1971-1982: Alaska gas pipeline wars

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Part 1 of 3 of "Searching for a market: The 40-year effort to develop an Alaska natural gas pipeline"

The 40-year-long epic quest to build an Alaska natural gas pipeline started with a battle royal in the mid-1970s.

The pipeline project would be one of the largest privately financed ventures ever, if the swirl of forces in motion could settle on a single project, and if that project could deliver gas to the U.S. Lower 48 states at a competitive price.

The cast of characters included major oil companies, competing coalitions of pipeline owners, environmentalists testing the limits of their newfound clout and Alaska leaders trying to steer the young state's destiny.

Much of the drama played out in Washington, D.C., before an administrative law judge, who found himself mired in an interminable Kafka-esque hearing on which of three proposed pipelines would be best. But the fight also spilled out of the hearing room into the halls of power in Washington and Ottawa, Canada.

At the time, Alaska was a place raw with opportunity, christened as a state only 15 or so years earlier and in the first stages of its metamorphosis into an oil barony – the first gas pipeline fight almost exactly overlapped the three-year construction of the \$8 billion trans-Alaska oil pipeline.

At the time, aging Lower 48 gas fields, severe winters and government price controls helped cause a natural gas shortage in the United States that prompted gas rationing and threatened "profound hardship and danger for individuals and substantial economic disruption for the country," as one contemporary account put it.

"The construction of an economically and environmentally sound Alaskan natural gas pipeline can reduce this nation's energy vulnerability and provide greater energy independence," the Federal Power Commission said in its 1977 recommendation to President Jimmy Carter to choose a pipeline route through Canada over the liquefied natural gas proposal Alaskans favored.

Carter made his choice, but nothing got built in Alaska. By 1982, roughly 10 years after the battle began, it was clear the state would not get a gas pipeline this time.

Still, the 1970s fight over Alaska's natural gas bounty set the table for what came next as various parties continued to push differing gas pipeline projects forward. The themes that crystallized by the mid-1970s stayed hardened over the ensuing decades: A national preference for piping gas to the Lower 48, an Alaska tilt toward an LNG project, North Slope producers running hot and cold on a pipeline project of any kind and a world appetite for natural gas that just kept growing without Alaska gas.

CANADA: THE FIRST MOVER

At the beginning, <u>Canadians made the first</u> <u>move</u> on an Arctic gas pipeline project.

Oil companies had been probing along the Beaufort Sea coast on both sides of the U.S.-Canada border for a few years. But the Prudhoe Bay discovery announced in 1968 was a stunner – North America's largest oil field by far and one of its largest natural gas reservoirs, an estimated 9 billion barrels of oil and about 26 trillion cubic feet of gas.

Smaller discoveries occurred in the <u>Mackenzie</u> <u>River Delta on the Canadian side</u> – oil in 1969 and gas in 1970. Pipeline companies in western Canada soon were studying how to get all that Arctic gas flowing through their networks.



A year after the Prudhoe Bay discovery, an Alaska oil and gas lease sale netted \$900 million. (Click to see original image.) Source: Anchorage Nuseum of History and Art, Library & Archives

Some Alaskans started to worry. The pipeline Canadian companies were discussing would run from Prudhoe straight east to the Mackenzie Delta. That would mean little of the construction in Alaska – only 195 miles of roughly 4,500 miles of line ultimately proposed. Further, the gas would bypass Alaskans, and the industry it could ignite would happen somewhere other than Alaska. In 1971, the state Legislature passed a resolution endorsing a law that would require a pipeline to head south from Prudhoe at least as far as the Yukon River in Interior Alaska.

The Anchorage Times editorialized in 1973 that a Prudhoe-Mackenzie line would leave "Fairbanks cold and crippled by ice fog in winter, still dependent on costly heating oil shipped in from refineries thousands of miles away."

