

State of Alaska
Department of Revenue

Commissioner Bryan Butcher



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The Honorable Joe Paskvan
Alaska State Senator
State Capitol, Room 115
Juneau, AK 99801

April 6, 2011

Re: Answers to questions posed on April 5, 2011

Dear Senator Paskvan:

The purpose of this document is to respond to the questions posed on April 5, 2011. The requests/questions and responses follow.

Is it accurate to say that "the production tax rate under ACES may be as high as 75% (Oil & Gas Tax Status Report, p. 1)" when the price of a barrel of crude is approximately \$400? Also, to confirm, are you talking about the nominal, marginal, or effective tax rate in that line?

This statement would be accurate. 75% is the maximum nominal tax rate for production tax only, and applies when the production tax value is greater than \$342.50 per barrel.

On page 1 – page 2 of the January 17, 2011 Oil and Gas Production Tax Status Report, the report says that, "tax rates in each of the four years were much lower than the maximum rate." What was the corresponding tax rate in each of those four years?

Chart 2, on page 5 of the report, shows the average nominal tax rate paid in FY 07, 08, 09, and 10. The average nominal tax rates paid in each year were as follows: FY 2007, 22.5% (under PPT); FY 2008, 41.8%; FY 2009, 30.2%; and FY 2010, 32.6%.

The Oil & Gas Tax Status Report 2011 says that "the government share of each additional dollar of profit may be as high as 93% (page 14)." Please provide the back-up numbers to support that statement.

The maximum marginal rate under the current fiscal system has been quoted as either 87% or 93%. Both these numbers are correct, but refer to different things.

The maximum marginal rate of 87% refers to the percentage of the incremental taxable revenue (defined as the taxable revenue generated by a US\$ 1/bbl increase in ANS

West Coast price with all other conditions remaining unchanged) that is captured by the State through the production tax only.

The calculation of this ACES maximum marginal rate is illustrated in Appendix A using the data presented by the Department of Revenue (DoR) to Senate Finance Committee on 25 January 2011 for FY2010.

Assuming an ANS West Coast price of US\$ 116.71/bbl (leading to a Production tax Value per barrel (PTV/bbl) of US\$ 91.50 in this example), the taxable barrels revenue would be US\$ 23,787 million (MM) and the production tax before credit would be US\$ 9,250MM.

Assuming an ANS West Coast price US\$ 1 higher of US\$ 117.71/bbl (with PTV/bbl rising commensurately to US\$ 92.50), the taxable barrels revenue would be US\$ 23,991MM and the production tax before credit would be US\$ 9,427MM.

The ACES marginal rate is calculated by dividing the incremental production tax (US\$ 177MM) by the incremental taxable revenue (US\$ 204MM) generated by the US\$ 1 oil price increase. In this case, the marginal rate is 87%, which is the maximum marginal rate for ACES.

Figure 1: ACES Marginal Rate Calculation

<i>ACES Marginal Rate</i>	116.71\$/bbl case	117.71\$/bbl case	Incremental
Taxable barrels Revenue (\$MM)	23,787	23,991	204
Production Tax (\$MM)	9,250	9,427	177
Marginal Tax Rate	<i>(Production Tax / Taxable Barrels)</i>		87%

Others have referred to 93% as the correct marginal rate. This is correct if one considers all the taxes a producer needs to pay i.e. the Production Taxes plus Royalty and State and Federal Income Taxes. This is illustrated in Appendix B using simplified assumptions.

Using the same assumptions, with ANS West Coast Price increasing from US\$ 116.71/bbl to US\$ 117.71/bbl, Royalty increases from US\$ 3,626MM to US\$ 3,657MM, Production Tax increases from US\$ 9,250MM to US\$ 9,427MM and Income Tax increases from US\$ 3,997MM to US\$ 4,008MM.

The marginal government rate of 93% is calculated by dividing the total incremental state and federal government take (US\$ 219MM) by the incremental total revenue (US\$ 235MM) generated by the US\$ 1 oil price increase. Because each taxable element is calculated on different base amounts the total revenue has been used for consistency in the percent marginal rate calculation.

