

It's too soon to give up on the Alaska gas pipeline



Seattle Chamber of Commerce

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Larry Persily, Federal Coordinator

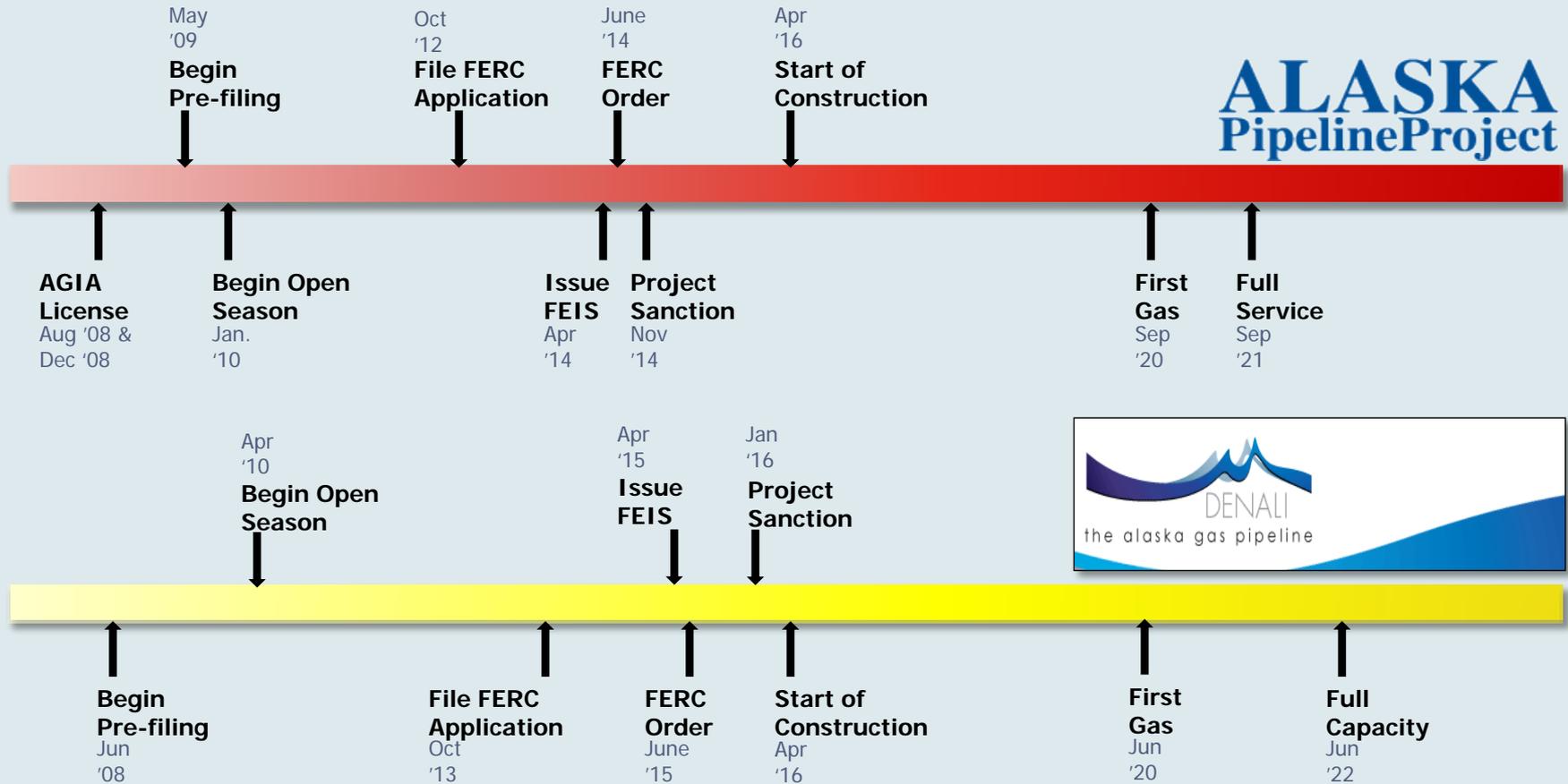
There is progress

- Alaska Pipeline Project (TransCanada/ExxonMobil)
- Denali – The Alaska Gas Pipeline (ConocoPhillips/BP)
- The four have spent \$500 million since 2000
- 2010 open seasons to judge shippers' interest
- Meanwhile, Alaskans are getting more impatient
- Past five governors have said the gas line is coming
- Legislature appropriated \$16 million to study
“Plan B” — small in-state line for local needs

Open seasons

- TransCanada/Exxon open season closed July 30
- ConocoPhillips/BP open season closed Oct. 4
- Both teams reported multiple bids, with conditions
- Conditions on pipeline bids not unusual
 - *Just like an earnest money offer on a house*
- More news could come late 2010, early 2011
- No disclosures until precedent agreements
- Agreements mean shippers start sharing the risk

