

SCOMM

155:17

ALASKA STATE LEGISLATURE

Senator Charlie Huggins, Chair
Senate Special Committee on Energy
State Capitol, Room 119
Juneau, AK 99801
Phone: 465-3878
Fax: 465-3265



Representative John Harris, Chair
House Rules Subcommittee on AGIA
State Capitol, Room 208
Juneau, AK 99801
Phone: 465-4859
Fax: 465-3799

Third Special Session
Twenty-Fifth Legislature

Train Depot, Palmer Alaska
Tuesday June 24, 2008
1:00-8:00 p.m.

Joint Meeting AGENDA

Presentations: Review of AGIA Findings and Determination; Natural Gas Pipeline Project as proposed by TransCanada Alaska Company, LLC and Foothills Pipelines Ltd. (TC Alaska) to the State of Alaska.

➤ **Findings & Determination Summary**

Pat Galvin, Commissioner, Dept. of Revenue

➤ **TransCanada AGIA Application**

Tony Palmer, Vice President, Alaska Gas Development

Testimony: By Invitation

➤ **6:00 – 8:00 PM Public Testimony**

Testimony – Time Limit May Be Set

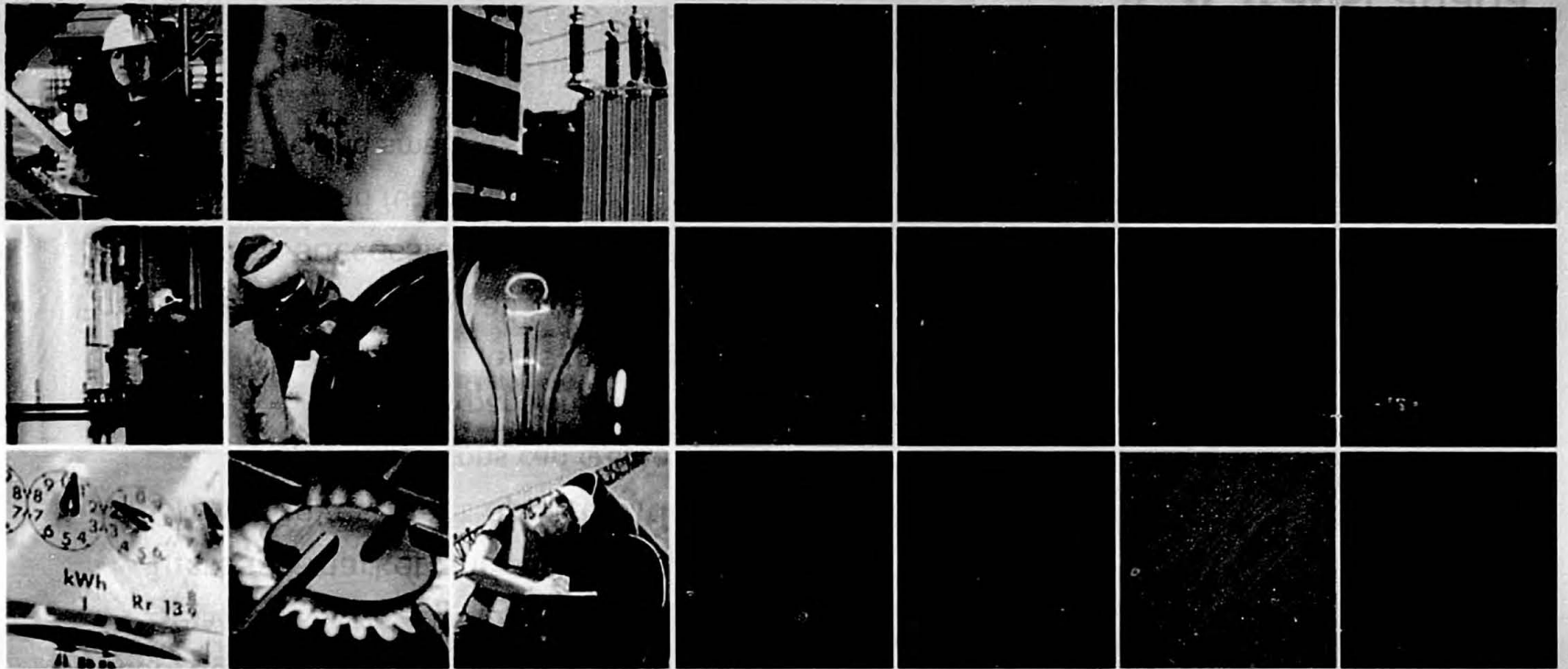
Teleconference- Listen Only

6-24-2008

Public Testimony

- ✓1 - April Moore -
- ✓2 - Don Benson (AK Nat Gas Dev. Authority) for AG11A
- ✓3 - Jean Woods - asks Q's of Mr. Palmer
- ✓4 - David Cheezum - (owns firestrike books) "talk radio is VECO wing of Republican party"
- ✓5 - Knoll Woods - thinks admin is antagonist to producers
- ✓6 - Burt Cottle - Mayor Valdez - ^{AK Governor} Chair of Port Authority - ^{thank you to Sarah Palin}
- ✓7 - Jim Sykes - AK Pub Int Research Grp - Supports Palin ^{wants dual open seasons for LNG & AG11A}
- ✓8 - Nikki Campbell - ^{represent self & future of AK} not convinced AG11A is perfect answer
- ✓9 - James Harpster - ^{former teacher} 42 yrs. resident, Hicikel makes sense
- ✓10 - Annette Harpster - DNR doesn't deal in good faith.
- ✓11 - Lucille Frey - ^{nothing concrete in AG11A} too sketchy to form an opinion on
- ✓12 - Curt Menard - ^{supports AG11A, Gov. & Administration} mayor Mat-Su Borough ^{is Denali pjt real or fake?}
- ✓13 - Tom Lakose - ^{license AG11A & move on}
- ~~14 - Gabrielle Lo Russo -~~
- ~~15 - Dime Lo Russo -~~ } not wishing to testify
- ✓16 - Ralph Buzard - ^{vote NO on AG11A} not for Canada - they blockaded our ferries -
- 17 - Justin McDonald
- ✓18 - Mark Richard - gold miner - ^{farming operations} how will pipeline affect mining operations
- ✓19 - Darrogl Nelson - ^{- thanks for hearings on road for AK's to be heard.} oil co's been sitting on the leases over 30 yrs.
- ✓20 - Bonnie Nelson - ^{- Producers shouldn't do pipe / cause monopoly /} Chugach - ^{needs TC port authority} thinks these are governors hearings - Blind
- ✓21 - ANDREI Buckareff - ^{since 1972 - against TC}
- ✓22 - Gabriel Lo Russo - 11 yrs old
- ✓23 - Stu Graham - ^{let business do what business does best. Gov't only step in re safety & other govt issues - let economics drive decision} ch. of commerce - ^{Vote AG11A down}

