THE ENERGY CRISIS

LAST POST SPECIAL REPORT

Perhaps it was all a coincidence...perhaps

by Carole Orr

The men who run the giant oil companies are by far the most powerful men in the industrial world. The modern industrial state depends on energy, and accordingly the men who control the energy in large measure control the state. When they choose to wield their power, the oilmen are listened to, and usually obeyed. They have chosen to wield their power now. The result is the Energy Crisis of 1973.

In Canada, the crisis has given new urgency to the continuing energy debate, a key part of the more general debate about who will control the Canadian economy, who will profit from it, and how it will be run.

Until recently, most Canadians have understood little and cared less about energy, living in a happy ignorance carefully nursed and tended by successive federal governments. But with the growth of such movements as consumerism, environmentalism and nationalism in the late sixties, people began to make it their business to know just what was going on in the shady nooks of government economic and trade policies, areas previously assumed to be beyond the ken of the participatory hordes.

The Great Canadian Energy Debate was inaugurated by the unforgettable Joe Greene, then minister of energy, mines and resources in the Trudeau cabinet. It happened in — of all places — Washington, the date was December 4, 1969, and the occasion later came to be known as the Gee-Whiz Conference.

Joe Greene's pratfall

Thirteen years earlier, President Eisenhower, in keeping with the protectionist policies of the United States at the time, imposed quotas on U.S. imports of Canadian crude oil. The quotas at the time were meant to shield the domestic oil industry in the U.S. from outside competition. They have since been a lever for the Americans in any trade negotiations with Canada, as the Canadian industry has always sought to extend foreign markets for its crude oil.

But now Walter Hickel, the American secretary of the interior with whom Greene had just met, was proposing a new idea: continental energy integration. Greene could not contain his enthusiasm. He told the press later that "this is a great opportunity for Canada." Asked whether it would mean a substantial economic integration of the two countries, Greene replied: "Yes, I think it would."

All over the world, the last forty years have witnessed the struggles of dozens of countries, from Mexico to Libya to Indonesia, to regain control of economies strangled by American "multinationals" and especially the powerful oil companies: Standard of New Jersey, Standard of California, Texaco, Mobil, Gulf. And now Joe Greene was going to reverse the tides of history over lunch.

Back home, Greene met the full wrath of betrayed nationalists and a horrified cabinet. The continental energy scheme wasn't going to happen quite as precipitously as Joe had thought. Greene himself, in one of history's more startling turnabouts, later turned up as a nationalist of sorts.

In the summer of 1971, President Nixon announced that the U.S. would remove quotas on Canadian crude if the two countries could reach agreement on dealing with oil supplies in an emergency. The U.S. was in sight of an energy shortage and needed a *stable* supply. No such agreement was reached but short-term energy deals were made, and there were massive Canadian sales to the U.S.

At the beginning of this year, rumblings of an energy shortage in the States grew louder. Instead of isolated stories on the inside pages of newspapers there were now front-page items on the closing down of schools in North Dakota for lack of heating fuel. Economists gave dire warnings of severe price increases, in Canada as well as the U.S., that could accompany a shortage if the American crisis were not relieved.

Senator Henry Jackson, chairman of the U.S. Senate Interior and Insular Affairs Committee, stepped up his call for freer oil trading with Canada. Always an advocate of a continental energy policy, Jackson now called for an end to the oil import quota system where Canada was concerned.

The energy crisis was taking shape.

Monday, January 8: Shell Canada announces an increase of 20 cents per barrel in the price of Western Canadian crude. The domestic price of gasoline will therefore go up one cent per gallon.

Tuesday, January 9: Imperial Oil, the Canadian subsidiary of Standard of New Jersey, does the same. Three others follow suit.

Wednesday, January 10: Senator Jackson opens the Senate Committee hearings on energy policy in Washington. Interior Secretary Rogers Morton argues before the committee that the U.S. "must pursue" a continental energy policy regarding oil, gas and other energy supplies to North America. He dismisses the Soviet Union as a potential source, saying "I can think of a lot of better places to spend our money."

