

ACES AND AGIA REGULATIONS OVERVIEW

Senate Resources Committee

March 10, 2010

Alaska State Department of Revenue

Overview

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□ **Part 1: ACES Regulations**

- Overarching Principles
- Gas Price Valuation
- Transportation Deductions

□ **Part 2: AGIA Regulations**

- Qualification for AGIA Inducements (Tax and Royalty)
- Gas Tax Inducement Calculation

Overarching Principles

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- Ensure full value received by State on natural gas production
- Proposed DOR and DNR natural gas regulations to be as similar as possible
 - ▣ Creates consistency across State agencies
 - ▣ Facilitates industry compliance
- Maintain consistency with existing DOR oil valuation regulations and case law while recognizing distinct differences and complexity of natural gas transportation and marketing

Overarching Principles

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- Reflect natural gas industry practices to maximum extent possible
- Provide flexibility in selecting and implementing gas valuation benchmarks to allow for evolving gas markets
- Reduce uncertainty, where possible
 - ▣ Minimize future litigation on valuation
 - ▣ Reduce administrative burden on DOR and taxpayer

Overarching Principles

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- Recognize that availability of financial information is limited for Canada and lower 48 gas transportation and marketing transactions
 - ▣ Provide reasonable alternative valuation method based on prevailing value at liquid destination markets
- Allocate state gas volumes thru multiple transportation options and commingling with other gas on a prorated basis to establish fair and equitable distribution of destination value and costs
- Utilize existing regulatory structure and methodology, where practical, to determine transportation costs (i.e. FERC)

Statutory Framework

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- A producer calculates its tax by first deriving the value of its gas at the point of production.
 - ▣ Starts with actual sales price or prevailing price
 - ▣ Deducts the actual or reasonable cost of transportation
- Whether actual or prevailing sale price is used depends on whether transaction was arm's length or sale price was below market price.
- Whether actual or reasonable cost of transportation used depends on whether transport was arm's length or with non-affiliate.

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Gas Price Valuation

Gas Price Valuation

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For gas delivered off the Alaska North Slope, value is based on higher of:

- ▣ Weighted average sales price of arm's length transactions; or
- ▣ Prevailing Value at “destination markets”

Value will be separately established on

- Unprocessed gas
- Residue gas
- Gas plant products
- LNG

Gas Price Valuation

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A “first destination market with reasonable liquidity” is a destination market that has:

- For residue gas, average daily sales volumes of arm’s length transactions in excess of 100,000 MMBtus
- For LNG, the average daily volume of LNG or re-gasified LNG sold in arm’s length transactions must be substantial.
- For gas plant products, the market must also be designated as a first destination market for residue gas

Gas Price Valuation

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The prevailing value (PV) for gas delivered to a market in Canada, the Lower 48, or a foreign market is based on:

- ▣ The total value of the component residue gas and gas plant products based on published prices for the first destination market with reasonable liquidity, or
- ▣ The weighted average sales price of all gas sold in arm's-length transactions in the same destination or regional market, or
- ▣ The value of comparable gas in the same regional market based on applicable published prices by government entities in Canada or the US.

Gas Price Valuation

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For purposes of determining the Prevailing Value the department may publish by Feb 1:

- ▣ The location of all markets that it has determined to be first destination markets
- ▣ The name of the publication or source of the published price for residue gas, gas plant products, or for LNG
- ▣ Any location or quality differentials that the department determines to be appropriate
- ▣ Reasonable gas treatment, processing, or re-gasification cost allowance, if applicable

Gas Price Valuation-Processing

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AS43.55.900(10) and proposed regulation 15AAC 55.900(a)(27) distinguish:

- A “gas processing plant” that is located upstream of any gas treatment and upstream of the inlet of any gas P/L system transporting gas to a market
 - Example: PBU Central Gas Facility that extracts NGLs
- A “downstream gas plant” that extracts and recovers liquid hydrocarbons from gas by gas processing and occurs downstream of the point of production
 - Includes extraction of gas plant products, including NGLs