Despite Alaskans' objections, momentum stayed through the early 1970s with a pipeline that would link the colossal Prudhoe gas reserves with the more modest Mackenzie discoveries – by

mid-1975 eight Mackenzie fields were identified with proved reserves of 3.8 trillion cubic feet, about one-seventh the reserves at Prudhoe.

| Arctic Gas at-a-glance |
|---|
| Project: Pipeline from Prudhoe Bay east to Mackenzie Delta in Canada, then south through Canada to U.S. Midwest and West |
| Sponsors: Consortium of U.S. and Canada pipeline companies and Arctic oil and gas companies |
| Capacity: 4.5 billion cubic feet a day, half from Alaska, half from Canada |
| Length (1976): 4,512 miles |
| Cost estimate (1975): \$6.7 billion |
| Source: Federal Power Commission |

In 1973, a consortium of 26 U.S. and Canadian firms called Arctic Gas Study Group, proposed a Prudhoe-Mackenzie pipeline, with start-up projected for 1979. They conceived a \$5.7 billion project that would carry more than 4 billion cubic feet a day – half from Prudhoe and half from the Mackenzie Delta.

After picking up Mackenzie gas, the pipeline would veer south toward Alberta. Some gas would get routed to the Pacific Northwest and West Coast. Some would head to the Midwest and East Coast. Some existing pipeline systems from Canada to the United States would need expansion. Some new pipelines to the West and Midwest would be needed.

Most of the Toronto-based consortium members were pipeline companies, including TransCanada Pipelines Ltd., co-sponsor of the proposed pipeline today that would run from Prudhoe Bay to Alberta, Canada, through Interior Alaska.

But three members stood out: Sohio (BP), Arco and Exxon, the main oil and gas producers at Prudhoe. The big three, on the cusp of constructing the oil pipeline from Prudhoe, also had picked a direction – east to Mackenzie – for a gas pipeline.

This project stirred genuine excitement in the United States and Canada, that Arctic natural gas would help rescue North America during its energy crisis, counter-punching the Arab oil embargo.

In March 1974, sponsors of the Prudhoe-to-Mackenzie-to-the-Lower 48 pipeline project filed with the U.S. Federal Power Commission and Canada's National Energy Board for authorization to build. They announced their project to much fanfare at the National Press Club in Washington.

The companion pipelines needed to move the Alaska gas through Canada and deep into the Lower 48 soon filed for their own authorizations.

The project seemed to have unstoppable momentum.

But an upstart competitor was loading its cannons and bracing for a battle.

A NEW IDEA – LNG TO CALIFORNIA

The upstart was a regional Lower 48 pipeline company called <u>El Paso Natural Gas Co.</u> In 1972, it began mulling how it could profit from the rich Arctic natural gas fields.

El Paso was somewhat of an outlier compared with the mainstream U.S. pipeline companies involved in the Arctic Gas proposal. Those companies operated in the Pacific Northwest, Midwest, East and South and their proposal would bring the northern gas into their networks, many of which linked to one another.

El Paso's domain was disconnected from that grid. Its pipelines spanned the Southwest, from West Texas to Southern California. Even if it could build a pipeline northward to connect into the other networks, it might get just a dribble of the Arctic gas. Where was the money in that?

El Paso at-a-glance

Project: Pipeline from Prudhoe Bay south to liquefied natural gas plant at Gravina Point near Cordova, Alaska. LNG shipped by tanker to California.

Sponsors: El Paso Natural Gas Co. for pipeline, LNG plant and tankers. Western LNG Terminal Co. for California regasification plant.

Capacity: 2.4 or 3.1 billion cubic feet a day

Length (1976): 810 miles of Alaska pipeline, 2,200-mile tanker route, 250 miles of California pipelines

Cost estimate (1975): \$6.6 billion

Source: Federal Power Commission

El Paso came up with an out-of-the-box idea, and Alaskans soon fell in love with it.

After hinting for months about its plans, El Paso unveiled the details of its proposal in a September 1974 filing with the Federal Power Commission.