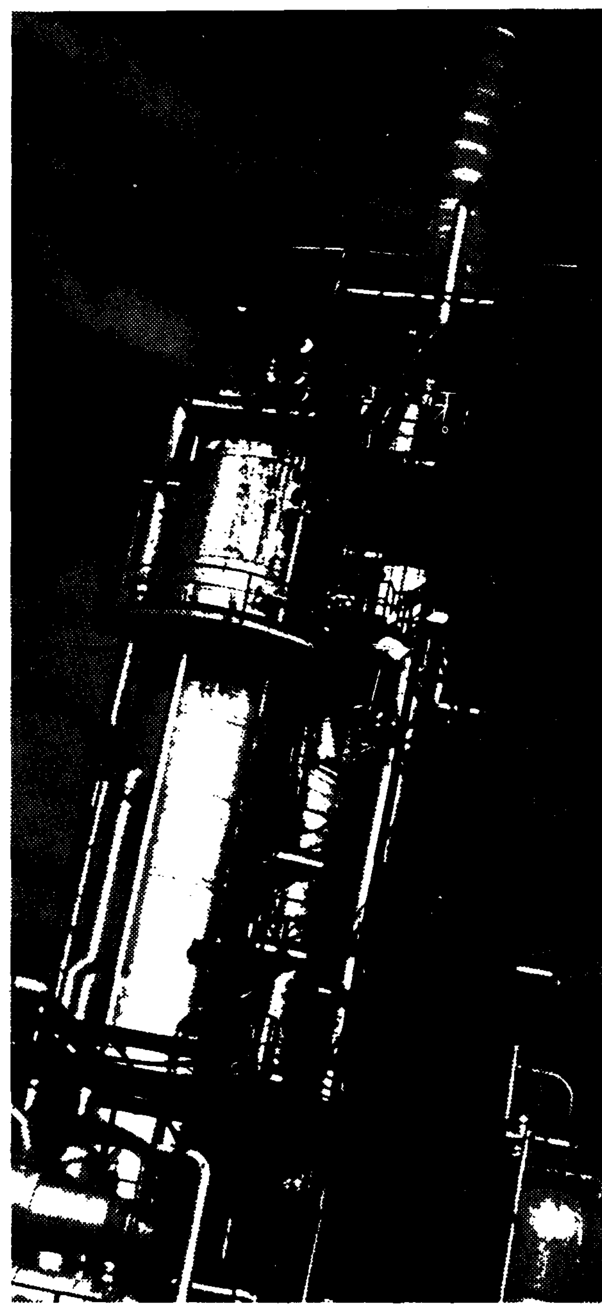
Senator Jackson urges his government to give "much higher priority to relations with Canada as far as our energy problem is concerned."

Thursday, January 11: The urgency of Senator Jackson's position is underlined by a rash of newspaper stories about heatless homeowners, schools shut down, airlines running on minimum supply, and industrial employees laid off, primarily in snowbound Minnesota and the Dakotas.

"Winter moves fast. Oil moves slow. That is the trouble," says a petroleum industry spokesman.

The television program CBS Reports *makes the suggestion that the oil is moving slowly not because it is hard to get but because the oil industry is making sure it is. The oil companies have in fact said to the American government that unless it will grant them the price increases and protective tariffs they demand, they will not "be able to extract and refine the existing petroleum resources in a way that is economically feasible for them."*

As a measure, there are reports that three producers in the offshore Louisiana fields have asked for an immediate 73-percent price increase and want further annual increases which would drive their prices to twice current levels within seven years.



"Winter moves fast. Oil moves slow," says the oil industry.

The head of a southern gas company says, "We don't have enough gas to go around. We can't get enough to keep everybody in gas."

Donald Macdonald, successor to Joe Greene as Canada's minister of energy, mines and resources, is attacked in the House of Commons on the government's stand on the energy crisis. The NDP's Tommy Douglas points out that the demand for oil in the U.S. is already pushing up the price we must pay for oil here.

Don Getty, Alberta's minister of intergovernmental affairs, is quoted as warning that Canada is now facing an energy resources crisis of its own. Macdonald replies with his intention of "reserving supplies against the future needs of Canada, and then selling any surplus," adding that "there is no danger to Canadian energy supplies."

Headline in the Sarnia Observer: *"Energy Crunch Reaches Sarnia." W. B. Caswell, manager of Dome*

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Oil Co. in Sarnia, reports that its storage supply of 500,000 barrels of liquid petroleum gases is depleted and its plant is shipping directly out of production.

Statistics Canada reports cheerfully that energy shortages in the United States mean increases in Canadian mineral production, notably fuel production, which in 1972 rose by $2.3 billion or 15.6 per cent over 1971.

Friday, January 12: The U.S. Federal Power Commission reports that U.S. natural gas reserves fell in 1971 by 7.1 per cent to 161.3 trillion cubic feet. To remind us.

Wednesday, January 17: President Nixon signs a proclamation increasing the quota on Canadian crude oil imports east of the Rockies by 93,000 barrels a day to 675,000. This means Canada will export at least 30 million more barrels of crude and finished oil to the United States this year than in 1972, if the Canadian government so wishes.

