubic feet per day from the Delta. Throughput would be increased progressively over the next few years to a maximum capacity of 2.4 billion cubic feet per day in 1987. In the long term, these volumes could be further increased because the pipeline will traverse an area of hydrocarbon potential in the mainland Northwest Territories that consultants believe to have a potential for discovery of an additional 5 to 6 trillion cubic feet of gas.

## Canadians will own and operate Maple Leaf

The Maple Leaf project embraces the new pipelines required in the Northwest Territories, British Columbia and Alberta, as well as the necessary expansion of the existing systems. In total, the project requires approximately 1,040 miles of new pipeline and ultimately about 700 miles of looping in existing rights-of-way. The ownership and operation of the line, which will be comprised of five segments (see map), will be as follows:

*Segment 1:* From the Mackenzie Delta to a point just north of the 60th parallel (the southern boundary of the Northwest Territories) will be owned and operated by Foothills.

*Segment 2:* The 141-mile extension into British Columbia from the point just north of the 60th parallel to connect with the existing Westcoast system, together with the expansion required to the existing system in B.C., will be owned and operated by Westcoast. This segment would involve the expenditure by Westcoast of approximately \$400 million.

*Segment 3:* The extension into Alberta from just north of the 60th parallel to the point of connection with the existing Alberta Gas system at Zama will be owned and operated by Alberta Gas Trunk (Canada) a wholly-owned subsidiary of Alberta Gas Trunk.

*Westcoast owns and operates one of the largest natural gas processing plants in North America —located at Fort Nelson in northern British Columbia.*



*Segment 4:* The expansion required to the Alberta Gas Trunk system in that province will be owned and operated by Alberta Gas Trunk.

*Segment 5:* The extension required to the TransCanada system through Saskatchewan, Manitoba, Ontario and into Quebec will be owned and operated by TransCanada.

## Maple Leaf construction and technology is tried and true

Construction of the pipeline could begin as early as the start of the 1980 winter season. The specifications of the pipe and compressor stations throughout the length of the pipeline are standard and conventional. Engineering and cost calculations have clearly shown that the appropriate size for mainline piping is 42-inch outside diameter with a wall thickness of 0.540 inch.

The 42-inch line has been designed to operate at a pressure of 1250 pounds per square inch, which is 200 psi less than the maximum operating pressure for the G70 grade of pipe. If operating experience shows the de-rated pressure to be an unnecessary precaution, the pressure will be increased to its maximum, thus allowing expansion of pipeline throughput capacity. Competitive proposals recommend a larger 48-inch diameter pipeline operating at a far higher — and potentially hazardous — pressure. Foothills' engineers consider the use of such untried technology to be an unnecessary risk in such a hostile environment.

Because the Maple Leaf pipeline is conventionally sized, almost all of the material requirement can be provided by Canadians. All pipe, valves, fittings and ancillary equipment can be produced in Canada by Canadian manufacturers. In all, about 1.13 million tons of pipe would be required. And the pipeline will be laid by Canadian contractors, thus making maximum use of Canadian labor and construction capability.

## Canada can finance Maple Leaf

The financial requirements of \$4.6 billion for the Maple Leaf project is well within Canada's capabilities. Foothills requires only \$2.6 billion of this to put the pipeline in operation. Of this, common equity or ownership requirements are only \$450 million, all of which can be obtained within Canada and still leave the capacity to finance other worthy energy projects. Sponsors of Maple Leaf will operate as transporters for gas purchasers, charging on a cost-of-service basis. Foothills will not request the Canadian government — that is, the taxpayers — to guarantee the financial viability of the Maple Leaf project.

## Another way out for Delta gas

The National Energy Board, and others, have indicated an interest in an alternative to the Mackenzie Valley pipeline route for the movement of gas from the Beaufort Basin-Mackenzie Delta area. The alternative path, called the Dempster Highway route, runs from the Delta to Whitehorse where it could tie into a larger pipeline following the Alaska Highway.

Proponents of the Dempster Highway route cite its major advantages as being that it offers less environmental disruption by following an existing transportation corridor, and that it would encounter less native resistance than would be met along the Mackenzie Valley. Although Westcoast has not proposed such a route, the

company stands ready to participate in this project on the same basis as its involvement in the Foothills Maple Leaf pipeline if the Dempster Highway route is preferred in the national interest. In this energy transmission project also, Westcoast is ideally situated to participate.