To get gas to its California grid, El Paso proposed jumping aboard the up-and-coming liquefied natural gas industry. Commercial trans-ocean LNG shipments had started only 10 years earlier, when a British utility contracted for gas from Algeria. The United States was dabbling in the industry – a small LNG plant started shipping Alaska gas to Japan in 1969 (gas from Cook Inlet near Anchorage, not North Slope gas).

The El Paso plan would greatly expand the U.S. LNG industry. The company asked the FPC for authorization to pipe over 3 billion cubic feet a day of Prudhoe Bay gas about 810 miles almost straight south from Alaska's Arctic coast to its Pacific coast. There the gas would be superchilled into a liquid to compress it for transport via high-tech tankers to the California market El Paso already served. Project cost: An estimated \$6.6 billion.

The El Paso pipeline would roughly follow the same route through Alaska as the trans-Alaska oil pipeline, which had started construction five months earlier. But instead of terminating at Valdez like the oil pipeline, El Paso's gas pipeline would end at Point Gravina, near the fishing town of Cordova.

El Paso's plan also involved building more pipelines in California and Texas to complete its grid and help carry the bounty of Alaska natural gas. Another company called Western LNG Terminal Co. would build an LNG receiving port at Point Conception, Calif., outside Santa Barbara.

El Paso's emergence upset the Arctic Gas consortium. But the consortium's members had another shock coming: Alaska leaders ardently embraced El Paso's project.

Gov. Bill Egan backed the El Paso line, as did his successor, Jay Hammond. The state Legislature endorsed it. Former Gov. Wally Hickel made a chestbeating declaration that the state had the legal authority to dictate the LNG route. (Hickel would play an important role in keeping an Alaska LNG project alive in the 1980s and 1990s.)



AMERICA'S ENERGY NEEDS ARE AT STAKE The United States Must Keep 100% Control of its Strategic Natural Resources Build The Gas Pipeline Through Alaska, Not Canada

Cover page of an information flier OMAR circulated. (Click to see a larger version.) Source: Alaska Center for the Environment records, Archives and Special Collections, Consortium Library, University of Alaska, Anchorage

called the Organization for Management of Alaska's Resources to campaign for the El Paso line, which they soon dubbed the "All-American Line." OMAR later evolved to the Resource

Development Council for Alaska, which today advocates for the expansion of Alaska's economic base.

El Paso was a good fit for the emerging mindset of Alaskans. Alaska was a poor state with just a few highways and little internal control of its own economy. Outside interests controlled the small fishing and timber industries. Washington controlled the economic mainstay – federal defense and civilian spending.

But with the oil pipeline started, Alaska was about to become fabulously rich. It would become richer still if the gas pipeline could bisect the state instead of skirting the Arctic coast, if Alaskans could siphon off a bit of the gas for their own use and possibly even build a new petrochemical industry that used natural gas as its feedstock.

With the Arctic Gas proposal on the FPC docket and the El Paso project getting some buzz, one of Alaska's U.S. senators, Ted Stevens, was asked in May 1974 which one he favored. Neither would get his endorsement right then, he replied. Then he elaborated, and summed up the sentiment that many Alaskans shared:

"The time is long gone when Alaskans have to fall over and play dead to a bunch of Texas oilmen."

THE BATTLEGROUND

El Paso and Arctic Gas filings with the Federal Power Commission were separated by only six months, and they set the stage for the three-year donnybrook that followed.

An administrative law judge for the FPC, Nahum Litt, started taking evidence in May 1975 about which project should get the go-ahead. It was widely understood that only one project would prevail.



Each side took its turn extolling its own project and shredding its competitor's. A contemporary news account described the two proposals "tearing each other apart" before the FPC. Nearly 200 attorneys were signed on to represent the menagerie of pipeline companies, gas utilities, power companies, state utility commissions, and oil and gas producers with a stake in the outcome.