Monday, January 22: Senator Jackson advises his government to abolish the import quotas entirely without asking any return concessions from Ottawa. The irony and inappropriateness of the offer is apparently lost on Donald Macdonald.

At this point, both sides revived the Mackenzie Pipeline debate, dormant since the October elections. The oil companies and other proponents of the pipeline from Alaska and the Canadian Arctic to southern Canada and the American midwest stepped up the campaign to get on with the building, which has also been dormant, in the midst of the panic.

Tactics have included newspaper stories like one in the Winnipeg *Free Press* of January 23: "Pipeline Would Aid Unity, Says Geologist." The man was talking about Canadian unity. Meanwhile, opponents of the pipeline increased their publicity campaign, as the National Energy Board hearings on the project, scheduled to begin in March, approached.

Wednesday, January 24: Donald Macdonald announces the government's intent to hold hearings on the environmental and social effects of the Mackenzie pipeline, in addition to the NEB hearings. He told a Toronto audience that the pipeline "would be essentially to meet Canadian rather than American needs."

For a man who could take advantage of hindsight, Macdonald is sounding oddly like Joe Greene without the bells on. Nixon's relaxing of the quotas without, so far as we know, any concessions on "security" from Ottawa is a clear admission of desperation. But it is open to several interpretations, ranging from the plausible to the paranoid.

- Does Nixon need new fuel supplies to call the bluff of the oil companies, who now have guns in his back?
- Are the companies and the U.S. government co-operating in a massive effort to exert moral suasion on the Canadian people, who will be portrayed as refusing their bounty to freezing schoolchildren?

Meanwhile, the B-52s executing the last, purgative raids of the war over Hanoi did not suffer for want of fuel.

Scenario for a sell-out

by James Laxer

For a few weeks now, American energy companies and the Canadian and U.S. governments have been treating the people of both countries to a well-orchestrated energy scare so that they can carry out programs that will rearrange the energy industry on this continent.

Hearings in the U.S. Senate, a report from the Ontario government and planned hearings by Canada's National Energy Board have been highlighted against the backdrop of a winter oil distribution crisis in the United States.

The crisis is being built up to convince Americans that unless the plans of the energy companies are allowed to go ahead, the U.S. will face cold, empty schoolrooms in winter and failed air-conditioning equipment in summer.

For Canadians, as the Ontario government report put it recently, the energy crisis is a "spill-over" from the crisis in the United States.

The American crisis flows from a record of bad domestic planning for the past 20 years. It arises from the Pentagon's fears of America becoming too dependent on oil imports from politically shaky countries. A further worry is caused by environmentalists, who have been getting in the way of the building of electric power plants and strip mining for coal.

These factors, taken together, have created an energy problem which Washington authorities see lasting until the mid-1980s. After that, they hope, technology will bail them out and new sources of energy will become available and take the pressure off fossil fuels.

"It is expensive," said Trudeau, "but so was the Canadian Pacific Railway. Is it too big a project for Canada? Only in the view of those who have lost faith in what Canada is all about."

American proven reserves for both natural gas and oil stand at about 10 years supply.

Natural gas, the non-polluting wonder fuel, is in the most serious trouble. In 1971 it supplied 35 per cent of U.S. energy needs and only three per cent of this was imported. The U.S. National Petroleum Council projects that by 1985 the absolute amount of natural gas used will decline slightly, and that, relatively, natural gas will fall sharply from more than one third to about one sixth of American total energy supply. About one third of this gas will be imported by 1985, according to this projection.

Just over 40 per cent of U.S. energy supply now comes from oil, 30 per cent of which is imported. According to the National Petroleum Council, by 1985 oil will still provide the same proportion of American energy as it does today — but by then 60 per cent will be imported.

A sure sign of the current crisis is the revival of coal production in the U.S. It will move from supplying under 20 per cent of American energy to almost 25 per cent — passing natural gas in importance.

Of course, these projections for U.S. energy use are based on the assumption that the same philosophy of energy use will remain dominant. Fully 50 per cent of American energy output is now absorbed by transmission losses, mechanical inefficiencies and incomplete combustion. And that is without even questioning the priorities of U.S. energy use. It is obvious that a country that maintains 93 million cars and 185,000 planes and that charges cheaper rates for fuel the more an industry uses can only survive by living off the energy resources of much of the world.

In the long term, the Americans are hoping the energy crisis will be ended by nuclear power, and particularly by the fast breeder reactor which produces more fuel than it consumes. They are also looking to giant windmills, solar energy, hydrogen fuel for jet aircraft and even human waste as potential sources.