Gas Price Valuation-Gas Plant Products

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- A definition for “gas plant products” has been added to proposed regulations 15 AAC 55.900 to identify the separate marketable elements, compounds, or mixtures derived from a downstream gas processing plant
 - ▣ For example, ethane, propane, normal butane, iso-butane, pentane, any NGL mix, and condensate
 - ▣ But does NOT include residue gas (primarily methane)
- A definition for “gas treatment plant” has been added to describe a facility where the necessary gas treatment occurs for the purposes of rendering the gas acceptable for tender and acceptance into a gas Pipeline system

Gas Price Valuation-Processing Costs

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- Proposed regulation 15AAC 55.140 describes how to determine the processing cost deduction for a downstream gas plant under both arms-length and non-arms-length contracts
- Provides for allocation methodologies for situations in which a producer may have multiple gas processing contracts
- Provides the allocation of costs when processing commingled streams of gas produced from state lands and other gas, such as gas from offshore federal leases

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Transportation Deductions

Transportation Deductions

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□ AS 43.55.150(b)

*“...the gross value at the point of production is calculated using the **actual** costs of transportation or the **reasonable** costs of transportation... whichever is lower.”*

- Modifications made in ACES to address allowable transportation deductions, particularly in the case of affiliate or non-arm's length transactions

Actual vs. Reasonable Costs

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- Actual costs are not *necessarily* reasonable costs for purposes of tax calculation
- The reasonable costs of transportation are different than the actual costs in the case of:
 - Affiliated transactions
 - Non-Arm's length transactions
 - A transportation methodology that is not reasonable in view of existing market alternatives (e.g. trucking down a P/L corridor)

What are “reasonable” costs?

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1. Rates which are adjudicated as just and reasonable by the RCA or other regulatory body
2. Initial gas tariff rates approved by the FERC
3. Pipeline and gas treatment plant tariffs under settlement agreements to which the state is a party
4. A cost established using a methodology that takes into account a reasonable cost of service.

Cost of Service Methodology

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- Reasonable cost based approach:
 - ▣ Allows operating and maintenance expenses
 - ▣ Economic life is the greater of estimated useful life for financial accounting purposes or 25 years
 - ▣ Capital may be depreciated only once, and not below a reasonable salvage value
 - Change in ownership does not alter the original depreciation schedule
 - ▣ Allows income tax for pipeline facilities and regulated gas treatment plant
 - ▣ Allows return on undepreciated capital

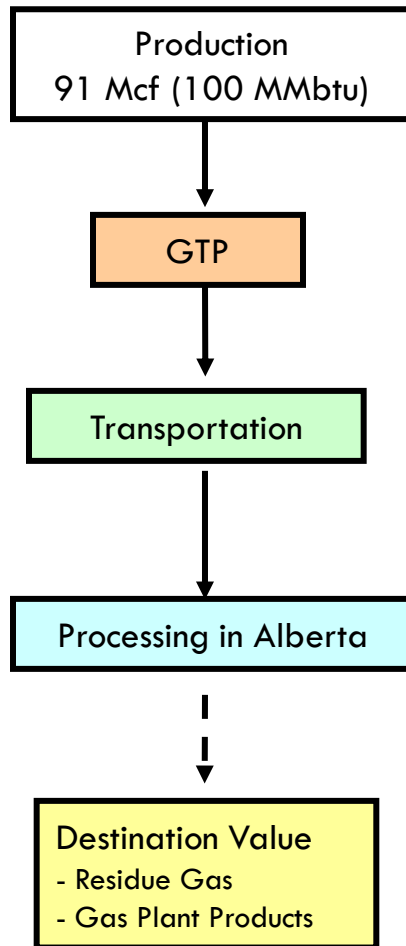
Cost of Service Methodology (cont.)