It was impossible to keep track of who was ahead, or even who was scoring points. Along the way, the North Slope oil and gas producers dropped out of the Arctic Gas consortium. Sohio (BP) exited in late 1974, saying it had fulfilled its original intent to belong only until the pipeline development phase.

Litt's hearing dragged through 1975 and then 1976. Ultimately, the hearing spanned 252 days of testimony. The transcript weighed in at almost 45,000 pages, bound in 253 volumes that if stacked on end would stand two stories tall. About 1,000 exhibits got introduced, with some running more than 1,000 pages.

Each side tried to out-maneuver the other. Early on, Arctic Gas announced that nearly half of Prudhoe Bay's gas had been committed to U.S. pipeline firms through its project.

El Paso negotiated with Alaska for rights to the state's royalty share of Prudhoe gas production to front-load its LNG project and won a tentative contract, valid if its project prevailed before the FPC.

Then, in mid-fight, 15 months after Litt started his hearing, a new event exploded on the proceedings like a hand grenade.

THE ENTREPRENEUR FROM UTAH

That event was the arrival of a third pipeline project for Alaska's gas, a grandiose bet-the-company kind of play for its sponsor.

But it had an acutely appealing feature: It was a sort of hybrid between the Arctic Gas and the El Paso lines; it offered a compromise.

The new project, filed with the FPC in July 1976, was the brainchild of John McMillian, a Salt Lake City entrepreneur.

McMillian was a former petroleum engineer whose career had taken John McMillian photo from

him from Texas to Australia and back to Texas. By 1976 he was head 1980. of Utah-based Northwest Pipeline Co., which ironically got its big

Source: Anchorage Daily News break a couple of years earlier by acquiring a piece of El Paso's network.

McMillian's project was ultimately called Alaskan Northwest, and it would carry 2.4 bcf a day of Prudhoe gas, both bringing it to Alaskans and piping it through Canada.

Alaskan Northwest at-a-glance

Project: Pipeline from Prudhoe Bay south to Interior Alaska, then into Canada along the Alaska Highway for delivery to U.S. Midwest and West

Sponsors: Consortium headed by Northwest Energy Corp. (U.S.) and Foothills Pipe Lines Ltd. (Canada)



| Capacity: 2.4 billion cubic feet a day |
|--|
| Length (1976): 4,787 miles |
| Cost estimate (1975): \$6.8 billion |
| Source: Federal Power Commission |

The Alaskan Northwest route would parallel the oil pipeline south from Prudhoe Bay to Fairbanks and Delta Junction. From there it would continue along the Alaska Highway into Canada. This is basically the same route proposed today by the TransCanada/ExxonMobil partnership. Alaskan Northwest's partner for the Canadian construction was Foothills Pipe Lines of Calgary, which TransCanada now owns.

The Alaskan Northwest proposal added new complexity to Litt's decision. And that complexity promised to add months to the hearing process.

Congress and the president were getting restless. They were in an election year. The country was enduring natural gas shortages and voters were grumbling.

Something needed to be done to break the stalemate developing in Litt's hearing room.

POLITICIANS AND ENVIRONMENTALISTS

Congress and the president separately were rubbing at the edges of the Alaska gas pipeline issue.

On Capitol Hill, dueling legislation attempted to dictate the pipeline route.

Minnesota Sen. Walter Mondale and 25 co-sponsors introduced a bill in early February 1976 that mandated the Arctic Gas route.

Environmentalists wildly objected, and they wanted their voice heard this time. In the early 1970s, Congress enacted a package of laws – the Clean Air Act, the Clean Water Act, the National Environmental Policy Act – that became scaffolding for construction of the new conservation movement. Environmentalists felt betrayed that Congress approved the trans-Alaska oil pipeline in 1973 without full consideration of how that project would affect the environment.