The assumption is that technology will come through as it always has. And whether or not that assumption is correct, the effects of the energy crisis on Canada will be determined by that view of the problem.

Energy companies expect an announcement soon from President Nixon that the Federal Power Commission will take the price ceiling off natural gas and allow it to rise to levels determined by market forces. This will set off a frantic exploration surge for the remaining reserves in the U.S.

It will also increase the price of natural gas in Canada. Even before the recent distribution crisis in the U.S., Alberta Premier Peter Lougheed had announced that he wanted a two-price system for natural gas — one for Alberta and one for the rest of North America. Under Alberta's royalty arrangements, two thirds of the proposed increased price would go to the energy companies, and one third to the provincial government.

Even if the federal government or the courts finally decide that Alberta cannot establish a two-price system for gas between Alberta and the rest of Canada, Lougheed will have won popular support within Alberta for his increase.

And now Ontario has got into the act with its own report on energy. The report, produced by a task force chaired by former Chairman of the Economic Council of Canada John Deutsch, warned that the large bulk of Ontario's energy is imported from outside the province, and that it can expect supply problems and cost increases related to the American energy crisis.

The energy crisis is being handled both in the United States and in Canada to convince the public that a price increase is justified. Also of great importance is the effort to convince people that we are facing an emergency, and that environmental purists who have been gaining an audience lately shouldn't be allowed to interfere with the quest for life-giving sources of fuel.

In Canada the crisis mentality is being fostered to convince Canadians that it is reasonable to expect that much more of our oil and gas will be exported to the thirsty U.S. and that we had better start tapping Arctic reserves fast if we want to heat our homes and fuel our industries.

The Mackenzie Valley pipeline is now being floated on the psychology created by the energy crisis. First conceived in the late sixties, the pipeline would bring natural gas from Alaska and the Canadian Arctic to southern Canada and the American midwest.

Several years of intense jockeying between two rival syndicates — the Northwest Project Study Group and the Gas Arctic System Study Group — each with its own scheme for the pipeline, has now ended in a merger. To this merged syndicate were added Imperial Oil Ltd., Gulf Oil Canada Ltd., Shell Canada Ltd. and Canadian Pacific Investments Ltd. Add to that the Canada Development Corporation controlled by the federal government and the result is the most powerful array of corporate and state power ever gathered on behalf of any project in this country's history.

Liberal cabinet ministers have been toasting the pipeline with rhetoric for some time.

Prime Minister Trudeau described his vision of Mackenzie Valley development in these terms:

"It is expensive, but so was the Canadian Pacific Railway a century ago. Is it too big a project for Canada? Only in the view of those who have lost faith in what Canada is all about."

Before the end of the year, the National Energy Board will begin hearings on the mammoth project. The NEB is now considering ways to prevent the hearings from being bogged down by "nuisance groups" like Pollution Probe that have no "legitimate" financial stake in the development, but who are merely concerned with such vagaries as the future of the Canadian environment.

For Canadian government ministers though, the coming NEB hearings are little more than a formality. In March 1971 Jean Chretien, minister of Indian affairs and northern development, told a Dallas, Texas audience:

"We in Canada would welcome the building of such a gas pipeline through our country and would do everything reasonable to facilitate this particular development ... An oil pipeline would also be acceptable. In other words, if it is felt desirable to build an oil pipeline from Prudhoe Bay direct to the mid-continent market then a right-of-way through Canada I am sure can, and will be made available."

Shortly thereafter, Jack Davis, minister of the environment, stated in Vancouver that he was 90 per cent sure that the building of the Mackenzie Corridor could begin by 1973.

Clearly government ministers were willing to move on the pipeline more quickly than the oil companies. It is difficult to disagree with Dr. Douglas Pimlott, chairman of the Canadian Arctic Resources Committee, that "the Mackenzie Valley would probably have had a hurry-up pipeline if the international petroleum executives had opted to put one there."