Tony Palmer presented 6-24-08
Tuesday - 1:46 PM
Palmer Train Depot



TransCanada's AGIA Application Statewide Legislative Hearings

June / July 2008



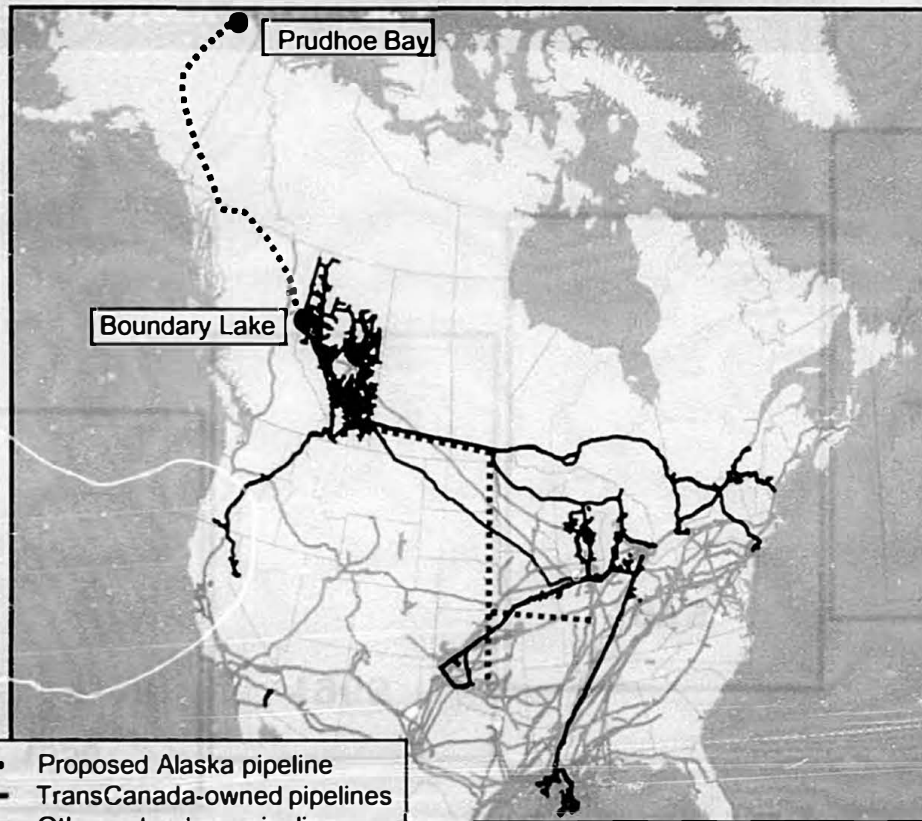
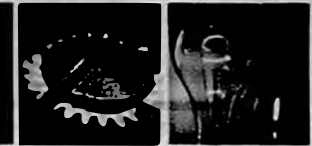
TransCanada
In business to deliver

TransCanada's Objectives – Alaska Project



- Early in-service
 - Largest investment opportunity in core business line and geographic footprint
 - Utilize spare capacity on existing North American pipelines
 - LNG market as alternative investment opportunity
- Encourage long-run basin development
 - Serve In-State and other markets
 - Increase market and supply diversity
 - Growth investment opportunities
 - Pipeline expansions can create “virtuous circle”
 - Pipeline expansions promote more exploration and drilling which, if successful, leads to more pipeline expansions
- Equitable treatment for all customers
 - 50-year successful track record of balancing interests
 - Initial and future
 - Large and small

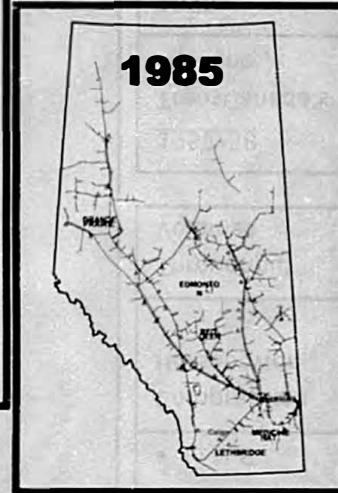
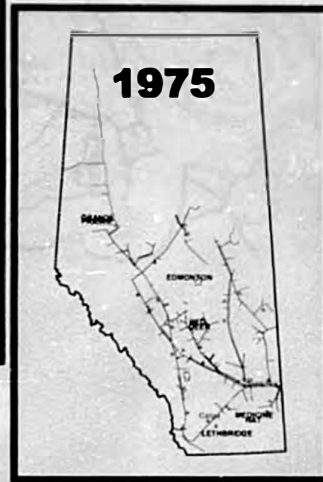
TransCanada's Credentials



- Proposed Alaska pipeline
- TransCanada-owned pipelines
- Other natural gas pipelines
- Keystone pipeline

	TransCanada Total	Alaska Pipeline Project
Miles of Pipe • in U.S.	36,500 • 12,000	1,715 • 750 in Alaska
Compression Horsepower	5,370,000	750,000 • 265,000 in Alaska
Throughput Volumes	15 bcf/d	4.5 bcf/d

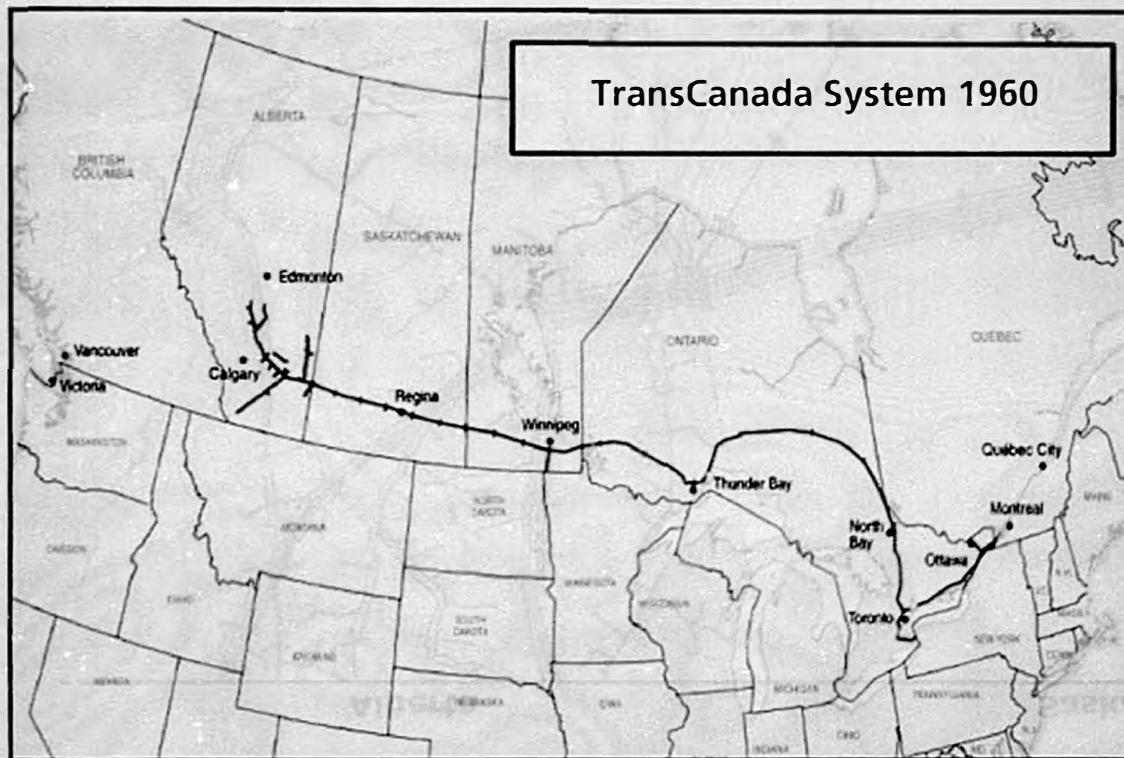
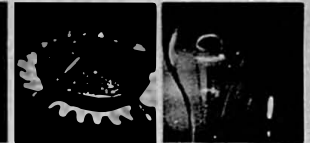
<u>1957/58</u> TransCanada's Mainline	Original build across Canada 2,300 miles
<u>1990s</u> Expansion	7,000 miles Completed within 0.6% of budget and on schedule
<u>2008 - 2009</u> Keystone Pipe	2,150 miles New build in U.S. - 1,380 miles



