

Alaska's Clear and Equitable Share (ACES) Proposal

A Brief Review of the Governor's Proposed Changes to Oil Taxation

This review is a simplified explanation of the fiscal impact of major issues addressed by ACES. It is not intended to address every issue or to offer a complete technical discussion of the major issues.

The ACES bill addresses four major items:

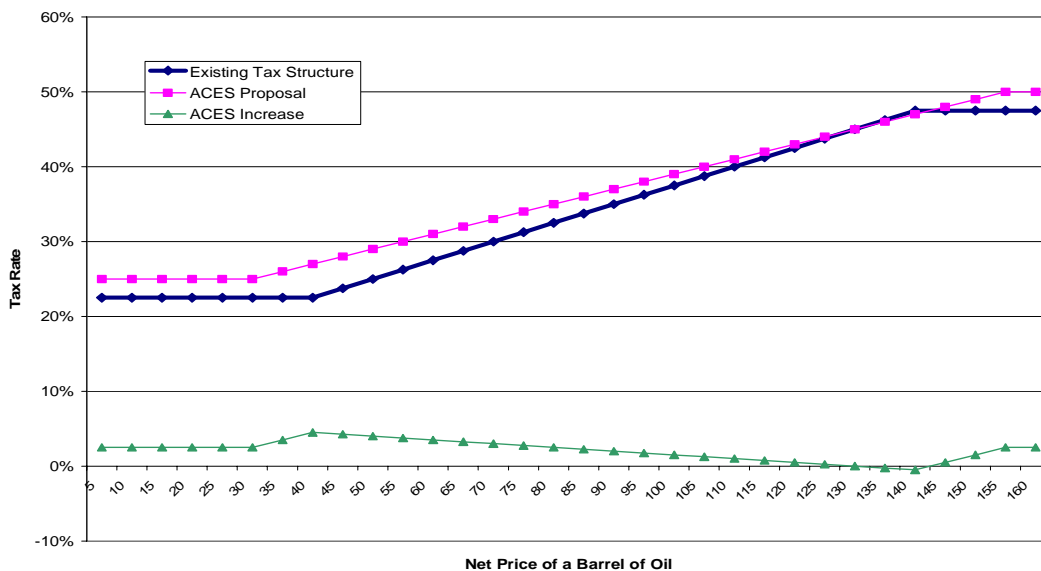
1. Base tax rate
2. A surcharge that increases revenue at higher oil prices
3. Tax credits, and
4. Information provided to the Department of Revenue.

1. Base Tax Rate. ACES raises the base tax rate from 22.5% to 25% of the profit on oil production. ACES also increases the minimum tax to 10% of the gross value of oil production (rather than profit) from the Prudhoe Bay and Kuparuk fields. PPT has a sliding scale that eliminates the minimum tax when oil prices are \$15 per barrel or less. The ACES minimum tax rate offers better protection for the state (i.e., about 10% more revenue than PPT) if oil prices fall to very low levels.

2. Surcharge. Under PPT, a surcharge adds 0.25% to the base tax rate when the profit per barrel exceeds \$40. ACES lowers the price level at which a surcharge is triggered, but also reduces the surcharge rate when oil prices exceed the trigger point. Under ACES, the surcharge adds 0.20% to the base tax rate when the profit per barrel exceeds \$30.

The impact of changes to the base tax and surcharge are shown in Figure 1. ACES produces a higher tax rate at net prices below \$130 per barrel or above \$145 per barrel.

Figure 1. Tax Rates Under Current Law and ACES



As a rule of thumb, add \$24 per barrel to the net prices shown in Figure 1 to obtain the selling price of ANS crude. ACES calculates the surcharge on the average annual price rather than monthly price as under PPT. Unless prices and production are highly volatile, the change in methodology should have relatively little impact.

The relevant portion of the chart for the near-term is between \$30 and \$80 per barrel, which is roughly equivalent to West Coast market prices of \$54 to \$104 per barrel. In that range, the total tax rate under ACES would average about 3.5 percentage points higher than under PPT. The maximum difference occurs when ANS crude sells for approximately \$64 per barrel (profit of \$40 per barrel), which is near the Department of Revenue's mid-term forecast. Because the surcharge rate under ACES is lower than under PPT, the difference in the total tax rate declines as the net price of oil increases.

