2000 to today: Interest in Alaska's gas revives

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

The Alaska gas pipeline project got another life in the late 1990s as North Slope producers showed renewed interest in tackling the job.

Oil production from the flagship Prudhoe Bay field had plunged about 50 percent since its peak a decade earlier. With Prudhoe fading, perhaps the time was near for marketing the megafield's natural gas, which largely had been reinjected for 20 years to push more oil from the reservoir. But there was still that pesky problem: Could a gas line make money?

The market targeted in the 1970s – the Lower 48 – remained unattractive. Natural gas prices were too low.

But Japan showed promise. The Japanese gas market was just one-ninth the size of the Lower 48 market in 1999 – too small to absorb the massive volume of liquefied natural gas an Alaska project would produce. But the appetite of utilities there and in South Korea had been growing, and with continued growth might reach the critical mass an Alaska project needed. They also paid more for LNG than U.S. buyers paid for pipeline gas.

The lack of a gas project gnawed at some Alaska leaders. One in particular, state Rep. Ramona Barnes of Anchorage, chairwoman of a House-Senate gas task force, made an LNG project her crusade.

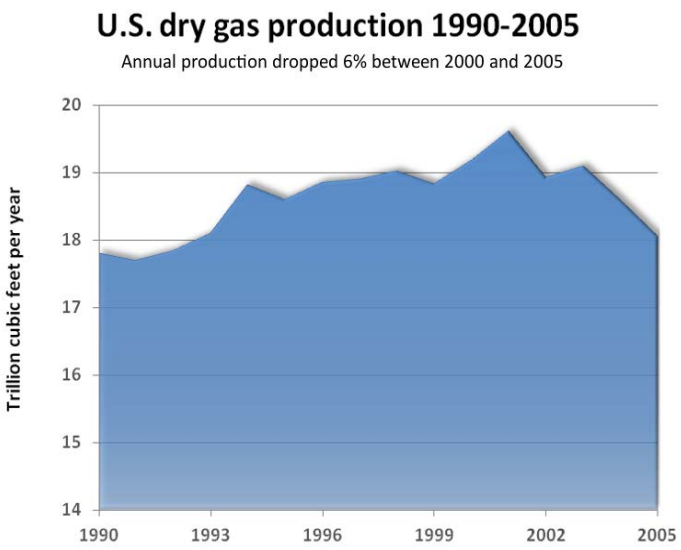
In early 1997, Barnes lectured a roomful of oil lobbyists and executives: "We're going to build this project in my lifetime." (She died in 2003.)

The main producers – BP, Exxon and Arco – had been talking for a year or two about how Asia might want Alaska LNG, perhaps as early as 2005, more likely closer to 2010. But the project's $15 billion estimated cost was a barrier, making Alaska LNG too expensive to compete for the growing demand, the president of Arco Alaska said after visiting Asia buyers in fall 1995.

In March 1997, the producers said they would study how to shave costs from an LNG project. But they wanted the state to change taxes and/or royalties to improve the economics, too.

In 1998 Alaska enacted the Stranded Gas Development Act. "Stranded" due to no pipeline to carry the North Slope's estimated 35 trillion cubic feet of gas reserves to market. The new law didn't change taxes, but it allowed the producers and state to negotiate a fiscal contract to replace the normal set of taxes. It was **unclear whether this was constitutional**. At Rep. Barnes' insistence, the contract could apply only to an LNG project.

That law lapsed a few years later with no takers. Asia prices and demand were up, but not nearly enough.



Source: U.S. Energy Information Administration

Then the LNG project all but faded from view, eclipsed again when a freak of nature put new energy behind the old plan: Pipe Alaska gas to the Lower 48.

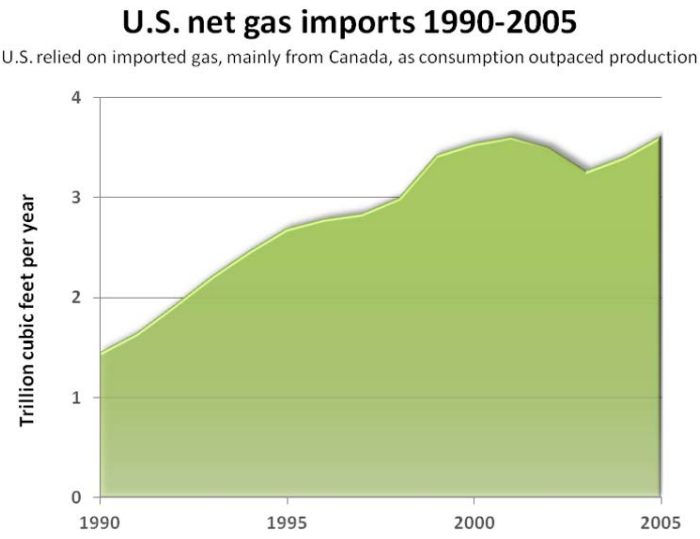
This time, the Lower 48 route had real traction.

