

HB 3001

SB 3001

6/6/08

SPECIAL

SESSION

DOCUMENTS



AGIA

Statute & RFA Refresher

**Special Session Opening
June 6, 2008**

Today's Agenda



- AGIA Statute & RFA Refresher
- TC Alaska Application Overview
- Commissioners' Finding and Determination Summary
- "The Prize" – Alaska Arctic Natural Gas Potential
- Jobs, Training, and In-State Gas

Next Four Days



- Saturday
 - Pipeline Regulation and Commercial Terms
 - Pipeline Expansion
- Sunday
 - How Do You Get the Gas?
- Monday
 - LNG: Economics, Likelihood of Success, & Path Forward
- Tuesday
 - TC Alaska's Project: Economics & Likelihood of Success

AGIA Statute



Three Parts

- AGIA License Application Requirements and Process
 - Applicant must Unconditionally accept the “Must Haves”
 - Application Review Criteria
 - “NPV” and “Likelihood of Success”
 - Sufficiently Maximize Benefits to Alaskans
- Terms of the AGIA License
 - State’s Obligations & Licensee’s Remedies
 - Licensee’s Obligations & State’s Remedies
- Upstream Inducements

The State's Obligations



AGIA Requires the State to:

- Provide a Matching Contribution of up to \$500 million
- Provide an AGIA project coordinator

The State is NOT required to support and defend the Licensee's application before regulatory bodies, such as FERC.

If The State Wants Out



If the State Provides Financial Benefits to a
Competing Project:

- The State must pay three times the Licensee's expenditures
- Licensee's expenditures do NOT include amounts reimbursed by the State as part of the \$500 million match

If The Licensee Wants Out



If the Licensee breaches the License, the State receives:

- Recoupment of all funds paid, with interest
- All work product related to the project acquired by Licensee during the term of the License
- Any other remedies provided by law or equity

Request for Applications (RFA)



- Similar to Role of Regulations
- Clarifies Statutory Language for the Application Process and Terms of License
 - Assumptions to be used in providing cost and tariff estimates in the Application
 - Definition of “Project” – Allow expansions to be at less than 70% debt (pg. 19)
 - Definition of “Project Plan” – What changes will require Commissioner Approval (pg. 42)
 - Includes Contractual Terms of the License

Contractual Relationship



- “The License constitutes the final contractual agreement between the state and the Licensee.” (RFA pg. 40)
- The License consists of the AGIA statute, the RFA, and the TC Alaska Application including all responses to additional information requests.

ANCHORAGE DAILY NEWS ARTICLES

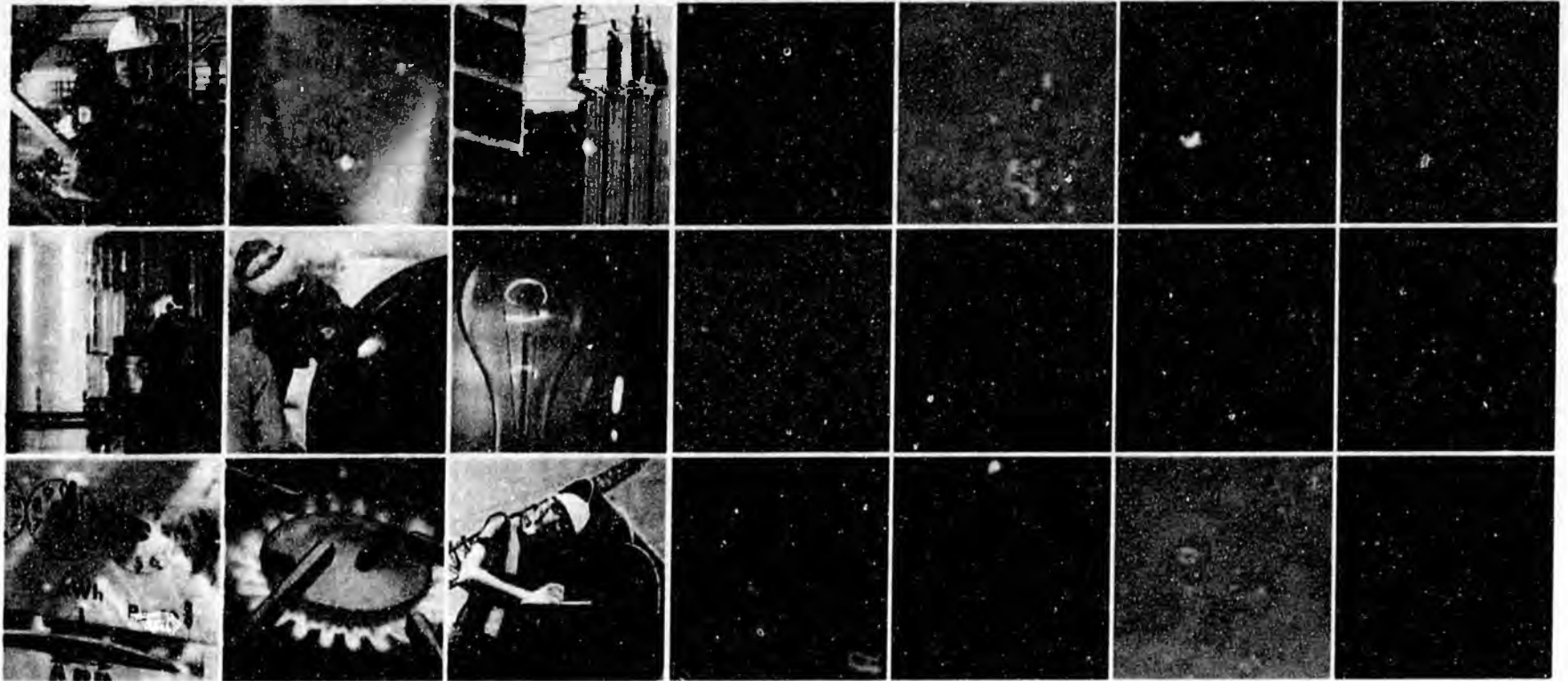
Alaska Gas Pipeline (1987 - 2004)

DATE	ARTICLE
04/08/87	Local Hire Issue Could be Added to Pipeline Bill
12/15/87	ARCO Drops Gas Pipeline Participation
02/08/89	Gas Pipeline Gets a Boost from BP
02/19/91	Congress May Decide Future of Gas Pipeline
01/07/92	Senator Backs Gas Line - Murkowski Asks BP, ARCO for Commitments
01/23/92	Hickel Plans to Test Market for Gas - Administration Forges Ahead Despite Pipeline Setback, Industry Reluctance
02/09/92	ARCO Offers No Help Exec: Gas Line Must TAP Buyers
02/21/92	Gas Line Rebates in Works Plans Try to Lure Pipeline Investors
06/22/95	Oil Giants Grapple Over Gas, Differences Yield Rare Public Hostilities Among Companies
07/15/95	Knowles Gets Scoop on Gas, Oil Producers Discuss Plans for Possible Sales, Pipeline
07/20/95	Slope Gas Owners Say Exports Decade Away
10/13/95	Natural Gas Market Elusive Potential Buyers Tell ARCO, BP, Prices Must be Competitive
02/17/96	ARCO's Indonesian Gas Find Worries Alaskans
06/25/96	Study Pumps Slope Gas, Project Hinges on High Price Over Long Term, Authors Say
07/04/96	Exxon, ARCO Nix Gas Pipeline