The Arctic Gas project would trench the pipeline through the coastal plain of the Arctic National Wildlife Range (in 1980 the range was enlarged and renamed the Arctic National Wildlife Refuge). Environmentalists challenged the technical feasibility of using snow roads to avoid damaging tundra and permafrost. They warned that development would interfere with caribou breeding and birdlife. They argued that ANWR was intended to be left chaste, the one place in the country humans will leave alone.

They made the same argument to Judge Litt, and they had an ally in the state of Alaska.

Today the state favors oil and gas development in ANWR, but it didn't back then, not for a gas pipeline route. Gov. Jay Hammond testified before Litt: "Some day, perhaps, we will need to have the oil and gas resources of the Range, if any, even more than we need to have the resource of wilderness. But clearly we should not allow construction of a gas pipeline in the Arctic National Wildlife Range when other less damaging alternatives are available, as they are."

Contesting Mondale's bill were proposals from Alaska's senators, Stevens and Mike Gravel, mandating the LNG project.



Jay Hammond was Alaska governor during construction of the trans-Alaska oil pipeline (in background) and the 1970s debate on a gas pipeline. (Click to see a larger version.) Source: Alaska State Library - Historical Collection

"If the Canadian pipeline route is foisted on the

American public by virtue of the power of international oil companies, it's a decision they will regret very much," Stevens fumed in response to Mondale's bill.

Alaska gas pipeline 1968-1982

1968 – Gigantic oil and gas discovery at Prudhoe Bay announced.

1969-1970 – Smaller oil and gas discoveries announced at Mackenzie River Delta in Canada's Arctic.

1971 – Canada-based consortium studies feasibility of pipeline linking Prudhoe and Mackenzie gas fields to Lower 48.

March 1974 – Arctic Gas applies to U.S. Federal Power Commission and Canada's National Energy Board for permission to construct.

September 1974 – El Paso applies to FPC to pipe gas south to Alaska's Pacific Coast, where gas would be liquefied for transport via tankers to California.

May 1975 – FPC Administrative Law Judge Nahum Litt begins hearing on which project to authorize. Hearing concludes in late 1976, after Congress intervenes.

June 1976 – Alaska Natural Gas Transportation Act introduced in Congress, proposing FPC change its role from deciding route to recommending one to president, who would decide.

July 1976 – Alcan Pipeline Co. (later called Alaskan Northwest) files third application with FPC for a gas pipeline. Route would run south ot Interior Alaska then follow Alaska Highway into Canada.

October 1976 – Congress passes ANGTA, which sets deadlines: May 1977 for FPC to make its recommendation, September 1977 for president to decide, November 1977 for Congress to approve or reject president's decision.

February 1977 – Judge Litt recommends FPC select Arctic Gas project.

May 1977 – FPC commissioners deadlock in recommendation to President Carter: Two favor Arctic Gas; two favor Alaskan Northwest.

July 1977 – Canada's NEB calls Arctic Gas project environmentally unacceptable. U.S. and Canada negotiate terms of moving Alaska gas through Canada.

September 1977 – President and Canada agree on Alaskan Northwest route.

November 1977 – Congress sanctions Carter's choice of Alaskan Northwest.

April 1982 – Unable to find financing, Alaskan Northwest postpones construction of Alaska and northern Canada legs of project.

Early 1980s – Lower one-third of pipeline system, from southern Canada to Lower 48, gets built.

The fight in Congress reflected lobbying by OMAR, the different pipeline sponsors and others across the United States. In particular, Midwest and East Coast members of Congress were pressed to favor a Canadian route that would benefit their consumers. That's partly why Mondale's bill had so many co-sponsors.

But as the fight raged on Capitol Hill and Judge Litt's hearing plodded ahead, the White House made a jaw-dropping suggestion that broke both impasses.

A GAME-CHANGING IDEA

The political game changer occurred in late February 1976, when President Gerald Ford delivered a national energy message proposing that the president, not the FPC, decide the route.