## The Alaska Highway project: Alaskan gas for Americans

The Alaska Highway Pipeline project is a plan to connect Alaska North Slope gas to American markets via new pipelines along the Alyeska oil pipeline route in Alaska and along the Alaska Highway in the Yukon and British Columbia, and thence to the United States by way of existing pipelines in British Columbia and Alberta.

The Alaska Highway pipeline for American gas and the Maple Leaf pipeline for Canadian gas complement each other but are independent and can be constructed separately. Foothills has chosen to participate in the Alaska Highway proposal in concert with an American company, Northwest Pipeline Corporation (Northwest) because an immediate start on the Alaska pipeline would enable American producers to supply urgently-needed Prudhoe Bay gas to southern markets while allowing Canada the option of reviewing and studying the Mackenzie Valley pipeline and an alternate route along the Dempster Highway. This approach not only allows time to develop a reasonable understanding of the native land claims before construction begins but also ensures that the correct decisions are made on the pipeline route, having regard for the environmental impact upon the Mackenzie Valley. There should be no avoidable delays because cost increases with time; but nothing is as costly as building the wrong size pipeline along the wrong route at the wrong time. In the interim period, additional gas reserves will be developed in the Beaufort Basin-Mackenzie Delta regions.

Westcoast is sensitive to the critical energy crisis in the United States and the urgent need to transport American gas across Canadian territory and appreciates the advantages apparent in the original 42-inch Alaska Highway proposal. Included among these are:

- It provides for incremental expansion as additional volumes of gas become available from Alaska.
- It offers less risk of cost overruns.
- It reduces the risk of prolonged shutdowns.
- It avoids the need to construct a major pipeline across the environmentally sensitive North Slope areas of Alaska and Canada and across the Mackenzie Delta.
- It utilizes the existing Alyeska oil pipeline route, gravel pads and access roads.
- It makes full use of existing integrated Canadian transmission systems, rights-of-way, warehouses, pipe yards, communications facilities and personnel with the attendant economic advantages for both Canada and U.S.
- It avoids the necessity of establishing new housing sites and duplicating costly social services.
- It provides Americans with the quickest and least expensive means of obtaining Prudhoe Bay gas.
- It provides Alaska with a regional gas supply and the potential for industrialization within the State.

- It provides natural gas to most residents of the Yukon.
- It allows time for Canada to settle native land claims and resolve the political, socio-economic and environmental concerns in the Northwest Territories before constructing the Maple Leaf pipeline.

The '48-inch express-line alternative' offered by Westcoast and its partners does not provide all of the foregoing advantages of the 42-inch pipeline. However, there are some economy-of-scale advantages for the United States gas user if the Alaska gas flow actually reaches the optimistic levels some Americans expect.

Under the original proposal and base case, Northwest would construct a 42-inch diameter pipeline which would extend approximately 731 miles from Prudhoe Bay southward along the Alyeska oil pipeline corridor to a point just south of Fairbanks known as Delta Junction, and thence southeasterly, parallel to the Alaska Highway, to the Alaska-Yukon border, where there would be an interconnection with the proposed facilities of Foothills. From that point, Foothills would construct a 42-inch diameter pipeline which would continue along the Alaska Highway to a point on the Yukon-British Columbia border near Watson Lake. From there, Westcoast would construct a 42-inch pipeline to Fort Nelson, British Columbia to connect with its existing facilities. A 36-inch extension would be constructed from Fort Nelson to Zama, Alberta, to connect with the existing transmission system of Alberta Gas Trunk. The portion of this lateral which is located in Alberta would be constructed by Alberta Gas Trunk.

The existing transmission systems of both Westcoast and Alberta Gas Trunk would be expanded to provide capacity sufficient to transport in excess of 2 billion cubic feet per day of Alaska gas for delivery to the lower 48 states. It is contemplated that approximately one-third of the gas would go through Westcoast's system for delivery to the western United States and two-thirds through Alberta Gas Trunk's system for delivery to the eastern United States. That division of supply is flexible, to be determined by the needs of the U.S. customers.

The Alaska Highway Pipeline project is scheduled to commence gas transmission operations in November 1981 at a level of 1.2 billion cubic feet per average day for the first year. Throughput would be increased over a three-year period to an ultimate volume of 2.4 billion cubic feet per day. The build-up schedule is designed to take full advantage of the existing spare capacity which will develop in Westcoast's system, and perhaps in Alberta Gas Trunk's system, as the daily deliverability of traditional Canadian sources of gas declines. However, if supply conditions dictate, the two-year build-up in volumes could be eliminated and full volumes could be transported when operations commence.

