

# **Proposed AGIA Royalty Regulations**

**Senate Resources Committee**

**March 17, 2010**



# Agenda

- Introduction
- Major challenges valuing ANS gas in NA markets
- Overarching valuation principles adopted by DNR
- Valuation concepts and approaches
- Example of how to value royalty gas
- RIV/RIK switching issues and solution
- Value to producers

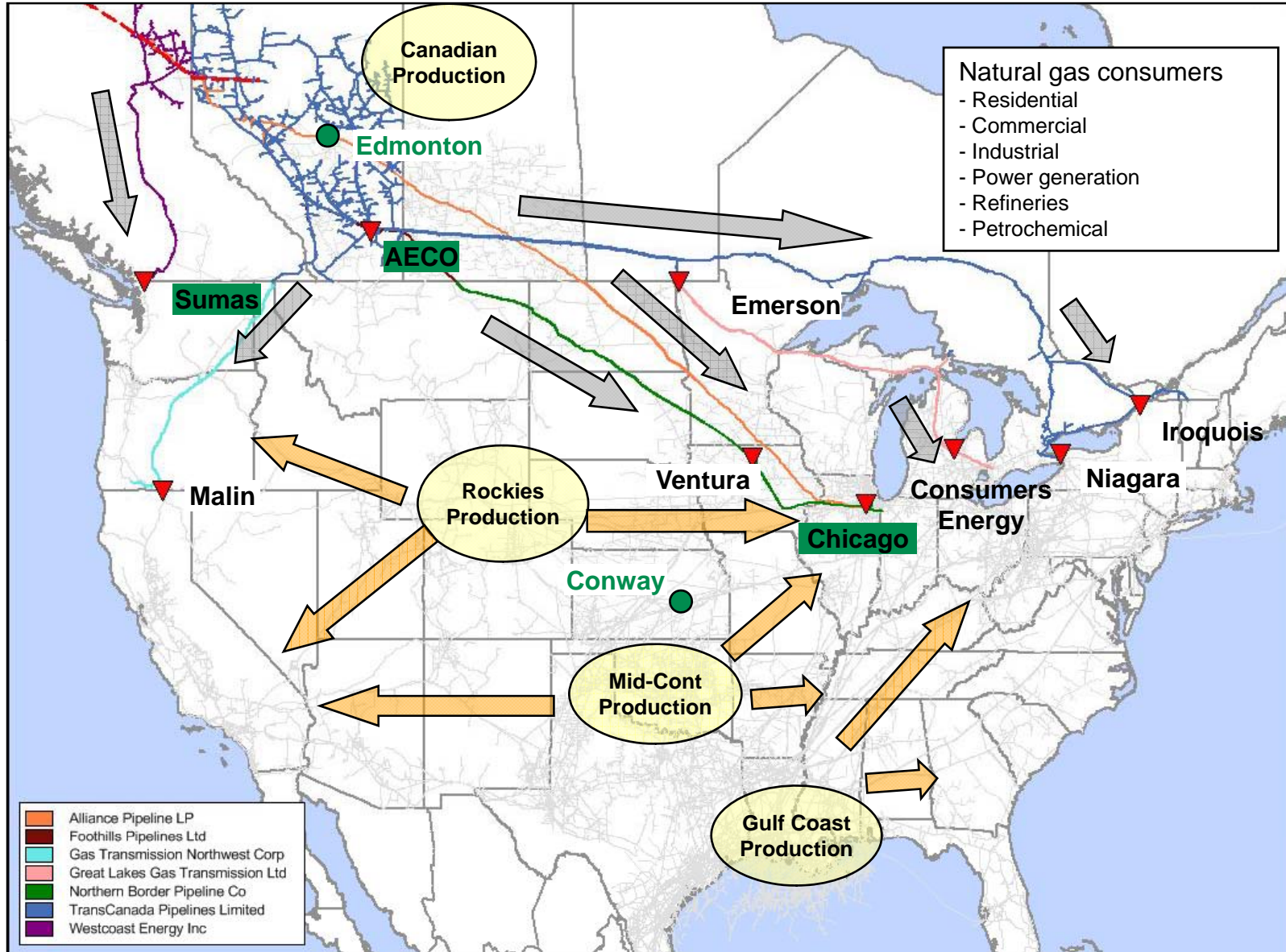
# Overview of the AGIA Royalty Regulation