The question begging discussion is whether ACES should be considered a tax increase. Figure 1 clearly shows that production taxes are generally higher under ACES than under PPT, but there is another factor to consider. That factor is that annual revenue under PPT is about \$800 million less than anticipated.

ACES will generate more state revenue than the tax system the legislature implemented (PPT), but less state revenue than legislators *thought* they would get from the tax system they implemented. Those that argued that PPT provides an insufficient amount of oil revenue to the state will almost certainly point out that anticipated revenue under ACES is below levels anticipated under PPT. These people will argue that ACES is not a tax increase; it is a partial correction of a compromise that was based on inappropriate or inaccurate information.

On the other side of the argument, people will focus on the *share* of revenue rather than on the *amount* of revenue that goes to the state. State revenue under PPT is less than anticipated because the profit per barrel is much less than anticipated. Legislative Finance does not have the data required to determine whether or not actual shares of revenue are close to what was anticipated under PPT, but it is obvious that unanticipated production costs—which reduce profit and therefore reduce state revenue—do not accrue to the producers. From the perspective that ACES has generally higher tax rates than PPT (so increases the state share of revenue and reduces the share retained by producers at any given levels of price and costs of production) it is clear that ACES is a tax increase.

Converting *tax rates* to *revenue impacts* provides a less accurate (but more interesting) view. The following graphs are based on a simple model that holds production constant at 244 million barrels annually and deductible costs of production constant at \$23.85 per barrel—numbers based on data published in the Spring 2007 Revenue Sources Book.

Figure 2 shows that changes to the base and surcharge tax rates under ACES can be expected to increase revenue by \$450 million to \$515 million annually in the \$65 to \$100 market price range. That amount is based on current levels of production and excludes

the impact of potential changes to tax credits. Revenue under ACES (relative to PPT) will fall if oil prices exceed \$90, going negative at prices between \$155 and \$165.

Figure 2. State Revenue Change Under the ACES Proposal

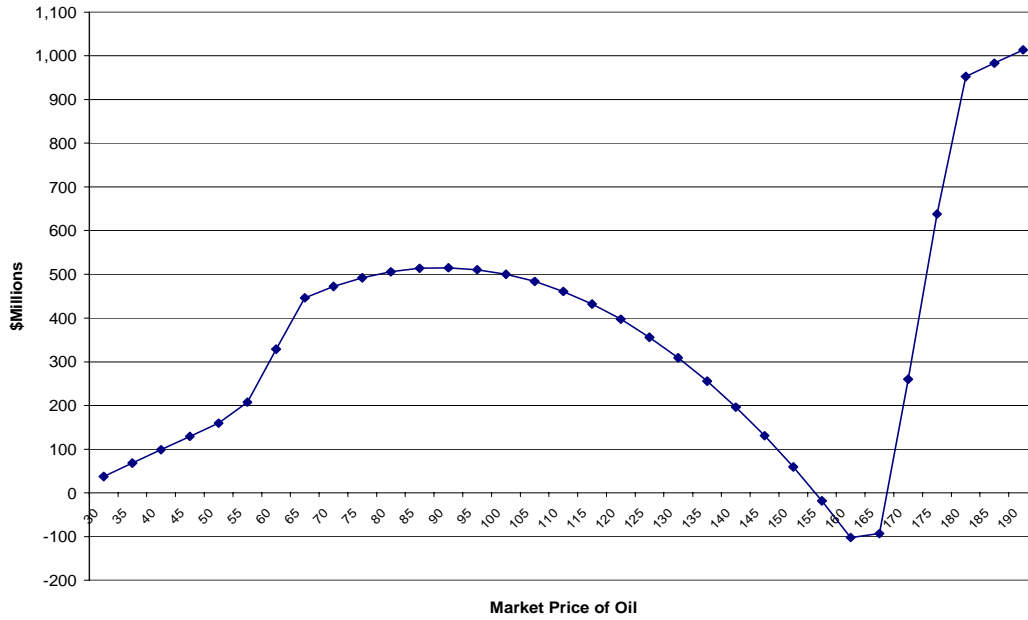
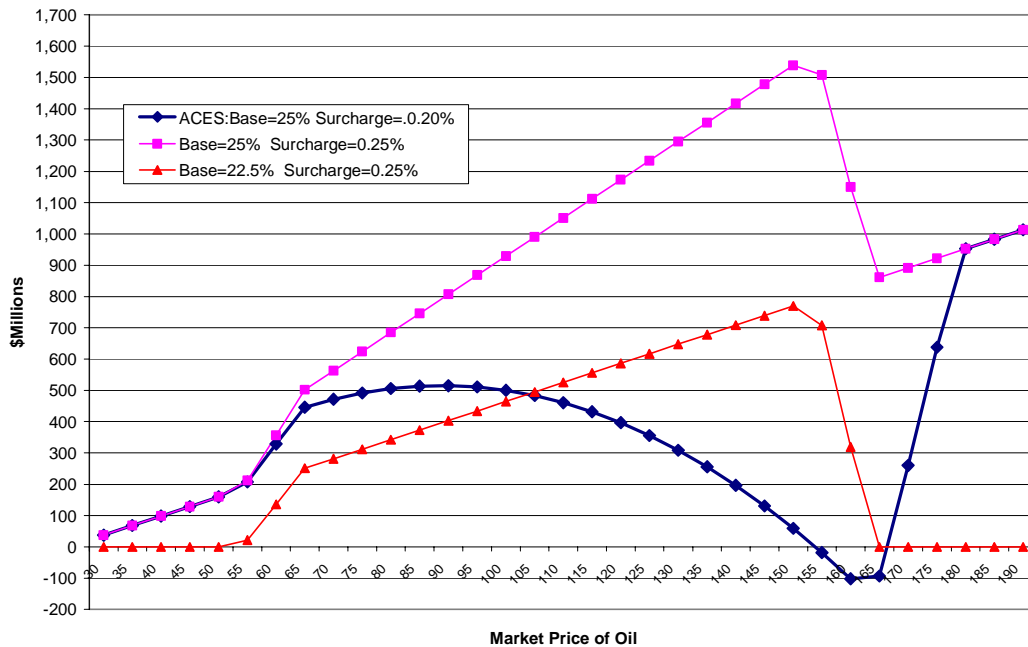