## The Alaska Highway project: an international pipeline

The 42-inch Alaska Highway Pipeline project embraces the new pipelines required in Alaska, the Yukon, British Columbia, Alberta, and possibly Saskatchewan, as well as the necessary expansion of existing systems. In Canada the project requires a total of 1,081 miles of new pipeline and ultimately 1,206 miles of looping in existing right-of-way. The ownership and operation of the line, which will be comprised of five segments (see map), will be as follows:

*Segment 1:* The 731 miles in Alaska will be owned and operated by Alcan Pipeline Company, a U.S. subsidiary of Northwest Pipeline Corporation.

*Segment 2:* The 513 miles from the Alaska-Yukon border to a point on the Yukon-British Columbia border near Watson Lake will be owned and operated by

*Ramparts of steel pipe destined for the great Alyeska pipe line await the brief arctic summer. The Alaska Highway pipeline project sponsored by Foothills to bring natural gas south will follow the Alyeska pipeline corridor to Fairbanks. Westcoast will eventually tie in at the Yukon-British Columbia border*



*An artery of energy stretches into the future. Each year Westcoast expands its network of pipelines to augment the supply of natural gas and meet its contractual commitments to domestic and export markets.*



Foothills Pipe Lines (Yukon) Ltd., a wholly-owned subsidiary of Foothills.

*Segment 3:* The 259-mile extension into British Columbia to the Westcoast transmission terminus at Fort Nelson, the 97-mile lateral to the Alberta border, and the downstream expansion of the existing system in British Columbia will be owned and operated by Westcoast. Construction of this segment is expected to cost Westcoast approximately \$1.2 billion and increase its rate base accordingly.

*Segment 4:* The 52-mile extension into Alberta to the Alberta Gas pipeline terminus at Zama and downstream expansion of the existing Alberta Gas Trunk system in Alberta will be owned and operated by Alberta Gas Trunk (Canada), a wholly-owned subsidiary of Alberta Gas Trunk.

*Segment 5:* The possible 160-mile extension through Saskatchewan from Empress, Alberta to Monchy, Saskatchewan, delivering gas to the proposed Northern Border system, will be owned and operated by Foothills (Yukon).

## Construction and technology same as Maple Leaf

Construction of the Alaska Highway pipeline could commence as soon as February, 1979. Pipe size and technology are the same as those proposed for the Maple Leaf project; that is, 42-inch diameter main line operating at a pressure of 1250 psi. Proper scheduling of construction will make it possible to have all of the pipe which is to be laid in Canadian territory manufactured and rolled in Canadian mills and plants. Approximately 1.15 million tons of pipe will be required in total. Compressors will be assembled in Canada using many parts made in Canada. Other types of equipment also are expected to be manufactured in Canada by Canadian companies.

As the name suggests, the 48-inch express line alternative requires 48-inch diameter pipe, operating at 1260 psi. This pipe can be made by several mills in Canada.

## Alaska Highway route cheaper than Mackenzie Valley

The estimated total capital expenditure required for the 42-inch Alaska Highway pipeline project to reach full capacity is \$6.5 billion (Escalated Costs). Of this, \$3.1 billion will be spent in Alaska and \$3.4 billion in Canada. For start-up capacity, the capital expenditure required in Canada will be only \$2.6 billion, of which \$1.4 billion is for expansion of existing Westcoast and Alberta Gas Trunk systems. The other \$1.2 billion is needed for the new Foothills (Yukon) systems. As in the Maple Leaf project, sponsor companies will operate and assess charges as transporters of gas.

The 48-inch express line alternative for the Alaska Highway route would cost more than the 42-inch proposal but it would still be cheaper than the Mackenzie Valley 48-inch pipeline. Total capital cost for the 2,022 miles in Canada would be \$3.8 billion. The gas transportation cost would be lower also. Compared at the year 1987, the cost of service from Prudhoe Bay to Monchy, Saskatchewan, near the U.S. border, would be \$1.41 per million Btu's by the Alaska 48-inch pipeline, compared to \$1.52 by the Arctic Gas Mackenzie Valley 48-inch pipeline between the same two points.

## Impact upon the northern peoples

The Maple Leaf project, if it is built, will be one of the largest pipeline developments ever undertaken. In many respects — and although bringing much-needed services and benefits to the north — it will change forever the nature of the great Mackenzie River Valley. Fortunately, there is substantial time available before the start of actual construction to enter into public dialogue and properly evaluate the impact of the pipeline upon the land and its peoples, whichever route is approved for Canadian Delta gas — the Mackenzie Valley or the Dempster Highway.