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- Return on Capital Considerations:
 - ▣ For invested capital, the percentage treated as financed with long-term debt is the greater of:
 - The percentage actually used by the facility owner
 - 70 percent for gas pipeline facility or regulated gas treatment plant
 - 55 percent for an oil pipeline facility
 - ▣ Rate of Return on equity will be determined using methodology similar to the FERC

Example 1 – NS gas delivered to Alberta

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Value at Point of Production				\$	210.00
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	Volume (Mmbtu)	Cost Rate (\$/Mmbtu)	Cost (\$)	
GTP Cost	100	1.00	\$	100.00

	Volume (Mmbtu)	Cost Rate (\$/Mmbtu)	Cost (\$)	
AK Pipeline (AK and Can.)	100	3.00	\$	300.00
Alberta System	100	0.10	\$	10.00
Transportation Cost			\$	310.00

	Volume (Mmbtu)	Cost Rate (\$/Mmbtu)	Cost (\$)	
Processing Cost	100	0.20	\$	20.00

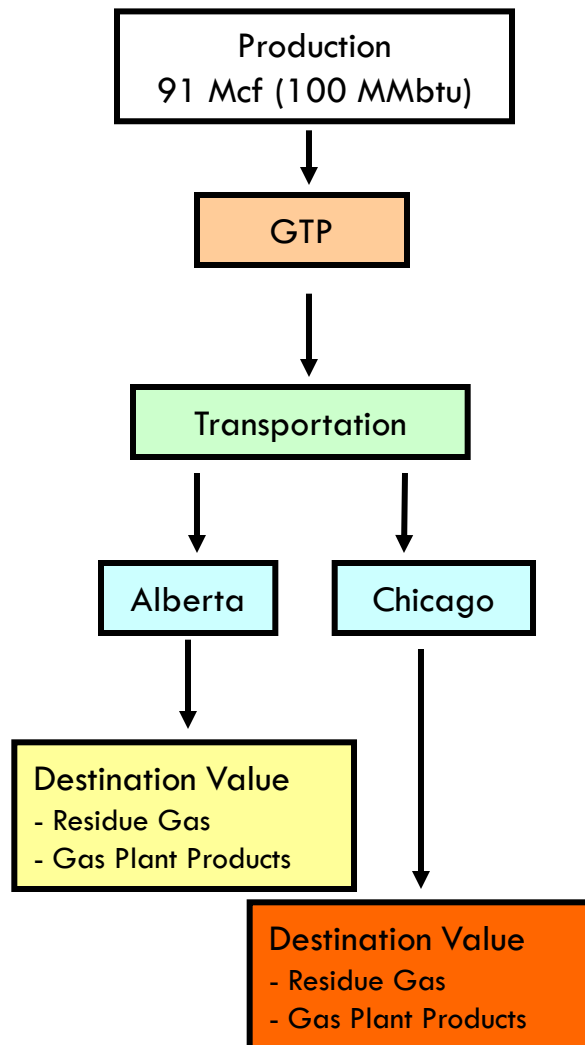
	Volume	Price	Value	
Residue Gas (Mmbtu)	90	6.00	\$	540.00
Gas Plant Prod. (gal)	200	0.50	\$	100.00
Destination Value			\$	640.00

Note: All prices and costs are for illustration purpose only; does not include fuel line loss.

3/10/2010

Example 2 – NS gas delivered to Alberta and Chicago

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Value at Point of Production \$ **206.25**

	Volume (Mmbtu)	Cost Rate (\$/Mmbtu)	Cost (\$)
GTP Cost	100	1.00	\$ 100.00

	Volume (Mmbtu)	Cost Rate (\$/Mmbtu)	Cost (\$)
AK Pipeline (AK and Can)	100	3.00	\$ 300.00
Alberta System	50	0.10	\$ 5.00
Alliance Pipeline	50	1.00	\$ 50.00
Transportation Cost			\$ 355.00

	Volume (Mmbtu)	Cost Rate (\$/Mmbtu)	Cost (\$)
Alberta	50	0.20	10.00
Chicago	50	0.25	12.50
Processing Cost			\$ 22.50

	Volume	Price	Value
Residue Gas (Mmbtu)	45	6.00	\$ 270.00
Gas Plant Prod. (gal)	100	0.50	\$ 50.00
Destination Value			\$ 320.00

	Volume	Price	Value
Residue Gas (Mmbtu)	45	6.75	\$ 303.75
Gas Plant Prod. (gal)	100	0.60	\$ 60.00
Destination Value			\$ 363.75

Note: All prices and costs are for illustration purpose only, does not include fuel line loss.