First, government – initially the state but Congress as well by the early 2000s – was actively looking for ways to help.

Second, North Slope producers now were publicly engaged in trying to solve how to move Prudhoe Bay gas to market profitably.

Government and producer enthusiasm wasn't enough, however. Something needed to shore up Lower 48 natural gas prices. Without higher prices, the cost of piping Alaska gas 3,000 miles to Chicago would make the gas too expensive to attract buyers.

On that front, good fortune for the project was coming.



Source: U.S. Energy Information Administration

As 2000 began, anxiety resurfaced that the United States was running short of natural gas – the same anxiety that birthed Alaska gas pipeline plans 30 years earlier. The nation's old reliable gas fields were petering out.

Soon, enflaming that anxiety, the Lower 48 was whacked with a nasty winter – the coldest in years.

Natural gas prices spiked during the winter of 2000-2001.

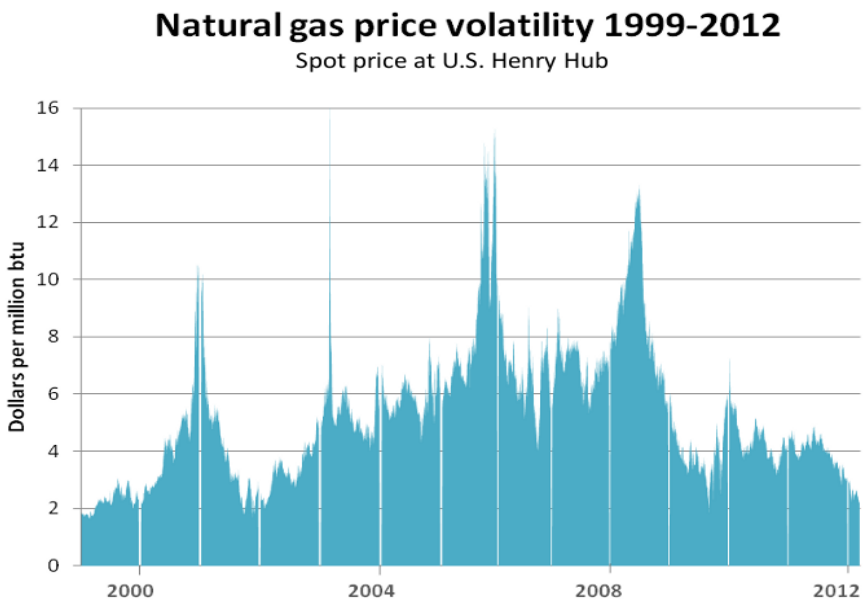
And a race was on to pipe Alaska gas south to the rescue.

NEW ENERGY FOR A GAS PIPELINE

For utilities and other buyers, their affection for natural gas flipped, flopped, then flipped again during the span of years starting in about 1999. It became the fuel of choice, then the fuel of risk, then back to the fuel of choice again.

The buyers' manic responses were swayed by the breathtaking volatility of natural gas prices during this period.

As gas-shortage anxiety bloomed in the early 2000s, several Alaska gas pipeline ideas came forward. These proposals exposed schisms among Alaskans and among the oil producers over which idea was wisest, complicating efforts to unify behind a single project.



Most of the ideas responded to the same cue: Natural gas prices that blasted off like a rocket.

In 1999, **Lower 48 gas prices averaged** a ho-hum $2.20 per thousand cubic feet at the wellhead, roughly the average of the previous few years.

But as the anxiety sank in during the next year, prices began to creep up.

The benchmark Henry Hub spot price topped $3 in April 2000 and $4 in June before leveling off. Then it got very cold in November. The price spiked to $6 around Thanksgiving, and by Christmas it topped $10, more than four times higher than at the start of the year.

