



Senate Resources Committee

21 February 2012

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Division of Oil and Gas

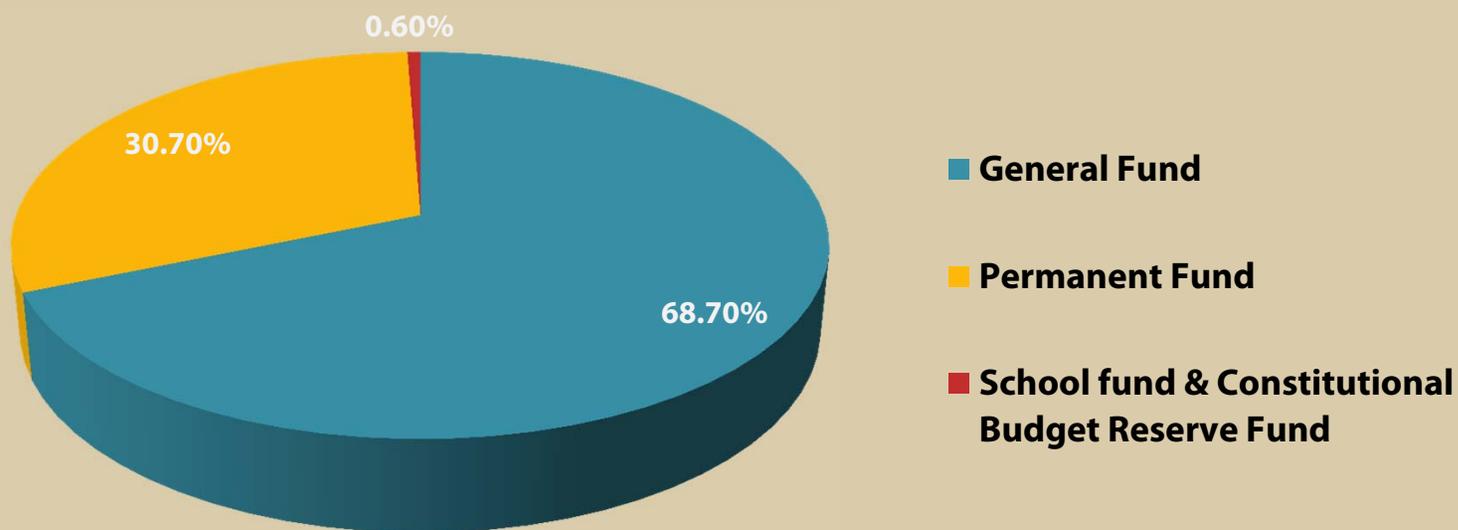




What is Royalty? How is it distributed?

ROYALTY: THE STATE'S SHARE of the product or profit reserved by the owner of land for permitting another to develop his land for oil or gas