The next month Ford sent to Congress legislation that detailed how it would work: Judge Litt and the FPC should abbreviate their work and, instead of picking a winner, merely recommend to the president by Jan. 1, 1977, which route looked best. The president then would make his pick, and if Congress sanctioned it the whole matter would be over by Oct. 1, 1977.

Congress lined up behind the idea, but first they stripped the Republican president's name off of it. Ford was running for president and Democrats controlled Congress.

In June 1976, Illinois Sen. Adlai Stevenson offered a bill requiring a presidential decision by mid-1977, with Congress to approve or disapprove it within the following 60 days. Stevens and Mondale both were co-sponsors. Ford gave Stevenson's bill his blessing.

Besides setting a mechanism for picking a pipeline project, the bill would fast-track construction.

"A natural gas supply shortage exists in the contiguous states," the bill declared. "The expeditious construction of a viable natural gas transportation system for delivery of Alaska natural gas to United States markets is in the national interest." Federal agencies would be ordered to expedite permits and other authorizations for the pipeline project and barred from

taking certain actions that would slow the construction timetable. Review by courts would be limited as well.

The bill blitzed through Congress. Ford signed the <u>Alaska Natural Gas</u> <u>Transportation Act</u> into law in October 1976. But he would not get to choose the winning pipeline route. Eleven days after signing ANGTA, Ford lost the election. The choice would fall to the new president, Jimmy Carter.

LITT, FPC WEIGH IN

Judge Litt closed the record on his hearing on Nov. 12, 1976, three weeks after Ford signed

ANGTA. On Feb. 1, 1977, he made his recommendation to the FPC board.

His choice: The Prudhoe-to-Mackenzie route through ANWR.

"There is a consensus on the part of the Commission Staff, the most popular consuming states taking an active interest, and an array of pipelines and distributors serving huge sections of the country that if any pipeline applicant must be chosen now, their best interests would be served by choosing Arctic Gas," Litt wrote. "The evidence in this record clearly supports that





conclusion. ... The Arctic Gas application is superior in almost every significant aspect when compared to El Paso. Certification of its proposal, subject to appropriate conditions, will bring more energy to market cheaper and more reliably than El Paso and will do so in an environmentally acceptable manner. It is found that Arctic Gas' prime route should be certificated."

Litt noted that support for El Paso was mostly confined to a couple of Lower 48 pipelines companies linked to the project and the state of Alaska. Although California would be the LNG destination, California backed the Arctic Gas project, which would deliver Alaska gas to the state via pipeline, he said.

As for the Alaskan Northwest proposed route down the Alaska Highway, which was filed with the FPC just seven months earlier, that project was half-baked, Litt scoffed. The cost estimates were shaky, the pipeline system poorly designed, the financing plan unreliable, the construction schedule fictitious. It wasn't even certain how the Prudhoe gas would get from Canada to the Lower 48, he wrote.

But the Alaskan Northwest project wasn't dead yet. It was a sluggish racehorse, but it had a winning kick for the finish line.

The four-person Federal Power Commission issued its combined environmental impact statement and recommendation to President Carter on May 1, 1977.

The commissioners deadlocked. Two favored the Arctic Gas line. Two favored the Alaskan Northwest route down the Alaska Highway into Canada.

They didn't dislike El Paso's LNG project. They said it had its advantages. But in a close call, they concluded that "An overland route can deliver each unit of gas more cheaply than a land and water route using liquefied natural gas technology. If Canadian gas is also developed, the sharing of facilities will lower Arctic's cost of service to Americans slightly below that of Alcan (Alaskan Northwest)."

"Arctic has the greatest benefits and lowest costs, followed closely by Alcan, with El Paso offering the least benefits and the highest costs. However, all three systems can deliver the gas at a reasonable cost to the consumer," they said.

The El Paso LNG project can be an option, they said, if Canada erects roadblocks making it difficult to flow Alaska gas to the Lower 48, the commissioners said.

As for ANWR, the commissioners echoed Litt in writing: "We believe it is possible to approve a buried pipeline through the Range without setting in motion an inevitable progressive violation of the Range."