- Purpose of the regulation is to make offer to modify state lease contracts, consistent with requirements of the Alaska Gas Inducement Act (AGIA)
  - Establish method to determine “fair market value” (FMV) of the state’s royalty share of gas production that increases clarity and predictability of royalty value
  - Establish terms under which the state will modify its ability to exercise current rights to switch between taking royalty in value (as money) or in kind (as gas), that reduces lessees exposure to stranded or insufficient transportation
  - Lessee who qualifies for royalty inducements can elect either (or both) Valuation or Royalty Switching provisions

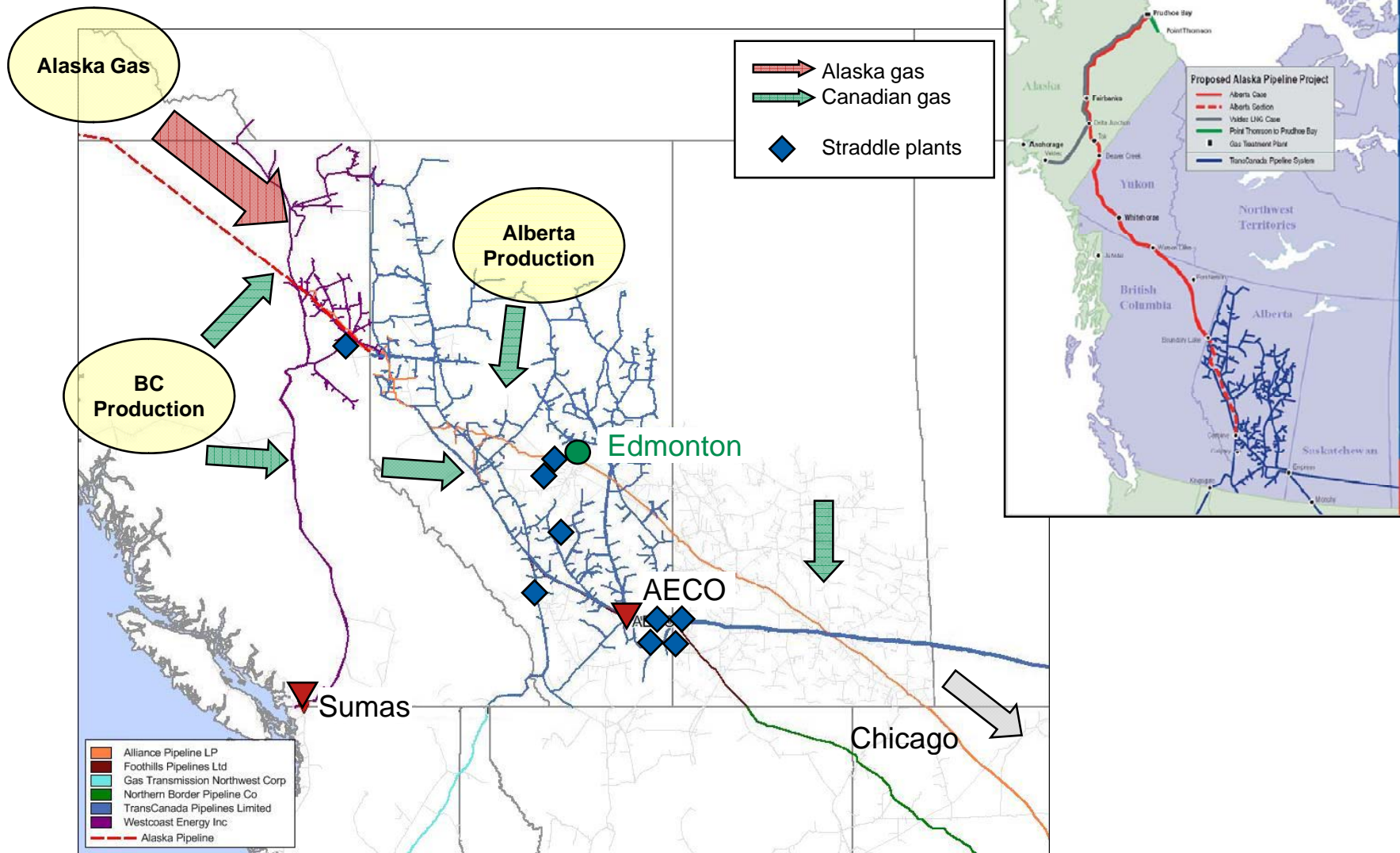
# Requirements in AGIA

- Valuation regulations must:
  - Minimize retroactive adjustments in royalty value
  - Establish FMV based on reliable trade publications
  - Allow reasonable and actual deductions for transportation and processing
  - Allow for reasonable share of unused capacity
  - Allow deductions under the 1980 settlement agreement

# Dynamic North America Natural Gas Market

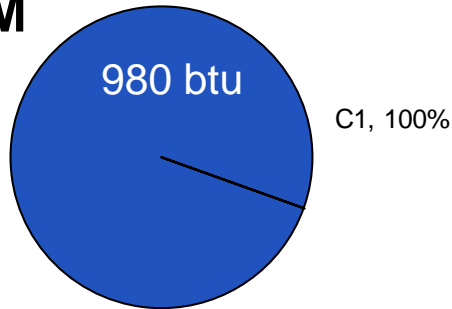