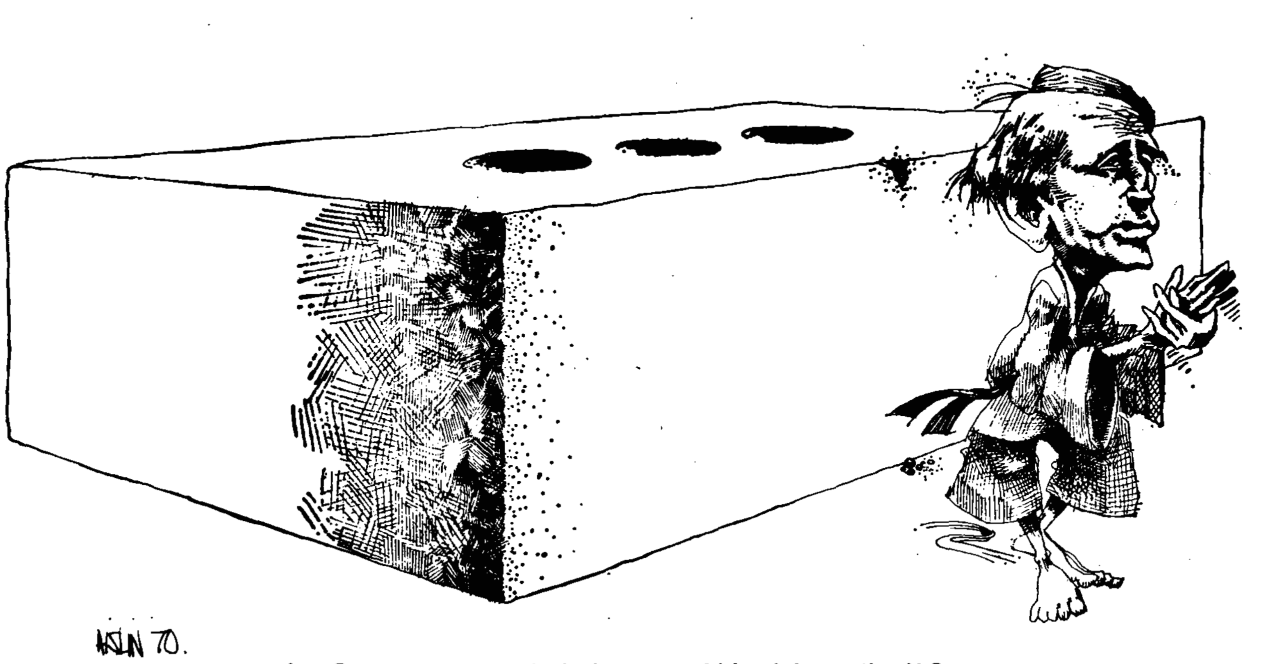
Canada's energy minister, Donald Macdonald, has added his praise to that of other cabinet ministers for the initiative being shown by the oil companies in moving into the north.

He has also been trying to convince the Americans that a Mackenzie Valley pipeline is preferable to a trans-Alaska and west-coast shipping route for Alaskan oil and gas.

In May 1972, Macdonald highlighted the security of the Canadian route as its chief advantage for the Americans. In a letter to U.S. Interior Secretary Rogers Morton, the energy minister wrote:

"There would be many advantages arising from the use of a Canadian pipeline route. We believe it would enhance the energy security of your country by providing an overland route for your Alaska oil production, thereby servicing the oil deficit areas of the mid-continent and also the Pacific North West.

"Canada has an interest in the energy security of your country, and this land route for Alaska crude oil would enhance that security of supply to deficit areas in the United States. Furthermore, this security of supply could be further enhanced during the interim period of northern pipeline construction by extra Canadian crude."



Joe Greene gets tough during one of his visits to the U.S.

Not only has Macdonald been using the security argument as the key to attracting the Americans to the Mackenzie Valley route, he has also been engaging in secret talks with the U.S. on the security of eastern Canada's oil supply.

U.S. demands security

The security issue is critical to energy negotiations now going on between Canada and the U.S.

When the U.S. contemplates the prospect of importing 60 per cent of its crude oil from abroad by the early 1980s, Pentagon strategists are filled with terrified visions of political unrest in the Arab countries.

The Shultz Report, entitled *The Oil Import Question: A Report on the Relationship of Oil Imports to the National Security* was presented to the U.S. cabinet in February 1970. The ultimate nightmare of the authors of the Shultz Report (George Shultz is now Secretary of the Treasury in the Nixon administration) was that all the oil producers of the middle east, north Africa and Venezeula could get together and boycott the markets of western Europe and the United States to get a better trade deal with industrial oil-consuming countries.

A major part of the solution to these fears of insecurity of foreign supplies lay in locating "safe" sources of foreign supply. Throughout the report, Canada was assumed to be the best bet.

"The risk of political instability or animosity is generally conceded to be very low in Canada. The risk of physical interruption or diversion of Canadian oil to other export markets in an emergency is also minimal for those deliveries made by inland transport", said the report.

But the Shultz Report was not entirely happy with Canada. The problem it saw was that east of the Ottawa valley, Canada's oil markets were supplied from the middle east and Venezuela. Therefore, in the event of a supply interruption, Canada might be expected to shift its western oil from the United States to Montreal to supply eastern Canada first. This problem tended "to subtract from the security value of U.S. imports from Western Canada".