ACES and AGIA Regulations Overview

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□ **Part 1: ACES Regulations**

- Overarching Principles
- Gas Price Valuation
- Transportation Deductions

□ **Part 2: AGIA Regulations**

- Qualification for AGIA Inducements (Tax and Royalty)
- Gas Production Tax Exemption

Qualification for AGIA Inducements

Definition of Key Terms

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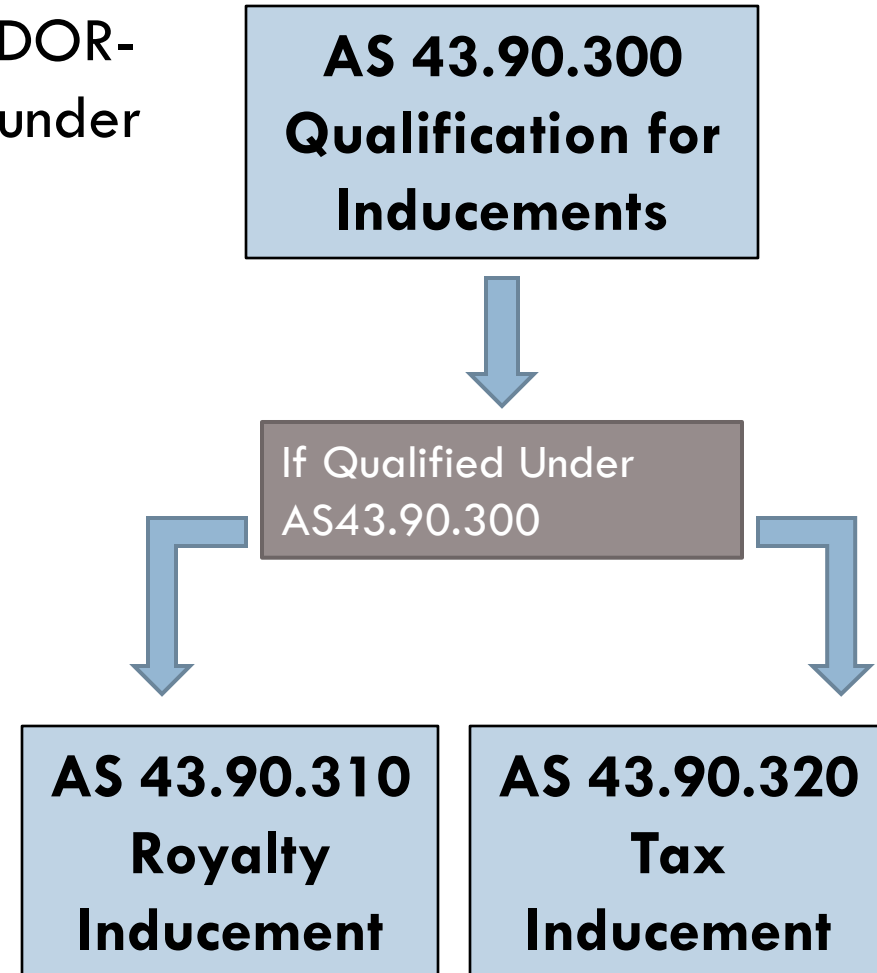
- **Precedent Agreement (PA):** Establishes general terms of transportation service under which shipper will be obligated to acquire firm transportation capacity on project (via TSA). Also specifies conditions that allow shipper and transporter to be relieved of those obligations.
- **Transportation Services Agreement (TSA):** Entered when conditions of the PA are met; shipper is then unconditionally obligated to pay for firm transportation services and the transporter to construct the project; assuming regulatory approvals are granted.

Qualification for AGIA Inducements

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Step 1: Producer-Shipper applies to DOR-DNR Commissioners for qualification under AS 43.90.300.

