

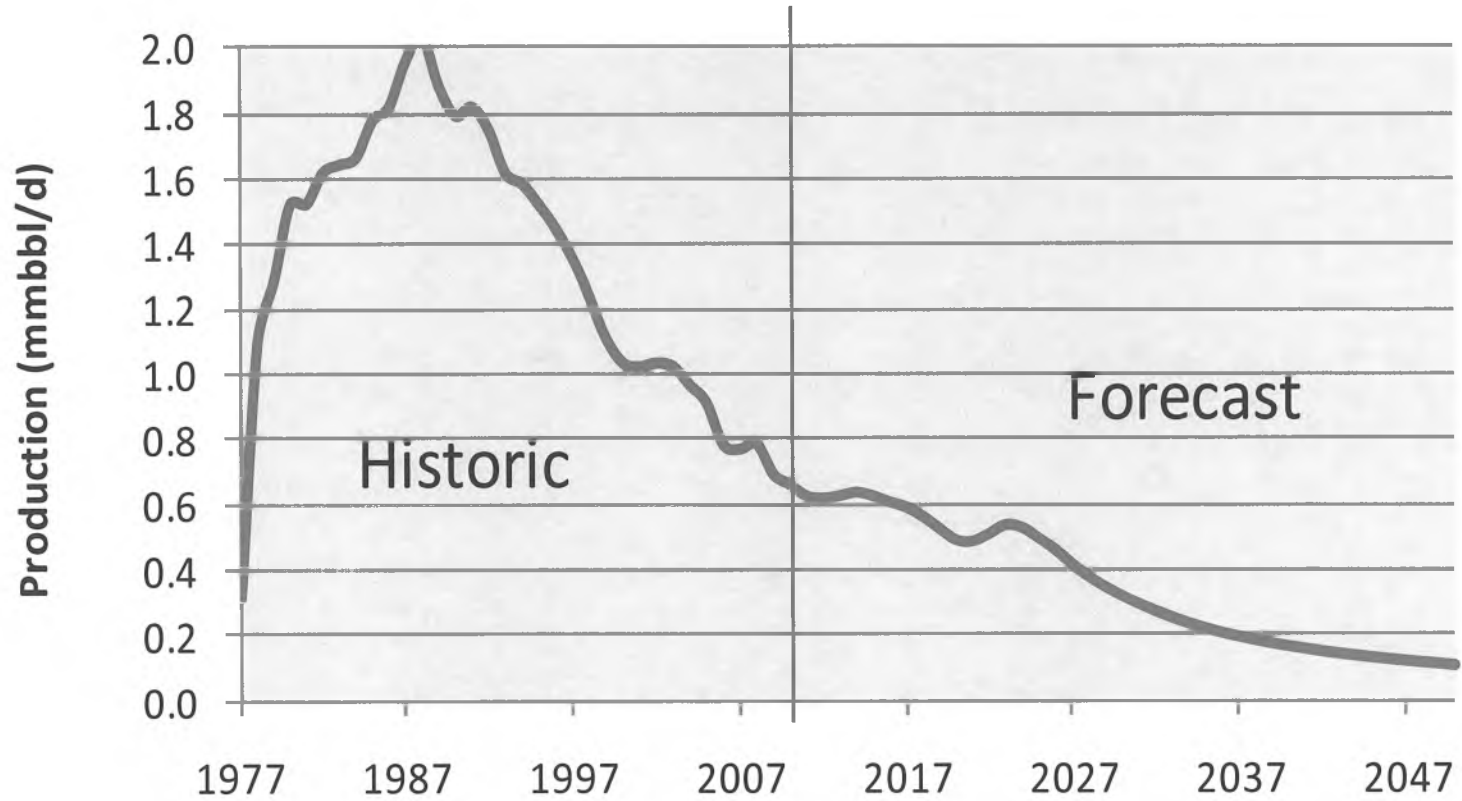
**2/09/11
PRESENTATION BY
ROGER MARKS:
HISTORY OF
ALASKA'S OIL
AND GAS
PRODUCTION TAX**

<TARGET><BILL></BILL><SUBJECT>2-09-11 PRESENTATION BY
ROGER MARKS HISTORY OF ALASKA'S OIL AND GAS PRODUCTION
TAX</SUBJECT><COMM>HRES27</COMM></TARGET>

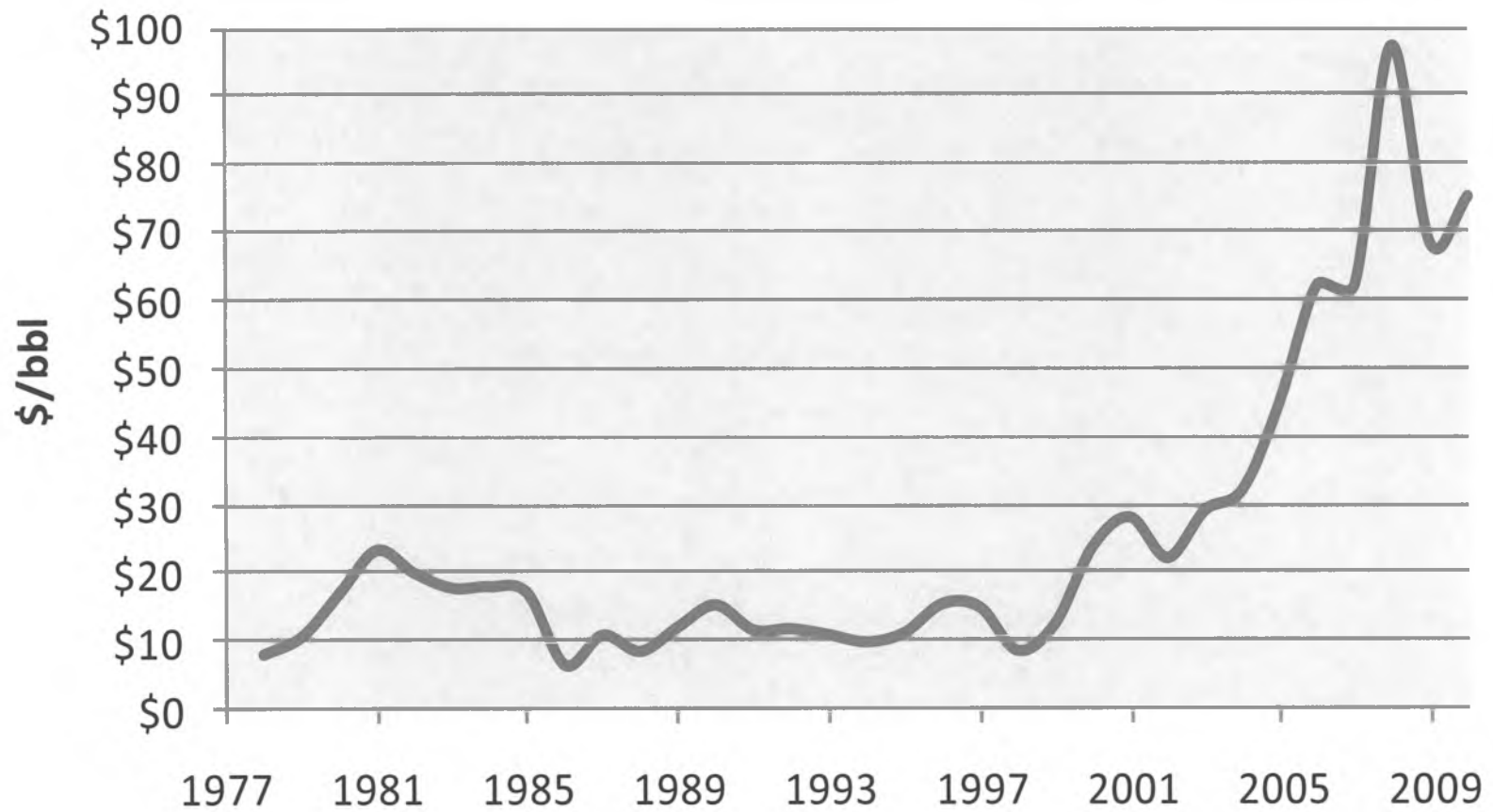
History of Alaska's Oil & Gas Production (Severance) Tax

