

Evaluation of SB 138 & Associated Proposed North Slope Natural Gas Commercialization Proposals

Presentation to House Resources

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Roger Marks - Background

- **Since 2008**: Private consulting practice in Anchorage specializing in petroleum economics and taxation
 - Clients include: State of Alaska Legislature, federal government, local municipalities, University of Alaska, independent oil and gas explorer/producers, pipeline companies, investment firms
- **1983-2008**: Senior petroleum economist with State of Alaska Department of Revenue Tax Division
 - Fiscal development
 - Statutory and regulatory design
 - Petroleum economic and commercial valuation of exploration, development, production, transportation, refining, marketing, taxation
 - Analysis of international competitiveness
 - Oil and gas valuation
 - North Slope gas commercialization
 - Economic valuation
 - International competitiveness
 - Pipeline financing
 - Taxation
 - Tariff design
- **1977-1983**: Petroleum economist with United States Geological Survey
 - Resource evaluation of unleased acreage on Alaska federal Outer Continental Shelf
 - Design of bidding systems
- **Publications on Alaska petroleum taxation**: Journal of Petroleum Technology, OPEC Review, Journal of Energy Finance and Development, Oil & Gas Financial Journal, Journal of Economic Issues, Journal of Legal Issues and Cases in Business

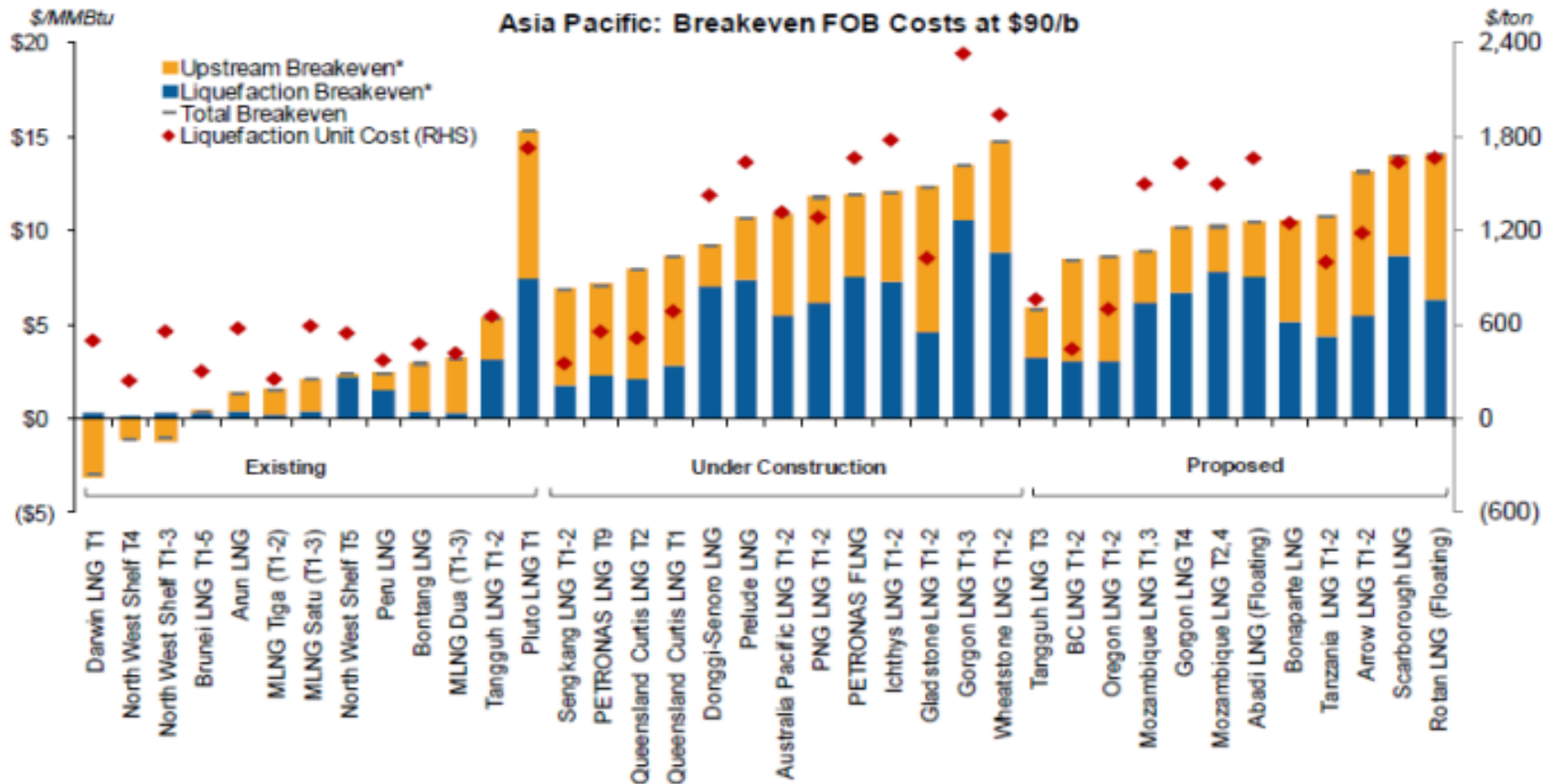
Outline

- 1. Introduction: Market and Timing Landscape
- 2. High-level Decisions
 - A. In-Kind Gas
 - B. Regulation
 - C. Ownership (and Partnerships)
- 3. Role of AGIA in Proposal
- 4. Taxation

1. Introduction: Market Challenges

- Competition
 - Twice the amount of supply as there is demand in Asia in 2030