Steps 2 & 3: Producer-Shipper must comply with separate regulations to receive tax and royalty inducements



Qualification for AGIA Inducements

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To qualify for any AGIA inducements under AS43.90.300, “producer-shippers” and “shippers buying from producers” must:

“Commit to acquire firm transportation capacity in the first binding open season”
- AS 43.90.300

What is a binding commitment?

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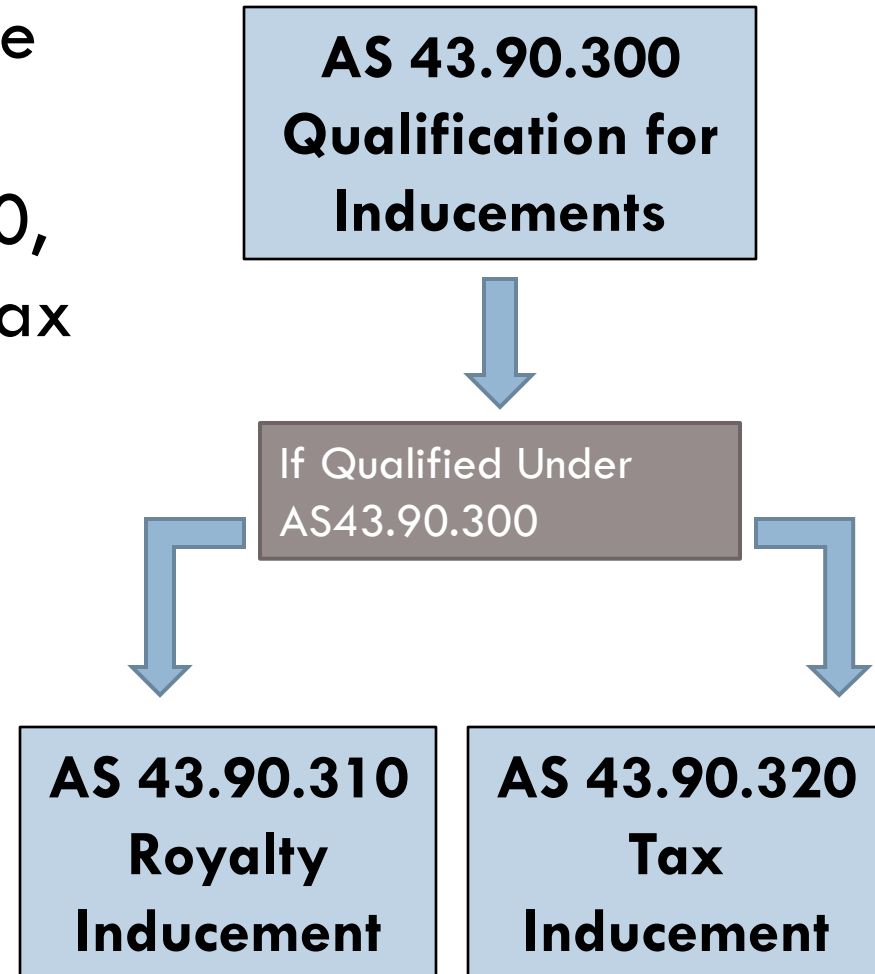
“Must commit to acquire firm transportation capacity in the first binding open season” means that one must:*

1. Submit a bid for firm transportation capacity during the initial open season;
2. Execute a Precedent Agreement within 180 days of close of initial open season;
3. Execute Transportation Services Agreement within 5 years of open season, or two years following FERC Certification, whichever is later; **and**
4. File with the DOR-DNR Commissioners:
 - Copies of documents listed above; and
 - Copy of rolled-in rate agreements governing pipeline expansions

Royalty and Tax Inducements

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If an entity is certified by the Commissioners as having complied with AS 43.90.300, they apply separately the tax and royalty inducements



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Gas Production Tax Exemption

(Tax Inducement)