The catalyst was an unusually cold weather – the 26th coolest winter in the previous 106 years, the **National Oceanic & Atmospheric Administration reported** at the time.

"The winter began with record or near-record cold across much of the nation in December as arctic air spread from the Rocky Mountains to the East Coast behind a series of strong cold fronts," NOAA said. "Severe winter storms and record snowfall fell in many cities from Amarillo, Texas, to Buffalo, New York." (Meanwhile, Alaskans were enjoying their mildest winter since statewide records began in 1918.)

In California, power companies imposed rolling blackouts on customers.

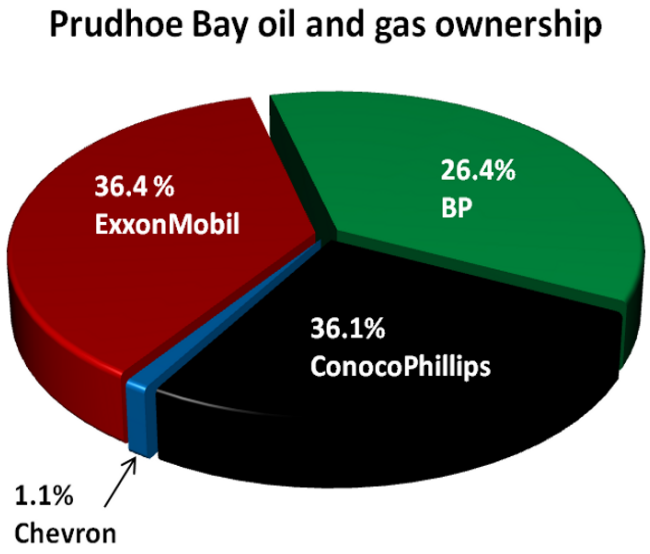
The cold weather broke later that winter. Gas prices deflated like a botched soufflé. The Henry Hub price plunged under $6 in February and pierced $5 in May. By Thanksgiving 2001, the spot price had even penetrated below $2 briefly.

But the shortage fears lingered and a new paradigm of high prices took root in the U.S. gas industry. The Lower 48 wellhead price averaged $4.92 per thousand cubic feet from 2001 through 2006, double the price of the late 1990s.

The answer to high prices seemed obvious: Get more supply. Besides renewed interest in the Alaska gas pipeline project, billions of dollars were invested in Lower 48 LNG import terminals.

In 2000, the three major North Slope producers formally teamed up on a fresh look at piping Alaska's gas to market.

Easing their effort was a recent détente that took hold among them. On the surface, the oil industry can appear monolithic, hand-in-hand sharing risks and rewards while jointly developing fields. To some extent that does describe the industry's dynamic.



Source: Alaska Department of Natural Resources

But a closer look often reveals divisions not readily apparent from afar. And this was true for Prudhoe Bay's big three.

A gnarly schism involved their unbalanced ownership of the oil and gas rights. BP owned 51 percent of Prudhoe's oil production but only 14 percent of the gas. ExxonMobil and Arco (soon to be bought by Phillips) each owned 23 percent of the oil and 43 percent of the gas. BP wanted the gas retained to help produce more oil. ExxonMobil and Arco had a stronger urge to move some gas to market.

This schism flared among the companies from time to time, but for the most part it was invisible to the public. The détente occurred in April 2000. The three companies announced a major shuffling of their ownership interests so that each company's share of oil was the same as its share of gas.

That ownership shuffle more closely aligned their interests in developing Prudhoe Bay gas.

Within a few months, they were zeroing in on a project. In September 2000, BP and Phillips told the U.S. Senate Energy and Natural Resources Committee they hoped to "achieve consensus on route and timing" within a year.

Internally, the three companies were not fully aligned on the project. ExxonMobil was pushing a route that was about to ring alarm bells within Alaska, the national environmental community and even Congress.