# NS Gas Commingled with Other Production



# Natural Gas Liquids Have Value

## CBM



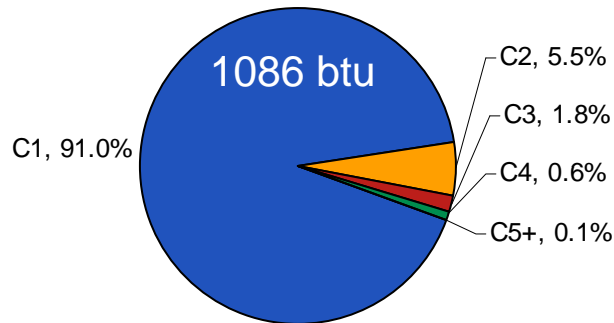
	Volume	Price	Value
Residue (Mmbtu)	0.98 x	3.51 =	3.44
Ethane (gal)	- x	0.26 =	-
Propane (gal)	- x	0.64 =	-
Butane (gal)	- x	0.75 =	-
Pentane Plus (gal)	- x	1.21 =	-

Total Value of 1 Mcf

**\$3.44**

\* NEB report shows that British Columbia and Alberta have significant coalbed methane resources

## Alberta

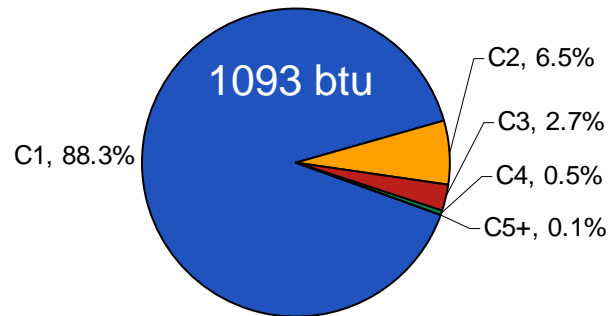


	Volume	Price	Value
Residue (Mmbtu)	1.02 x	3.51 =	3.58
Ethane (gal)	1.09 x	0.26 =	0.28
Propane (gal)	0.48 x	0.64 =	0.31
Butane (gal)	0.19 x	0.75 =	0.14
Pentane Plus (gal)	0.05 x	1.21 =	0.06

**\$4.37**

\* Alberta production composition is estimated based on information from NEB and EUB

## PBU



	Volume	Price	Value
Residue (Mmbtu)	1.01 x	3.51 =	3.56
Ethane (gal)	1.28 x	0.26 =	0.33
Propane (gal)	0.70 x	0.64 =	0.45
Butane (gal)	0.16 x	0.75 =	0.12
Pentane Plus (gal)	0.03 x	1.21 =	0.04

**\$4.50**

\* Prudhoe Bay production composition is based on the report generated by PetroTel during the AGIA License Finding process.