- Pricing
 - Prices appear to be falling
 - Compete based on cost
- Size Burden
 - Need to capture large incremental share of market in short amount of time
 - Higher breakeven price than much of the competition

New LNG Projects are Expensive



Timing Landscape

- Momentum in temporal context
 - Emphasis on present value diminishes the value of future events
 - Issue is not present value but value to future generations
- Options: A modified deal starting a little later could create more long-term benefits to state
 - Higher revenues
 - Lower priced gas to Alaskans
 - Less risk

HOW PRESENT VALUE IS CALCULATED				
	Year	Discount Factor @ 7%	Nominal Amount	Discounted Amount
Today / Pre-FEED	2014	1.00	1,000,000	1,000,000
	2015	0.93	1,000,000	934,579
FEED	2016	0.87	1,000,000	873,439
	2017	0.82	1,000,000	816,298
	2018	0.76	1,000,000	762,895
FID / Construction Starts	2019	0.71	1,000,000	712,986
	2020	0.67	1,000,000	666,342
	2021	0.62	1,000,000	622,750
	2022	0.58	1,000,000	582,009
	2023	0.54	1,000,000	543,934
Gas Starts Flowing	2024	0.51	1,000,000	508,349
	2025	0.48	1,000,000	475,093
	2026	0.44	1,000,000	444,012
	2027	0.41	1,000,000	414,964
	2028	0.39	1,000,000	387,817
	2029	0.36	1,000,000	362,446
	2030	0.34	1,000,000	338,735
	2031	0.32	1,000,000	316,574
	2032	0.30	1,000,000	295,864
	2033	0.28	1,000,000	276,508
	2034	0.26	1,000,000	258,419
	2035	0.24	1,000,000	241,513
	2036	0.23	1,000,000	225,713
	2037	0.21	1,000,000	210,947
	2038	0.20	1,000,000	197,147
	2039	0.18	1,000,000	184,249
	2040	0.17	1,000,000	172,195
	2041	0.16	1,000,000	160,930
	2042	0.15	1,000,000	150,402
	2043	0.14	1,000,000	140,563
	2044	0.13	1,000,000	131,367
	2045	0.12	1,000,000	122,773
	2046	0.11	1,000,000	114,741
	2047	0.11	1,000,000	107,235
	2048	0.10	1,000,000	100,219
			PRESENT VALUE	13,854,009