There are deep differences of opinion among the populations of the Northwest Territories about how, and how soon, such a huge project can gain acceptance in respect of its long-term effects on a sparse but still critically important resident population. To date, most of these problems remain unresolved but are under spirited discussion across Canada.

## Berger hears the northern voice

In a precedent-setting inquiry, Justice Berger heard the expressions of the peoples of the north with a thoroughness never attempted or achieved before. An indication of the persuasiveness of the northern voice was the resulting report of the Berger Commission Staff. They recommended a 10 to 15 year delay in pipeline construction along the sensitive Mackenzie River Valley.

Although release of the Staff report was authorized by Justice Berger to permit prepared rebuttal, it was not endorsed by him. The official Berger Report on the impact of the pipeline construction in this area is expected by May 1. It unquestionably will have a major influence on the expected pipeline parliamentary debate and decision.

## Foothills cares about the north and its peoples

To help bring a wider understanding of the project to native peoples, Foothills has established a liaison program to keep the populace informed about all aspects of the pipeline. The program also provides them with a means of expressing their desires and concerns so that their views become input to project planning. There is no doubt that the pipeline will bring the twentieth century to the north and it is incumbent upon the sponsors of the project to make certain that twentieth century technology is used wisely.

Other Foothills programs related to the pipeline include on-the-job training for operational and supervisory employment openings arising from construction activities, and business counselling for those northerners wishing to pursue the entrepreneurial opportunities that the pipeline will generate.

## Westcoast wants to be welcome

As a Foothills sponsor, Westcoast is sympathetic towards native land claims and is convinced that some years will pass before a gas pipeline crossing the Northwest Territories will be completely accepted by the inhabitants. Westcoast does not presume to know how to settle these claims but feels strongly that frontier gas development should be negotiated rather than commanded. Before construction begins, Westcoast hopes that land claim negotiations will have progressed to the

*At a turning point in their lives, children of the Mackenzie Valley greet a stranger to their land. Pipeline hearings were held in many small communities throughout the north.*



point where the company would be welcome upon anyone's land.

While the over-all gas reserve in the Mackenzie Delta is unquestionably large and will be necessary, Westcoast considers that Canada's energy supply-demand balance is not yet so critical as to clearly deserve national priority to the extent of over-riding all other responsibilities to the northland and its peoples. Westcoast's policy in this regard is supported by the abundance of short-term supplies of natural gas in Alberta confirmed recently after extensive and successful drilling programs.

## What's in it for Canada?

Canada has two basic decisions to make. Should it accommodate the United States with an overland short-cut for its Alaska gas? Most Canadians say yes. Should that U.S. pipeline follow existing transportation corridors or cut a new swath all the way? Parliament will decide.

For Canada as a whole, adoption of the Alaska Highway proposal to help the United States would permit unhurried and unpressured consideration of the many vexing problems associated with the construction of a pipeline along the Mackenzie Valley or Dempster Highway for Canadian gas.

It is Westcoast's position that Canada's and the United States' natural gas needs are markedly different in both magnitude and timing. Accordingly, common sense dictates that those widely divergent needs are incapable of being equitably or efficiently satisfied by the same pipeline design, built along the same route at exactly the same time. Each country will be better served by a separate pipeline project, tailor-made for its specific needs in all respects, being identical only in their common privilege of traversing Canadian soil.

It is not certain which of several proposals now before various governmental bodies will eventually be dominant. The Maple Leaf project, the 42-inch Alaska Highway project with the '48-inch express-line alternative', and other competing proposals are currently before the National Energy Board, which is expected to make a recommendation to the government by mid 1977. A decision by Cabinet and Parliament would follow some months later. The Alaska Highway project and its competing proposals — but not the Maple Leaf project — must also gain the approval of the Federal Power Commission in the United States because they are international projects. This recommendation is expected by May 1, 1977. Presidential recommendation to Congress is scheduled for September 1, 1977.

In the final analysis, the fact remains that whether it carries Canadian or U.S. gas, the impact of any overland pipeline upon Canada's economy and environment will be immense. There may be room for accommodating compromises in treaty matters, technical details, and even financing and tariff arrangements, but the choice of routes is rightfully Canada's decision — and it is a decision that must be made on behalf of all Canadians, northern and southern, eastern and western.

*A carpet of summer growth supports a tenuous web of life. The arctic is home to nearly half a million migratory cariboo, a mainstay of the native diet. Foothills Pipe Lines has assembled a dedicated team of environmental specialists to help minimize wildlife disturbance.*



**Westcoast Transmission Company Limited**  
1333 West Georgia Street, Vancouver, British Columbia