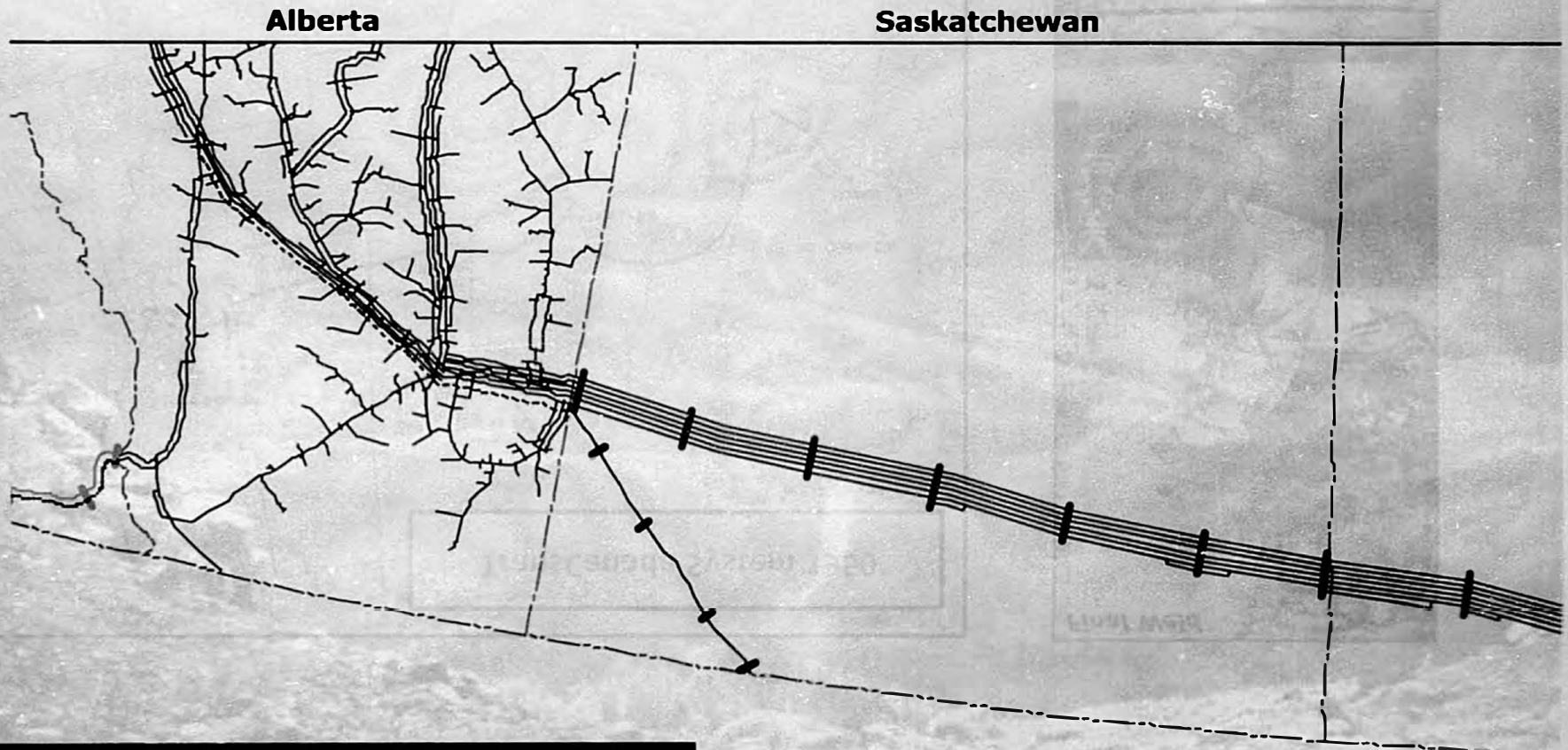
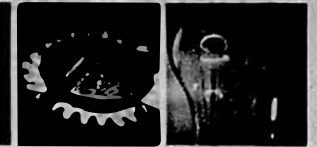
Regulatory Structure

- Independent pipeline model
- Rolled-in tolls
- 3 customers in 1958, 300+ today

Proven Basin Developer – Mainline Example 1960



Proven Basin Developer – Mainline Example 2008



Regulatory Structure

- Independent pipeline model
- Rolled-in tolls
- 3 customers in 1958, 300+ today

AGIA "Must Haves"



AGIA "Must Haves"	TransCanada's Application	Completeness
1. Filed by deadline	Filed on November 30, 2007	✓
2. Project details & schedule	Alaska Highway route 5 bcf/d GTP and 48" 2500/2600 psi pipe 2017 November in-service*	✓
3. Open season date certain Apply for FERC pre-filing Apply for FERC CPCN	Completed by Sept. 2009* June 2010* - not contingent on Open Season December 2011* - as above	✓
4. RCA filing	N/A	N/A
5. Open season frequency	Once every 2 years	✓
6. Expansions - Commitment to expand in engineering increments	Yes, 4.5 bcf/d initial design capacity Expandable to 5.9 bcf/d with compression only	✓
7. Rolled-in tolls	Up to 115% of initial rates in Alaska Full rolled-in rates in Canada	✓
8. Gas treatment plant	TransCanada will build if 3 rd parties do not	✓
9. State reimbursement	Up to \$500 million	✓

* Subject to AGIA license by April 2008

AGIA "Must Haves"



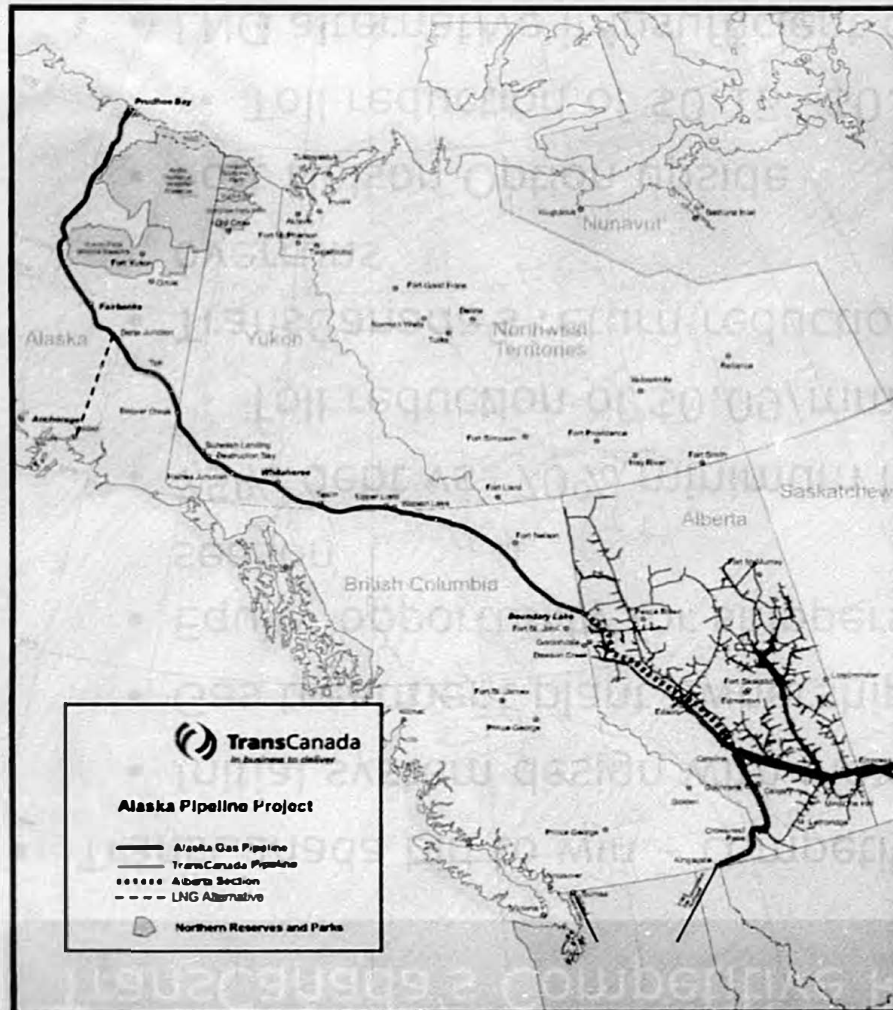
AGIA "Must Haves"	TransCanada's Application	Completeness
10. Project debt ratio minimum	Construction - 70% Operation - 75% (to reduce tolls)	✓
11. Capital cost overrun measures	TransCanada's return reduction (penalty) Potential \$18 B loan guarantee (stable tolls)	✓
12. In-state deliveries	Min. 5 delivery points	✓
13. In-state delivery rates	Distance sensitive rates	✓
14. Local headquarters in Alaska	Yes	✓
15. Local hire, local businesses, etc.	Opportunities for local hire and businesses	✓
16. Waive right to appeal	Waived	✓
17. Project labor agreement	Commit to negotiate PLA	✓
18. Treatment of State reimbursement	Excluded from rate base	✓
19. Details of Applicant	Provided	✓
20. Readiness, financial resources and technical ability of Applicant	Proven record and demonstrated capability	✓