Figure 3 shows the sensitivity of revenue to changes in the base and surcharge tax rates. Adopting a 25% base rate and a \$30 trigger point without reducing the surcharge rate

Figure 3. State Revenue Change Under Variations of the ACES Proposal



would generate significantly more revenue than PPT (or ACES) at all oil prices above \$60. Retaining a 22.5% base rate and 0.25% surcharge rate while adopting a trigger point of \$30 would generate less revenue than ACES at oil prices below \$105, but more revenue at higher oil prices.

With variations in the base rate, surcharge rate and trigger point(s), the revenue curve can be designed to reflect whatever policy the legislature desires.

3. Tax Credits. Credits are arguably the most complex topic in the bill. A discussion of the fiscal impact of changes to tax credits would require knowing the amount (and type) of eligible credits that might be claimed. Legislative Finance does not have sufficient information to make projections. It should be clear, however, that reducing credits will increase revenue by more than indicated by a comparison of tax rates. In the figures above, the ACES line would be higher than shown if producers were allowed to claim fewer credits.

There are three types of tax credits. ACES makes a number of changes to tax credits as discussed below:

1. **Transitional Investment Credits.** These credits are for eligible capital expenditures incurred during the five years prior to the enactment of PPT. Statements in the press argue that because past investment events cannot be affected by changes to the production tax, these credits are essentially bonuses that reduce the tax liability of the major producers. ACES eliminates transitional credits.

Legislative Finance has no projection of the value of transitional credits that would be claimed under PPT or the value of credits that ACES would eliminate, but a few conceptual statements may clarify the analysis. The credits:

- are capped by time (they expire in 2013), by the amount invested in the transition period and by the amount invested in future years.
- are not simply giveaways; they cannot be claimed without additional investment.
- can be viewed as one-time bonuses that have no long-term impact on the tax structure.

Lest these points be taken as supporting retention of the credits, it should be noted that the credits are likely to cost the state several hundred million dollars in lost revenue.

2. **Direct tax credits.** These credits are deducted directly from producers' tax liability. The state has little control over the amount of the direct credits applied; they require no appropriation and are deducted from revenue projections.

Under ACES, tax credits remains at 20% of qualified capital expenditures, but no more than half the credit may be applied in any single year. This change may reduce volatility in the amount of credits applied in a given period and increase

the accuracy of revenue forecasts, but it has no significant long-term fiscal impact.