FY 2012 (through January) Royalty Revenue Distribution





Unmodified Royalty Rates by Region

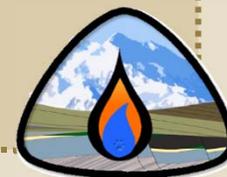
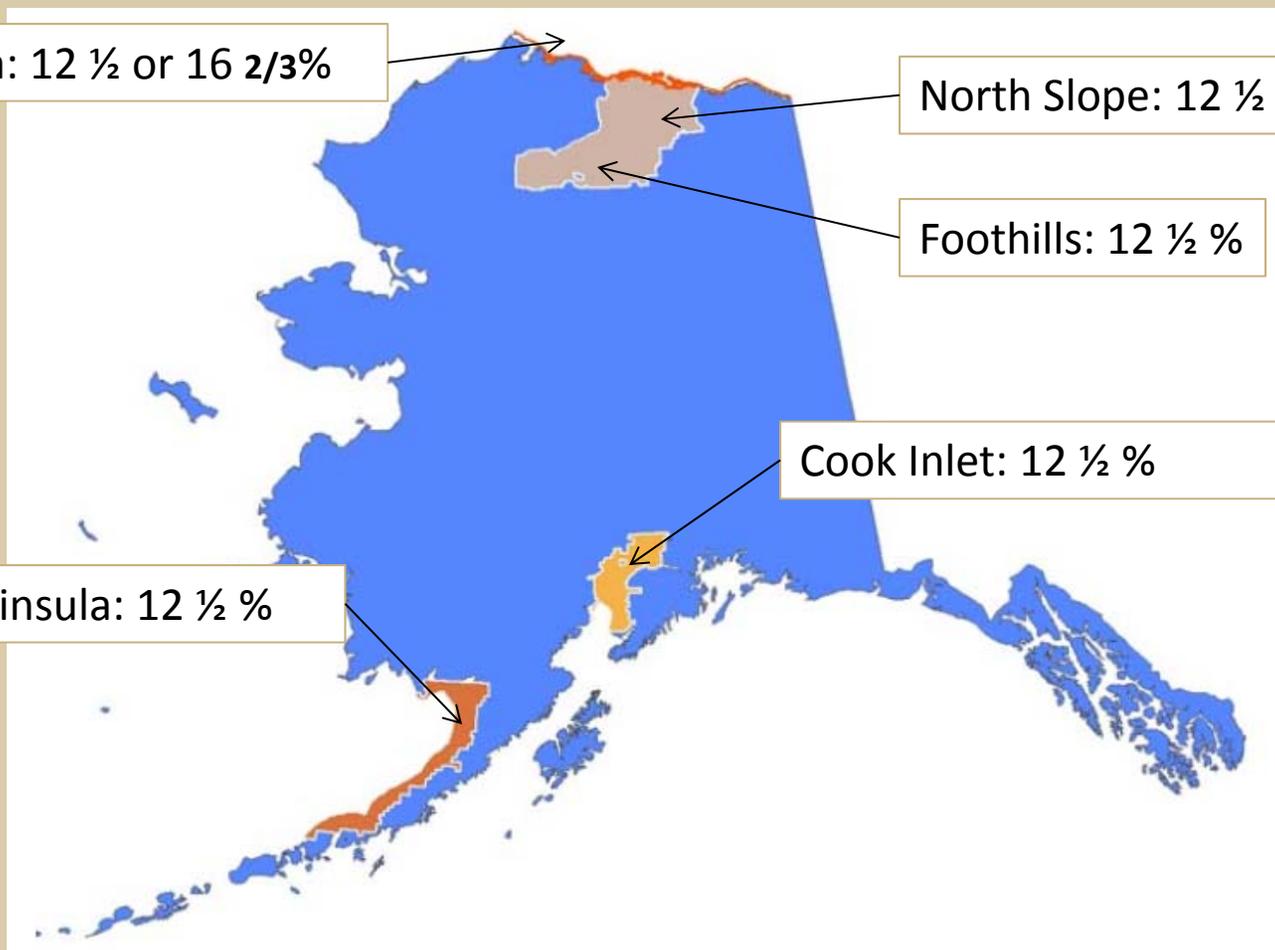
Beaufort Sea: 12 ½ or 16 2/3%

North Slope: 12 ½ or 16 2/3%

Foothills: 12 ½ %

Cook Inlet: 12 ½ %

Alaska Peninsula: 12 ½ %





History of Royalty Modification: Legislative Action

- Royalty modification statute is a long-standing statute
 - An exchange for pool or field development
 - Legislatively-created mechanism to increase field and pool production
- Recent amendments in 1995 (HB 207) & 2003 (HB 28)
 - 1995 amendment (House Bill 207):
 - Lowered state oil royalties to encourage production and raise them when economic conditions warranted it
 - Allows DNR to analyze three prongs of any decision about the economics of an oil field: 1) costs of development, 2) the volume of oil in the field, and 3) the price of oil in making royalty reduction.
 - Added “new fields and pools”
 - As the industry starts to go out into new frontiers, we are looking at developing smaller and smaller fields. (Commissioner Shivley)
 - 2003 amendments (House Bill 28):
 - Intended to modify the 1995 law
 - Spur development of uneconomical fields by setting forth a more understandable and workable modification process
 - Protecting the public's interest and maintain public's input
 - Push to get Liberty and Badami online





History of Royalty Modification: Circumstances Surrounding Amendments

- What was the product price at that time?
 - 1995 ~ \$15-18/barrel
 - 2003 ~ \$25-30/barrel
- What was going on in industry?
 - 1995:
 - Milne Point shut-in
 - Continued low oil prices
 - Only 1 new unit on North Slope since 1981 (North Star)
 - World-wide production declining due to industry consolidations and automobile efficiency and other Clean Air Act standards
 - 2003:
 - TAPS throughput dips below 1 million BOPD
 - Beginning of four year surge in North Slope unit approvals in 2001
 - Oil prices begin first climb since the 1980s moving above \$30/barrel
 - Virtually no use of royalty modification by industry in last 7 years