DATE	ARTICLE
01/10/97	Barnes Says Gas-Line Laws Needed Now, Knowles Objects, Says Gas Project Needs More Study
01/22/97	Slope Gas Profitable by 2010, Expert Says
01/23/97	State Unveils Gas Facts, Most Oil Firms Satisfied; Exxon Criticizes 3 Features
01/24/97	Barnes Grabs Pipeline Bull by the Horns
01/28/97	Opinion: Barnes vs. Exxon A Point Well-Taken About the Gas Line
02/07/97	Gas Pipeline Resolution Goes on Record
03/21/97	Deals Help Clarify Gas Plans, North Slope Project Gains Ground, But Major Hurdles Remain
04/08/97	State to be Patient, EXPERT: Gas Line Needs Tax Delay
04/11/97	Gas-Line Bills on Hold for '97; Lawmakers Likely to Consider Tax, Royalty Cuts Next Session
04/12/97	N. Slope Committee Proposed, Knowles Wants Group to Explore Gas Options
04/16/97	Oil Firms Back Gas Bill Delay
04/17/97	Gas Project Rivals Surface, Smaller Firms Vie with Slope Giant to Tap Asian Market
06/13/97	Alaska News: Team to Study Gas Project Juneau
06/20/97	Natural-Gas Task Force Begins Work
07/24/97	Incentives May Fuel Gas Project, Panel Says Giant North Slope Complex Defies Global Trend
08/16/97	Down in the Alders', Answers Elude Gas-Line Team
08/26/97	Phillips Joins Signers to Develop Slope Gas
12/04/97	Gas Line May Need State Help, Project's Huge Costs Make Deals Necessary, Panel Says

DATE	ARTICLE
01/14/98	Summit May Help Sell Gas, Efforts to Cut Emissions Could Expand Global Market
01/18/98	Despite Tub Thumping, Nothing Likely to Happen with Slope Gas
01/25/98	Knowles Backs Gas Pipeline
01/31/98	Pipeline Cities Offer Tax Break to Lure Gas Line
02/10/98	Bill Seeks Gas-Line Deal, Knowles Says Put off Taxes
02/28/98	ARCO Recruits Gas Line Team
05/10/98	State Willing to Gamble on Gas, Bill Would Allow Flexible Taxation to Give Development a Chance
05/10/98	Senate Panel Oks Tax Incentives for Gas Development
05/12/98	Senate Backs Gas Pipeline Incentives 19-0
06/18/98	New Law Oks Gas Pipeline Talks
07/09/98	Point Thomson Promise, Exxon Development Plan Satisfies State for Now
02/24/99	Consortium Narrows List of Gas Pipeline Routes
06/22/99	\$5 Oil Would Keep Slope Pumping, Economist Says
07/15/99	Yukon Pacific Quits Group, Disagreement Leads Company to Leave Gas Project Consortium
08/06/99	Mayors Push Gas Line, Port Authority Plan on Table
08/13/99	Pipeline Concept on Track, Parties Discuss Natural Gas Project
11/14/99	Price Set for Gas Sets off Debate
03/25/00	Exxon Sues to Halt Arco Sale
03/30/00	Slope Gas At Root of Exxon Lawsuit, ARCO Sale May Jar Producer Balance

DATE	ARTICLE
11/16/01	Companies get around 'Meatball' \$4 BILLION: Old partners take a big liability off the table
12/01/01	Strategy for gas line is outlined, COUNCIL: Many ideas to push project, but along only one route
12/27/01	North Slope gas opened to bidders, ROYALTY: State hopes to spark interest and test the market
01/16/02	Alaska gas line requires action now, Compass
01/20/02	Gas auction scrapped, Producers decide not to put shipping capacity of proposed pipeline up for bid
01/29/02	Panel to hire gas line consultants, PLAN: Legislative Council to spend up to \$282,000 for additional expertise
02/05/02	Gas talks deemed a success, PIPELINE: Murkowski arranges get-together with producers, politicians
02/16/02	BP's gas pipeline dreams go on hold, FEASIBILITY: Low natural gas prices keep plans at bay for now
02/28/02	Daschle gives gas pipeline a boost, ENERGY BILL: Knowles, Ulmer announce the changes, and Murkowski offers his own
03/23/02	Senate adopts 2 Murkowski gasline amendments, ENERGY BILL: Revisions address preferred route and applicable law
03/27/02	35 tribes sign pipeline pact, NATIVES: Alaska, Canada leaders want to protect gas line interests
04/23/02	House eyes state-owned gas line, Measure calls for report on future feasibility
04/23/02	House pushes gas-line tax breaks, EXEMPTIONS: Measure would save \$500 million in local, state property levies
04/27/02	Revision puts brakes on gas line bill, NO VOTE: Measure tabled after tax break changed to deferral
04/27/02	Gas line price tag called too high



TransCanada's AGIA Application Presentation to Legislature

June 2008

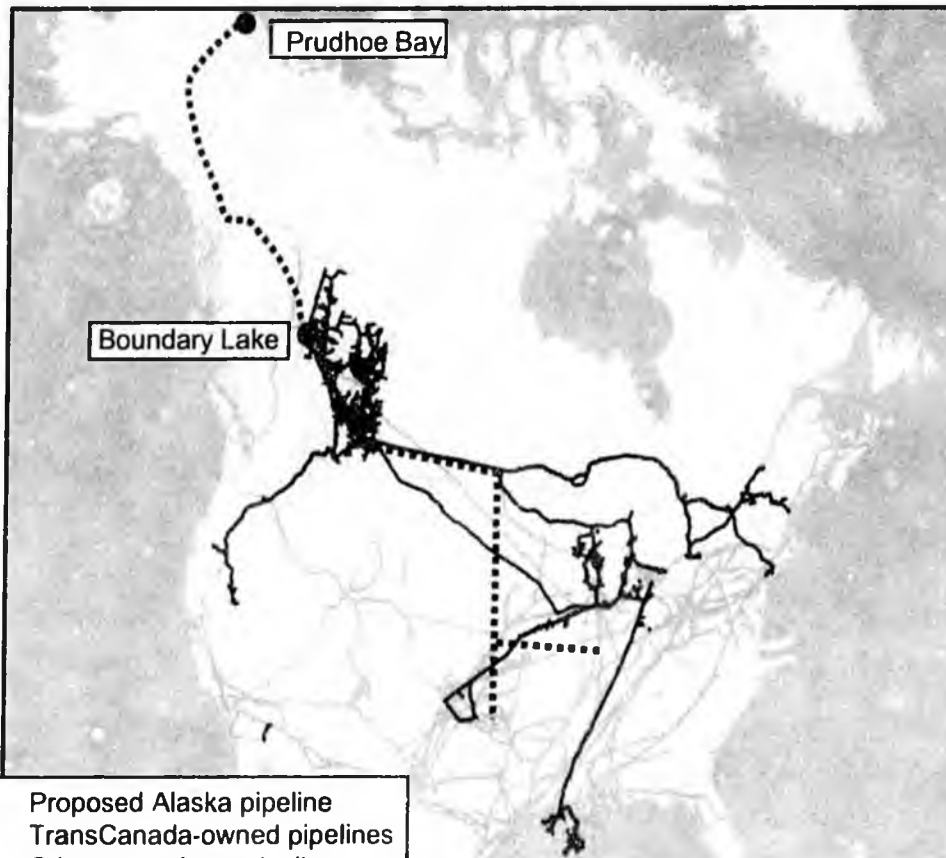
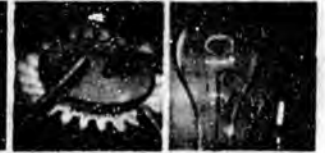