U.S. AND CANADA SHAKE HANDS

Resolving the Canada conundrum was well under way.

The Ford administration <u>had been negotiating since 1974</u> with Canadian officials on how Alaska gas could flow unimpeded to the Lower 48.

Canada fervently wanted to host the pipeline, which would help develop that nation's growing gas reserves in Alberta. Clearly big stakes were involved in the diplomacy between Ottawa and Washington, D.C.

Ultimately, the cross-border talks resulted in <u>key documents</u> still active as a new Alaska gas pipeline project is pursued today.

The Transit Pipeline Treaty with Canada in January 1977 made it easy for the Alaska gas to flow through Canada via pipelines.

The Agreement in Principles that the Carter administration negotiated for the Alaska gas pipeline came in September 1977. It set details of the pipeline route, among other features. This bilateral agreement was a side document to Carter's decision released simultaneously on the winning route.

Carter picked the Alaskan Northwest project down the Alaska Highway. Canada also favored that project. In July 1977, its National Energy Board tentatively endorsed the route and declared the Arctic Gas proposal "environmentally unacceptable." Aboriginal land claims in Canada also crippled hopes for a Mackenzie Valley pipeline.

During that summer, the Arctic Gas consortium realized it had been KO'd. In early August, consortium member TransCanada, a Calgarybased pipeline company, announced it was joining the Alaskan Northwest project. Late that month, Arctic Gas announced it would disband.



President Jimmy Carter addresses Congress on oil and gas matters in 1977. Sen. Walter Mondale and Rep. Thomas "Tip" O'Neill in background. Source: Associated Press

In his decision, Carter sold the Alaskan Northwest (Alcan) project hard. "The Alcan system will deliver Alaskan gas at the lowest cost to U.S. consumers, but will do so *directly* to both the Midwest and West Coast markets," he wrote.

"Under almost all criteria, the Alcan system is clearly superior to the proposal by the El Paso Alaska Company to liquefy Alaska gas and ship it to the West Coast," Carter said. El Paso's gas would be more expensive and bring a smaller net economic benefit to the United States, he said. Pipelines also deliver gas more safely and reliably than LNG projects, and they last longer, he said.

For the new pipes that would carry Alaska gas south of the Canadian border, Carter selected a partnership of six pipeline companies to deliver gas to Illinois, and two other companies to get the gas to California.

Between the two countries, the entire pipeline network would encompass 4,787 miles, with an average daily flow from Prudhoe Bay of 2.4 bcf.

THE DEMISE STARTS QUICKLY

Congress approved Carter's choice on Nov. 2, 1977.

That turned out to be the high-water mark for the Alaskan Northwest project.

Within a month, the pipeline sponsors were pleading in Juneau for the state to finance construction cost overruns and possibly guarantee construction loans.

McMillian would make similar pleas in Washington. He also was mumbling that Congress or the Federal Energy Regulatory Commission, the newly formed successor to the Federal Power Commission, might need to mandate a wellhead value of the gas – its value as it leaves the ground at Prudhoe Bay – to ensure the North Slope producers would make money.

Earlier there had been hints that any Alaska gas project could be doomed by its high cost.

In 1975, a task force advising Alaska Gov. Jay Hammond warned the high transportation costs might result in a wellhead value of zero. No wellhead value would mean the Alaska royalty share of gas production would be worthless, and the producers would have no reason to pay to ship gas from the North Slope.

The Litt and FPC decisions in early 1977 are riddled with references to the marginal economics of all three pipeline projects under consideration. Alaska gas might be priced too



Source: U.S. Energy Information Administration

high for the market to want.

Lots of lofty language had been lobbed about a Lower 48 natural gas crisis. The FPC decision in May 1977 noted the "profound hardship" for individuals and "substantial economic disruption" for the country. "The nation sorely needs new sources of economically competitive natural gas," Carter said in his decision.