Royalty Modification

AS 38.05.180(j)

- Allows commissioner to modify royalty to allow for production from a field or pool under three conditions/scenarios:
 - Not in production
 - Field or pool must be sufficiently delineated
 - Field that would not otherwise be economically feasible
 - Royalty shall never be lower than 5%
 - Prolong economic life
 - As costs increase or price decreases... to make future production uneconomic
 - Royalty shall never be lower than 3%
 - Re-establish production
 - Royalty shall never be lower than 3%





Royalty Modification

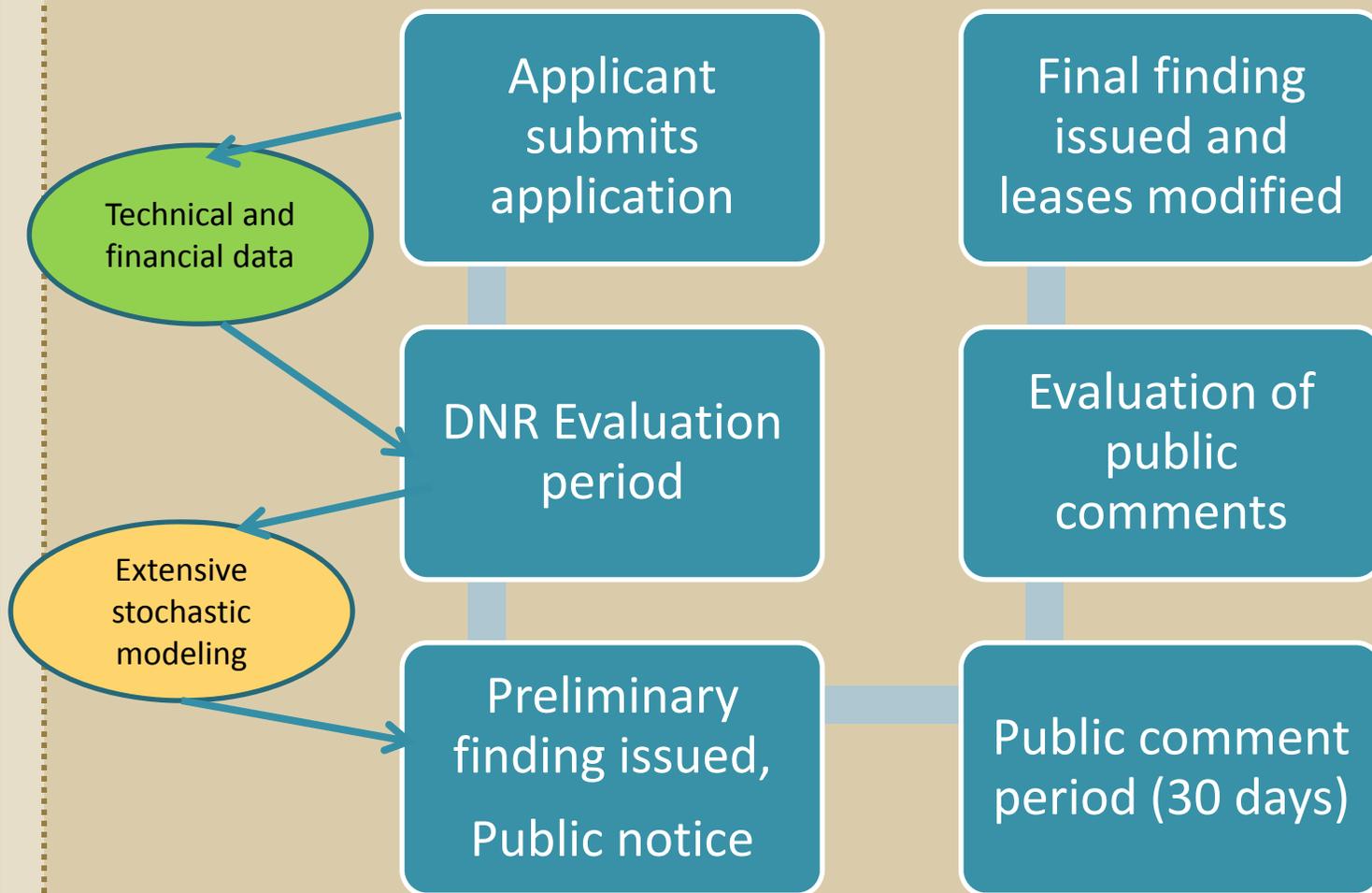
AS 38.05.180(j)