# Overarching Principles

1. Reduce lessee uncertainty
2. Maintain state's full royalty value
3. Incorporate natural gas industry practices to the extent doing so is consistent with (1) and (2)



# Overarching Principle: Reduce Uncertainty

- Eliminate “higher-of” lease valuation terms
- Establish value based on published prices
- Minimize or eliminate retroactive adjustments
- Allocate volumes *pro rata* to increase clarity of gas value and costs of transportation and processing

# Overarching Principle: Full Value Under Lease

- “Full Value” without gross proceeds
  - Gas components tracked; values separately established for residue gas, gas plant products, unprocessed gas, LNG
  - Published prices in destination markets establish value
  - Ability to update price publications, destination markets, location differentials
  - Valuation backstop “basket” ensures unrepresentative destination market published price doesn’t distort FMV
  - No negative royalty
- *Pro rata* allocation of value and costs back to the lease establishes fair distribution and ensures full value

# Overarching Principle: Incorporate Gas Industry Practices

- Use well established regulatory structure and methodology where practical to determine transportation costs (i.e. FERC)
- Use MMS regulations as a template
  - North Slope producers have extensive experience in complying with MMS gas regulations in Lower 48
  - Used as baseline; modified where necessary to reflect differences in circumstances of Alaska project

# Key Valuation Concepts and Approaches

1. Destination where gas is valued
2. Publishing value at destination
3. Backstop measure of FMV for residue gas
4. “Actual and reasonable” transportation and processing deductions
5. Appropriate deductions for unused capacity

# How to Determine Destination

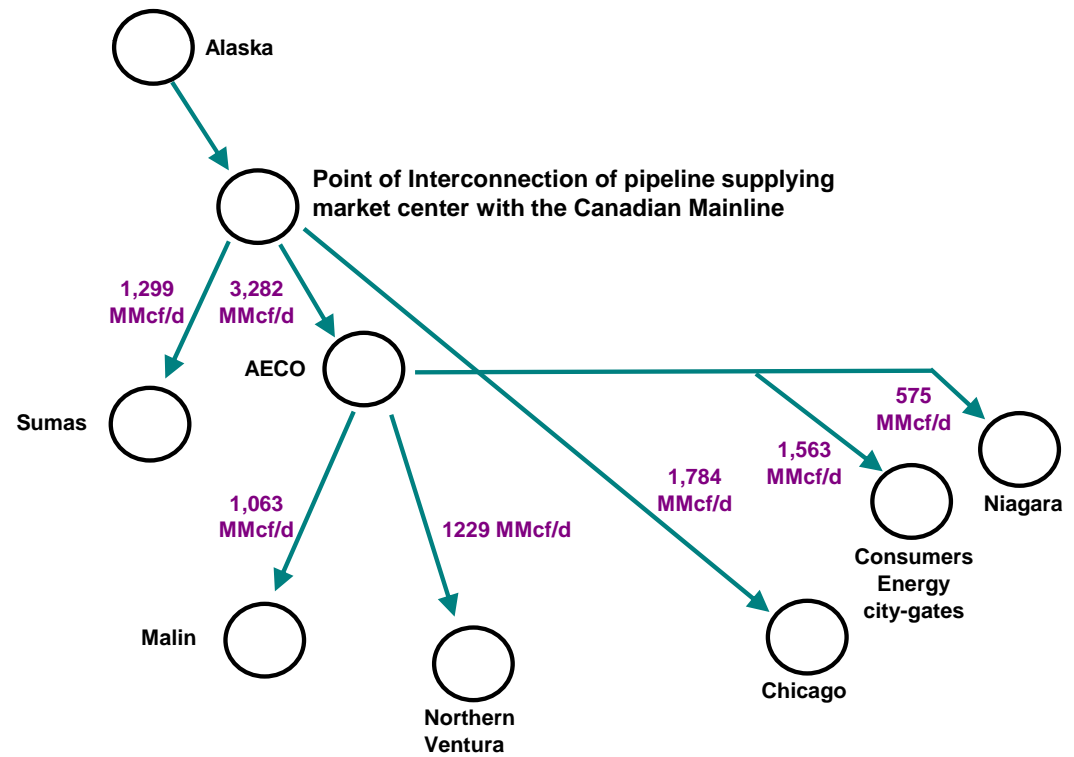
- A lessee's gas is valued for royalty at "Destination"
- A lessee's qualified gas is generally considered to be at "Destination" when it first:
  1. Enters a first destination market;
  2. Has been sold in an arm's length transaction; or
  3. Has been processed to extract residue gas and gas plant product
- "Destination values" are determined with reference to "first destination markets"
- First destination market is the first liquid market where ANS gas is physically transported to and bought, sold, processed, or regasified that has a reliable and widely available published price