TransCanada's Competitive Response to AGIA



- TransCanada bid to win – competitive enhancements
 - Initial system design with inexpensive expandability
 - Gas treatment plant ownership, if no 3rd party willing to build
 - Equity opportunity for shippers committing gas in initial open season
 - 75% debt vs. 70% minimum limit in AGIA
 - Toll reduction of \$0.09/mmbtu
 - TransCanada's return reduction in event of capital cost overruns
 - Fort Nelson Option upside
 - Toll reduction of \$0.13 - \$0.18/mmbtu
 - LNG alternative if insufficient gas commitments through Canada , or via Y-line

Alaska Pipeline Project



- **Alberta Hub is the most liquid market in North America**
- **TransCanada's Alberta System is the Alberta Hub**
- **Access to all North American markets coast-to-coast on TransCanada's existing pipelines**
 - **By 2018, spare takeaway capacity sufficient for full Alaska volumes**
- **One-third of Alaska pipeline in-service as Prebuild moving 3 BCFD**
- **LNG alternative if insufficient gas commitments through Canada or via Y-line**

Project Description



- Gas treatment plant at Prudhoe Bay
 - 5 Bcf/d initial capacity
 - TransCanada will develop/own only if necessary
- Natural gas pipeline from Prudhoe Bay to Alberta Hub
 - 4.5 Bcf/d initial capacity
 - Expansion to 5.9 Bcf/d with compression only
 - More than 1700 miles
 - 48-inch diameter; 2500/2600 psig
- Alberta Hub to Lower 48
 - TransCanada's existing pipeline system in Alberta is the "Alberta Hub"
 - TransCanada's Alberta pipeline is both a physical and commercial system
 - Largest natural gas trading hub in North America
 - By 2018, downstream pipelines projected to have spare capacity for full Alaska volumes

Project Economics ¹



- Capital costs
 - \$26 billion (2007 \$US excluding AFUDC)
 - Approximately \$0.6 billion for Open Season and regulatory certification
- Tolls
 - \$US 2.76/MMbtu in 2018 to the Alberta Hub
 - Levelized negotiated toll for 4.5 Bcf/d in nominal dollars, including fuel
 - Expansion Tolls
 - Rolled-in tolls in Canada
 - Rolled-in tolls in Alaska up to 115% of initial tolls, including fuel

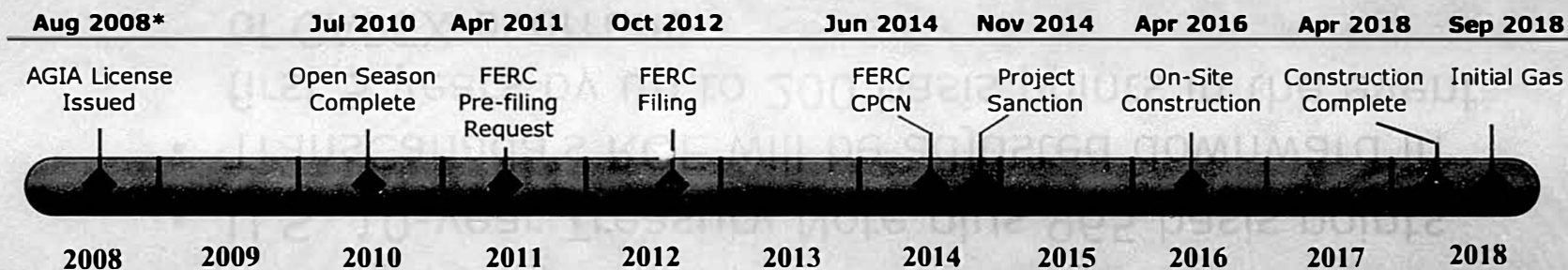
¹ Based on information provided by the State and current TransCanada estimates

Financial Parameters



- Debt/Equity Ratio
 - 70/30 during construction
 - 75/25 upon completion of initial project
 - 60/40 for all expansions
- Return on Equity
 - U.S. 10-year Treasury Note plus 965 basis points
 - TransCanada's ROE will be adjusted downward in first 5 years by up to 200 basis points in the event of CAPEX overruns
- Fuel
 - 7.9% including GTP from Prudhoe Bay to Alberta Hub
 - \$US 0.35/MMbtu in 2018 @ 4.5 Bcf/d

Project Schedule



* AGIA license assumed to be issued in August 2008

Partnership Opportunity



- TransCanada will offer equity opportunity to Shippers in the initial Open Season that subscribe for a threshold volume
 - Should improve likelihood of success and alignment of interests between project sponsors and Shippers

Upstream Fiscal Terms



- TransCanada's AGIA obligations are not conditional on a review of Alaska's upstream fiscal terms.
- TransCanada acknowledges that this issue is between the State and natural gas producers.
 - TransCanada requests that the State review upstream fiscal terms for natural gas prior to the initial open season.

Other Project Components



- Natural Gas Liquids (NGLs) Extraction
 - TransCanada can accommodate NGL extraction in Alaska or downstream
 - TransCanada's Alberta system is straddled by three NGL complexes owned by third parties
 - Excess capacity expected at those plants sufficient to process Alaskan gas if Shippers so choose
- LNG Alternative
 - TransCanada is willing to offer gas treatment and transportation services from Prudhoe Bay to an LNG terminal should insufficient gas be committed through Canada or via a Y-line

Regulatory Structure



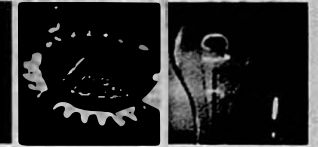
- Alaska
 - TransCanada Alaska Company, LLC will proceed under Alaska Natural Gas Pipeline Act of 2004
- Canada
 - Foothills Pipe Lines Ltd. will proceed under the Northern Pipeline Act (NPA)
- Canada/U.S. Treaty
 - The pipeline will follow the route set out in the Treaty and the NPA

AGIA "Must-haves" Promote Basin Development



- Rolled-in tolls up to 115% of initial rates in Alaska
- Open Season every 2 years
- In-State deliveries
 - Distance-sensitive tolls
 - Minimum 5 delivery points
- Low equity ratio requirement for pipeline sponsors
- State fiscal incentives (if any) targeted to AGIA pipeline shippers

Long-run Basin Development – Pipeline Expansions



- Value to Producers / Governments?
- Does Alaska have enough gas?
- Drilling impacts?
- Impact of rolled-in tolls?