Gas Production Tax Exemption

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- AGIA entitles shippers to 10 years of 'fiscal certainty' at the commence of operation, on gas which is committed during the initial open season on an AGIA gas pipeline
- Certainty is provided in the form of a tax credit:

$$\text{Credit} = \left(\begin{array}{l} \text{Gas production tax} \\ \text{under law at time} \\ \text{of production} \end{array} \right) - \left(\begin{array}{l} \text{Gas production tax} \\ \text{under law at open} \\ \text{season} \end{array} \right)$$

Identifying “gas production tax”

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- The current Production Tax is calculated on combined oil and gas production, with combined oil and gas lease expenditures. So, we need to develop a “gas production tax” value for purposes of the inducement

“Gas Tax” Calculation

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$$\frac{A}{V} \times T = G$$

A = AGIA Gas Gross Value at Point of Production*

V = Oil and all Gas Gross Value at Point of Production*

T = Oil and Gas Production Tax Liability under system in effect May 1, 2010

G = “Production Tax on Gas” as of May 1, 2010

*Gross value at point of production is the value at point of production without deduction of costs upstream of that point. (See AS 43.55.900(12) and AS 43.55.150)

	Oil	Gas	Combined
ANS Price	\$120.00\$/bbl	\$8.00\$/mmbtu	
Daily Production	500,000Bbl/d	4.5Bcf/d	
Annual Production	182,500,000 bbl	1,643Bcf/year	
34 Total Annual Gross Sales Value	\$21,900,000,000	\$13,140,000,000	\$35,040,000,000
Marine and TAPS Tariff on Oil	(\$6.50) \$/bbl		
Gas Pipeline and Gas Treatment Plant		(\$4.50) \$/mmbtu	
Transportation Costs	(\$1,186,250,000)	(\$7,391,250,000)	(\$8,577,500,000)
Value at Point Of Production	\$20,713,750,000	\$5,748,750,000	\$26,462,500,000
Royalty and Federal	(\$2,589,218,750)	(\$718,593,750)	(\$3,307,812,500)
Taxable Point of Production Value	\$18,124,531,250	\$5,030,156,250.00	\$23,154,687,500
Lease Expenditures			
Opex	(\$2,000,000,000)	(\$200,000,000)	(\$2,200,000,000)
Capex	(\$2,000,000,000)	(\$200,000,000)	(\$2,200,000,000)
Total Lease Expenditures	(\$4,000,000,000)	(\$400,000,000)	(\$4,400,000,000)
Production Tax Value (PTV)	\$14,124,531,250	\$4,630,156,250	\$18,754,687,500
PTV on BOE basis	\$88.45	\$19.33	\$47
Base Tax (25%*PTV)	\$3,531,132,813	\$1,157,539,063	\$4,688,671,875
Progressive Tax Rate	23.38%	0.00%	6.79%
Progressive Tax	\$3,302,376,216	\$0	\$1,273,703,865
Total Tax Due before credits	\$6,833,509,029	\$1,157,539,063	\$5,952,375,740
Credits Applied Against Taxes	(\$400,000,000)	(\$40,000,000)	(\$440,000,000)
Total Tax after credits	\$6,433,509,029	\$1,117,539,063	\$5,522,375,740

A

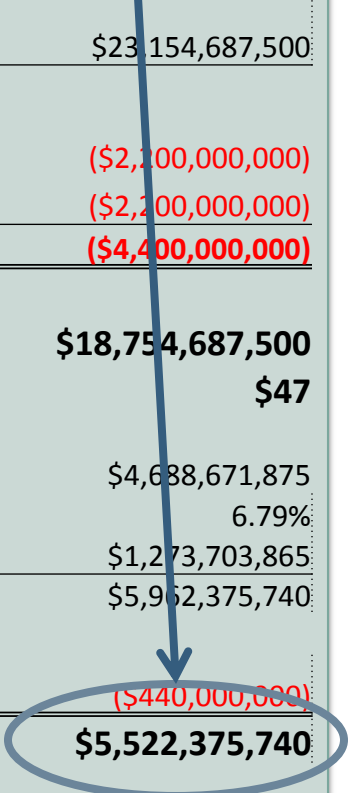
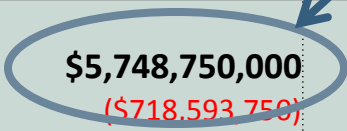
V