TransCanada's Objectives – Alaska Project



- 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

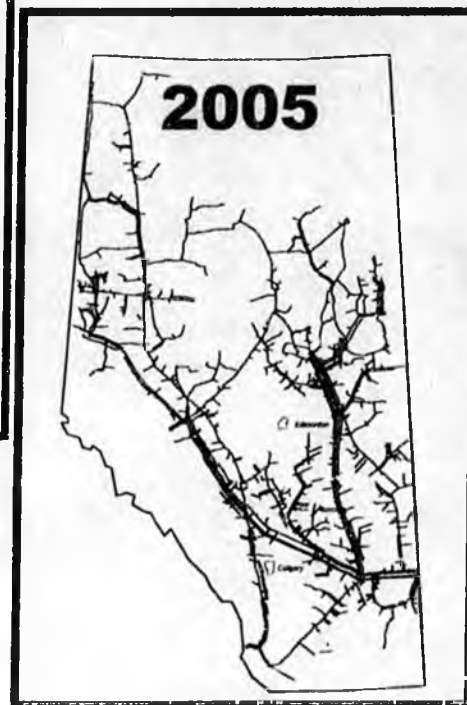


- Proposed Alaska pipeline
- TransCanada-owned pipelines
- Other natural gas pipelines
- - - - - Keystone pipeline

	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

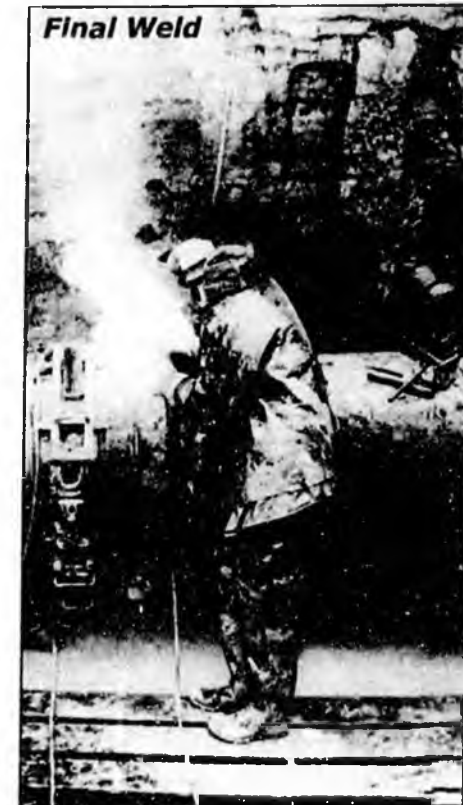
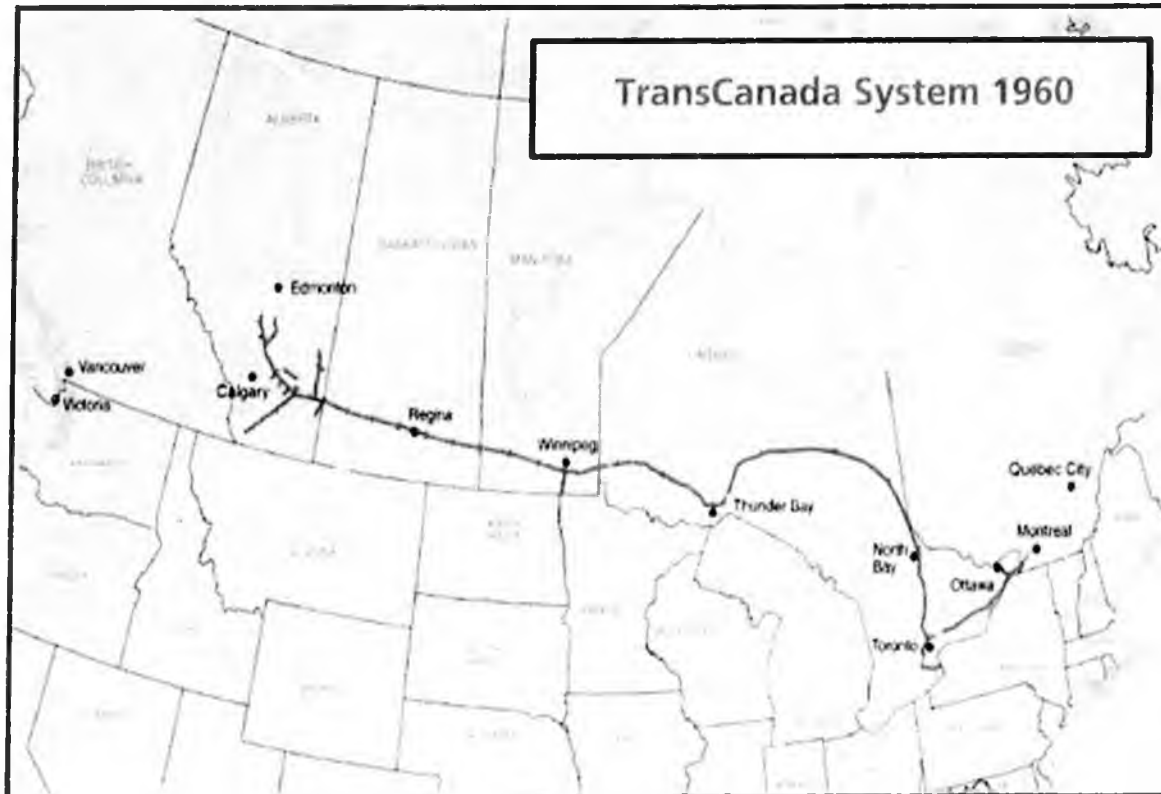
Proven Basin Developer – Alberta Example