Value of Potential Expansions (\$Billions)¹

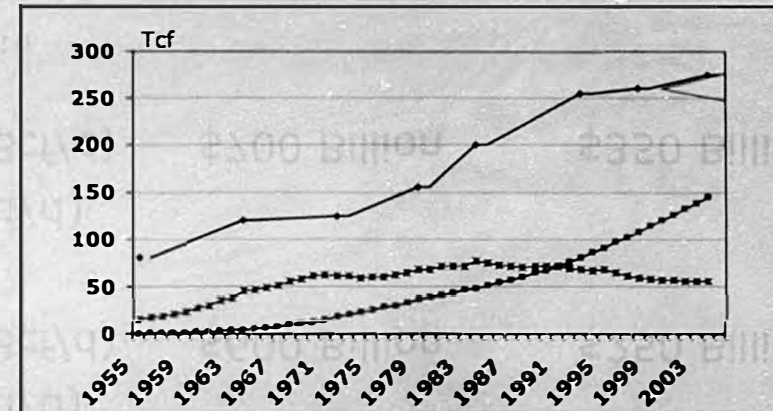
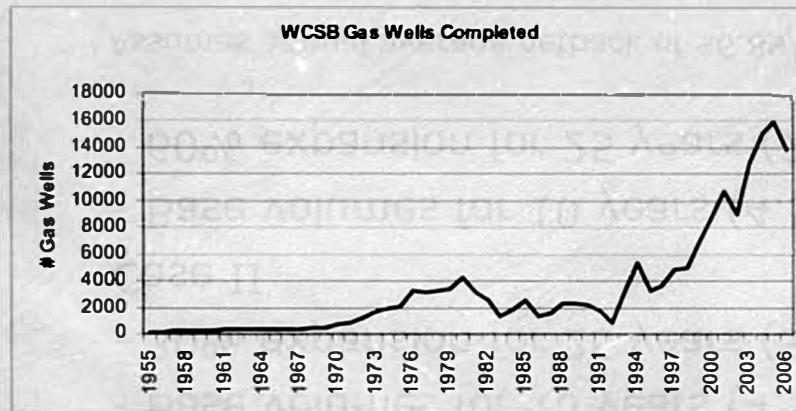
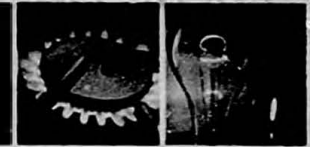


	<u>Producer/Govts. Total Revenue *</u>	<u>Expansion Value</u>
Base Project		
- 25 years @ 4.5 Bcfd	\$350 Billion	
Expansions		
Case I		
- Base volumes for 10 years (4.5 Bcf/d)		
- 30% expansion for 25 years (5.9 Bcf/d)	\$600 Billion	\$250 Billion
Case II		
- Base volumes for 10 years (4.5 Bcf/d)		
- 60% expansion for 25 years (7.2 Bcf/d)	\$700 Billion	\$350 Billion

¹ Assumes annual average netback of \$6.89/MMbtu

* Direct revenue only
- no indirect impacts from additional E&P activity and spin-offs

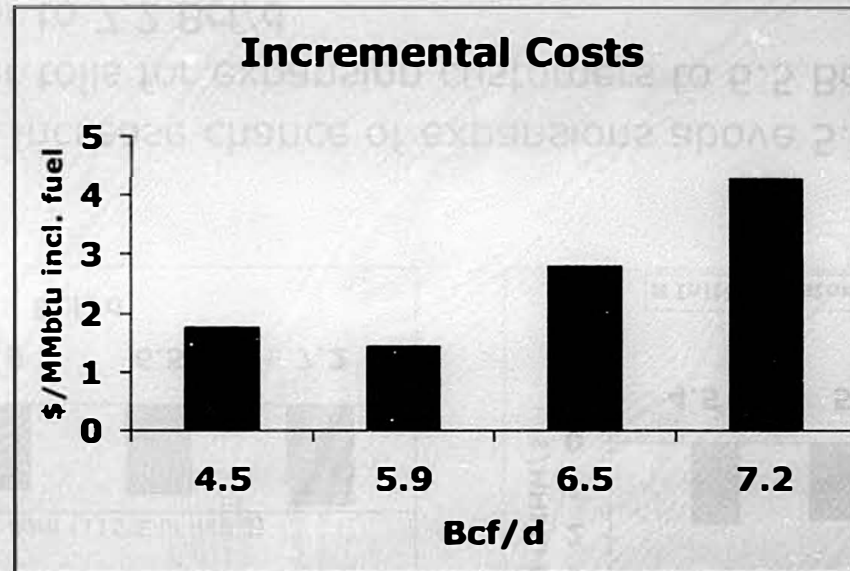
Basin Development – Western Canada Example



— Ultimate Resource Potential Estimate
— Proven Reserves
— Cumulative Production

- Pipeline expansion can create “virtuous circle”
 - More exploration and drilling
 - If successful, leads to more pipeline expansion
- Exploration and drilling drives service industry and employment over long term

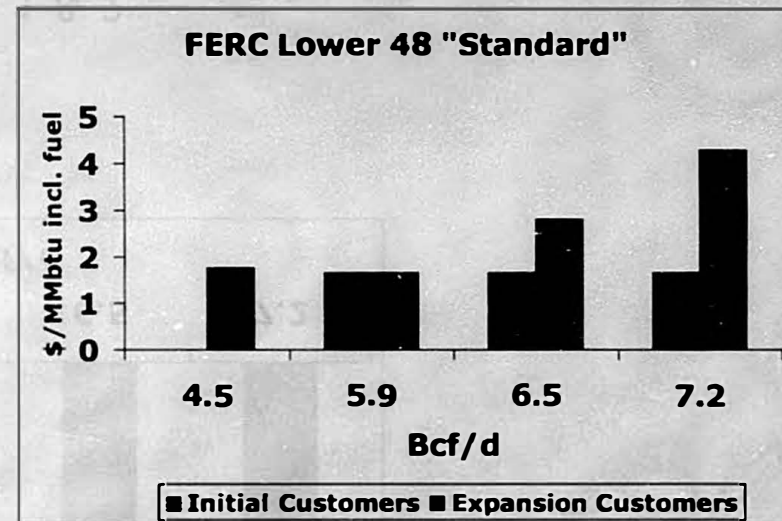
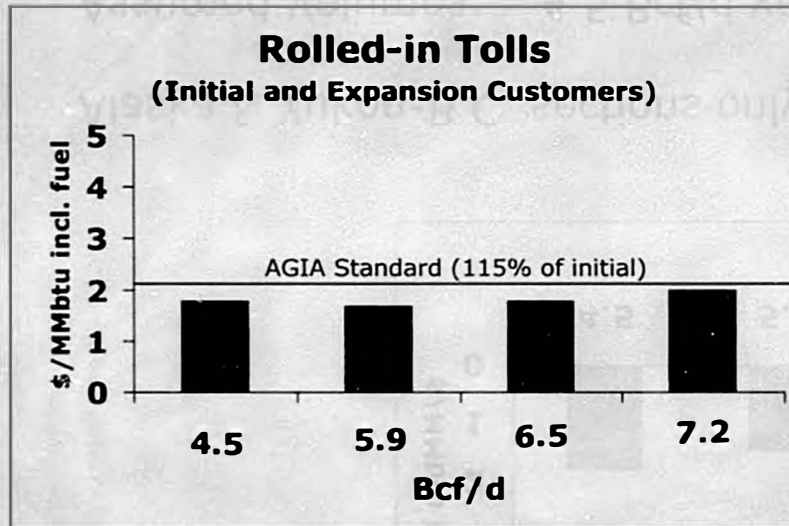
Impact of Rolled-in Tolls?