OVER THE TOP

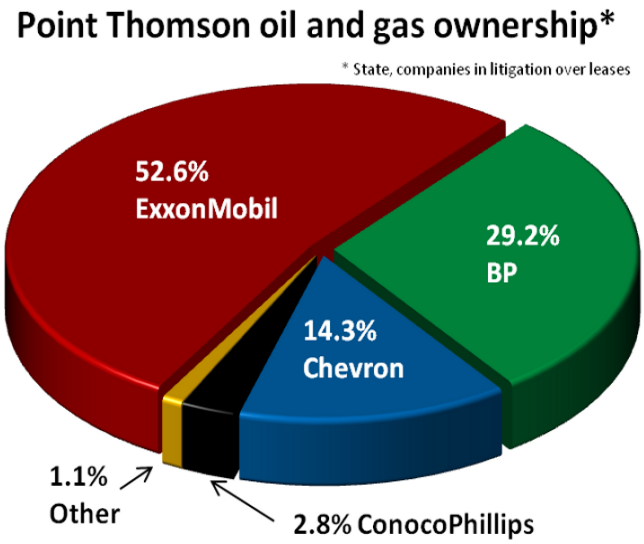
Besides ExxonMobil's Alaska North Slope holdings, its Imperial Oil subsidiary had smaller gas discoveries in the Mackenzie Delta across the Canadian border.

In the 1970s, Exxon (and the other two producers) backed the unsuccessful Arctic Gas project that would have strung a pipeline eastward from Prudhoe Bay to the Mackenzie Delta then south through Canada and into the U.S. Midwest and West.

That project died in 1977 when President Jimmy Carter and the Canadian government backed a competing proposal that would pipe North Slope gas south into Interior Alaska then southeast along the Alaska Highway to the Lower 48.

In 2000, ExxonMobil saw an opportunity to resurrect the Prudhoe-to-Mackenzie project, dubbed the "over-the-top" route. This time it would pick up gas from the company's big Point Thomson discovery east of Prudhoe then wade offshore coastal Alaska to avoid trenching the Arctic National Wildlife Refuge as the 1970s project proposed. Conservationists had spent decades lobbying to keep oil and gas development out of ANWR.

BP and Phillips were more attuned to the mood of Alaskans about wanting a south-bound pipeline that would bring some North Slope gas to the state's population center.



Source: Alaska Department of Natural Resources

Alaska gas pipeline 1998-2012

1998 – Alaska enacts Stranded Gas Development Act to let an LNG project sponsor negotiate state fiscal terms on natural gas development. Law lapses in 2001 after no one applies.

April 2000 – ExxonMobil, BP and Phillips – the major North Slope producers – announce they will rejigger their interests in Prudhoe Bay so that each company's share of oil production matches its share of gas production. This alignment eases cooperation on a gas project.

2000 – As U.S. natural gas prices rise over gas-shortage worries, ExxonMobil, BP and Phillips announce in December a joint effort to evaluate gas development, from cost to potential pipeline routes. They spend $125 million over the next two years.

2000-2001 – Severe winter causes Lower 48 natural gas prices to briefly spike above $10 per million Btu.

2002 – Alaska voters approve creating Alaska Natural Gas Development Authority, a state agency charged with obtaining North Slope gas for an LNG project. Agency languishes, however.

2003 – Alaska enacts Stranded Gas Development Act to let any gas pipeline sponsor negotiate state fiscal terms, not just an LNG sponsor as in the 1998 law.

2004 – State receives separate applications under the SGDA from pipeline companies, natural gas producers and others.

October 2004 – Congress enacts the Alaska Natural Gas Pipeline Act, which streamlines federal permitting for a project, limits lawsuits and authorizes $18 billion in loan guarantees, adjusted for inflation, for gas delivery to Lower 48.

2004-2006 – Gov. Frank Murkowski negotiates contract with ExxonMobil, BP and ConocoPhillips under the SGDA. Terms include state ownership share of project, gas taxes locked in for 35 years, and significantly higher oil taxes but no more changes for 30 years.

2006 – Public pans proposed Murkowski contract. Legislature never votes on it but does raise oil taxes. Murkowski loses re-election bid.
2007 – Alaska enacts Gov. Sarah Palin's Alaska Gasline Inducement Act over protests of the big three North Slope producers. Law authorizes up to $500 million in pre-construction subsidies to a proposed project that meets certain state conditions.
2008 – State awards AGIA license to TransCanada. BP and ConocoPhillips say they will look at building a non-AGIA sanctioned pipeline to Canada.
2009 – TransCanada gets a partner: ExxonMobil, the largest holder of North Slope gas reserves.
2010 –TransCanada/ExxonMobil and BP/ConocoPhillips separately hold open seasons soliciting customers for their proposed pipelines.
2011 – The BP/ConocoPhillips project disbands, citing "lack of customer support." The companies spent $165 million.
Early 2012 – Lower 48 natural gas prices sink to 1990s levels amid shale-gas boom. TransCanada/ExxonMobil has signed no customers from its open season but, as required by AGIA, continues to work toward applying to Federal Energy Regulatory Commission for a construction and operation certificate on a line to Canada. FERC in early stages of environmental impact statement.