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



Alberta

Saskatchewan



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	✓

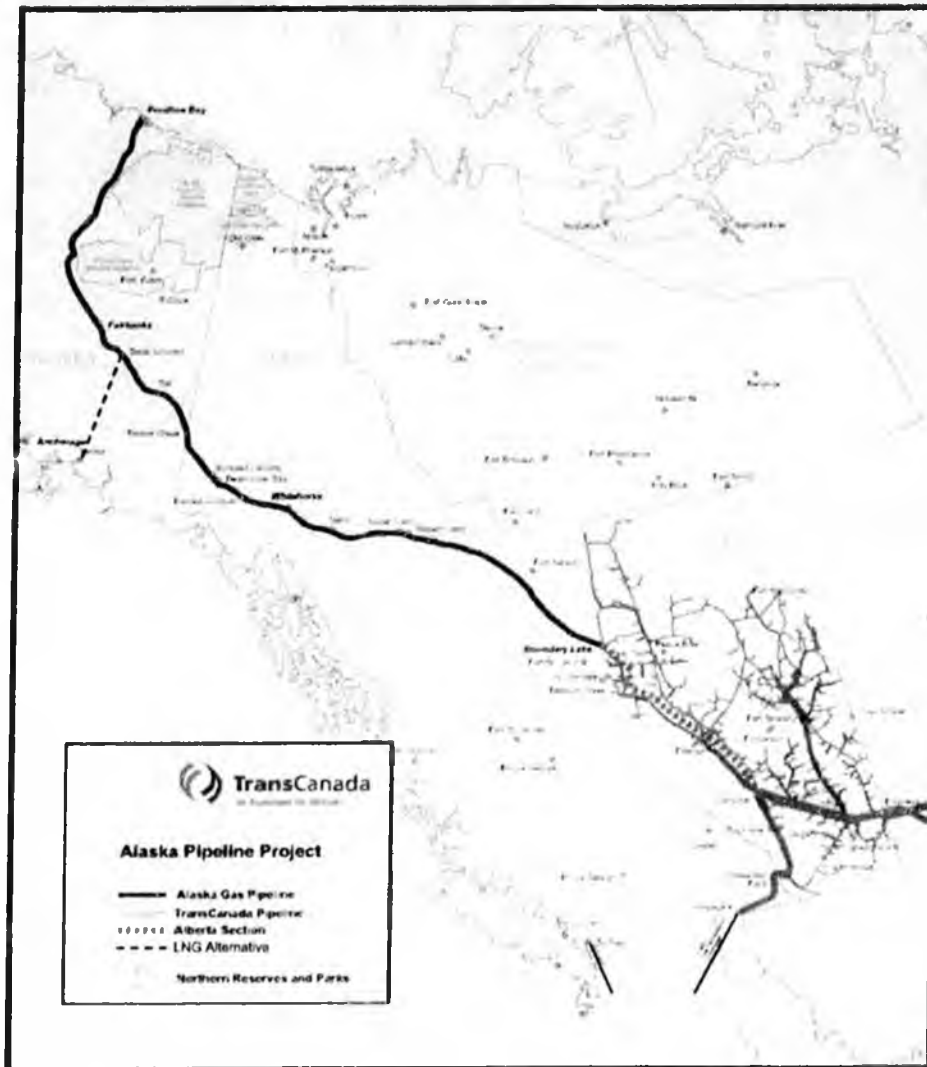
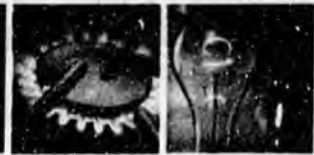


TransCanada's Competitive Response to AGIA



- 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

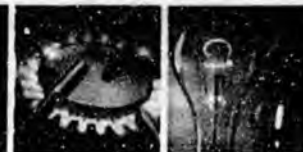
Project Economics ¹



- Capital costs
 - \$26 billion (2007 \$US excluding AFUDC)
 - Includes 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

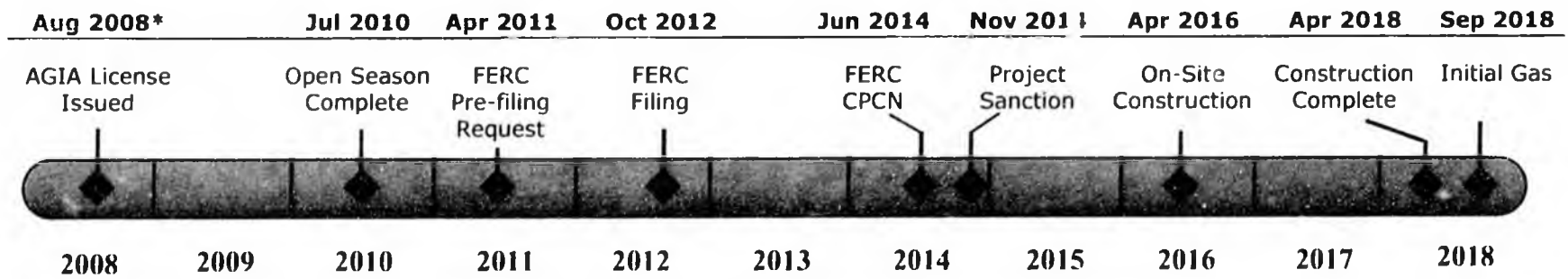
Schedule ¹



- Open Season
 - Concluded 24 months after AGIA License issuance – July 2010
- FERC Application
 - FERC pre-filing by April 2011
 - FERC Certificate application by October 2012
- FERC Approval
 - CPCN by Q2 2014
- In-service
 - September 2018

¹ Subject to AGIA License being issued by August 2008

Project Schedule



* AGIA license assumed to be issued in August 2008

Partnership Opportunity



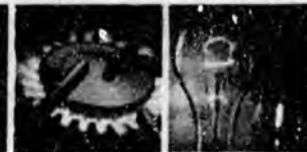
- TransCanada will offer equity opportunity to Shippers in the initial Open Season that subscribe for a threshold volume
 - Should improve likelihood of success and alignment of interests between project sponsors and Shippers

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



- Within Alberta
 - Foothills will construct necessary additional facilities to integrate with TransCanada's existing pipeline system in Alberta and connect to the Prebuild under the NPA
- NGL 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

Other Project Components (cont'd)



- Fort Nelson Option
 - TransCanada is exploring options to move its Alberta system receipt point upstream of Boundary Lake to Fort Nelson, BC
 - If successful, this would provide toll savings for Alaska Shippers of \$US 0.13-0.18/MMbtu
- 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

Alaska – TransCanada Alaska Company, LLC



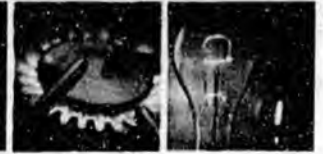
- Was never a partner in ANNGTC and owes no obligation to ANNGTC or Withdrawn Partners
- New start in Alaska, TransCanada Alaska Company, LLC will develop entirely new assets for the project – no utilization of **any** ANNGTC assets (certificate, Right-of Way, 404 permits, engineering, geotechnical, etc.)
- Additional safeguard - TransCanada's AGIA application commits to never including any potential ANNGTC liability in AGIA project tolls.

ANNGTC



- ANNGTC is a partnership certificated by the FERC some thirty years ago under ANGTA to construct the Alaskan section of a North Slope pipeline project
- Prior to the AGIA deadline for submitting applications, the ANNGTC partnership considered whether it could, or should, submit an application for the AGIA License
- ANNGTC concluded that the uncertainties created by its historical contingent liabilities precluded it from making a viable proposal
- Accordingly, ANNGTC did not make an AGIA application, and has played no role in the AGIA application filed by the TransCanada AGIA co-applicants
- No TransCanada entity is prohibited from pursuing a different project
 - No non-compete clause in ANNGTC partnership agreement
 - No implied duty to refrain from competing

ANNGTC (cont'd)



- Withdrawn Partners forfeited any right to be treated as a partner when they withdrew from ANNGTC
 - They have no right to anything unless ANNGTC builds the pipeline, which it cannot do
 - Entitled only to contractual right to payment
 - If and when ANNGTC builds the pipeline, and
 - If payment would not pose undue hardship on ANNGTC
- Partnership Agreement specifically provides that no other remedy is available.
- The two remaining ANNGTC partners intend to formally dissolve the ANNGTC partnership and dispose of all of its assets because it is no longer a viable enterprise.