Alaska & Yukon-B.C. sections only

Assumed Volumes: 4.5 Bcf/d years 1 & 2
5.9 Bcf/d years 3 & 4,
6.5 Bcf/d years 5 & 6,
7.2 Bcf/d years 7 & beyond

Impact of Rolled-in Tolls?



- Rolled-in tolls increase chance of expansions above 5.9 Bcf/d
 - 35% lower tolls for expansion customers to 6.5 Bcf/d
 - 50% lower to 7.2 Bcf/d

Summary



- Last year, the Administration and Legislature established AGIA as Alaska's transparent and competitive process to advance a gas pipeline project
 - AGIA was structured to encourage:
 - Construction of base project
 - Long-run basin development
 - Open access terms for:
 - Initial and future shippers
 - In-State, Lower 48, and LNG markets
- TransCanada has the credentials and capacity to build, own, operate and expand the project
- TransCanada's objectives are aligned with AGIA
 - Early in-service
 - Long-run basin development
 - Open access – equitable treatment for all customers

presented 6-24-08 - Tuesday
Palmer Train Depot 1-6 pm

AGIA

Summary of the Commissioners' Findings and Determination

Special Session
June 2008



Commissioners' AGIA Findings and Determination



- The pipeline project proposed by TC Alaska's application
 - will sufficiently maximize the benefits to the people of Alaska, and
 - merits issuance of an AGIA license.
- Issuing an AGIA License to TC Alaska maximizes benefits to Alaskans more than pursuing an LNG project or the Producers Project.

Maximizing Benefits to Alaskans



- Get a Pipeline
 - Jobs and long-term careers
 - Opportunity of affordable energy for Alaskans
 - Maximize state revenue and create opportunity for future growth of state economy
- ① take pt @ dist. sensitive rates ② Expansion Provisions ③ doesn't interfere w/ Bullet Line project.
- ① Lowest reasonable Transportation Rates (tariff)
② Expansion Provisions

The Alaska Gasline Inducement Act



Maximizing Benefits to Alaskans



- Get a Pipeline
 - A feasible project plan, sponsored by a capable pipeline company
 - An economic project likely to attract firm transportation commitments and secure financing
- Jobs and long-term careers
- Opportunity of affordable energy for Alaskans
- Maximize state revenue and create opportunity for future growth of state economy

Maximizing Benefits to Alaskans



- Get a Pipeline
 - Does not interfere with “Buller Line” project
- Jobs and long-term careers
 - Expansion provisions
 - Off-take points and distance-sensitive rates
- Opportunity for affordable energy for Alaskans
- Maximize state revenue and create opportunity for future growth of state economy

Maximizing Benefits to Alaskans



- Get a Pipeline
- Jobs and long-term careers
- Opportunity of affordable energy for Alaskans
 - Off-Take Points, and Distance-Sensitive Rates
 - Expansion Provisions
 - Does not interfere with “Bullet Line” project
- Maximize state revenue and create opportunity for future growth of state economy

Maximizing Benefits to Alaskans



- Get a Pipeline
- Jobs and long-term careers
- Opportunity of affordable energy for Alaskans
- Maximize state revenue and create opportunity for future growth of state economy
 - Lowest Reasonable Transportation Rates (tariff)
 - Expansion Provisions

TC Alaska Project Evaluation



- Economic Evaluation
 - Net Present Value (NPV) to the State
 - NPV to the Producers
- Likelihood of Success

The Alaska Gasline Inducement Act



TC Alaska Project Evaluation



- As allowed in AGIA, TC Alaska's application had alternative project designs based on how much gas was committed at the initial open season
- Analysis considered many different possible designs

NPV Analysis



- Two “Base Cases” Reported for TC Alaska’s Project

- “Proposal Base Case”

- 4.5 Bcf/d (including 0.9 Bcf/d from Pt. Thomson)
 - 75/25 debt to equity
 - 14% return on equity
 - 25 year shipping contracts

- “Conservative Base Case”

- 4.0 Bcf/d (No gas from Pt. Thomson)
 - 75/25 debt to equity
 - 14% return on equity
 - 20 year shipping contracts



NPV Analysis



- Factors in NPV Analysis *— "looking out 35 yrs from now"*
 - Gas Prices
 - Transportation Costs
 - Pipeline Project Capital Costs
 - Cost Escalation Rates
 - Initial Pipeline Throughput
 - Tariff Terms (e.g. debt to equity ratio)
 - Pipeline Construction Schedule
 - Gas Production Costs

Project Economic Analysis



- Gas Price Models
 - Separate price forecasts were obtained from
 - US DOE's Energy Information Administration (EIA)
 - Wood Mackenzie
 - Gas Strategies Consulting
 - Black and Veatch



Project Economic Analysis



- Project Cost and Schedule
 - “Technical Team”, included
 - Westney Consulting
 - Energy Project Consultants
 - Pingo International
 - AMEC Paragon
 - Colt Engineering
 - Mustang Management
 - Energy Operations Consulting
 - Black and Veatch
 - Merlin Associates

Project Economic Analysis



- Project Cost Estimates – Mid-Range
 - Proposal Base Case
 - \$31 Billion in today's dollars
 - \$3.19 tariff
 - \$45 Billion in dollars spent
 - \$4.73 tariff
 - Conservative Base Case
 - \$29 Billion in today's dollars
 - \$3.59 tariff
 - \$42 Billion in dollars spent
 - \$5.33 tariff

Project Economic Analysis



Project Cost Estimates – Why Higher than TC Alaska's?

- Different Purposes – Project Planning vs. Risk Assessment
- TC Alaska's Cost Estimates are “realistically aggressive” and appropriate for project planning
 - Analytical team tested sensitivity of estimates to changed circumstances
- Difference Between Assumptions Mandated in the RFA and the final analysis assumptions
 - Exchange rate, cost escalation rate
- Assumed “Neutral Competence” of Operator
- Cost of the GTP
 - One vs. Two seasons of sea-lift

Project Economic Analysis



- Project Schedule
 - Mid-range probability put first gas in 2020
 - State's Canadian Counsel advised on expected regulatory timeline in Canada, including First Nation issues

– TC Alaska's Cost Estimates are "realistically aggressive" and

– Different purposes – Project Planning vs. Risk Assessment

Project Cost Estimates – Why higher than TC Alaska's?



