

SB 167:

The Separation of Oil & Gas Production
Taxes

Provided by Logsdon & Associates

March 9, 2010

Premise of the Bill

- Under current law oil and gas are **taxed together**
- Oil is worth much more than gas
- The combining mechanism materially reduces oil taxes even though oil operations are unaffected

Oil is Different than Gas

- Oil more geographically concentrated (fewer sellers: OPEC)
- Oil supplies more depleted
- Gas is more plentiful
- Oil has fewer substitutes
- Gas has more substitutes

BTU 10:1

West Coast ANS

North Slope Gas

- Market Price \$80/bbl
- Less:
 - Shipping \$2.07
 - TAPS \$4.18
- Gross Value \$73.75

- Market Price \$6/mmbtu
- Less:
 - Tariff AK to AB \$3.54
 - AB Hub \$0.24
 - Tariff AB to L48 \$0.85
- Gross Value \$1.37/mmbtu

- BOE Basis ($X 5.5$) = \$7.54
- On a straight BTU to BTU basis oil is worth nearly 10 X as much as gas

Some Things that have BTUs

- Oil
- Gas
- Coal
- Wood
- Asphalt
- Shoe Leather
- Rubber
- Coffee grounds
- Citrus rinds
- Corn cobs
- Dung

Mechanics of Current Tax

- 1) Oil gross value (market price less transport cost)
- 2) Gas gross value (market price less transport cost)
- 3) Oil + gas gross value $\text{gas} = \text{Combined gross value}$
- 4) Combined gross value – lease capital and operating costs = Combined oil & gas net value
- 5) Combined oil & gas net value / total oil & gas BOEs = p/BOE net value (see Slide #6)
- 6) Progressivity factor (based on per BOE net value) plus 25% base rate = tax rate
- 7) Single tax rate applied to combined oil & gas net value

Barrel of Oil Equivalents (BOEs): Putting Oil & Gas on an Apples / Apples Basis

- 4.5 billion cubic feet per day (bcf/d) of natural gas
- A cubic foot of North Slope gas will have about 1,100 BTUs
- Natural gas is measured in millions of BTUs (mmbtu)
- 4.5 billion cubic feet per day will have 4.95 million mmbtu's
($4.5 \times 1,100$)
- A barrel of oil has about 5,500 BTUs
- 4.5 billion cubic feet per day will have the BTU equivalence of 900,000 barrels of oil (BOEs) ($4,950,000 / 5.5$)
- If there are 500,000 barrels of oil, total BOEs will total
 $500,000 + 900,000 = 1,400,000$

Progressivity Mechanics

- “Trigger” = \$30 net / BOE value
- “Slope” = 0.4%*
- Progressivity surcharge = (Net per BOE value - \$30) X .004
- Example: if net value = \$50
- Base tax rate = 25%
- Progressivity = $(\$50 - \$30) \times .004 = 8\%$
- Total tax of 33% on net value

* Slope changes to 0.1% after \$92.50 net per BOE value

HOW GAS IMPACTS OIL TAXES

	Oil Alone (p/bbl)	Gas (p/mmbtu)	Combined Oil & Gas
Market Price	\$80.00	\$6.00	: Oil
Transp cost	\$5.00	\$4.50	: p/bbl net value
Gross Value	\$75.00	\$1.50	: Barrels (millions)
			: Total oil net value (\$mm)
Costs	\$20.00	\$0.50	: Gas
			: p/mmbtu net value
Net (p/barrel or p/mmbtu)	\$55.00	\$1.00	: mmbtu's (millions)
			: Total gas net value (\$mm)
Base rate	25.00%		\$1,807
Progressivity	10.00%		
Total tax rate	35.00%		
			: Total oil & gas net value
			\$11,844
			: Total BOEs
			511
			: Net value / BOE
			\$23.18
Daily bbls (oil) or mmbtu (gas)	500,000	4,950,000	: NO PROGRESSIVITY!
Daily BOEs	500,000	900,000	
Annual BOEs (millions)	183	329	