ANNGTC - Summary

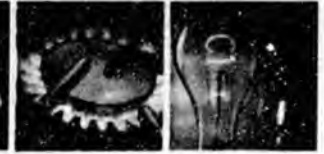


- TransCanada's AGIA Application has nothing to do with ANNGTC, its long history or its contingent obligations to Withdrawn Partners
- No claim has ever been made or even threatened by Withdrawn Partners
- Additional safeguard – TransCanada's AGIA Application commits to never including any potential ANNGTC liability in AGIA project tolls
- Any claims against third parties would also fail because third parties played no role in the TransCanada Partners' decision that the ANNGTC Partnership is no longer viable

Canada - Foothills Pipe Lines Ltd.



- Foothills Pipe Lines Ltd. was certificated under Canada's Northern Pipeline Act for the section of pipeline in Canada
- Foothills is an entirely separate entity from ANNGTC
- No Withdrawn Partner issues in Canada
- Foothills has no potential future contingent liability
- ANNGTC does not hold any authorizations under the Northern Pipeline Act or otherwise for any facilities in Canada
- Foothills Pipe Lines Ltd. does not hold any authorizations for facilities in the U.S. under ANGTA



- **Certificate of public convenience and necessity has been issued** by statute (section 21 of the NPA)
 - Public interest determination has been made
 - Process for meeting current environmental standards and approving design plans will include input by appropriate stakeholders and First Nations but **will not revisit the go/no go decision**
- **Single window, expeditious regime**
 - Cabinet is authorized to transfer the powers of any department or agency of the Gov't of Canada to the Minister responsible for the NP Agency
 - Minister is entitled to second employees from any dept or agency (including the NEB) to the NP Agency

Canada - Advantages of the NPA – History of Implementation



- The NPA has a history of implementation that will provide the precedents required to move forward on the APP.
- The NPA was used as the regulatory vehicle for the following:
 - Construction of the Pre-Build (approximately 25% of the Canadian portion of the APP)
 - Construction of 5 Expansions of the Pre-Build
 - Other – acquisition of Duke's Interest in Foothills (as recently as 2003-2004)



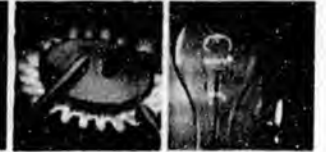
- **NPA is not prescriptive as to volume or design**
 - Sec. 3 (Treaty): "The initial capacity of the Pipeline will be sufficient to meet, when required, the contractual requirements of United States shippers and of Canadian shippers."
 - Sec. 10 (Treaty) indicates that the line size may be 48-54 inches in diameter "or any other combination of pressure and diameter which would achieve safety, reliability and economic efficiency...the decision relating to pipeline specifications remains the responsibility of the appropriate regulatory authorities".
 - NPA is not prescriptive as to timing
 - No sunset date in legislation

Canada - Advantages of the NPA – Flexibility (cont'd)



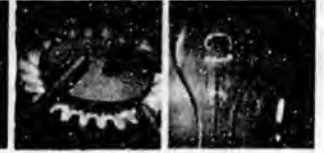
- **NPA is uniquely designed to meet current standards by requiring:**
 - Approval by the Designated Officer of plans submitted by Foothills to implement the approved project
 - Foothills to comply with all undertakings it provided during the NEB hearing and to provide to DO, for approval:
 - Final detailed design and detailed construction procedures and specifications
 - A schedule for project control, including schedules for regulatory reviews and approvals
 - Results of further studies (environmental, social and economic matters) as may be ordered or directed by the DO
 - Business and opportunity plans, environmental plans and procedures, plans for meeting Terms & Conditions

Canada - Advantages of the NPA - Land Rights

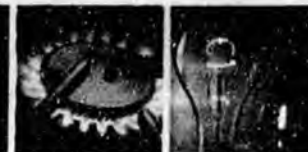


- **Foothills holds a right-of-way (ROW) in the Yukon**
 - Provides access through Yukon along the route of the APP
 - Acknowledged in the Umbrella Final Agreement by Yukon First Nations, Canada and Yukon
 - Final Agreements have been entered into by the Kluane, Champagne Aishihik and T'an Kwach'an First Nations, Kwanlin Dun, Carcross/Tagish and the Teslin Tlingit Council.
 - ROW has since been approved by Cabinet pursuant to Sec. 37 of the NPA and remains in full force and effect

Canada - Other Land – BC and Alberta



- In BC, Foothills holds Map Reserves under the *Land Act* and Mining Reserves under the *Mining (Placer) Act* for all lands required for pipeline purposes
- In Alberta, Foothills holds a Consultative Notation with respect to Provincial Crown Lands
- The effect of the above is to give notice of intended use of land to all others and provides Foothills with the opportunity to review and comment upon any conflicting proposed development
- The normal process for acquiring Crown land rights will occur as the project progresses; including a License of Occupation (*Land Act*) in BC and a Pipeline Agreement (*Public Lands Act*) in Alberta
- Negotiations with landowners for privately held lands



Fundamental Decisions

In passing the NPA, Parliament clearly:

- Decided that the APP is in the public interest
- Determined there is a need for the APP
- Recognized a general route for the APP
- Recognized that environmental and social impacts, while expected, would be acceptable with mitigation
- Created NP Agency to be the exclusive regulatory agency to determine environmental and socio-economic issues related to the completion of the APP, i.e. what was appropriate and what required mitigation

AGIA "Must-haves" Promote Basin Development



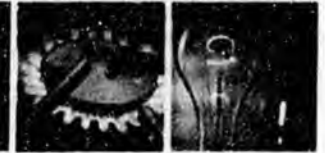
- Rolled-in tolls up to 115% of initial rates in Alaska
- Open Season every 2 years
- In-State deliveries
 - Distance-sensitive tolls
 - Minimum 5 delivery points
- Low equity ratio requirement for pipeline sponsors
- State fiscal incentives (if any) targeted to AGIA pipeline shippers