The report concluded:

"Some provision for limiting or offsetting Canadian vulnerability to an interruption of its own oil imports should therefore be made a precondition to unrestricted entry of Canadian oil into our market. Full realization of the security benefits implicit in such a preferential arrangement is also dependent on the development of common or harmonized United States-Canadian policies with respect to pipeline and other modes of transportation, access to natural gas, and other related energy matters."

What the Americans want from Canada is not simply a commercial source of oil (they can get that from the Middle East more cheaply), but a political guarantee of security of access to resources that will involve a commitment by the supplier country to give up free choices for the future in defining surpluses, ownership and marketing methods for resources.

In 1970 however, the Canadian government was unwilling to talk to the U.S. about the security of eastern Canadian oil supply. In a speech to American oilmen in Denver, former Energy Minister Joe Greene stated:

"It must be left to *us*, to Canada, to evaluate the matter of oil supply security in eastern Canada and to take any appropriate action.

"This aspect of freedom of domestic policy-making is most important to us. We believe our national and international, political and economic circumstances are such that we must retain freedom to apply the Canadian solutions to Canadian problems," he concluded.

Donald Macdonald has moved the Canadian position significantly from the days of Joe Greene.

His talks with the U.S. on the security of eastern Canadian oil supply means the Canadian government is moving to meet the vital precondition to a continental energy deal set down by the Shultz report. Taken together with his invitation to the Americans to consider the security benefits of the Mackenzie Valley pipeline, Macdonald's initiatives involve the sale of Canadian sovereignty, as well as gas and oil.

Former U.S. Secretary of the Treasury John Connally said recently that he thought the U.S. should take action to prevent foreign countries from reneging on long-term commitments to U.S. companies.

"If a U.S. company goes overseas with any sort of federal insurance coverage," Connally said, "the U.S. might well say this agreement cannot be changed, altered, amended or terminated without the prior written approval of the U.S. government." And that, he said, might make other governments think twice before acting against U.S. companies.

If a continental energy deal including a Mackenzie

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SOME ISSUES NEVER DIE

Of the mines of this vast region little is known of that part east of the Mackenzie River and north of the Great Slave Lake .... The petroleum area is so extensive as to justify the belief that eventually it will supply the larger part of this continent and be shipped from Churchill or some more northern Hudson's Bay port to England.

— *Third Report of the Senate committee on northern resources, 1888*

We must develop all our resources. We are told that Mackenzie, going down the Mackenzie river 130 years ago, found oil in that section of the country. I have statistics to show where we buy our gasolene (sic) from, and most of our money spent on gasolene goes to the United States. We have our oil wells up in the Mackenzie River district and we need a railway there to enable private enterprise to develop them. Of course the great Imperial Oil Company will put in their plant, but that will be another monopoly. If the Imperial Oil Company, the big child of the Standard Oil Company puts in a pipe line, you will not see cheaper oil. A railway line must be built or some other method of transportation provided. It would cost a great deal of money to put in canals or locks, but there should be some way of getting into that vast territory.

— *W. K. Baldwin (Stanstead) Debates, House of Commons, 1921*

Valley gas, and later oil pipeline is begun, it will affect this country's economy as well as its sovereignty.

The most obvious effect will be to raise the cost of oil and gas in Canada. Canadian natural gas prices are already rising to meet the U.S. cost, in part because of the sale to that country in September 1970 of 6.3 trillion cubic feet of gas, worth about two billion dollars.

When Nixon lifts the price ceiling on natural gas, we can expect more upward pressure on the price for Canadians.

And, of course, the export to the U.S. of about half our output of gas and oil depletes our sources in Alberta more quickly, forcing us north to the more expensive reserves.