- Commissioner may not approve unless he determines that lessee makes a clear and convincing showing that relief is in the best interest of the state
 - Without royalty modification, oil or gas production from the field or pool would probably not proceed
 - Royalty modification is applied only to the point where investor is inclined to develop
- DNR may hire an independent contractor at the applicant's expense, for up to \$150,000 per application
 - Selected by lessee from contractor list provided by DNR
- Relief mechanism must adjust percentage based on a change in the price of oil or gas and may also be based on other relevant factors such as a change in production rate, projected ultimate recovery, development costs, and operating costs. [AS 38.05.180\(j\)\(1\)\(A\)\(3\)](#)





Application Review Process Map





Decision Parameters

Royalty modification is provided if it can be demonstrated that the project is uneconomic without royalty relief.

Calculations:

Use Expected Monetary Value (EMV) to determine project economics

Key Parameters :

- Price of oil
- Potential reserves and production rates
- Capital Expenditures (CAPEX)
- Operating Expenditures (OPEX)

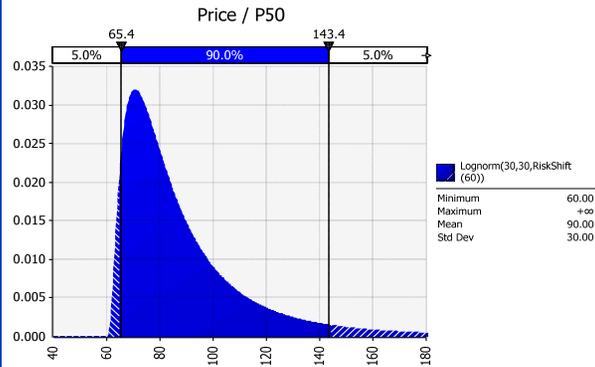
There is uncertainty associated with key parameters



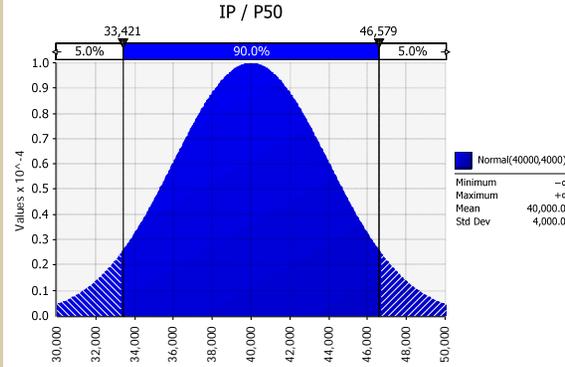
Modeling Uncertainty - Stylized Example

Input Distributions

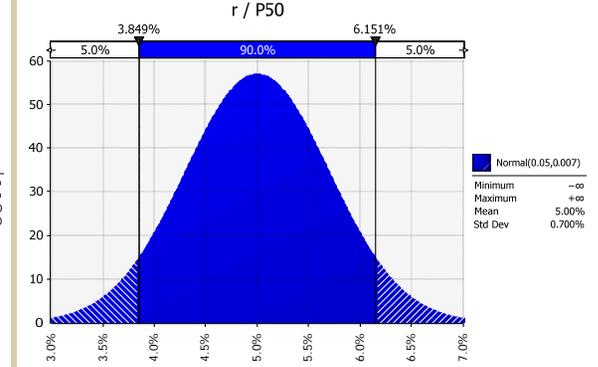
Price (\$/bbl)



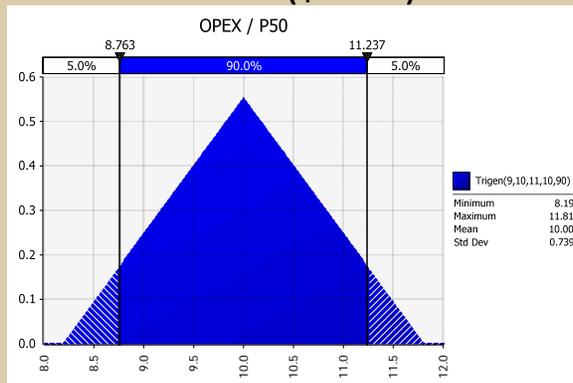
Initial Production (BOPD)