2. High Level Decisions under Proposal

- State takes its production taxes and royalties as in-kind gas
- Tariffs and expansions will not be regulated
- TransCanada (and perhaps SOA as partner) will own share of GTP and pipeline, and SOA will own share of LNG facilities, commensurate with state's share of gas (about 25%)
- Designed to amicably transition out of AGIA

A. In-Kind Gas

- Taking taxes and royalties as in-kind gas helps out the economics of the project considerably
- The state does not need to own the pipeline to take the gas in-kind
- Marketing the gas
 - By taking gas in-value the state benefits from some of the best marketers in the world
 - May want to consider linking in-kind provision with agreement by producers to market state's gas with their gas at the same price they get

The Long-Term Liability of Firm Transportation Agreements

- If the state takes its royalties and taxes in value:
 - Producers pay to state an amount of money equal to that percentage of the gas
 - The producers pay for that capacity
 - Slowly get it back over time through tariff deduction
- Once it is constructed it cannot be cancelled
 - If the pipeline is hopelessly costly, or unsuitable, or the market crashes, or reserves run out, that is not the state's problem
- When the state takes its taxes and royalties as in-kind gas, the state will take on the long-term firm transportation liability
 - Ship or pay commitment
 - A long-term liability for capacity
 - An asset to the owner

B. Regulation

- Proposal under HOA is for FERC to regulate under Section 3 of the Natural Gas Act
 - Mainly designed for licensing the siting, construction, expansion, and operation of LNG import or export terminals
 - Terminals include facilities used to transport or process gas
 - Rarely used to include a large pipeline with local consumption
- No regulation of tariffs or expansions
 - To get reasonable tariffs and expansions, state ownership necessary
 - Unclear what happens as in-state needs expand:
- Precedent for RCA to regulate in-state and export pipeline and gas treatment under AS 42.08
 - Regulation is the trade-off for privilege of natural monopoly
 - May enhance market efficiencies to have a transparent pipeline cost

Example

Initial Gas Disposition (billion cubic feet per day)

Total Gas	2.4 bcf/d
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State Share	25%
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State Gas	<u>0.6 bcf/d</u>
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To Fairbanks	(0.05 bcf/d)
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State Gas to Asia	0.55 bcf/d
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Ownership and Partnership

- Need for ownership due to no regulation on tariffs and expansion, and for lower tariffs
- State may or may not need partner for expertise assistance
 - Producer expertise
 - AGDC expertise
 - TransCanada's expertise in gas treatment unclear
 - To the extent the need for expertise is discounted, and the state needs a cash partner, it does not necessarily need a pipeline company partner, but a general investment partner

State May or May Not Need Partner for Cash or Lower Tariffs: 2011 Citigroup AGDC Financing Plan

- Possibility of 100% debt financing
 - Combination of revenue bonds and state backing
 - Appears to be less risky than ASAP plan
 - Possibility of deferring most cash outflows until gas starts flowing
 - May have short-term impact on credit rating that would reverse once gas revenues start coming in
- Possibility of tax-exempt bonds through Alaska Railroad
 - Directed at industrial development projects
 - Requires IRS private letter ruling
 - Reduces cost of debt about 25% relative to taxable debt
- Would require potentially no or little equity (cash) before gas starts flowing

Debt Capacity, Firm Transportation Commitments, and In-Kind Gas

- When the state takes its taxes and royalties as in-kind gas, the state will take on a long-term firm transportation liability to TransCanada
- It has been suggested that there are limits on how much the state can finance to own the whole 25% because of limits on its debt capacity.
- If the state is taking its taxes and royalties in kind, any part of the project the state does not own it will have to make a firm transportation commitment on. This commitment is a long-term liability; i.e., debt.
- That debt should have no different impact on the state's debt capacity than debt used to finance ownership.
- If limit on state debt capacity is an issue, this would preclude the state from taking the taxes and royalties in kind.