Project Economic Analysis



Reporting NPV Results – Proposal Base Case

- Gas Prices (WoodMac)
- Transportation Costs
 - Pipeline Project Capital Costs (\$31.5 billion)
 - Cost Escalation Rates (4%)
 - Initial Pipeline Throughput (4.5 Bcf/d)
 - Tariff Terms (e.g. debt to equity ratio[75/25])

– Pipeline Construction Schedule (2020)

– Gas Production Costs

Project Economic Analysis



Proposal Base Case Results

- The State of Alaska would realize an estimated cash flow of \$261.5 billion, and an estimated NPV of approximately \$66.1 billion at a discount rate of 5%.
- The Major North Slope Producers would realize an estimated cash flow of \$147.4 billion, and an estimated NPV of approximately \$13.5 billion at a discount rate of 10%.

Project Economic Analysis



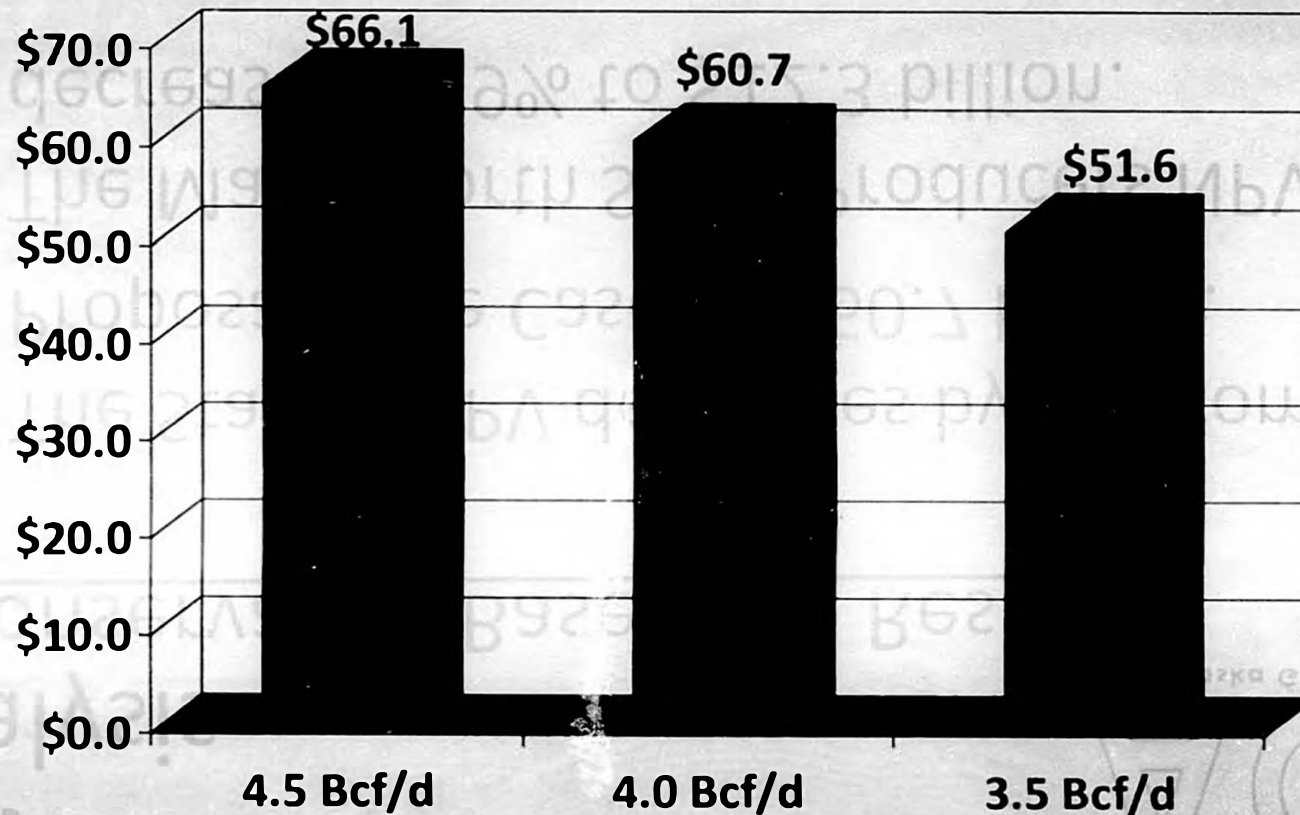
Conservative Base Case Results

- The State's NPV decreases by 8% from the Proposal Base Case to \$60.7 billion.
- The Major North Slope Producers NPV decreases by 9% to \$12.3 billion.

Project Economic Analysis



State NPV at Various Initial Throughput



■ State NPV

this illustration assumes no expansions

Project Economic Analysis



- The Project Economics are Extremely Robust
 - It would take a “perfect storm” of worst case scenarios of multiple factors for the Project to be uneconomic to the Producers.
 - Indeed, a “perfect storm” of low gas prices and high construction costs, together, are not enough to generate a negative NPV for the State.

\$500 Million Matching Contribution



Effect of State's \$500 Million Matching Contribution to TC Alaska's Project

- Tariff is reduced by 6 cents
- State's NPV increases by \$200 Million

TC Alaska Project Is Likely to Succeed



- TC Alaska has submitted a plan for its project that is technically feasible, reasonable, and specific.
- TC Alaska has demonstrated the technical and financial ability to construct the project.
- TC Alaska has submitted a reasonable commercial plan which, coupled with economic and political factors, should help to encourage firm shipping commitments

Attracting Gas Commitments to TC Alaska's Project



- Robust economics and reasonable commercial terms.
 - Extremely capable pipeline company.
 - State's Upstream Inducements
 - 10-year tax certainty
 - Royalty valuation certainty
 - Avoid Problems of Not Committing Gas
 - Duty to develop
 - Anti-trust
 - Congressional Attention
 - Shareholder Questions
- 2017 w/ modify leases of those who commit gas to an AGIA pipe to make them more attractive to gas production (vs oil)*

TC Alaska Project Is Likely to Succeed



Contingent Liability Issue *(withdrawn partners)*

- Risk of litigation is significantly overstated.
- Potential legal claims by withdrawn partners are, at best, weak and unlikely to succeed.
- Not a reasonable basis for the Major North Slope Producers to refrain from partnering with TC Alaska or contracting with the Project.

TC Alaska Project Comparisons



- Not a reasonable basis for the Major North
- **• Producer Project (Denali)**
- Potential legal claims by withdrawn partners
- Risk of litigation is significantly overstated.

Contingent liability issue (contingent liability)



Denali Project Is More Risky For the State



- Lack of commitments create risks for state
- No certainty on project schedule
 - Likely Anti-trust Challenges
- Undefined tariff terms
 - Example, 50/50 debt to equity increases the tariff by \$1 compared to 75/25, costing the state over \$8 billion in NPV
- Undefined state fiscal concessions needed for Denali
 - SGDA concessions worth over \$10 billion
- No Certainty on Expansion Provisions
 - Producer Incentives to exercise basin control
 - Stifles North Slope basin development
 - Loss of long-term jobs and careers
 - Loss of Potential LNG development

changes in taxes royalties, judicial systems were required before - don't see that as having changed.