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

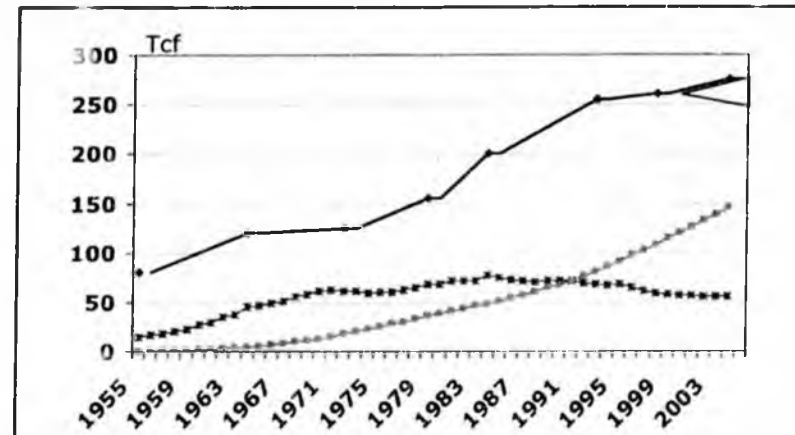
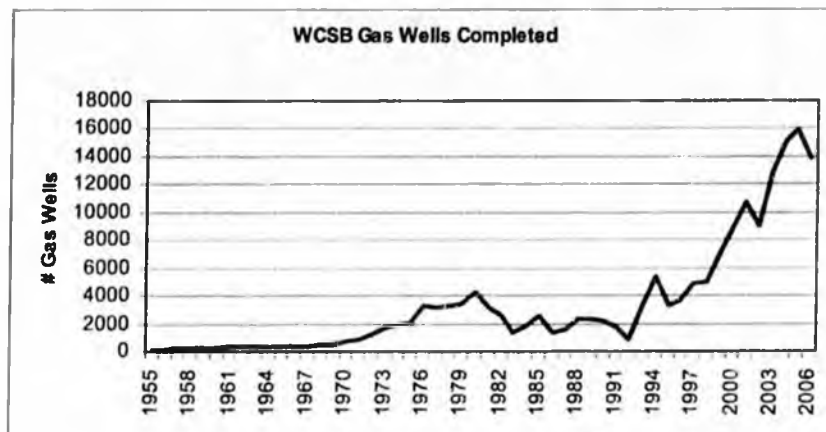
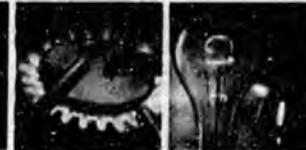


	<u>Producer/Govts. Total Revenue *</u>	<u>Expansion Value</u>
Base Project		
- 25 years @ 4.5 Bcfd	350	
Expansions		
Case I		
- Base volumes for 10 years (4.5 Bcf/d)		
- 30% expansion for 25 years (5.9 Bcf/d)	600	250
Case II		
- Base volumes for 10 years (4.5 Bcf/d)		
- 60% expansion for 25 years (7.2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

¹ Assumes annual average netback of \$6.89/MMbtu

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

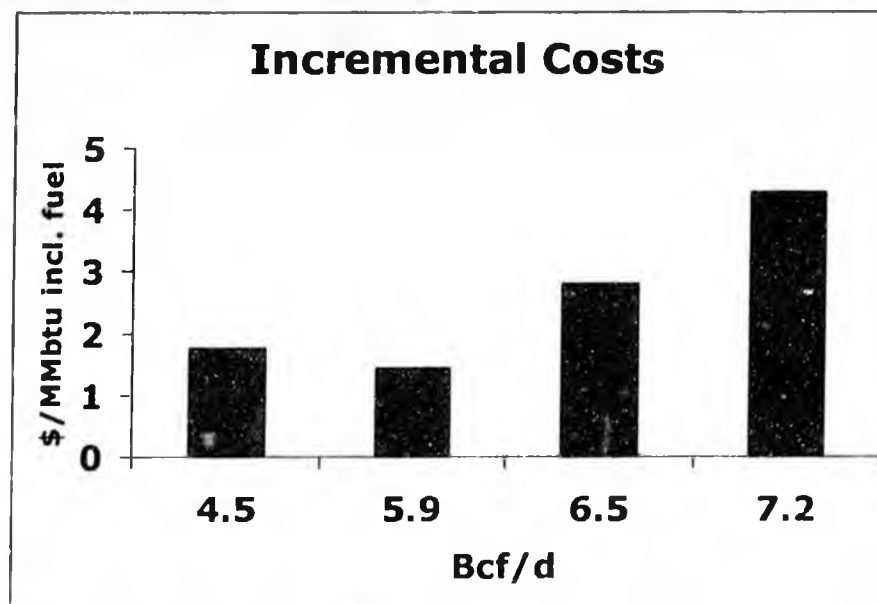
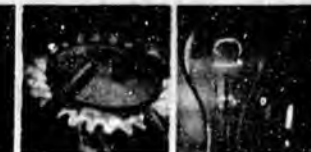
Basin Development – Western Canada Example



— 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

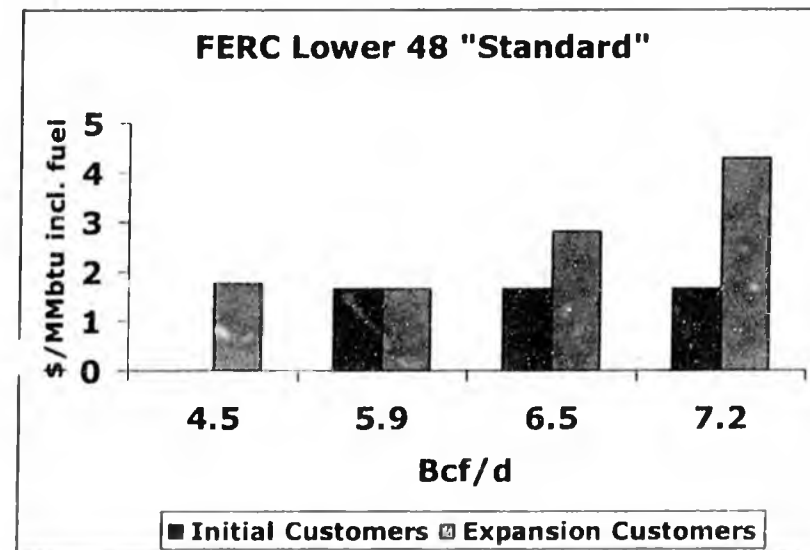
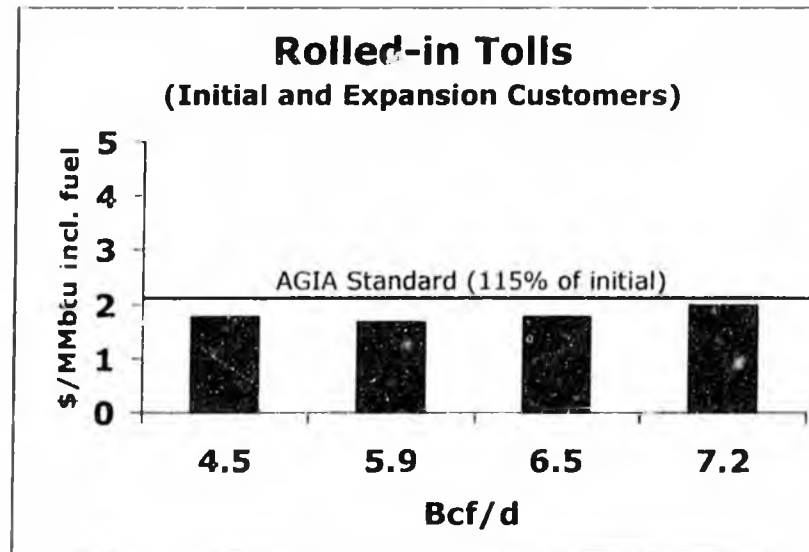
Impact of Rolled-in Tolls?