Roger Marks
Logsdon & Associates
House Resources
February 9, 2011

ANS Production (mmbbl/day)



ANS Price History (\$/bbl)



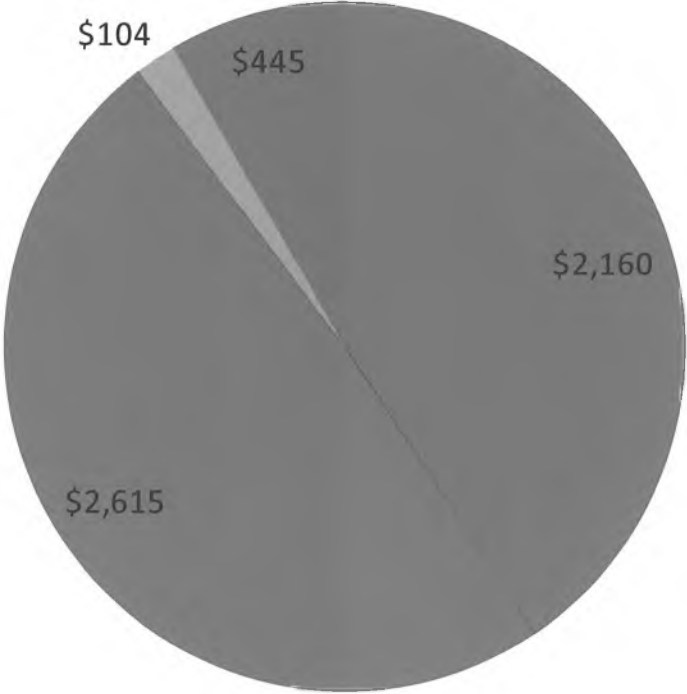
What is the Production Tax?

- A tax on producing or severing a non-renewable resource from the state
- Authorized in AS 43.55 (administered by the Dept. of Revenue)
- Applies to all production in the state (including 3 miles offshore and federal onshore acreage)
- Not payable on public (state/federal) royalty production

Petroleum Revenues

- Royalties
- Severance tax
- Property tax
 - 20 mills (2%)
 - Municipalities/boroughs retain tax on property within
- State corporate income tax
 - 9.4% of apportioned income
 - Apportions worldwide income to Alaska based on amount of property, production, and sales in Alaska relative to rest of world

Forecasted State Petroleum Revenues FY11*



■ Royalty ■ Production Tax ■ Property Tax ■ State Corporate Income Tax

* \$78/bbl forecasted price

Vocabulary

- Market Price
 - Price ANS is sold for on the West Coast
- Gross (wellhead) Value
 - Market price less marine shipping and TAPS tariff
- Net Value
 - Gross value less production operating and capital costs

Example

Market Price =	\$90/bbl
Less:	
Marine shipping	\$2/bbl
TAPS Tariff	<u>\$4/bbl</u>
Gross Value =	\$84/bbl
Less:	
Capital production cost	\$12/bbl
Operating production cost	<u>\$11/bbl</u>
Net Value =	\$61/bbl

Four Tax Regimes

- Economic Limit Factor “ELF” I (1977-1989)
- ELF II (1989-2006)
- PPT (2006-2007)
- ACES (2007-present)

Production Tax Pre-Prudhoe

Taxed on well basis

- First 300 barrels per day: higher of:
 - 5% of gross value, or
 - 17¢/bbl*
- Next 700 barrels per day: higher of:
 - 6% of gross value, or
 - 20¢/bbl*
- Anything over 1,000 barrels per day: higher of
 - 8% of gross value, or
 - 27¢/bbl*

* Subject to inflation

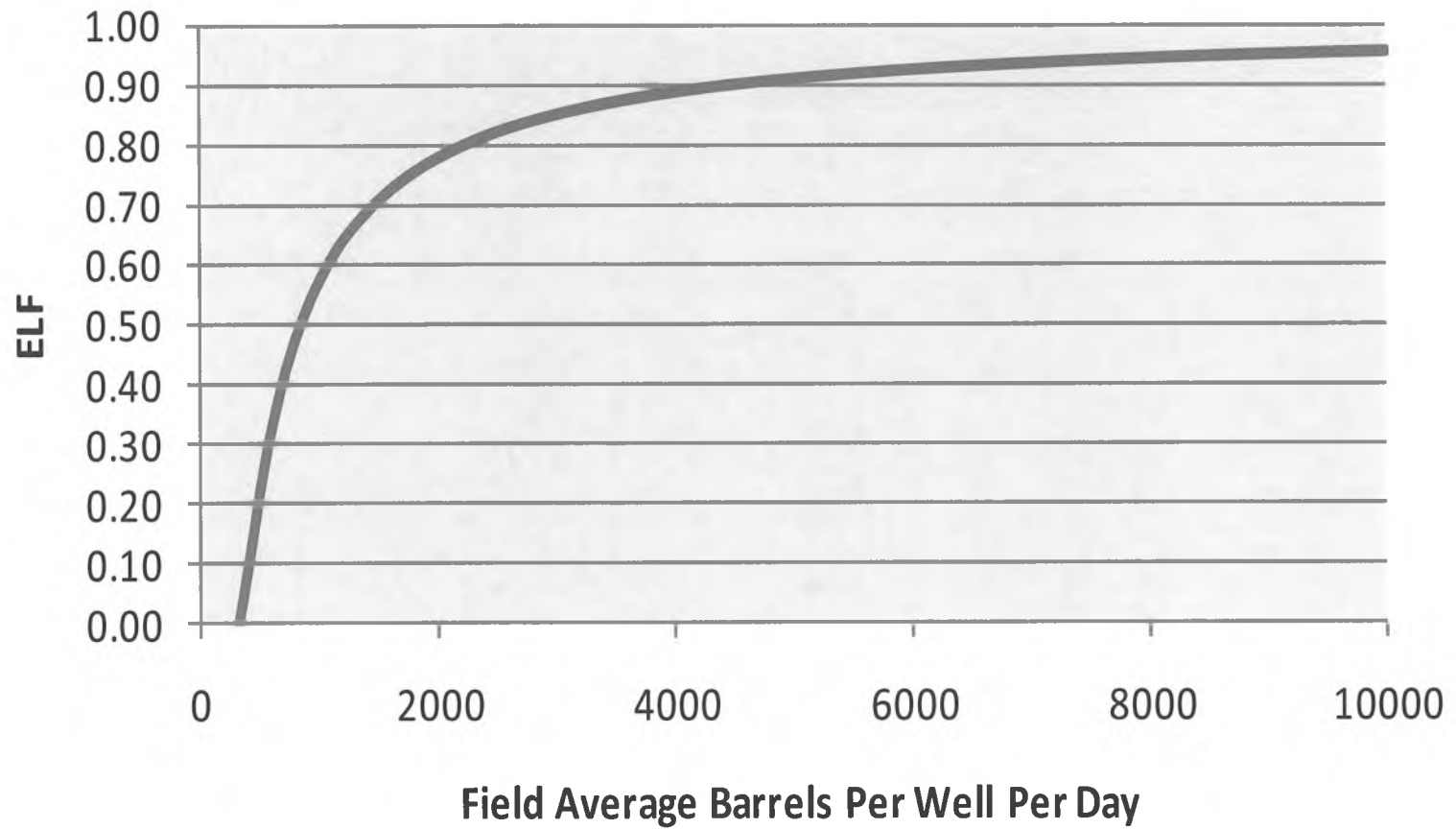
ELF I (1977-1989)

- Theory:
 - Economic Limit – the point where cost exceeds revenue
 - When a field is at its economic limit the burden of the tax should not cause the field to shut down
 - Scale down production tax as production declines toward economic limit so tax is zero at the economic limit
- Original proposal: Should not pay tax on the barrels that generate the revenue to cover operating costs at economic limit
- Statute: Each well gets 300 barrels per day tax free to cover operating costs at the economic limit