The natural gas shortage was real, and the emotions were genuine as oil and gasoline prices spiked in the wake of the 1973 Arab oil embargo. Nations across the world were scrambling to diversify away from oil.

Ironically, 1973 turned out to be a record year for U.S. natural gas production, a record that lasted until 2011. But the United States was burning through its natural gas reserves. Proved reserves fell by nearly one-third from its 1967 peak to 1977, when President Carter decided on the Alaska gas pipeline.

More gas was waiting to be found in the Lower 48, but rigorous federal price controls on interstate gas discouraged new exploration. Gas reserves would continue to dwindle for 17 more years before the dismantling of gas-industry regulations helped them to grow again. In response to shortages, natural gas consumption fell in the mid-1970s. It plunged 24 percent from

1973 to 1983.

Natural gas prices did rise, but not to high enough levels until

around 2000-2001, when piping

U.S. natural gas consumption



Source: U.S. Energy Information Administration

Alaska gas to the Lower 48 started getting a new look.

Within a year of Carter authorizing the Alaskan Northwest project, it was obvious the gas line project had lost traction.

"Almost everyone knows that the Alaska Highway gas pipeline venture is floundering: government officials, businessmen, bankers and the press are expressing more frequent and deeper doubts about whether the project will be completed on schedule – or ever," wrote economists Arlon Tussing and Connie Barlow in an early-1979 report to the Alaska Legislature.



U.S. natural gas proved reserves

No one wanted to take on the potentially huge risks of low prices, cost overruns, regulatory



delays and on and on. "The gasline project is so large that its failure would be devastating to the pipeline sponsors, the gas producers (if they were to sink capital into conditioning and other facilities in the field), the lending institutions, the economy of Canada, and the political fortunes of the Canadian government," Tussing and Barlow wrote. The time span during which conditions must be favorable to blunt the risks involved could extend 30 or more years, they said.

"The Alaska Highway gas pipeline almost certainly offers substantial net economic benefits to both the United States and the State of Alaska, but as a business venture it may be marginal at best without extraordinary kinds of government intervention," they wrote in another 1979 report.

THE BRIGHT SIDE OF NO PIPELINE

Ultimately, Alaskan Northwest couldn't get financing.

In 1981, to try to help, President Ronald Reagan reversed Carter's 1977 decision to bar North Slope producers from owning interest in the gas pipeline. The producers made a tentative commitment for 30 percent of the project's financing. It wasn't enough.

In April 1982, Alaskan Northwest announced it was delaying the project for at least two years. It was all over except the writing of a formal obituary.

The Lower 48 natural gas shortage was gone. U.S. markets were about to be amply supplied with Western Canada gas via the lower one-third of the Arctic gas project that actually was built - from southern Alberta to the Midwest and West. The Alaska pipeline proposed today would flow gas to these 1980s segments and other pipeline systems.

By late 1982, the North Slope producers were backing a new idea for the Prudhoe gas that rose up their oil wells. They had been reinjecting the produced gas to maintain reservoir pressure to help push oil up and out the wells. In November they announced a \$100 million pilot project to inject gas enriched with gas liquids such as propane to make it "miscible" with oil – the injected gas would reduce the oil's viscosity as they mixed, allowing more oil to flow freely to the wells. Today Prudhoe has the world's largest miscible gas project in the world, <u>according to BP</u>.

One Alaska regulator recently observed that it perhaps was good for Alaska that the 1970s-era gas pipeline didn't get built.

North Slope producers have used Prudhoe Bay's gas for the past 35 years to coax billions of barrels of extra oil from the reservoir, said Cathy Foerster of the Alaska Oil and Gas Conservation Commission. Prudhoe has more oil production left, and the gas is still there, waiting for a pipeline, she said.

If that gas had left Prudhoe, the North Slope's oil and gas era would be history by now, and the Alaska Legislature's fiercest fights would be over fishing and tourism levies, not oil taxes, she said.