Potential project schedules

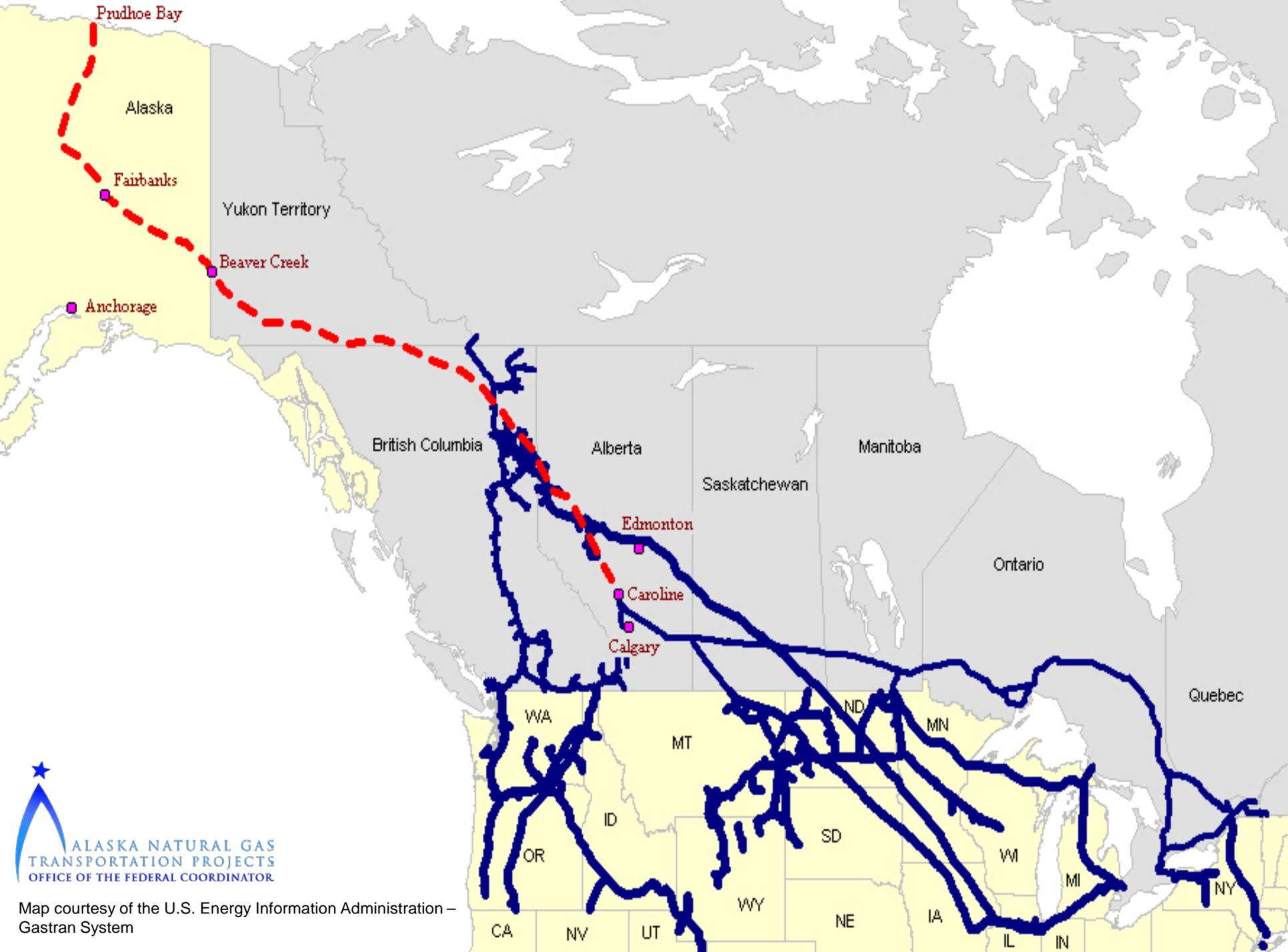


Jobs, trucks and lots of pipe

- Approximately 50 million construction hours
- 5,000 backhoes, trackhoes, dozers, loaders, graders, sidebooms, trenchers, pickups, trucks, buses, gravel trucks and trailers
- 30 rock crushers and batch plants
- 2½ million tons of steel pipe; 48-inch diameter
- Highest-pressure gas line in North America
- World's largest gas treatment plant; 1 million hp

Find the best market

- Pipeline from Alaska to North America would feed into the largest natural gas market in the world
- North America consumes 75 to 80 bcf per day
- Pipeline grid can move Alaska gas from California to New York, and every other state in between
- North America market is three times the size of China, India, Japan, South Korea and Taiwan natural gas markets combined
- In-state delivery is part of the deal for Alaskans