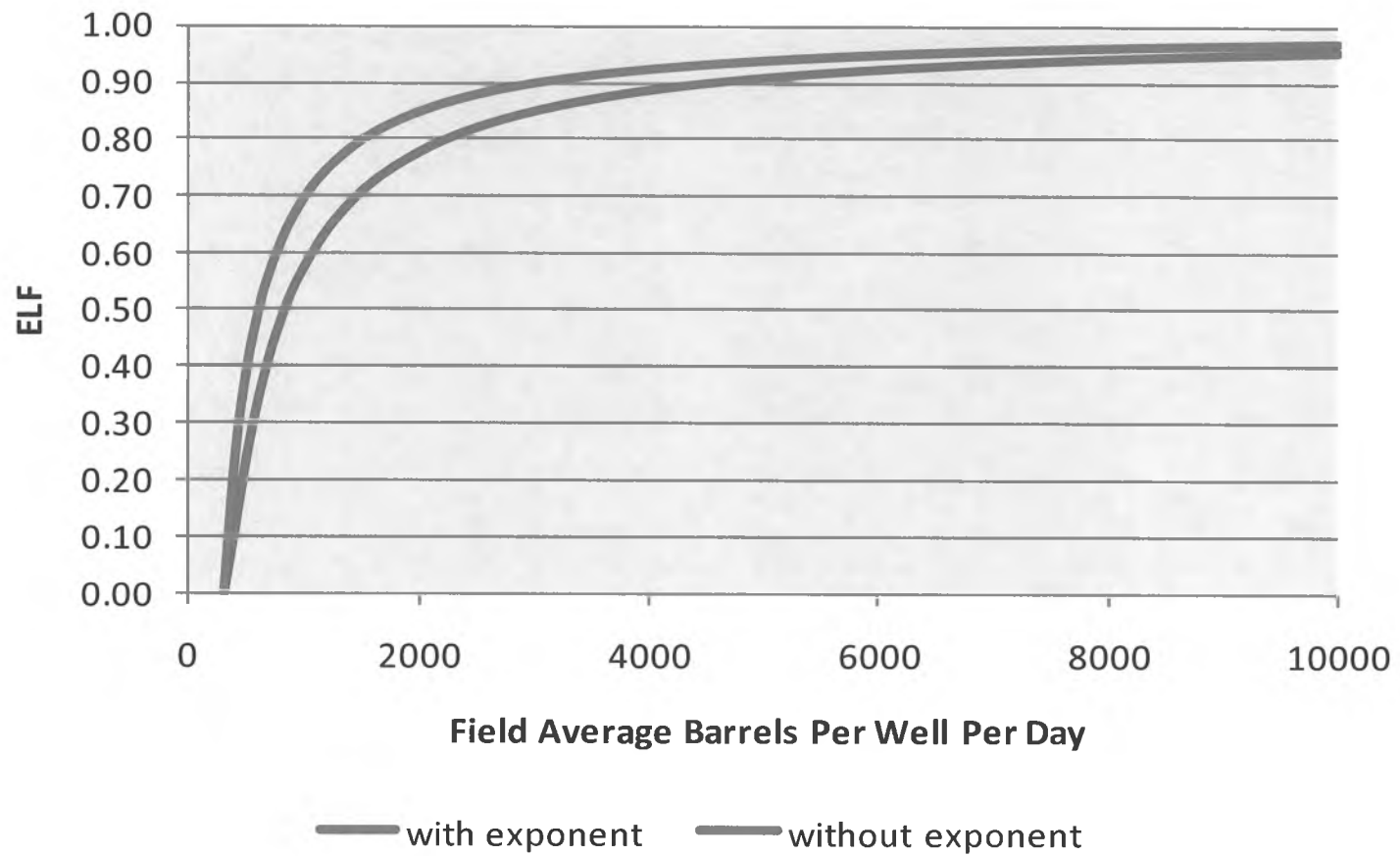
Original ELF Formula

$$\left[1 - \left(\frac{300}{\text{Field Average Daily Well Productivity}} \right) \right]^{(460 / 300)}$$

ELF 1 ('77-'89)



ELF With & Without Exponent



Application

- ELF: a fraction between 0 and 1
- Between 1977-1981
 - Applied to nominal tax rate of 12.25% of gross
 - For example, if the ELF was 0.5, the effective rate would be 6.125%
- Between 1981-1989 (Changes made in association with changes in state corporate income tax)
 - Applied to nominal tax rate of 12.25% of gross for first five years of a field
 - 15% of gross thereafter
 - “Rounding rule”: for the first 10 years of a field, if the ELF is greater than 0.7, it gets rounded up to 1.0

Problems with ELF I

- The 300 barrels is arbitrary as far as revenue to cover operating costs
- Drilling wells reduces the tax rate
- Field decline reduces the tax rate

Late 1980s Convergence of Issues

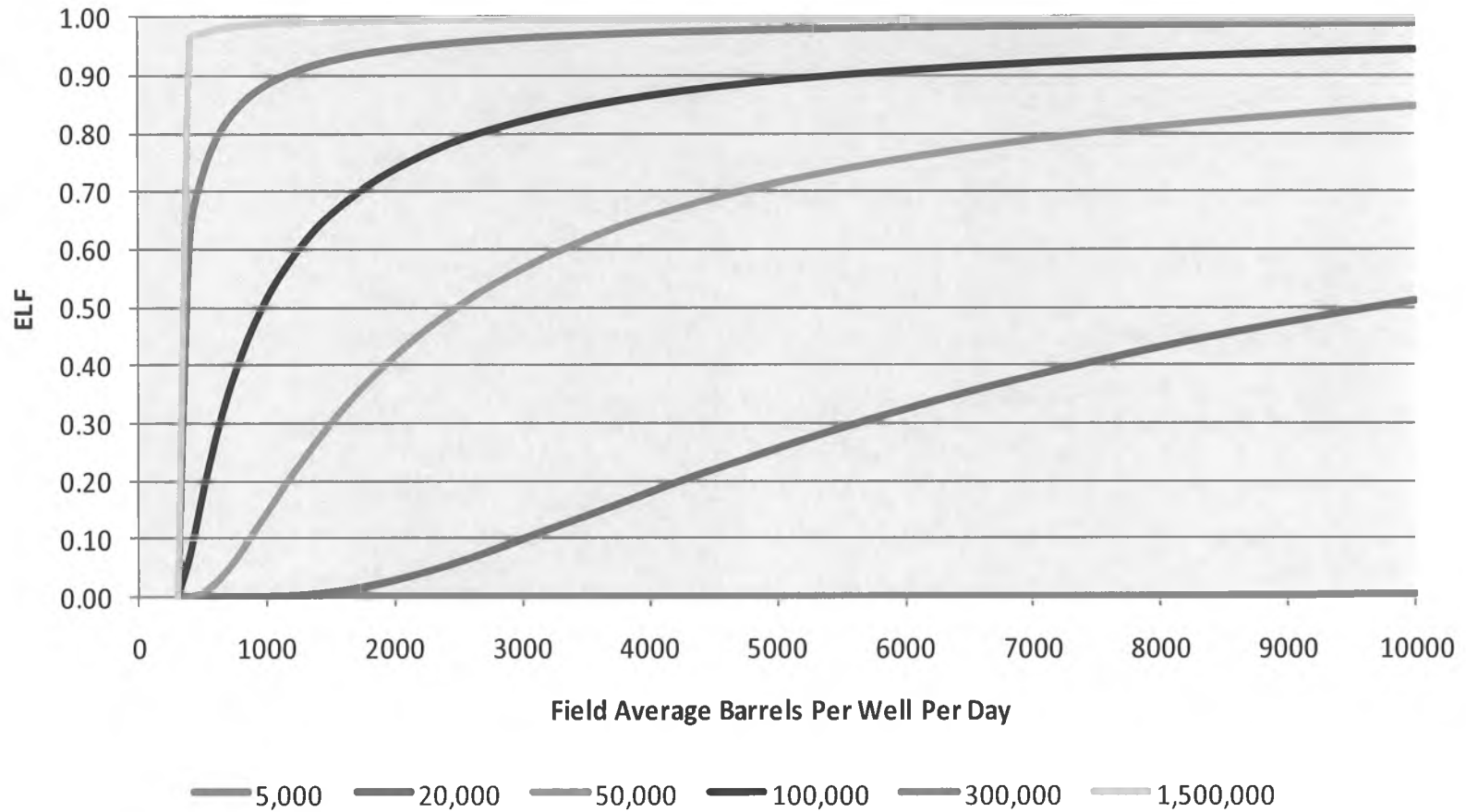
- Oil prices crashed in 1986
- Production was declining
- ELF was declining
 - 10 year rounding rule for Prudhoe Bay goes out