Producer Pipeline Considerations



- Even if TC Alaska License is issued, Producers can proceed with Denali, commit gas to it, and build it without any additional state concessions
- State has significant interest in attracting Producers to commit gas to TC Alaska's project
 - Expansion Provisions
 - Lowest reasonable tariff - Highest Netback
- State Needs to Use Power of Competition to Protect Alaskans Interests

LNG Analysis



- Extensive Analysis of LNG economics and likelihood of success
 - Asian market price
 - LNG project costs and schedule
 - How LNG projects are developed
 - Potential hurdles for LNG projects



LNG Economic Analysis



- Ran economics on both a 2.7 bcf/d and 4.5 Bcf/d projects
- Alaskan LNG is economical and viable
- Confirmed Asian market premium price
- Liquefaction plant costs create an economic drag
- LNG does not provide time or cost savings over TC Alaska project
- State and Producer NPV lower under all stand-alone LNG options than under TC Alaska project

LNG Likelihood of Success



- LNG is viable, but less likely to succeed without TC Alaska Project
 - Entire project stream, from gas supply, to pipeline, to liquefaction, to tankers, to re-gasification, to gas sales must be negotiated and executed nearly simultaneously
 - Expansions are more difficult because of size
 - Export authorization is a challenge

Opportunity for “Y line” LNG



- If gas is committed, TC Alaska will transport gas from Delta Junction to Prince William Sound
- LNG project will benefit from TC Alaska’s financial and technical capabilities
- State will benefit from supplying gas to both LNG and North American markets
- “Y line” is the best LNG option for the state

Additional Considerations



- Treble Damages Exposure
- Competition

Year	Annual spend	Expenditure State	Expenditure TC Alaska	Expenditure Alaska 3X TC	Exposure State Cumulative
2008	\$41	\$41	\$41	\$41	\$85
2009	\$45	\$45	\$45	\$45	\$130
2010	\$34	\$34	\$34	\$34	\$164
2011	\$41	\$41	\$41	\$41	\$205
2012	\$45	\$45	\$45	\$45	\$250
2013	\$41	\$41	\$41	\$41	\$291
2014	\$45	\$45	\$45	\$45	\$336
2015	\$41	\$41	\$41	\$41	\$377
2016	\$45	\$45	\$45	\$45	\$422
2017	\$41	\$41	\$41	\$41	\$463
2018	\$45	\$45	\$45	\$45	\$508
2019	\$41	\$41	\$41	\$41	\$549
2020	\$45	\$45	\$45	\$45	\$594
2021	\$41	\$41	\$41	\$41	\$635
2022	\$45	\$45	\$45	\$45	\$680
2023	\$41	\$41	\$41	\$41	\$721
2024	\$45	\$45	\$45	\$45	\$766
2025	\$41	\$41	\$41	\$41	\$807
2026	\$45	\$45	\$45	\$45	\$852
2027	\$41	\$41	\$41	\$41	\$893
2028	\$45	\$45	\$45	\$45	\$938
2029	\$41	\$41	\$41	\$41	\$979
2030	\$45	\$45	\$45	\$45	\$1024
2031	\$41	\$41	\$41	\$41	\$1065
2032	\$45	\$45	\$45	\$45	\$1110
2033	\$41	\$41	\$41	\$41	\$1151
2034	\$45	\$45	\$45	\$45	\$1196
2035	\$41	\$41	\$41	\$41	\$1237
2036	\$45	\$45	\$45	\$45	\$1282
2037	\$41	\$41	\$41	\$41	\$1323
2038	\$45	\$45	\$45	\$45	\$1368
2039	\$41	\$41	\$41	\$41	\$1409
2040	\$45	\$45	\$45	\$45	\$1454
2041	\$41	\$41	\$41	\$41	\$1495
2042	\$45	\$45	\$45	\$45	\$1540
2043	\$41	\$41	\$41	\$41	\$1581
2044	\$45	\$45	\$45	\$45	\$1626
2045	\$41	\$41	\$41	\$41	\$1667
2046	\$45	\$45	\$45	\$45	\$1712
2047	\$41	\$41	\$41	\$41	\$1753
2048	\$45	\$45	\$45	\$45	\$1798
2049	\$41	\$41	\$41	\$41	\$1839
2050	\$45	\$45	\$45	\$45	\$1884

Exposure
Treble Damages



Treble Damages Exposure



\$Millions

Year	Annual Spend	State Expenditure	TC Alaska Expenditure	3x TC Alaska Expenditure	Cumulative State Exposure
2008	\$41	\$21	\$21	\$62	\$82
2009*	\$42	\$21	\$21	\$63	\$166
2009	\$34	\$31	\$3	\$10	\$207
2010	\$141	\$127	\$14	\$42	\$376
2011	\$144	\$130	\$14	\$43	\$549
2012	\$147	\$132	\$15	\$44	\$726
2013	\$75	\$39	\$36	\$109	\$874
Total	\$625	\$500	\$125	\$374	\$874

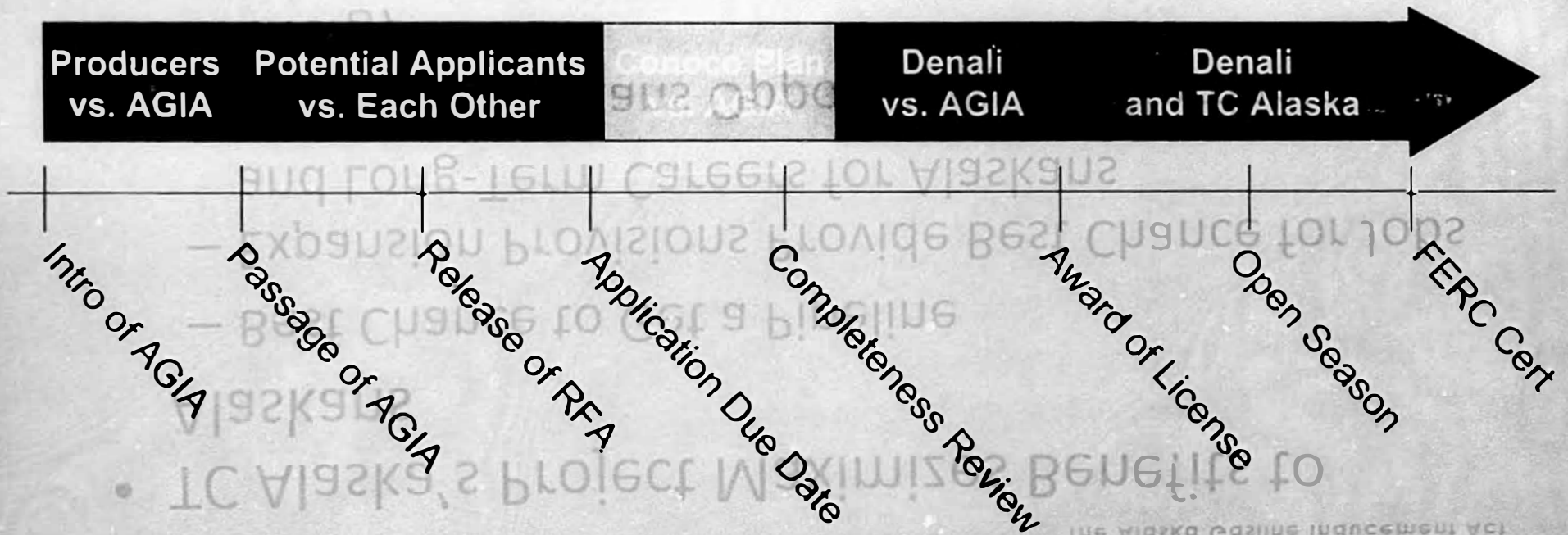
*Scheduled Open Season

Expenditure Schedule Based on TC Alaska Application

Competition



- TC Alaska's project is better for the state than
 - Maximizes state revenue



Summary



- TC Alaska's Project Maximizes Benefits to Alaskans
 - Best Chance to Get a Pipeline
 - Expansion Provisions Provide Best Chance for Jobs and Long-Term Careers for Alaskans
 - Increases Alaskans Opportunity of Affordable Energy
 - Maximizes State Revenue
- TC Alaska's Project is Better for the State than LNG Options and the Producer Project (Denali)