Ownership: Risk of Failure to Sanction

- Sponsors could spend over \$2 billion to get to FID and have a project not materialize, of which SOA would be responsible for 25%, regardless of whether it exercised ownership option with TransCanada
- Are producers better equipped to handle that risk?
 - Diversification – some of their other prospects will get sanctioned
 - Finite capital competing not only for gas, but for oil
 - Where other countries do share this risk, the takes are higher
- Will this money make a material difference to the viability of the project? Balance:

How near tipping point	Probability of Project
Size of the prize	How material is \$600 mm
- Could pursue arrangement with producers to buy in to project once it is sanctioned (or at least after pre-FEED) and re-pay feasibility costs with interest

3. Role of AGIA in Proposal

- Public comments by administration:
 - Aggressive time frame to get gas to market
 - Desire to avoid potential lengthy and costly legal fight over ending AGIA license
 - Proposal designed to end AGIA license amicably
- License project assurances (treble damages) clause in AGIA
- Appears plan was crafted (at least in part) around giving TransCanada a material role to avoid potential AGIA liabilities
- Could there be better terms if state was not so constrained by AGIA?

Areas Where State Could Possibly Have Better Terms If It Had No Partner or a Different Partner

- If No Partner
 - Possibility of full ownership of 25% share of GTP/Pipe with 100% debt financing and possible tax-exempt debt
 - Lower cost of capital: higher gas revenues/lower cost gas to consumers
 - There is a misalignment of interests between shippers and non-shipper partners
- If Had Different Partner (or could renegotiate MOU)
 - 1) Sharing failure to sanction risk
 - 2) Share in benefit of lower interest rates
 - 3) Better cost of capital terms in tariff
 - 4) Higher ownership share than 40% (of 25%)
 - 5) Extended time frame to make decision on exercising 40% (of 25%) ownership option
 - 6) Remove option of TransCanada to terminate after pre-FEED

Role of Financing Terms in Tariffs

- Financing costs a significant part of tariff
- Cost of capital:

$$(\text{Pct debt} \times \text{Cost of Debt}) + (\text{Pct equity} \times \text{Cost of Equity})$$

- Will determine gas revenues and price of gas to Alaskan consumers

Are Better Cost of Capital Terms Possible

- Terms on existing pipelines may not be relevant
 - May not need pipeline company for investment partner
 - 75% of the pipeline is being built by well financed, well capitalized and experienced major international oil corporations
- Bidder could come in needing lower returns
- May be trade-off between risk sharing and returns

How Bound is State by AGIA

- License Project (Treble Damages) Clause
(AS 43.90.440):

“If ... the state extends to another person preferential royalty or tax treatment or grant of state money for the purpose of facilitating the construction of a competing natural gas pipeline project in this state ... the licensee is entitled to payment from the state of an amount equal to three times the total amount of the expenditures incurred and paid by the licensee ... ”

- Ambiguities
 - “Total amount”
 - “Preferential”
 - “Grant of state money”