ELF II (1989-2006)

$$\begin{aligned} & (460/300) \\ & [(150,000/\text{Daily Field Production} \wedge] \\ & [1-(300/\text{Well Productivity}) \wedge] \end{aligned}$$

ELF 2 ('89-'06)

Depending on Daily Field Production and Well Productivity



Problems with ELF II

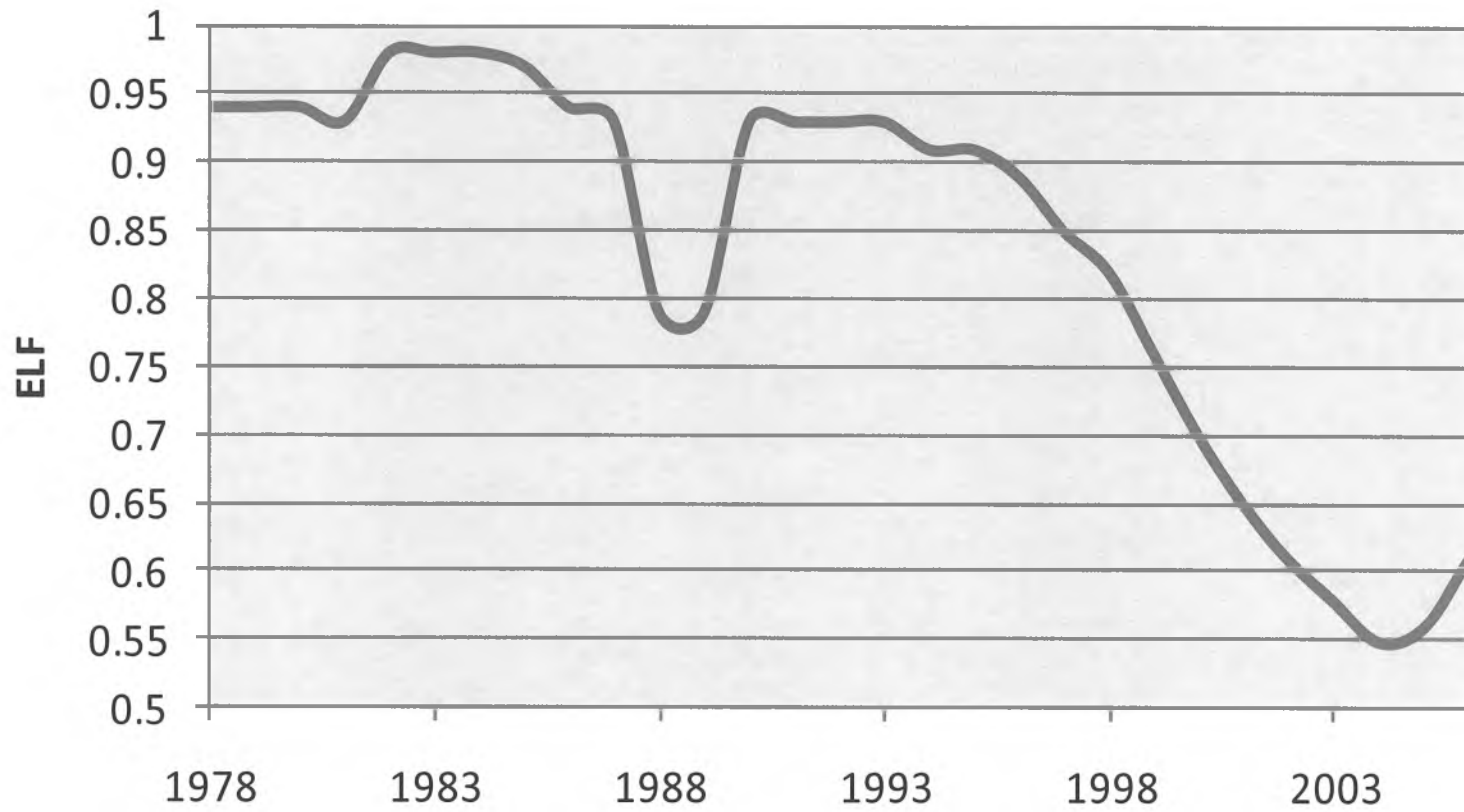
- Same problems as ELF 1
 - Field size declines
 - Well productivity declines
 - Tax rate declines regardless of price
- Proliferation of field satellites

The Big Question:

What does “economically interdependent” mean?

- Conditions for advanced ruling not to aggregate:
 - If shared facilities reduce costs
 - If advanced ruling enhances likelihood of development
 - If oil from each field will be accurately measured
 - If shared facilities is only factor making fields interdependent
- Requests came in and Department granted some of them
 - By 2000 had not granted for Prudhoe Bay
 - Understanding of satellite development evolving
- “Economic interdependence” undefined
- Prudhoe Bay and satellites aggregated in 2005

Economic Limit Factor



Stranded Gas Development Act (SGDA) Leads to PPT

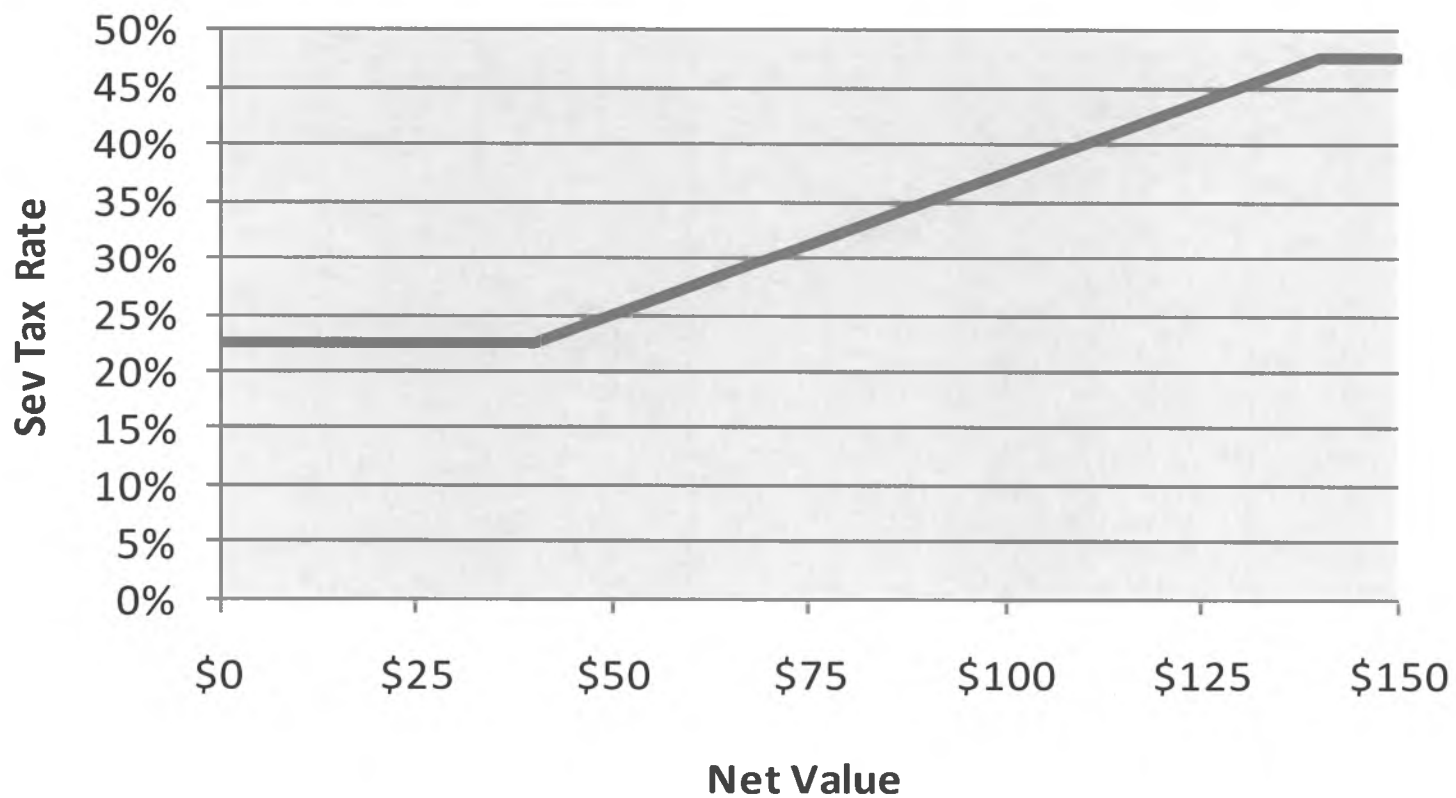
- Producers wanted fiscal stability for oil
- SGDA did not authorize that
- Administration negotiated new oil tax system
- Administration sought to amend SGDA
- Legislature took negotiated product as starting point for amending severance tax statute