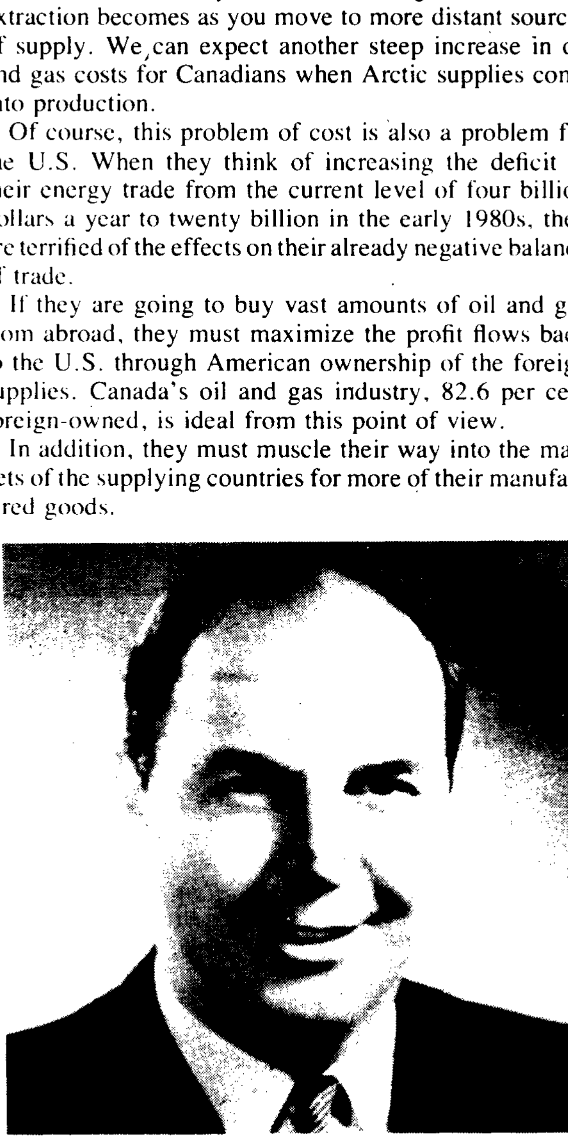
Macdonald pointed out that at our present rate of consumption (including exports to the U.S.) we have proven reserves for something like 18 years in oil, and 28 years in natural gas. Therefore, we must be active in expanding the reserves through exploration, especially in the north. More than half our oil production is now exported to the U.S., compared with only 22 per cent in 1960.

The problem is that oil and gas is an increasing-cost industry in which economies of scale work only in transportation. The more you extract the higher the cost of extraction becomes as you move to more distant sources of supply. We can expect another steep increase in oil and gas costs for Canadians when Arctic supplies come into production.

Of course, this problem of cost is also a problem for the U.S. When they think of increasing the deficit in their energy trade from the current level of four billion dollars a year to twenty billion in the early 1980s, they are terrified of the effects on their already negative balance of trade.

If they are going to buy vast amounts of oil and gas from abroad, they must maximize the profit flows back to the U.S. through American ownership of the foreign supplies. Canada's oil and gas industry, 82.6 per cent foreign-owned, is ideal from this point of view.

In addition, they must muscle their way into the markets of the supplying countries for more of their manufactured goods.



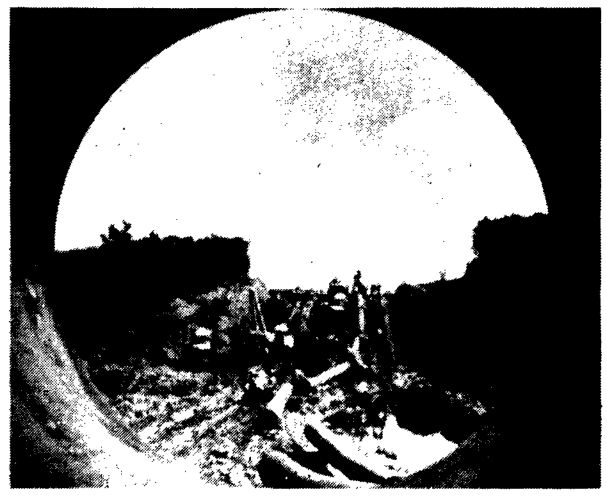
Energy Minister Macdonald: Joe Greene without the bells on.

As well as gaining secure access to our energy resources, the U.S. will want increased access to Canadian manufacturing markets. The resulting trade-off will mean more Canadian development in the capital-intensive resource field, and less in labour-intensive manufacturing.

Another adverse effect for jobs in Canada will result from the cost increase the energy deal will bring. Instead of using our energy at low cost to cut the cost of manufacturing in Canada, we will help to make American industry more competitive. The energy deal means moving energy to industry in the U.S. instead of creating industry at the site of the resource in Canada.

It is reasonable to demand that Canadian resources be used as the basis for Canadian industry, while at the same time insisting that our industries end the waste of energy. This can be done by reversing the present pricing system which rewards waste by charging less the more power is used. If that system was reversed and an increasing cost curve was built in for industrial use of power, it would provide a powerful incentive for industry to end energy waste.