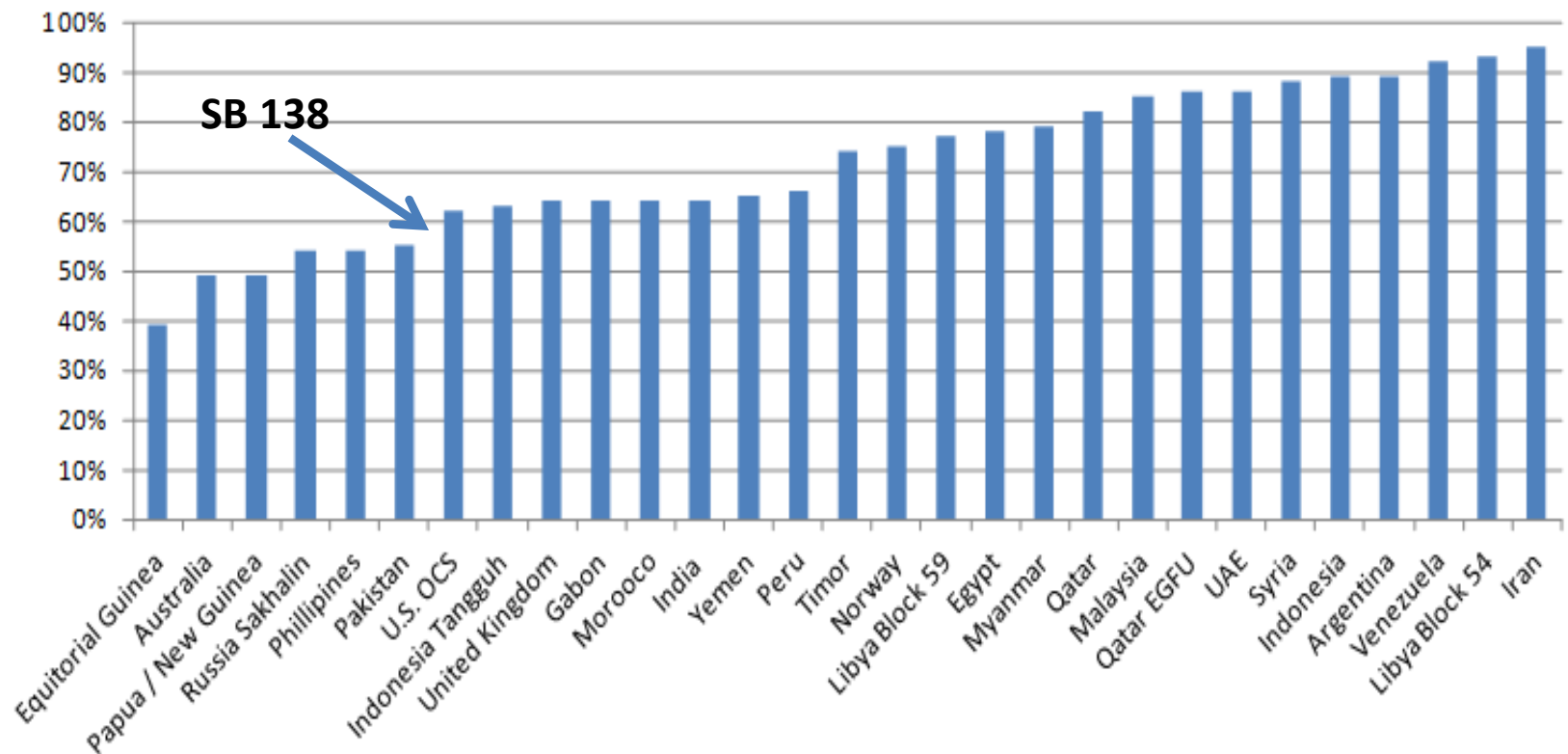
Options

- Assess legal exposure
- Engage TransCanada
- Renegotiate
- Settlement
- Litigation

4. Taxation: Production Tax

- Taking taxes in-kind enhances the project economics to the sponsors
 - It makes sense to assess an in-kind tax on gross
- Appropriate rate: fair share is what you can get in a competitive environment (jurisdictions with similar risk/reward structure)

Government Take - LNG Projects



Source: Daniel Johnston & Co. from Black & Veatch, "Alaska North Slope Royalty Study," prepared for the State of Alaska, November 2013

Property Tax

- Property tax based on value is regressive: the higher the cost the higher the tax
 - Adds to economic risk
- Plethora of litigation on valuation
- There are certainly social impacts from development that need to be addressed and paid for
 - It is not clear that impacts are directly related to value
- HOA: look at cents/mcf tax plus impact payments

Fiscal Stability

- Producers have continually expressed necessity
- Some fiscal stability may be necessary
- SB 138 not stable
- Scope out producers intentions as to what constitutes adequate stability