The allowable credit applied to a carried-forward annual loss is increased from 20% to 25% of the loss. This increase in available credits is offset by excluding losses based on lease expenditures in legacy fields. Legislative Finance has no projection of the fiscal impact of this change.

- 3. Transferable tax credits.** These credits are generally applicable to small producers who make qualified expenditures but whose current tax liability is insufficient to apply the credits to their tax bill. Under PPT, small producers can claim a cash refund or sell/transfer the credits to a producer with tax liability sufficient to apply the credits. ACES eliminates the credits/refunds limit of \$25 million per applicant per year.

ACES establishes a new fund designed to ease the process of claiming/purchasing transferable tax credit certificates. Approximately \$100 million to \$200 million (dependent on the price of oil) would be appropriated annually to the fund. The Department of Revenue can use the fund to purchase eligible certificates, presumably without further appropriation. If the Department expects to expend the fund without further appropriation, a statement to that effect would reduce uncertainty regarding the need for an appropriation from the fund and the status of the fund with regard to the constitutionally mandated sweep of available general fund balances to the Constitution Budget Reserve Fund.

An appropriation to purchase transferable credits was an item of contention in the FY08 budget process. The governor proposed an open-ended appropriation to pay for an estimated \$25 million in claims. The legislature capped the appropriation at \$25 million, but left the appropriation for FY07 open-ended. Based on the amount of credits purchased in FY07, a supplemental appropriation of \$75 million may be required for FY08.

- 4. Information requirements and other changes.** ACES includes several significant changes to the information that producers must provide to the state. The bill also includes several technical and conforming changes, and addresses unscheduled production interruption costs and auditing requirements of the Department. Explanation of these topics is best left to the Department of Revenue; the fiscal impact of such changes is minor relative to the impact of changes to tax rates and credits.

ACES Proposal for Petroleum Taxation										
Tax Rate at Various Values of a Barrel of Oil										
		Base Tax Rate:	Surcharge:	Trigger Point:	Maximum Surcharge:					
		22.5%	0.25%	40.00	25.0%					
		Base Tax Rate:	Surcharge:	Trigger Point:	Maximum Surcharge:					
		25.0%	0.20%	30.00	25.0%					

Existing Tax Structure (PPT)