Figure 2: Government Marginal Rate Calculation

<i>Government Marginal Rate</i>	116.71\$/bbl case	117.71\$/bbl case	Incremental
Total Revenue (\$MM)	27,413	27,648	235
Government Take (\$MM)	16,873	17,092	219
Marginal Tax Rate	<i>(Gov't Take / Total Revenue)</i>		93%

In other words, the maximum marginal rate of 93% refers to the percentage of the incremental revenue that is captured by both State and Federal Governments. Note that at extreme prices over \$300 / barrel, it is possible for the marginal rate to go even higher.

Appendix A

Note: data and assumptions below as per DoR presentation to Senate Finance Committee on 25 January 2011 for FY2010 save for the oil price which has been modified to illustrate where the ACES marginal rate is at its highest.

**Figure A1: Production Tax assuming average
ANS West Coast Price of US\$ 116.71/bbl**

<i>Income Statement Type Summary</i>	Per barrel	Barrels	Value (\$million)
ANS West Coast & Daily Production	116.71	643,517	75
Annual Production	116.71	234,883,705	27,413
Royalty and federal barrels	116.71	(31,066,756)	(3,626)
Taxable barrels		203,816,949	23,787
Transportation Costs	-6.02	203,816,949	(1,227)
Deductible Opex	-10.64	203,816,949	(2,169)
Deductible Capex	-8.55	203,816,949	(1,743)
Total Lease Expenditures	-19.19	203,816,949	(3,911)
Production Tax Value (PTV)	91.50	203,816,949	18,649
Base Tax = 25%*PTV			4,662
Progressive Tax = $([91.5-30]*0.4\%=24.6\%)*PTV$			4,588
Total Production Tax Due Before Credits			9,250
Credits Applied Against Production Taxes			(350)
Total Production Tax After Credits			8,900

**Figure A2: Production Tax assuming average
ANS West Coast Price of US\$ 117.71/bbl (US\$ 1/bbl increment)**

<i>Income Statement Type Summary</i>	Per barrel	Barrels	Value (\$million)
ANS West Coast & Daily Production	117.71	643,517	76
Annual Production	117.71	234,883,705	27,648
Royalty and federal barrels	117.71	(31,066,756)	(3,657)
Taxable barrels		203,816,949	23,991
Transportation Costs	(6.02)	203,816,949	(1,227)
Deductible Opex	(10.64)	203,816,949	(2,169)
Deductible Capex	(8.55)	203,816,949	(1,743)
Total Lease Expenditures	(19.19)	203,816,949	(3,911)
Production Tax Value (PTV)	92.50	203,816,949	18,853
Base Tax = 25%*PTV			4,713
Progressive Tax = $[(92.5-30)*0.4\%=25\%]*PTV$			4,713
Total Production Tax Due Before Credits			9,427
Credits Applied Against Production Taxes			(350)
Total Production Tax After Credits			9,077

Appendix B

Note: These calculations are based on commonly used assumptions, such as 41% corporate income tax rate, for illustration purposes. Property taxes are not specified as these have no impact on marginal rates.

**Figure B1: Government take assuming average
ANS West Coast Price of US\$ 116.70/bbl**

<i>Simplified Tax Summary</i>	Value (\$million)
Royalty and federal barrels (\$MM)	3,626
Production Tax (\$MM)	9,250
Income Tax (41%) (\$MM)	3,997
Total Government Take	16,873

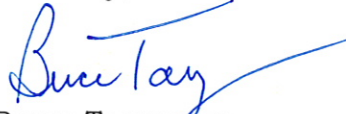
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**Figure B2: Government take assuming average
ANS West Coast Price of US\$ 117.70/bbl (US\$ 1/bbl increment)**

<i><u>Simplified Tax Summary</u></i>	Value (\$million)
Royalty and federal barrels (\$MM)	3,657
Production Tax (\$MM)	9,427
Income Tax (41%) (\$MM)	4,008
Total Government Take	17,092

We hope our responses fully answer your questions.

Sincerely,



Bruce Tangeman
Deputy Commissioner