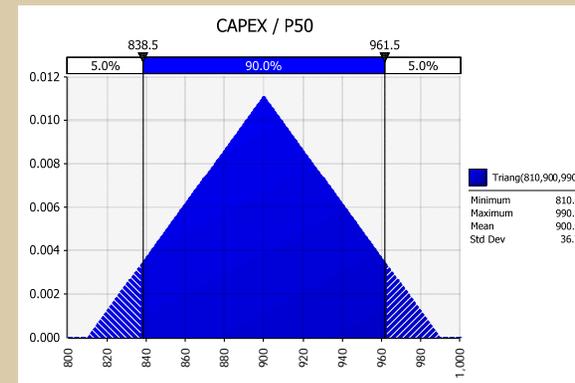
Production Decline (%)



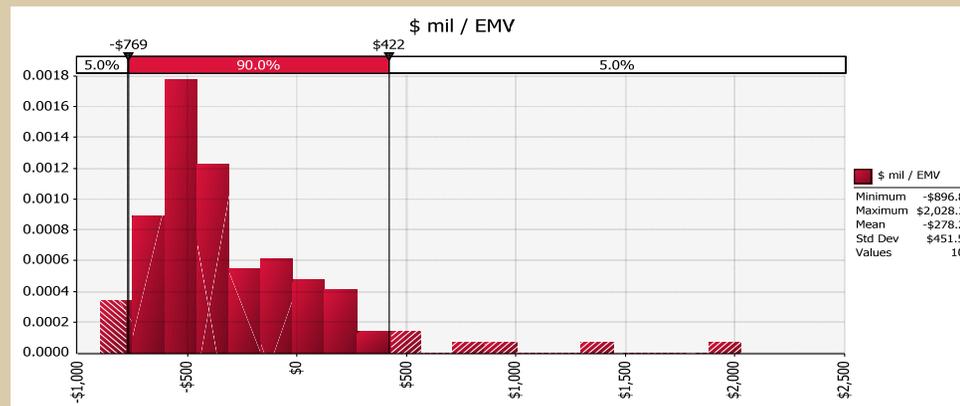
OPEX (\$MM)



CAPEX (\$MM)



EMV (\$MM)



Output Distribution



Royalty Modification Applications

- February 1995 BP application for Milne Point
 - Application explicitly made only to comply with BP's contract with OXY
- 1997 Unocal application for 10 platforms in Cook Inlet
 - Unocal did not continue to pursue application
- 1999 Phillips application for Tyonek Deep in Cook Inlet
 - Phillips withdrew the application





Royalty Modification Applications

- 2005 Pioneer Natural Resources application for leases in and near the Oooguruk Unit
 - Approval effective February 2, 2006
 - Royalty is reduced from 12.5% or 16.66667% to 5% on all production from the delineated reservoirs from the subject leases until NPSL payout.
 - Beginning on NPSL payout, royalty rates step-up to original royalty rates in four annual steps.
- 2006 Kerr-McGee application for leases in the Nikaitchuq and Tuvaag units
 - Denied October 31, 2006
- 2007 Chevron application for leases in the Ivan River and Stump Lake units
 - Chevron withdrew the application





Royalty Modification Applications

- 2007 ENI application for leases in the Nikaitchuq Unit
 - Approval effective January 30, 2008
 - Royalty modification can be triggered by either of two mechanisms.
 - Low price trigger: for 25 years after first commercial production, if ANS WC inflation adjusted price falls below \$42.64, royalty is modified to 5% on production from all subject leases from the reservoirs delineated in the application.
 - Low production trigger: between 18 months and 120 months after first commercial production, if production from all subject leases averages below 4,000 BOPD, royalty is modified to 5% no matter what oil prices are.





Summary

- Royalty modification is given in exchange for pool or field development
- Application must be for a pool/field – not projects
- Allows for production in new, shut-in, and existing fields/pools demonstrated to be economically unfeasible without royalty relief
- DNR uses Expected Monetary Value (EMV) to determine project economics
- Only 2 royalty modifications granted (Oooguruk and Nikaitchuq Units) 6 applications since 1996.
- Nikaitchuq royalty relief has never been realized – essentially serves as oil price insurance