Petroleum Profits Tax (“PPT”)

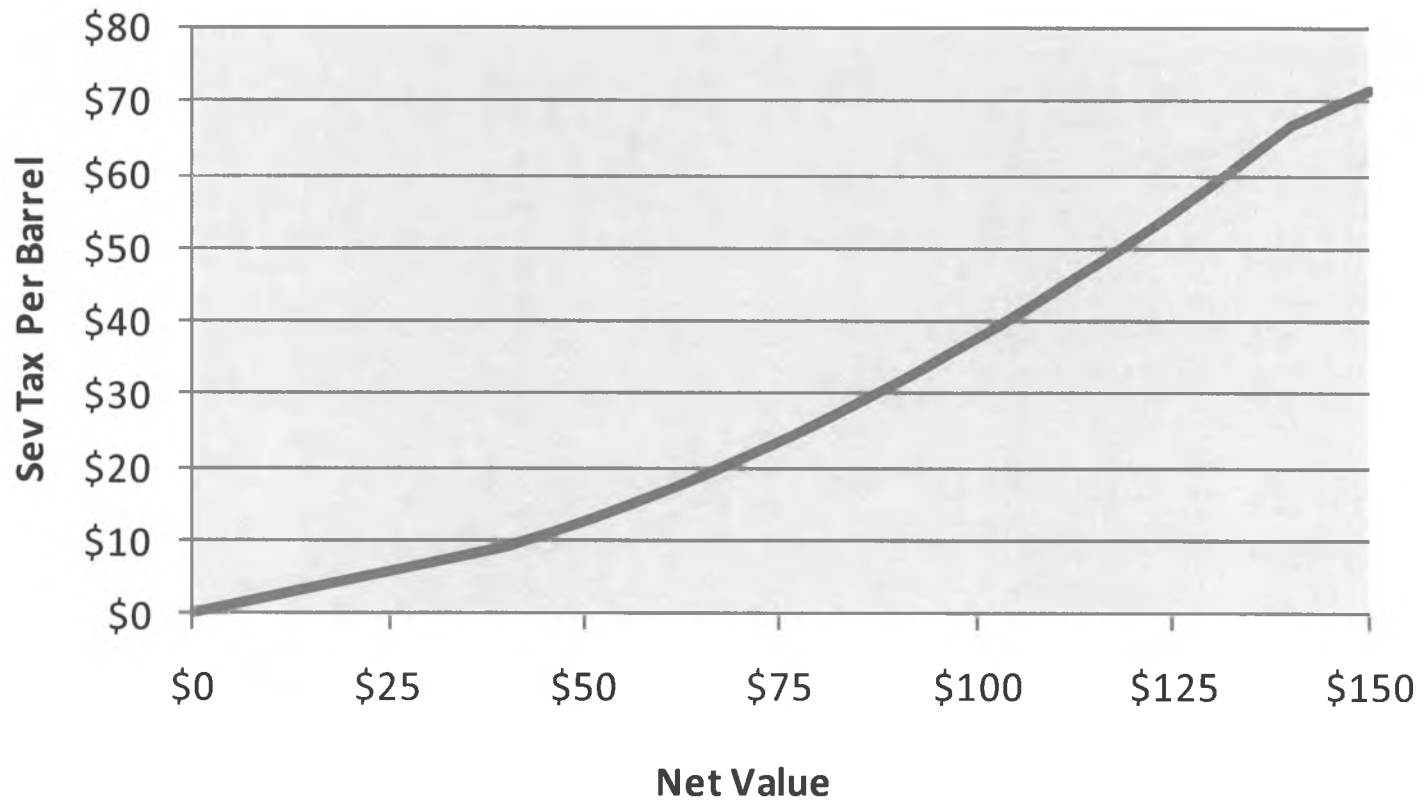
2006-2007

- Base rate of 22.5% of net value (after deducting all costs)
- Progressivity element when net value per barrel exceeds \$40/bbl:
 - $(\text{Net value per barrel value} - \$40) \times .0025$
- So if oil price is \$90/bbl:
 - Net value per barrel is about \$61/bbl
 - $\text{Progressivity} = (\$61 - \$40) \times .0025 = 7.75\%$
 - $\text{Total tax rate} = 22.5\% + 5.25\% = 27.75\%$
 - $\text{Tax is } 27.75\% \times \$61 = \$16.93/\text{bbl}$

PPT Severance Tax Rate



PPT Severance Tax Per Barrel



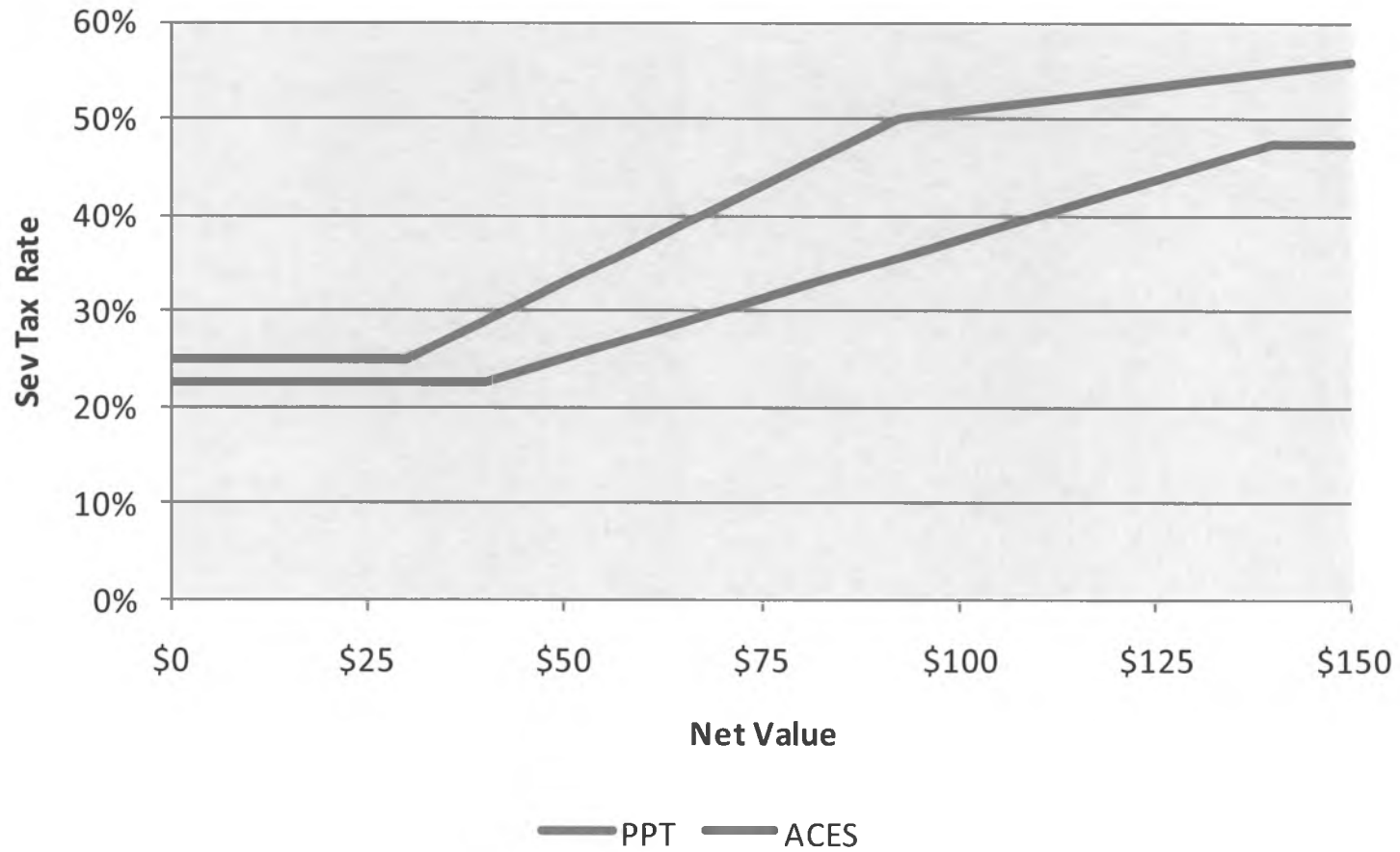
Problems with PPT

- Costs came in more than expected
- Revenues came in less than expected
- VECO taint