Eric Kierans has developed the argument that one economic cost of building the pipeline will result from the effect of a huge importation of capital from abroad on the value of the Canadian dollar. Kierans argues that an inflow of U.S. dollars for the Mackenzie Valley project



Mackenzie Valley pipeline is being floated on the psychology of the energy crisis.

and for the James Bay hydro development project in Quebec (total cost \$12 billion for the two projects) will drive up the value of the Canadian dollar and hurt our export industries. (If the Canadian dollar is valued at \$1.10 American it takes more American dollars to buy a dollar's worth of Canadian goods. This amounts to a self-imposed hurdle for our exports.)

A California economist, concerned about the U.S. balance-of-payments crisis, has worked out the following estimate for the trade effects of an upward revaluation of the Canadian dollar: a five per cent increase would result in a \$715 million negative trade shift for Canada with the U.S.; a 10 per cent increase would result in a \$1.6 billion negative trade shift.

There is, of course, one way around this problem. If the foreign capital raised for the project is simply spent abroad, it will not affect the Canadian exchange rate. But it will create no jobs in Canada either. If spending is done in Canada, it will affect the exchange rate and will hurt export industries, while providing a temporary boom in the building of steel pipe.

Ironically the Americans may well prefer to have the bulk of the capital for the pipeline raised in Canada, and they may well prefer Canadian control of the whole venture. This way, the very heavy cost of construction would fall on Canadians who would then earn a low fixed rate of return on the pipeline which, as a common carrier, would be treated like a public utility. Meanwhile the real profits would be made by the petroleum countries whose gas would flow through the pipe to market.

Significantly, when the Committee for an Independent Canada asked for assurance that Canadians would control the pipeline, Donald Macdonald said that he favoured this arrangement himself. Nothing could be more ironic than a demand for Canadian control of the pipeline causing Canadians to put up the long-term, high-risk involvement for the pipeline, while American oil companies walked away with all the real benefits.

If the pipeline is built through funds raised in Canada, it will mean an enormous mobilization of Canadian capital which could otherwise be used to create jobs for Canadians in the manufacturing sector of the economy.

When asked on a television program early in 1973 why Canada did not place more emphasis on manufacturing in its development strategy, Macdonald replied that there simply were no available markets for Canada's manufacturing.

He ignored the fact that Canada is by far the world's leading importer of manufactured goods, bringing them in at a rate of \$463 per capita per year compared with \$116 for the United States.

If, instead of building the Mackenzie Valley Pipeline, the government set as its objective for the seventies the reduction of Canada's per capita manufacturing imports to the U.S. level, an additional annual market of seven billion dollars for Canadian manufactured goods would be created. By itself, this project would create enough industrial jobs and related service jobs to eliminate Canadian unemployment. The Mackenzie Valley pipeline, on the other hand, will create no more than a few hundred permanent jobs.

A recent background study for the Science Council of Canada by Pierre L. Bourgault, Dean of Applied Science at Sherbrooke University, warned that Canada's mushrooming expansion of resource extraction is driving this country rapidly up the cost curve in resource industries. At the end of the road, he warns, we will have depleted our resources while having created no other economic activity to take their place.

Environmentalists, of course, see the problem not solely in economic terms but in terms of human and non-human survival. They point out that the assumption that technology will come through with the answers is potentially fatal in an epoch when man's impact on the environment is already vast. They advance the principle that the onus for proving that development will not have more negative than positive effects should be placed on the developer.

Further, they insist that when problems are foreseen, steps in economic development should not be taken on the assumption that scientists will save us before the problem materializes.

Most directly concerned with the environmental aspects of the Mackenzie Valley pipeline are the permanent inhabitants of the north, the original peoples. The Canadian government takes the view that these people cannot be allowed to stand in the way of progress.

Opposition to the energy deal and the Mackenzie Valley pipeline is forming in Canada. The opposition bears little resemblance to the powerful assemblage of corporations that have gathered to push the project through. Made up of ordinary citizens who are concerned with the political, economic and environmental consequences of the pipeline, the opposition is beginning to form into small pockets of resistance across the country. But before the year is out a national coalition dedicated to stop the pipeline may be formed of what is now a disarray of Indians, Eskimos, ecologists, trade unionists, socialists and nationalists.

The coalition will have to demand a ban on all further resource development in the Canadian north until the rights of the original peoples have been fully recognized and until the answers to environmental problems become much clearer. If development later proceeds, it must involve local control for the original people of the north as a basic principle.

As well as calling for a moratorium on resource development in the north, an opposition movement will have to consider the demand for public ownership of the energy resource industries that are now in production in southern Canada.

Public ownership is the one way to stop the flow of profits out of Canada and to end the power of the corporations that are now coming together to launch the pipeline. Profits from publicly-owned energy industries could serve as the basis for investment in secondary industry that could give resource-producing areas like Alberta balanced, long-term economic prospects.