# Department to Publish Information Necessary to Determine Destination Value

- The department will publish on its website prior to the royalty reporting period:
  - The location of all First Destination Markets
  - The name of the source of the published price for residue gas, gas plant products at the First Destination Market
  - Appropriate location or quality differentials to establish FMV with reference to First Destination Market
  - Reasonable gas treatment, processing, or re-gasification cost allowances

# Alternative Destination Value for Residue Gas

- Basket of published indices used to calculate a “backstop” fair market value to published index prices at destination markets
- Basket is relied upon only when the published price at a destination market is less than 95% of the basket price
- The alternative destination value protects the State from being locked in to a valuation rule that fails to reflect fair market value
- Pricing elements making up the basket determined by market liquidity criteria
- Basket reflects the volume weighted average of value received by the market



# Actual and Reasonable Cost of Transportation and Processing - Non Arms Length Transactions

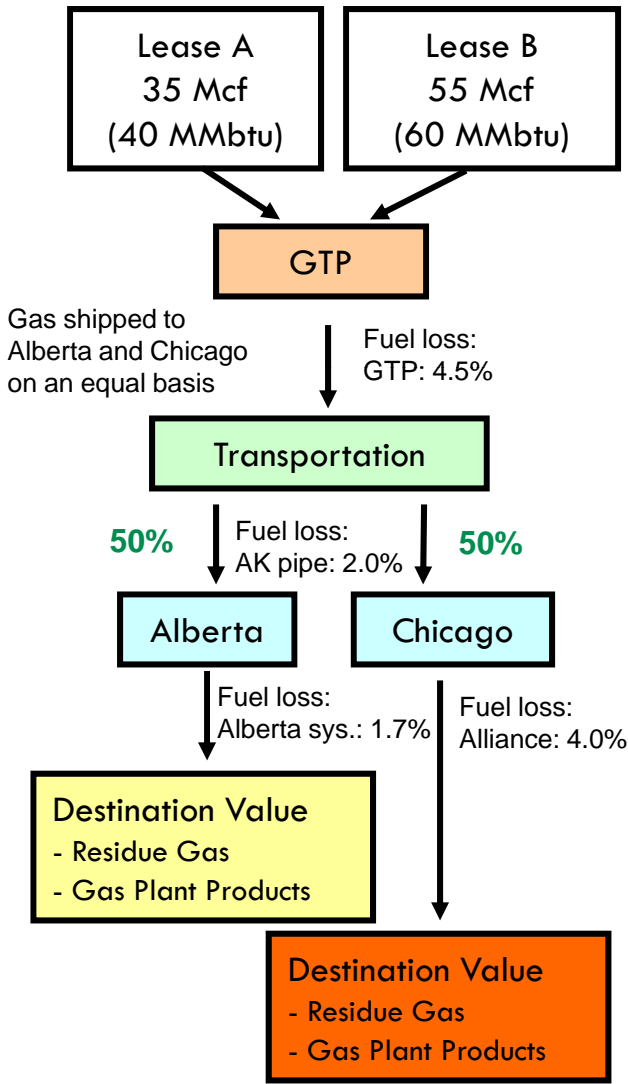
- Non-arm's length transportation cost allowance for Alaska and Canadian mainline is based on the terms proposed in the Open Season offer
  - If affiliated lessee negotiates a lower rate, then the transportation cost allowance will be based on this negotiated lower rate
- Other pipelines – Cost deductions calculated using FERC based cost of service methodology
- Generally follow MMS methodology to establish non-arm's length processing deductions