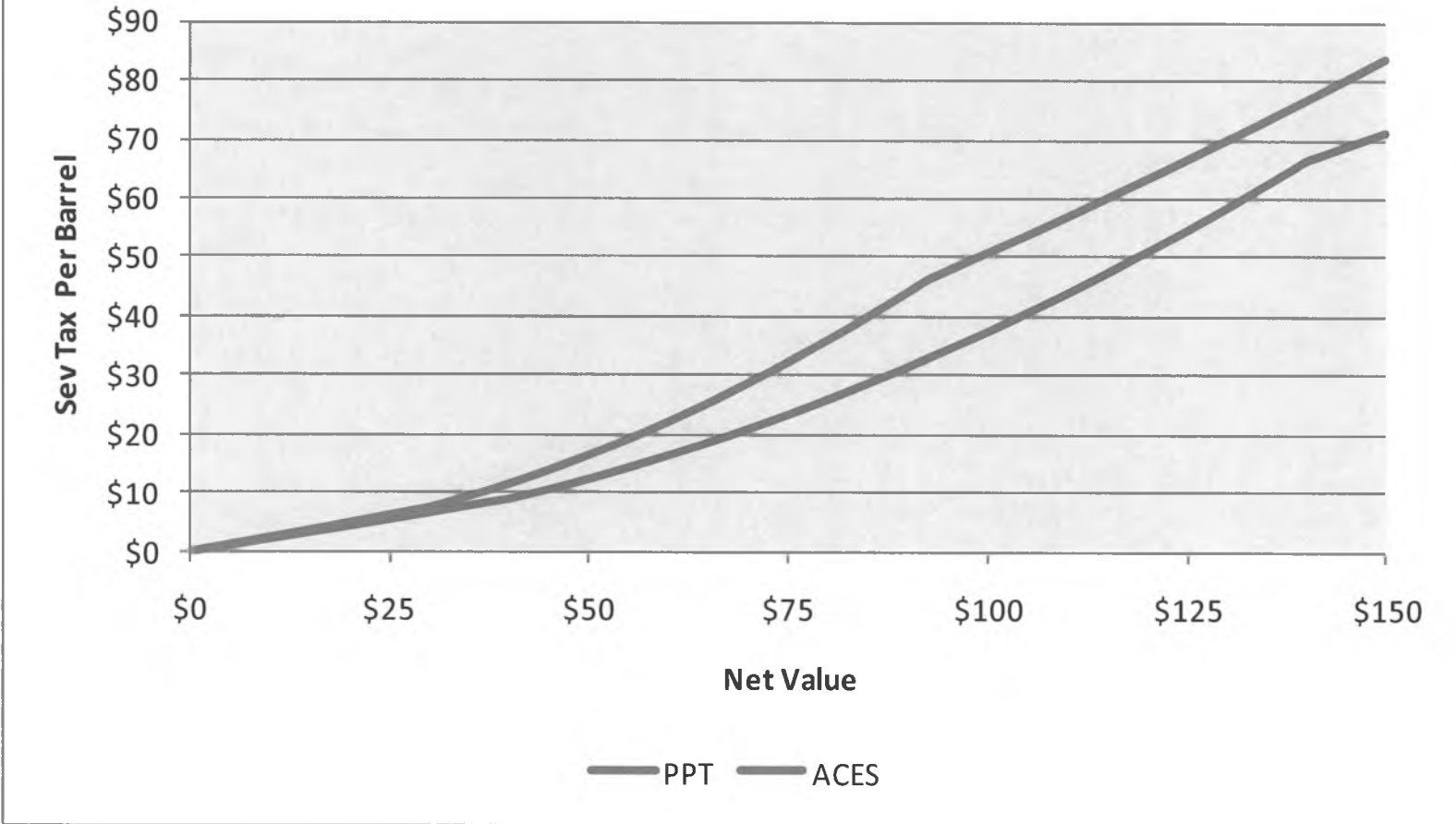
Alaska's Clear & Equitable Share ("ACES") 2007-Present

- Base rate of 25% of net value (after deducting all costs)
- Progressivity element when net value per barrel exceeds \$30/bbl:
 - $(\text{Net value per barrel value} - \$30) \times .004$
- So if oil price is \$90/bbl:
 - Net value per barrel is about \$61/bbl
 - $\text{Progressivity} = (\$61 - \$30) \times .004 = 12.4\%$
 - $\text{Total tax rate} = 25\% + 12.4\% = 37.4\%$
 - $\text{Tax is } 37.4\% \times \$61 = \$22.81/\text{bbl}$