In late September 2000, Dick Olver, BP's global production chief, said in an Anchorage speech that speculation about a route or even a project was premature. BP was considering all options, including LNG and converting gas to a liquid that could flow down the underused trans-Alaska oil pipeline.

But mostly he discussed a pipeline into Canada. In a nod to the controversy stirring on the over-the-top route, Olver said the project ultimately must be ''in the best interests of U.S. consumers, the people of Alaska and our Canadian stakeholders.''

"The stars appear to be aligning for Alaska," he said.

The CEO of Phillips had a similar message in an Ohio presentation. "The time is right, the technology is here and the market is here," said Jim Mulva. ''We are completely committed to making this a reality.''

In December 2000, the big three producers announced they had formed the North American Natural Gas Pipeline Group to assess costs and technology, pick a route and apply for construction permits. They budgeted $75 million and ultimately spent $125 million.

The prospect of an over-the-top line alarmed Alaska political leaders. Gov. Tony Knowles in November 2000 declared that route off-limits, dropping a slogan that caught on: "My way is the highway."

The Alaska Legislature followed in 2001 with a law that prohibited granting state rights of way for an over-the-top route. Some in Congress also began discussing a ban on the route.

PIPELINE PLANS RETREAT

In mid-2001, natural gas prices were in a trough, a temporary one as it turned out.

The big three producers started sending signals that their enthusiasm was ebbing for an Alaska gas pipeline. Preliminary results of their joint study concluded a pipeline project might not be profitable enough to justify taking the huge risks involved, including the gas-price risk.

By 2002, Congress was actively looking for ways to help the project's economics, estimated by the producers in 2001 to cost almost $20 billion, six times more than the next most expensive North America gas pipeline. Among the options suggested was a federal tax subsidy to producers if gas prices dip below a given floor, repayable when prices break through a ceiling. That idea died but other ideas started to stick, many derived from the **Alaska Natural Gas Transportation Act of 1976** that was custom-made to boost projects contemplated back then.

Finally, in 2004, Congress passed the **Alaska Natural Gas Pipeline Act**, which, like the 1976 law, streamlined government oversight and limited judicial challenges to a pipeline project. But it went further. The law authorized up to **$18 billion in federal loan guarantees** for a project to move Alaska gas to the Lower 48 (worth almost $22 billion today after adjusting for inflation), and it barred construction of an over-the-top pipeline. (The law also created the Office of the Federal Coordinator.)

The Alaska Legislature was busy, too. In 2003 it revamped 1998's Stranded Gas Development Act to allow fiscal-term negotiations involving *any* pipeline project, not just an LNG project as the earlier law specified. **The new law** bore the same name. The constitutional issue of setting taxes by contract was still unresolved.

Soon, companies and others with gas pipeline ideas lined up to talk terms with the state.

STATE NEGOTIATING TEAM FRACTURES

As the state considered the applications to negotiate, it became clear an internal fight was under way in the administration of Gov. Frank Murkowski.

The schism would entangle state government for the next four years.

Some state executives believed reaching terms with the big three producers was key to securing a pipeline.

Others believed that limiting the producers' control of the pipeline would prompt more companies to explore for North Slope oil and gas. Already the prospects of a gas pipeline had lured new players.

Former Gov. Frank Murkowski
Source: Alaska State Library, Historical Collection

In May 2001, after the previous winter's gas-price spike, six companies acquired North Slope gas exploration leases – the first sold in decades. Anadarko was actively drilling for gas.

The stranded-gas applications stocked each side with ammunition. Their diverse approaches to a pipeline project included:

- *A pipeline-company project.* **TransCanada** and Foothills Pipe Lines, two Canadian pipeline companies holding rights to the Alaska Highway project and route sanctioned in 1977, blew the dust off of their plans. TransCanada wanted the state to buy gas from the North Slope producers and market it. Later that idea morphed into both TransCanada and the state buying and marketing the gas.