# Deductions for Unused Transportation Capacity

- Unused capacity deductions were designed to balance the need to mitigate producers risk, but not expose the State to bearing unintended costs
- Deductions are allowed for Unused Capacity on Alaska and Canadian mainlines
- Unused Capacity = Allocated Capacity – Allocated Shipments
  - Allocated Capacity – Portion of firm transportation capacity acquired by lessee in first binding open season to transport production from state leases; measured with reference to actual state lease production
  - Allocated Shipments – greater of shipments of production from state leases or a pro-rata allocation of total shipments from all sources

# Example – NS Gas Delivered to Alberta and Chicago



	Total
Value at Lease	\$ 190

	Volume	Cost Rate	Total Cost
GTP Cost	96	1.00	\$ 96

	Volume	Cost Rate	Total Cost
AK Pipeline (AK and Can)	94	3.00	\$ 281
Alberta System	46	0.10	\$ 5
Alliance Pipeline	45	1.00	\$ 45
Transportation Cost			\$ 330

	Volume	Cost Rate	Total Cost
Alberta	46	0.20	\$ 9
Chicago	45	0.25	\$ 11
Processing Cost			\$ 20

	Volume	Price	Total Value
Residue Gas (Mmbtu)	41	6.00	\$ 249
Gas Plant Prod. (gal)	92	0.50	\$ 46
Destination Value			\$ 295

	Volume	Price	Total Value
Residue Gas (Mmbtu)	40	6.75	\$ 273
Gas Plant Prod. (gal)	90	0.75	\$ 68
Destination Value			\$ 341

Lease A	Lease B
74	116

Lease A	Lease B
38	58

Lease A	Lease B
112	168
2	3
18	27
132	198

Lease A	Lease B
3	6
4	7
7	13

Lease A	Lease B
95	154
21	25
116	179

Lease A	Lease B
105	168
31	37
136	205

Note: All prices and costs are for illustration purposes only

# RIK/RIV Switching Issue

- Under lease the State has the option of taking its royalty share of production either in kind (RIK) or in value (RIV). This option creates a risk for shippers.
  - If the State switches from RIV to RIK, shippers may have stranded capacity corresponding to the royalty volumes
  - If the State switches from RIK to RIV, shippers may not have sufficient capacity on a timely basis
  - Additionally, shippers' marketing arrangements need to be reconciled with the State's RIK/RIV election
- Given the substantial tariffs on the Alaska project, the potential exposure associated with the State's RIV/RIK option is significant

# RIK/RIV Solution: “Capacity Follows the Gas”

- Switching from RIV to RIK:
  - State obligated to seek capacity corresponding to the State’s RIK share (“*RIK Capacity*”) from the Producers via a pre-arranged deal
  - Released capacity will be acquired at original contract rates (state forgoes opportunity to get a better deal)
- Switching from RIK to RIV:
  - Capacity corresponding to the State’s RIK share (“*RIK Capacity*”) reverts back from the State to the Producers at contract rates
- State requested and FERC approved a waiver to allow pre-arranged deals for FT capacity at contract rates, consistent with these terms
- Increase notice period for RIK/RIV switching
  - 120 days when between 100,000 & 200,000 MMbtu/d
  - 180 days when quantity is greater than 200,000 MMbtu/d

# Value of Royalty Inducement to Producers

- The AGIA regulations provide value to producers while protecting State interests
- Some of the key provisions that provide value to producers include:
  - Valuation – moving away from “higher-of” provision
  - Transportation –
    - Adopting FERC-like approach for transportation deductions, rather than MMS-like approach
    - Allowing deductions for unused capacity
  - RIK/RIV switching – FERC waiver allows capacity transfer deal at contract rates

# Aggressive Assumptions were Made to Establish Upper Bound of Value to Producers

- Recognize that the value of and need for these provisions may be lower depending on the facts of the project going forward:
  - Methane valuation – Assumed impact of moving away from “higher-of” provision is not offset by market basket concept
  - Transportation deduction for non-arm’s length transactions – Assumed that alternative was MMS methodology
  - Unused capacity deduction – Assumed that no YTF gas is found
  - RIK-RIV switching - Assumed that entire royalty volume is switched from in-value to in-kind
- Very approximate estimates of the value to producers from provisions in the 1980 Royalty Settlement Agreement have also been shown here to provide a more complete picture of royalty value to producers

# Estimated Value or Range of Value to Producers from Key Provisions in AGIA Regulations & 1980 RSA