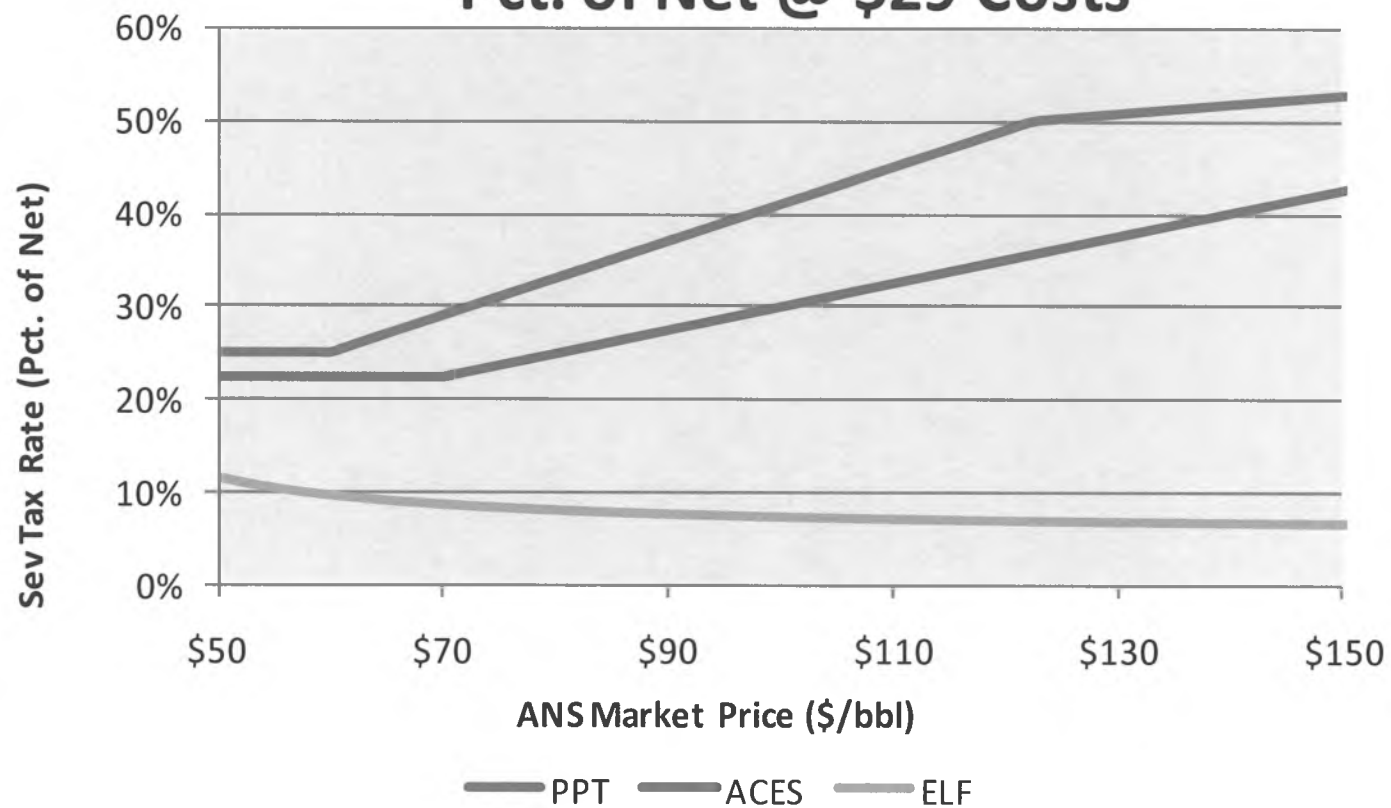
ACES & PPT Severance Tax Rate



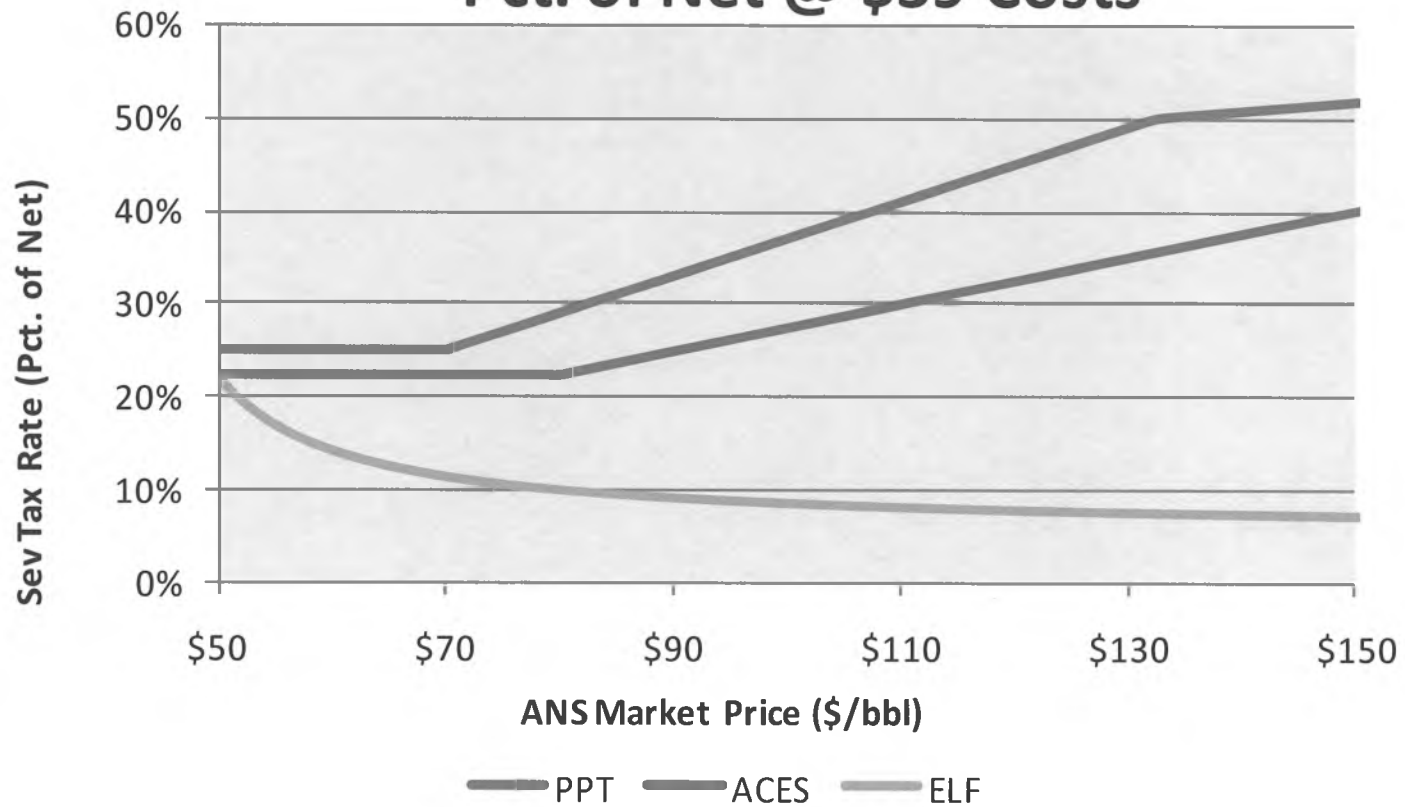
ACES & PPT Severance Tax Per Barrel



ELF, PPT, & ACES Severance Tax Rates Pct. of Net @ \$29 Costs



ELF, PPT, & ACES Severance Tax Rates Pct. of Net @ \$39 Costs



Credits Overview

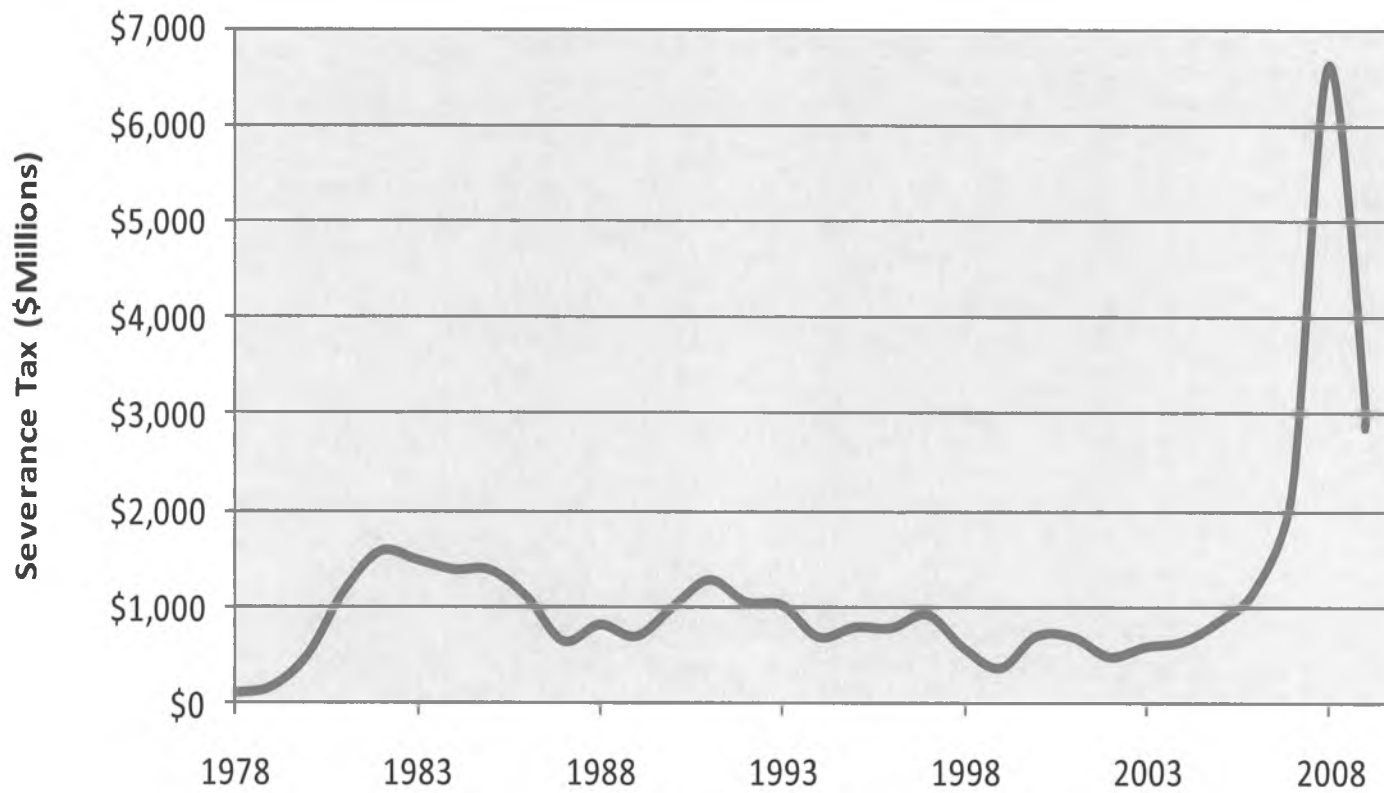
- Capital credit (20%)
- Well lease expenditure credit (excl. North Slope) (40%)
- Exploration credit (20% - 40% depending on location) (expire 2016)
- Small company credit (\$12 million if sufficient offsetting income) (exp. 2016)
- Explore Cook Inlet pre-Tertiary zone w/jack-up rig
 - First: 100% up to \$25.0 mm
 - Second: 90% up to \$22.5 mm
 - Third: 80% up to \$20.0 mm
 - 50% of credit reimbursed if commercial production
- Loss carry-forward credit of 25% of annual loss