 ALASKA NATURAL GAS
TRANSPORTATION PROJECTS
OFFICE OF THE FEDERAL COORDINATOR

Map courtesy of the U.S. Energy Information Administration – Gastran System

LNG market is tough

- Australia, Indonesia, Russia, Malaysia, Brunei, Papua New Guinea, Qatar, Oman, Yemen, United Arab Emirates, Egypt, Algeria, Nigeria, Trinidad, Peru and Norway
- All operating or building LNG export projects
- Projects adding 50% to Asia supply 2009-2015
- Floating LNG: Shell's multibillion-dollar order with Samsung to access smaller Australia fields; proposals for Indonesia, Papua New Guinea too

Australia wants to be No. 1

- \$50 billion in LNG projects under construction
- \$50 billion more in projects will be ready for investment decisions by next year
- Shell, Chevron, ExxonMobil, ConocoPhillips, Hess, Total, Apache, Woodside and others are spending serious money in Australia
- Shell alone looking at \$50 billion this decade
- Nothing in Australia needs 800-mile Arctic pipeline

Competition back home

- Unconventional gas about 20% of U.S. supply
- Growing rapidly across the U.S. and Canada
- Horizontal drilling efficiency improves each year
- CERA: “Nobody drills a dry hole in a shale play. If they did, they’re not very good.”
- Close to markets; easy to adjust production
- But the truth is, much of shale goes toward replacing declining production from conventional gas wells

Shale Gas Plays, Lower 48 States



Source: Energy Information Administration based on data from various published studies.
 Updated: March 10, 2010

But shale has its problems

- ❑ Fracking becoming about as popular as an oil spill
- ❑ EPA review under way; possible federal legislation
- ❑ More questions as it moves closer to urban areas
- ❑ States not waiting; considering their own laws
- ❑ Moratoriums, restrictions, zoning, town hall debates
- ❑ One environmental mess could change the game
- ❑ Shale also needs tens of billions of dollars of new gas pipelines to reach markets

And more problems

- Hydraulic fracturing for shale gas requires 3 million to 5 million gallons of water per well
- EPA technical lead on fracking study:
“Where is that water coming from?”
- Produced water disposal is the biggest issue
- Treatment costs? Disposal costs? Recycling costs?
- American Public Power Association:
“Environmental costs always go up.”

Shale could be good news

- Shale could help by eliminating price spikes and getting utilities to think gas for the long term
- Worldwatch Institute: “Price volatility remains the Achilles’ heel of natural gas.”
- No utility can afford repeat of \$14 price spikes
- Utility president: “Building a 1,000-megawatt, gas-fired plant doesn't make sense if you can't be sure what your fuel costs will be.”
- Shale makes utilities feel more comfortable with gas

Utilities are thinking gas

- Growth in electrical power plant demand essential
- American Public Power Association: Clean Air Act is pushing utilities to decide which plants survive
- The future is natural gas, not coal, for new plants
- TVA, Calpine, Xcel Energy, Constellation, Duke, Progress Energy planning new gas-fired plants
- Colorado's Xcel: Gas will cost \$1.3 billion, but \$225 million less than upgrading coal plants

Demand growth is key

- Electrical demand grew from 14 billion cubic feet per day in 2000 to 19 bcf per day in 2009
- CERA: Electrical utility demand for gas could almost double 2009 - 2030; an additional 16 bcf/day
- Interstate Natural Gas Association of America:
Replacing half of oldest, least-efficient coal plants would require 5.5 bcf of gas per day
- It's not taking from coal, but going after new plants and replacement of older, costlier coal plants

Energy legislation and EPA

- Anything that helps drive the nation to clean-burning natural gas is good for the Alaska project
- Shale gas producers, coal-fired power plants, LNG regas plants, other pipelines will all have to deal with the same new laws and costs
- New EPA regulations could help gas demand, too
- Utilities see possible new regs, but don't know when
- They are factoring it into investment decisions now

It's not easy, but it's possible

- Wood Mackenzie: “Whether the project proceeds ... depends on if the producers and the state can reach agreement on the applicable tax terms and, ultimately, what the producers believe to be the long-term value of natural gas in the North American marketplace.”
- At some point everyone needs to sit down and talk
- Alaska needs the gas line to help replace declining oil revenues and spur North Slope development

Federal coordinator's job

- Ensure expeditious permit review and all other related activities by federal agencies
- If an agency imposes a permit condition beyond the law, the coordinator can say “no you can't”
- Regulations are being drafted to carry out that unusual authority; strong debate is expected
- Primary surveillance and monitoring responsibility on federal and private lands along pipeline

Thank you

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