Separately, **MidAmerican Energy Holdings Co.**, a Lower 48 pipeline company, proposed a pipeline to Canada, provided it could get a five-year exclusive deal with the state that would force the producers to negotiate putting gas in the line. MidAmerican teamed with an Alaska Native corporation and an Anchorage startup headed by a former Arco executive. But the state told MidAmerican it would not get an exclusive deal, and the pipeline company walked away in a public huff.

- *An LNG project.* A trio of Alaska local governments – the Fairbanks North Star Borough, the city of Valdez and the North Slope Borough – formed the **Alaska Gasline Port Authority** in the late 1990s. Their proposal mutated over the years, but early on they proposed a pipeline and LNG plant at Valdez financed via low-interest debt the authority would issue. Low-cost debt would help the project economics. The LNG could go to Asia or the West Coast, wherever buyers could be found.

The Murkowski administration gave the port authority application an icy reception. Murkowski himself scoffed in 2006: "Would you invest in a project that had no gas, no financing, no contract for the sale of gas, no shipping commitments, no West Coast regasification facilities, no loan guarantee if exported, no Jones Act waivers (so foreign LNG tankers could be used) and no expertise in building a project of this size?"

Separately, in 2002 Alaska voters approved a ballot initiative pushed by LNG fans that created a state agency that could, among other things, buy North Slope gas, pipe it to Prince William Sound for export and finance the project with low-cost revenue bonds. The new agency, the **Alaska Natural Gas Development Authority**, never gained much momentum and governors downsized its mission over time, although it still exists.

- *A producer-sponsored project.* The Murkowski administration worked hardest on this. Over three years negotiators hammered out key terms – a state equity ownership, gas

taxes locked in for 35 years after pipeline startup, much higher oil taxes now but a lockdown on further oil-tax changes for 30 years.

Murkowski made it clear he believed a deal with producers was in Alaska's best interest. In fall 2005, dissenters within his gas team left their jobs – one fired and the rest resigning in protest. Besides objecting to a producer-owned pipeline, the dissenters believed the contract should have included a commitment to actually build the pipeline.

After much public griping about "Where is the deal?" Murkowski unveiled his proposed contract in spring 2006, with just months left in his gubernatorial term.

Much of the public panned the proposal. The sentiment was that the state got out-negotiated. That the deal came from a politically unpopular governor also made it hard to accept. State legislators never even voted on the contract, although they passed a significant oil-tax increase without the 30-year lockdown. The producers got smacked with the one piece of the deal they didn't really want but were willing to accept as part of the package. The Legislature just unwrapped the package.

Murkowski lost his re-election bid in the August 2006 Republican primary.

The new governor elected that November, Sarah Palin, was about to usher Alaska's gas pipeline efforts down a new path.

THE PALIN PLAN

Early in her 2006 campaign, Palin fell under the spell of Alaska's LNG boosters, and an LNG project became a central element of her platform.


Former Gov. Sarah Palin
Source: en.wikipedia.org

But later in the campaign she backed off full support for LNG. After being sworn in, she hired all of the Murkowski administration dissenters who had left their jobs a year earlier. They helped guide the state's Palin-era approach to a gas pipeline project, an approach that continues today.

In May 2007, the Alaska Legislature passed Palin's **Alaska Gasline Inducement Act**. AGIA said the state would provide up to $500 million in pre-construction subsidies to a project whose sponsor agreed to certain "must haves." These included:

- North Slope gas would be made available for Alaska use, though someone other than the project developer would need to move the gas from the big pipeline to consumers.
- Certain actions to hold down the pipeline tariffs to encourage North Slope exploration and development.

- Agreement to hire Alaskans and Alaska companies.
- A firm timeline for project development, though no commitment to build the pipeline.
- Agreement to expand the pipeline to accommodate future shippers, with all shippers contributing to the expansion cost.
- And the biggie: A commitment to continue engineering and other work toward getting federal approval of a pipeline even if shippers fail to pledge enough gas during the initial open season to make the project viable. The state believed shippers eventually would sign up, and getting a federal certificate for a pipeline would keep the project moving forward while negotiations with shippers progressed.

The big three North Slope producers slammed many of the AGIA terms. The deadlines were too inflexible, they said. They ignored economic reality. Where is the fiscal stability they need before committing gas to the line and promising to pay the tariff? Why should original shippers subsidize future shippers? Why continue working on the project if the open season fails?