Market Price	Taxable Value	Net Price	Surcharge Rate	Total Tax Rate	Base Revenue	Surcharge Revenue	Total Revenue	Surcharge Rate	Total Tax Rate	Base Revenue	Surcharge Revenue	Total Revenue	Percent of Revenue	Total Tax Rate
30	1,500	615	0.00%	22.50%	337.5	-	337.5	0.00%	25.00%	375.0	-	375.0	37.5	11.1%
35	2,720	1115	0.00%	22.50%	612.0	-	612.0	0.00%	25.00%	680.0	-	680.0	68.0	11.1%
40	3,940	1615	0.00%	22.50%	886.5	-	886.5	0.00%	25.00%	985.0	-	985.0	98.5	11.1%
45	5,160	2115	0.00%	22.50%	1,161.0	-	1,161.0	0.00%	25.00%	1,290.0	-	1,290.0	129.0	11.1%
50	6,380	2615	0.00%	22.50%	1,435.5	-	1,435.5	0.00%	25.00%	1,595.0	-	1,595.0	159.5	11.1%
55	7,600	3115	0.00%	22.50%	1,710.0	-	1,710.0	0.23%	25.23%	1,900.0	17.5	1,917.5	207.5	12.1%
60	8,820	3615	0.00%	22.50%	1,984.5	-	1,984.5	1.23%	26.23%	2,205.0	108.5	2,313.5	220.5	16.6%
65	10,040	4115	0.29%	22.79%	2,259.0	28.8	2,287.8	2.23%	27.23%	2,510.0	223.9	2,733.9	195.0	19.5%
70	11,260	4615	1.54%	24.04%	2,533.5	173.1	2,706.6	3.23%	28.23%	2,815.0	363.7	3,178.7	281.5	17.4%
75	12,480	5115	2.79%	25.29%	2,808.0	347.8	3,155.8	4.23%	29.23%	3,120.0	527.9	3,647.9	312.0	18.0%
80	13,700	5615	4.04%	26.54%	3,082.5	553.1	3,635.6	5.23%	30.23%	3,425.0	716.5	4,141.5	342.5	16.3%
85	14,920	6115	5.29%	27.79%	3,357.0	788.9	4,145.9	6.23%	31.23%	3,730.0	929.5	4,659.5	373.0	14.6%
90	16,140	6615	6.54%	29.04%	3,631.5	1,055.1	4,686.6	7.23%	32.23%	4,035.0	1,166.9	5,201.9	403.5	11.8%
95	17,360	7115	7.79%	30.29%	3,906.0	1,351.9	5,257.9	8.23%	33.23%	4,340.0	1,428.7	5,768.7	434.0	9.7%
100	18,580	7615	9.04%	31.54%	4,180.5	1,679.1	5,859.6	9.23%	34.23%	4,645.0	1,714.9	6,359.9	464.5	8.5%
105	19,800	8115	10.29%	32.79%	4,455.0	2,036.9	6,491.9	10.23%	35.23%	4,950.0	2,025.5	6,975.5	495.0	7.4%
110	21,020	8615	11.54%	34.04%	4,729.5	2,425.1	7,154.6	11.23%	36.23%	5,255.0	2,360.5	7,615.5	525.5	6.4%
115	22,240	9115	12.79%	35.29%	5,004.0	2,843.9	7,847.9	12.23%	37.23%	5,560.0	2,719.9	8,279.9	556.0	5.5%
120	23,460	9615	14.04%	36.54%	5,278.5	3,293.1	8,571.6	13.23%	38.23%	5,865.0	3,103.7	8,968.7	586.5	4.6%
125	24,680	10115	15.29%	37.79%	5,553.0	3,772.9	9,325.9	14.23%	39.23%	6,170.0	3,511.9	9,681.9	617.0	3.8%
130	25,900	10615	16.54%	39.04%	5,827.5	4,283.1	10,110.6	15.23%	40.23%	6,475.0	3,944.5	10,419.5	647.5	3.1%
135	27,120	11115	17.79%	40.29%	6,102.0	4,823.9	10,925.9	16.23%	41.23%	6,780.0	4,401.5	11,181.5	678.0	2.3%
140	28,340	11615	19.04%	41.54%	6,376.5	5,395.1	11,771.6	17.23%	42.23%	7,085.0	4,882.9	11,967.9	708.5	1.7%
145	29,560	12115	20.29%	42.79%	6,651.0	5,996.9	12,647.9	18.23%	43.23%	7,390.0	5,388.7	12,778.7	739.0	1.0%
150	30,780	12615	21.54%	44.04%	6,925.5	6,629.2	13,554.7	19.23%	44.23%	7,695.0	5,918.9	13,613.9	769.5	0.4%
155	32,000	13115	22.79%	45.29%	7,200.0	7,291.9	14,491.9	20.23%	45.23%	8,000.0	6,473.5	14,473.5	800.0	-0.1%
160	33,220	13615	24.04%	46.54%	7,474.5	7,985.2	15,459.7	21.23%	46.23%	8,305.0	7,052.5	15,357.5	830.5	-0.7%
165	34,440	14115	25.00%	47.50%	7,749.0	8,610.0	16,359.0	22.23%	47.23%	8,610.0	7,655.9	16,265.9	861.0	-0.6%
170	35,660	14615	25.00%	47.50%	8,023.5	8,915.0	16,938.5	23.23%	48.23%	8,915.0	8,283.7	17,198.7	891.5	1.5%
175	36,880	15115	25.00%	47.50%	8,298.0	9,220.0	17,518.0	24.23%	49.23%	9,220.0	8,935.9	18,155.9	922.0	3.6%
180	38,100	15615	25.00%	47.50%	8,572.5	9,525.0	18,097.5	25.00%	50.00%	9,525.0	9,525.0	19,050.0	952.5	5.3%
185	39,320	16115	25.00%	47.50%	8,847.0	9,830.0	18,677.0	25.00%	50.00%	9,830.0	9,830.0	19,660.0	983.0	5.3%
190	40,540	16615	25.00%	47.50%	9,121.5	10,135.0	19,256.5	25.00%	50.00%	10,135.0	10,135.0	20,270.0	1,013.5	5.3%