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

Climate Change Challenge - Overview



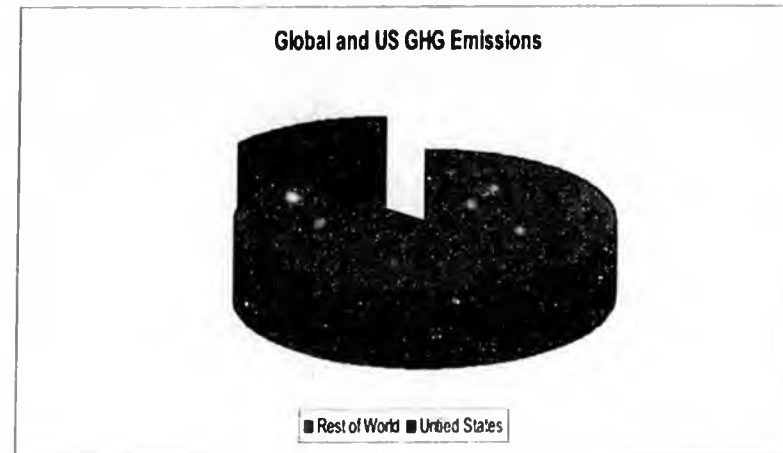
- Global concerns continue to grow.
- Intergovernmental Panel on Climate Change (IPCC) strengthens argument to limit manmade greenhouse gases (GHGs).
- Most common manmade GHG is carbon dioxide (CO₂).
- Bulk of CO₂ emissions generated by combustion of fossil fuels.
- Meeting the growing demand for energy while lowering GHGs is challenging as fossil fuels are abundant and inexpensive compared to low carbon alternatives.



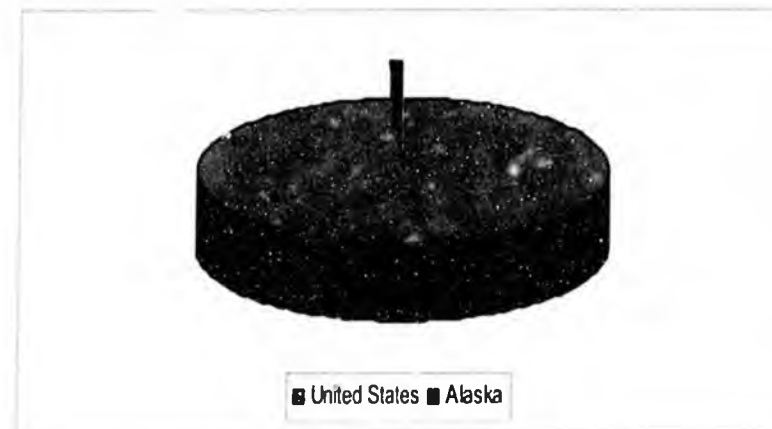
Alaska's Greenhouse Gas Emissions



The United States emits approximately 14% of global manmade GHG emissions.



Alaska emits less than 1% of US domestic GHG emissions: 52 million of 7076 million tonnes CO₂e.



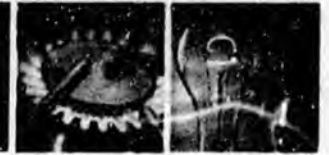
Alaska and Climate Change



Alaska faces a unique challenge:

- Alaska and other regions at high northern latitudes will experience greater warming trends resulting from climate change. ("Warming is expected to be greatest over land and at most high northern latitudes..." Section 3.2.2, Page 46, Climate Change 2007:Synthesis Report, IPCC)
- Supplying natural gas to markets will increase Alaska's emissions levels, however it will also help address the challenge of climate change by potentially displacing higher carbon fuels.
- Natural gas is cleanest burning fossil fuel, emitting approximately 50% less CO₂ than coal at the burner tip and roughly 25 % less CO₂ than oil when combusted.

TransCanada's Climate Change Activities



Emissions Reduction Programs

Leak Detection and Repair Program
Blowdown Management
High Efficiency Engines

Technology Development

Supersonic Ejector Patent
Incineration
Field test RB211-6761

Sharing Knowledge

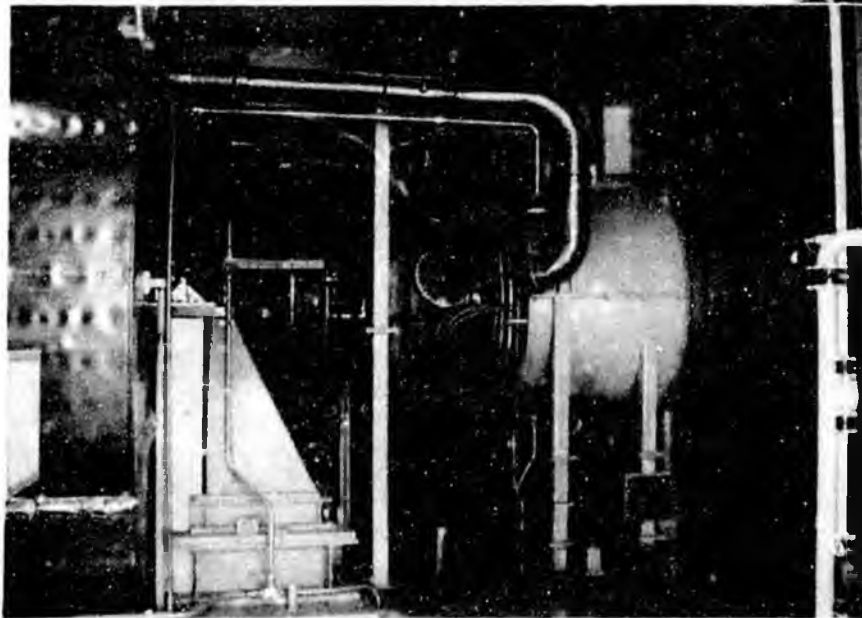
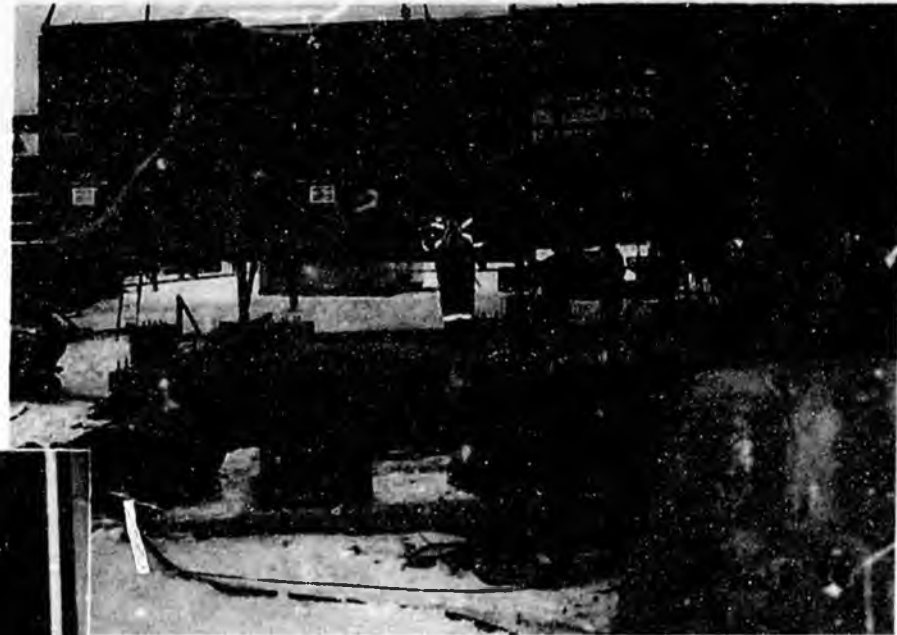
Methane to Markets (Washington, China, Russia)
USEPA Natural Gas Star – since 1990s

Technology Excellence



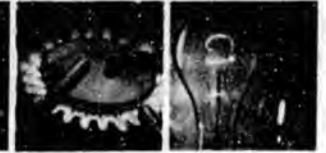
TransCanada is currently operating the world's first Rolls-Royce RB211-6761.