BP and ConocoPhillips (Conoco and Phillips merged in 2002) announced a non-AGIA sanctioned gas pipeline venture called Denali – The Alaska Gas Pipeline in April 2008, 10 months after AGIA became law. They would look at building a $35 billion project down the Alaska Highway to Alberta, they said. But after a failed 2010 open season, they disbanded Denali in May 2011, citing "a lack of customer support." The companies spent $165 million on their effort.

The state awarded the AGIA license to TransCanada later in 2008, and ExxonMobil joined that effort the next year. This partnership – called the **Alaska Pipeline Project** – also held its open season in 2010. It offered two options: A $32 billion to $41 billion Alaska Highway pipeline to Alberta, or a $20 billion to $26 billion pipeline to Valdez, with other companies to bear the additional cost of an LNG plant and tankers.

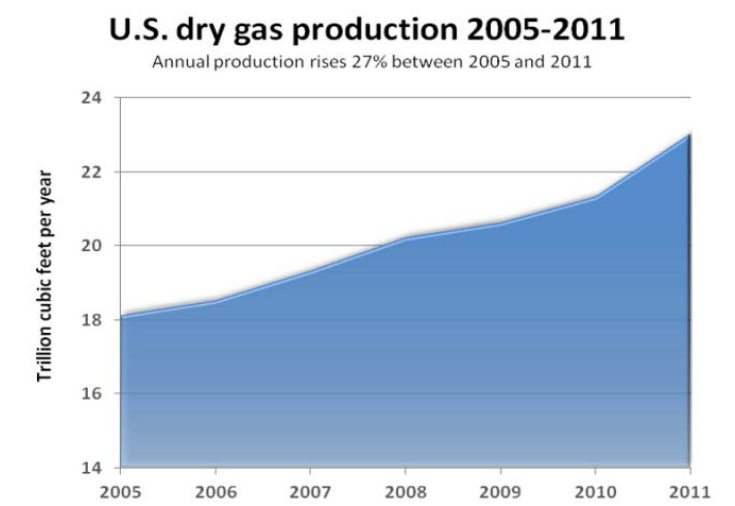
TransCanada/ExxonMobil negotiated with bidders, but failed to reach any shipper agreements. Despite the lack of pipeline customers, the partnership remains engaged with the Federal Energy Regulatory Commission, which has oversight of gas projects.

Meanwhile, as was true in the 1970s and again in 2001, the world of natural gas is in flux.

Fears of a Lower 48 natural gas shortage are gone. New supplies of shale gas are more than offsetting declines from aging conventional gas fields. Prices have sunk to late-1990s levels.

Over in Japan, the world's largest LNG market, prices are sky high. LNG prices there are linked to oil prices, which are soaring. Japan's disaster at its Fukushima nuclear power plant in 2011 boosted demand for LNG as a fuel at least temporarily, awarding LNG sellers a juicy price premium.

These developments might be adding a new curve to the 40-year rollercoaster ride that describes the journey to realize an Alaska gas pipeline project. On March 30, 2012, **the CEOs of ExxonMobil, ConocoPhillips and BP wrote to Alaska Gov. Sean Parnell** to say they are working with TransCanada to reassess an LNG export project from Alaska.



Source: U.S. Energy Information Administration

"As a result of the rapidly evolving global market, large-scale liquefied natural gas (LNG) exports from southcentral Alaska will be assessed as an alternative to gas line exports through Alberta," the chief executives said.

"We are now working together on the gas commercialization project concept selection, which would include an associated timeline and assessment of major project components including in-state pipeline routes and capacities, global LNG trends, and LNG tidewater site selections, among others," the letter said.

While working with BP and ConocoPhillips to look at a possible LNG export project, TransCanada/ExxonMobil has notified FERC staff that it will hold off on filing an application for a pipeline to Alberta.

On Oct. 1, 2012, the four companies updated Gov. Parnell on **their initial work assessing** an LNG export project. Their early concept envisions a project costing $45 billion to more than $65 billion for a gas treatment plant, roughly 800-mile pipeline, liquefaction plant at a site to be determined, LNG storage and a tanker terminal. This concept would involve exports of 15 million to 18 million metric tons of LNG annually, the equivalent of 2 billion to 2.4 billion cubic feet a day of gas.