Monetizing Credits

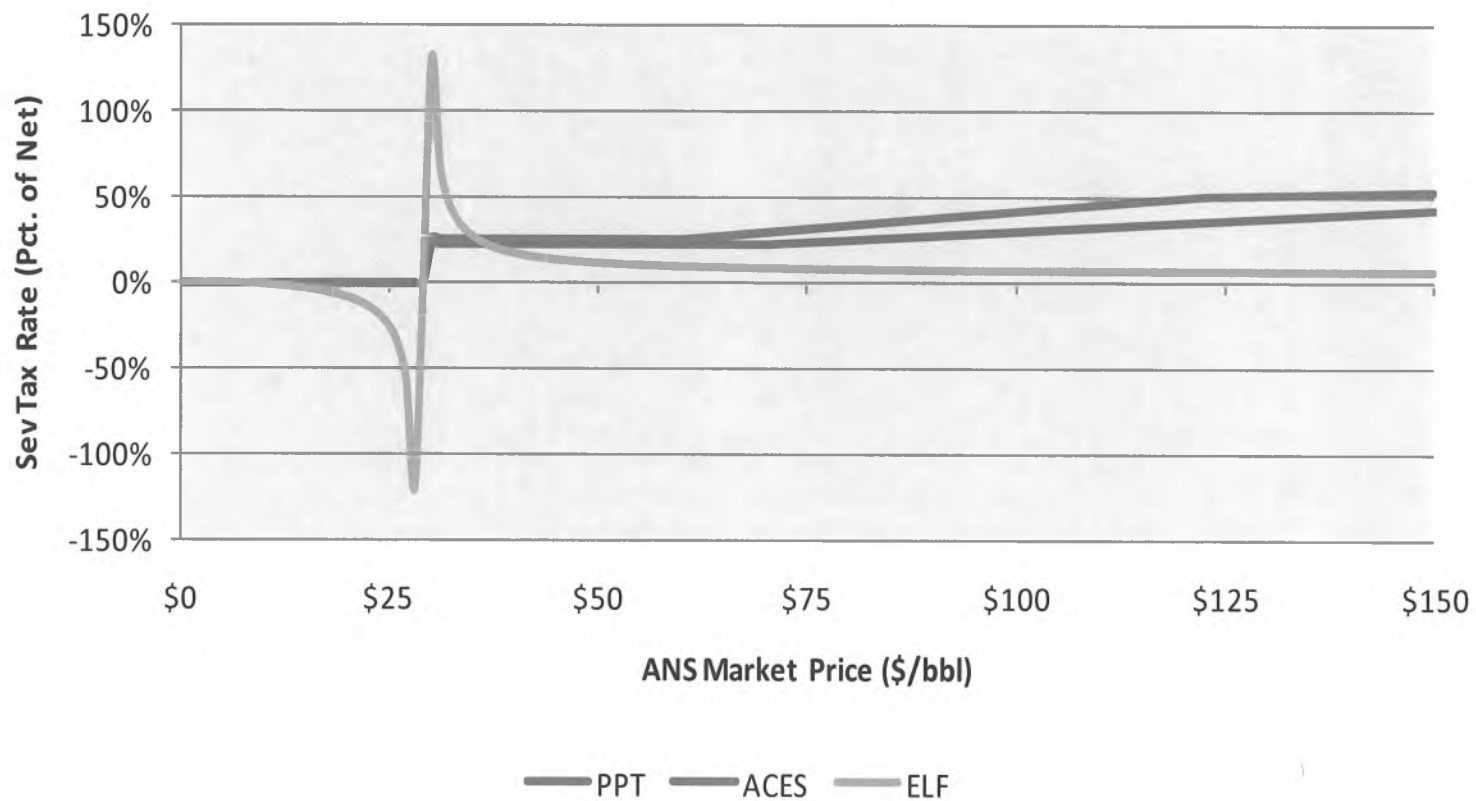
(If insufficient offsetting income)

- Can keep until sufficient offsetting income
- Can sell credits to other taxpayers
- State buy credits if produce under 50,000 bbls/day

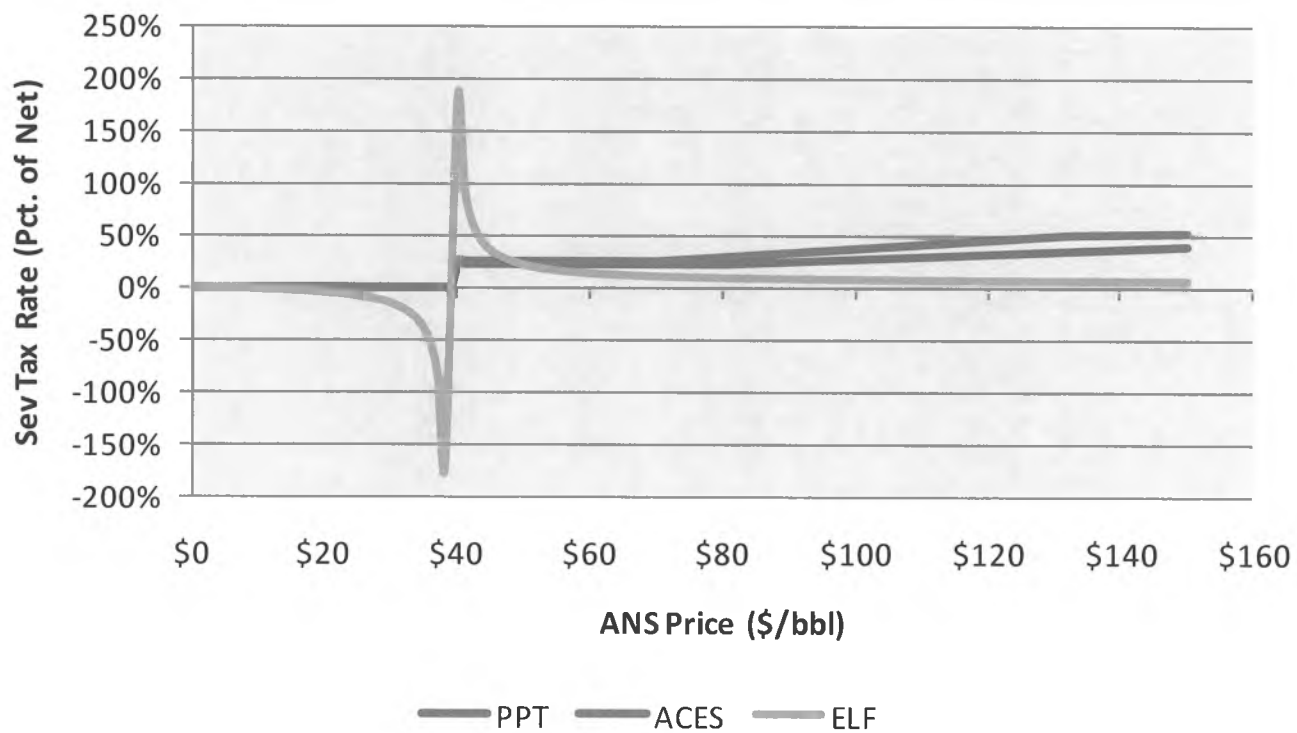
Severance Tax History (\$millions) (\$40 billion total)



ELF, PPT, & ACES Severance Tax Rates Pct. of Net @ \$29 Costs



ELF, PPT, & ACES Severance Tax Rates Pct. of Net @ \$39 Costs



ELF, PPT, & ACES Severance Tax Rates Pct. of Net @ \$39 Costs