Unit demonstrates high efficiency (40%), low NOx and CO2 emissions.



Features include: remote stand-alone operation, modular design (ease of maintenance, reduced downtime).

TransCanada Invents New Gas Technology

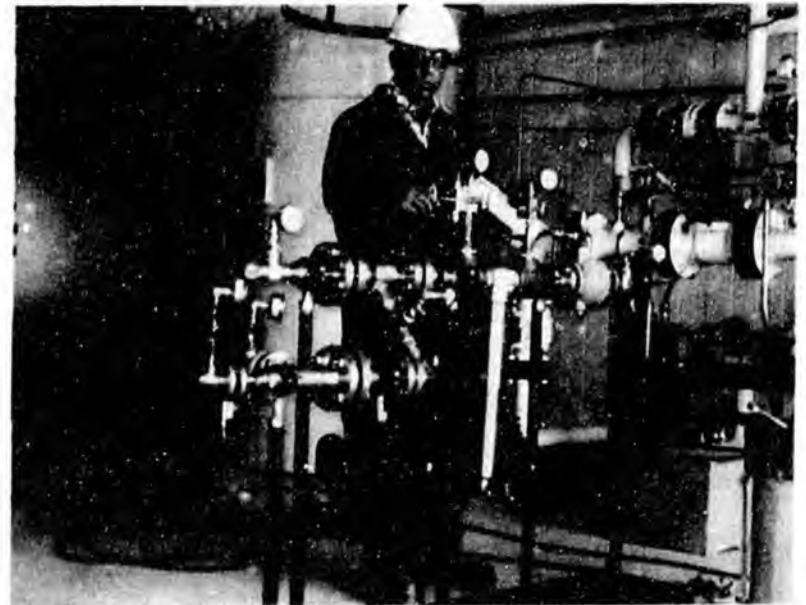


Supersonic Ejector reinjects very low pressure methane into high pressure gas stream.

Benefits include:

- GHG reduction of 1,700 tCO₂e (per unit per year),
- Savings of \$28,000 (per unit per year),
- Zero operating cost.

Canadian, US and PTC (world)
patent applications



GHG Emissions from Long Haul Natural Gas Pipelines



TransCanada's Alberta System **2.5 million tonnes CO₂e**
(typically 900 PSI, 11 bcfd, 300 miles average distance of haul)

TransCanada's Mainline **3.8 million tonnes CO₂e**
(typically 900 PSI, 7 bcfd, 1400 miles average distance of haul)

Proposed GTP **4.1 million tonnes CO₂e**

Proposed pipeline / facilities **2.0 million tonnes CO₂e**
(2500 PSIG, 4.5 bcfd, 1715 miles)

Climate Change - Alaska Pipeline Project

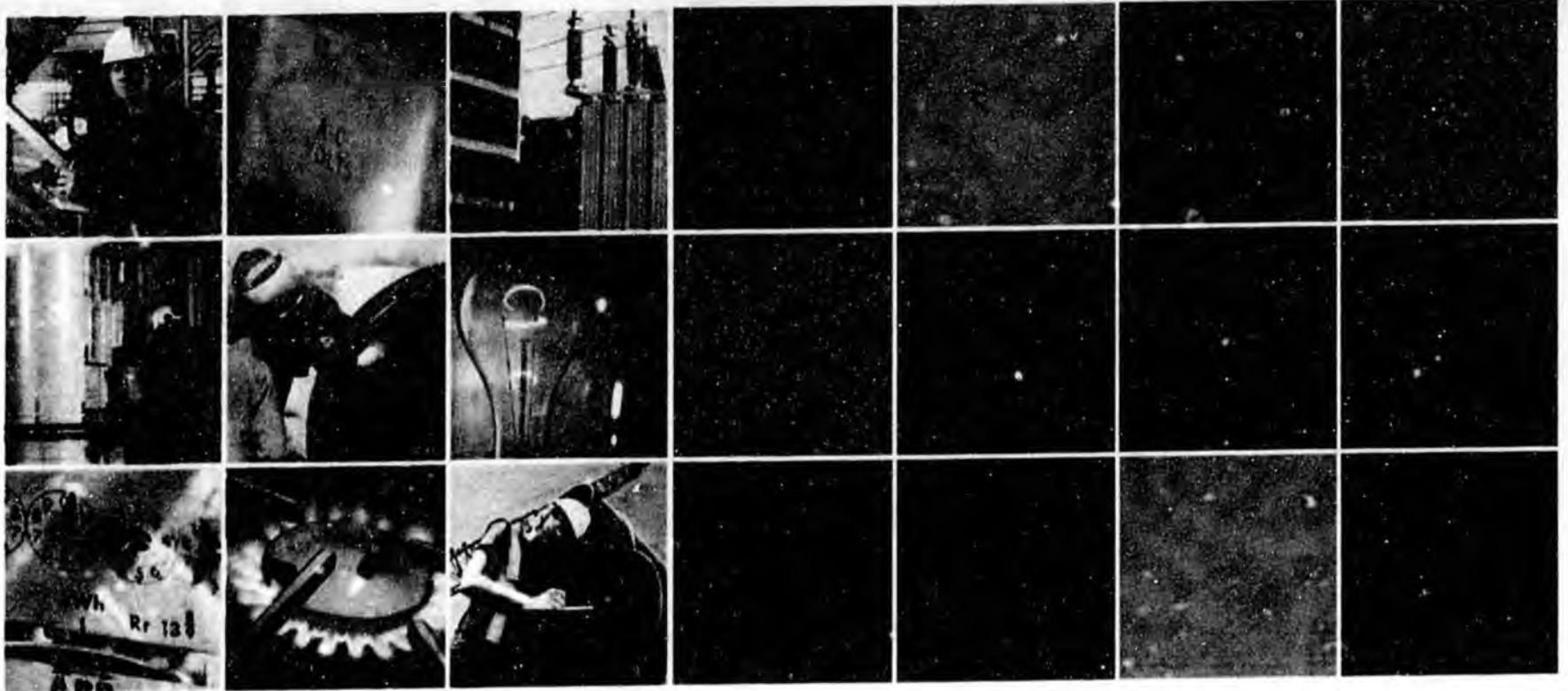


- TransCanada will responsibly manage GHG emissions associated with the pipeline.
- TransCanada's efforts to control emissions from this project will include the use of Best Management Practices in pipeline design and operation including:
 - Installation of the highest efficiency engines that are suitable for this application
 - Use of high strength steel, which will lower fuel usage by allowing higher pressure operation
 - Implementation of industry leading methane management programs

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



Thank You



TransCanada

In business to deliver