X

T

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G



	Oil	Gas	Combined
ANS Price	\$120.00 \$/bbl	\$8.00 \$/mmbtu	
Daily Production	500,000 Bbl/d	4.5 Bcf/d	
Annual Production	182,500,000 bbl	1,643 Bcf/year	
Total Annual Gross Sales Value	\$21,900,000,000	\$13,140,000,000	\$35,040,000,000
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Opex	(\$2,000,000,000)	(\$200,000,000)	(\$2,200,000,000)
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Progressive Tax Rate	23.38%	0.00%	6.79%
Progressive Tax	\$3,302,376,216	\$0	\$1,273,703,865
Total Tax Due before credits	\$6,833,509,029	\$1,157,539,063	\$5,962,375,740
Credits Applied Against Taxes	(\$400,000,000)	(\$40,000,000)	(\$440,000,000)
Total Tax after credits	\$6,433,509,029	\$1,117,539,063	\$5,522,375,740

Assuming all the gas is shipped via capacity that qualifies for the AGIA inducement...

$$\frac{A}{V} \times T = G$$

$$\frac{\$5,748,750,000}{\$26,462,500,000} = 21.7\%$$

$$21.7\% \times \$5,522,375,740 =$$

\$1,199,688,523

Close
Approximation

Production Tax Attributed
to Gas under proposed
15 AAC 90.220

Given this Example – What is the AGIA Tax Exemption Worth?

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Assume that in 2021, the Legislature separates oil taxes from gas taxes, and imposes a 30% production tax on gas. Using the previous example:

The production tax on gas under the new tax system would be \$1.35 B*

The production tax on oil under the new system would be \$6.43 BP*

* Assumes a cost allocation similar to the assumptions on slide 34

To Determine the Amount of the AGIA Tax Exemption:

1. Calculate Gas Production Tax under system in place in the Year of Production:
 - ▣ Based on the above assumption = \$1.35B
2. Calculate Gas Production Tax under the system in effect at Open Season (including the regulations):
 - ▣ Previous slide shows gas tax attribution of: \$1.2B
3. The taxpayer can claim an exemption for the difference = \$150M

So, the total production tax obligation in 2021 would be:

\$1.35B(gas) + \$6.43B (oil) = \$7.78B

Subtract the AGIA Tax Exemption -\$150M

Total Tax bill = \$7.63B

AGIA Tax Exemption - Across Different Price Ratios

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Price of Oil (bbl)	\$120.00	\$100.00	\$75.00
Price of Gas (mmbtu)	\$8.00	\$8.00	\$8.00
Separate Oil Tax*	\$6,433,509,029	\$4,013,896,529	\$1,707,974,654
Separate Gas Tax*	\$1,117,539,063	\$1,117,539,063	\$1,117,539,063
Combined Production Tax*	\$5,522,375,740	\$4,009,088,240	\$2,452,187,500
*Based on Assumptions from Slide 34			
AGIA Attributed Gas Tax	\$1,199,688,522	\$1,010,290,236	\$772,439,062
Assumed 2021 Oil Tax**	\$6,433,509,029	\$4,013,896,529	\$1,707,974,654
Assumed 2021 Gas Tax**	\$1,349,046,875	\$1,349,046,875	\$1,349,046,875
Assumed 2021 Combined**	\$7,782,555,904	\$5,362,943,404	\$3,057,021,529
**Based on Assumptions from Slide 36			
AGIA Gas Tax Exemption	\$149,358,352	\$338,756,638	\$576,607,812
2021 Total Tax with Exemption	\$7,633,197,551	\$5,024,186,765	\$2,480,413,716

Locking-In an Oil Subsidy?

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- **No**
- The Legislature may, after the Open Season, change the effect that gas production has on oil tax calculations, even separate oil and gas taxes
- The AGIA tax exemption only applies to gas production tax; it does not apply to oil taxes, or the effect that gas production has on oil tax calculations

The End