ACES Increase

Market Price	Taxable Value	Net Price	Surcharge Rate	Total Tax Rate	Base Revenue	Surcharge Revenue	Total Revenue	Surcharge Rate	Total Tax Rate	Base Revenue	Surcharge Revenue	Total Revenue	Percent of Revenue	Total Tax Rate
30	1,500	615	0.00%	22.50%	337.5	-	337.5	0.00%	25.00%	375.0	-	375.0	37.5	11.1%
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75	12,480	5115	2.79%	25.29%	2,808.0	347.8	3,155.8	4.23%	29.23%	3,120.0	527.9	3,647.9	312.0	18.0%
80	13,700	5615	4.04%	26.54%	3,082.5	553.1	3,635.6	5.23%	30.23%	3,425.0	716.5	4,141.5	342.5	16.3%
85	14,920	6115	5.29%	27.79%	3,357.0	788.9	4,145.9	6.23%	31.23%	3,730.0	929.5	4,659.5	373.0	14.6%
90	16,140	6615	6.54%	29.04%	3,631.5	1,055.1	4,686.6	7.23%	32.23%	4,035.0	1,166.9	5,201.9	403.5	11.8%
95	17,360	7115	7.79%	30.29%	3,906.0	1,351.9	5,257.9	8.23%	33.23%	4,340.0	1,428.7	5,768.7	434.0	9.7%
100	18,580	7615	9.04%	31.54%	4,180.5	1,679.1	5,859.6	9.23%	34.23%	4,645.0	1,714.9	6,359.9	464.5	8.5%
105	19,800	8115	10.29%	32.79%	4,455.0	2,036.9	6,491.9	10.23%	35.23%	4,950.0	2,025.5	6,975.5	495.0	7.4%
110	21,020	8615	11.54%	34.04%	4,729.5	2,425.1	7,154.6	11.23%	36.23%	5,255.0	2,360.5	7,615.5	525.5	6.4%
115	22,240	9115	12.79%	35.29%	5,004.0	2,843.9	7,847.9	12.23%	37.23%	5,560.0	2,719.9	8,279.9	556.0	5.5%
120	23,460	9615	14.04%	36.54%	5,278.5	3,293.1	8,571.6	13.23%	38.23%	5,865.0	3,103.7	8,968.7	586.5	4.6%
125	24,680	10115	15.29%	37.79%	5,553.0	3,772.9	9,325.9	14.23%	39.23%	6,170.0	3,511.9	9,681.9	617.0	3.8%
130	25,900	10615	16.54%	39.04%	5,827.5	4,283.1	10,110.6	15.23%	40.23%	6,475.0	3,944.5	10,419.5	647.5	3.1%
135	27,120	11115	17.79%	40.29%	6,102.0	4,823.9	10,925.9	16.23%	41.23%	6,780.0	4,401.5	11,181.5	678.0	2.3%
140	28,340	11615	19.04%	41.54%	6,376.5	5,395.1	11,771.6	17.23%	42.23%	7,085.0	4,882.9	11,967.9	708.5	1.7%
145	29,560	12115	20.29%	42.79%	6,651.0	5,996.9	12,647.9	18.23%	43.23%	7,390.0	5,388.7	12,778.7	739.0	1.0%
150	30,780	12615	21.54%	44.04%	6,925.5	6,629.2	13,554.7	19.23%	44.23%	7,695.0	5,918.9	13,613.9	769.5	0.4%
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175	36,880	15115	25.00%	47.50%	8,298.0	9,220.0	17,518.0	24.23%	49.23%	9,220.0	8,935.9	18,155.9	922.0	3.6%
180	38,100	15615	25.00%	47.50%	8,572.5	9,525.0	18,097.5	25.00%	50.00%	9,525.0	9,525.0	19,050.0	952.5	5.3%
185	39,320	16115	25.00%	47.50%	8,847.0	9,830.0	18,677.0	25.00%	50.00%	9,830.0	9,830.0	19,660.0	983.0	5.3%
190	40,540	16615	25.00%	47.50%	9,121.5	10,135.0	19,256.5	25.00%	50.00%	10,135.0	10,135.0	20,270.0	1,013.5	5.3%

Taxable value is estimated by subtracting variable costs (\$7.22/bbl) and upstream costs (\$4.058 billion) from the product of price and volume (244 mmbbls).
Net price subtracts \$23.85/bbl (as determined by the computation for taxable value) from market prices.