Presentation to the
House Resources Committee
February 7, 2011
Alaska Department of Revenue
Outline for Presentation

- Goals of HB 110
- Why should we change Alaska’s oil tax regime?
- Components of HB 110
- How do Alaska’s oil taxes work?
Goals of HB 110

• Address Progressivity
• Promote Infield Drilling
• Promote Development of New Fields
Why should we change Alaska’s oil tax regime?

• To be more competitive
• To create more jobs for Alaskans
• To increase production
Production is Declining

Annual North Slope Production and Contribution of Fields

Source: Fall 2010 Revenue Sources Book
Investment needed in new & old fields alike

Source: Fall 2010 Revenue Sources Book
Exploration is Declining

Source: Alaska Oil & Gas Conservation Commission and Alaska Department of Natural Resources
Drilling has stagnated

Source: Alaska Oil & Gas Conservation Commission
Frasier: Alaska is #68 of 133 in terms of overall attractiveness.

Frasier All-Inclusive Composite Index for 133 jurisdictions

Most Attractive:
1. South Dakota
2. Texas
3. Illinois
4. Wyoming
5. Austria

Least Attractive:
133. Bolivia
132. Venezuela
131. Russia
130. Ukraine
129. Iran

Source: Frasier Institute 2010 Global Petroleum Survey
Frasier: Alaska’s investment climate is “in the middle” globally

Source: Frasier Institute 2010 Global Petroleum Survey
Frasier: Alaska is #31 of 38 in North American attractiveness

Source: Frasier Institute 2010 Global Petroleum Survey, as compiled by DOR
Frasier: Many North American jurisdictions rank ahead of Alaska

Source: Frasier Institute 2010 Global Petroleum Survey
How Alaska is Rated for Specific Investment Factors

Alaska’s strengths:
- Geopolitical risk
- Trade barriers
- Labor regulations & employment agreements
- Geological database
- Security
- Legal system process

Middle of the Pack:
- Overall attractiveness
- Commercial environment
- Regulatory climate
- Fiscal Terms (overall)
- Administration & enforcement of regulations
- Socio-economic agreements
- Quality of infrastructure
- Labor availability
- Political stability
- Regulatory duplication

Alaska’s weaknesses:
- Environmental regulations
- Cost of regulatory compliance
- Uncertainty concerning protected areas
- Disputed land claims
- Tax Regime

Source: Frasier Institute 2010 Global Petroleum Survey as interpreted by DOR

We can do something about this!
44% of respondents say Alaska tax regime deters investment.

Frasier Tax Regime Attractiveness for 133 jurisdictions

**Least Attractive:**
1. Venezuela
2. Bolivia
3. Iran
4. Ecuador
5. Russia

**Most Attractive:**
1. Illinois
2. Chile
3. Utah
4. Northern Territory
5. Uruguay

Source: Frasier Institute 2010 Global Petroleum Survey
Alaska is ranked #34 of 38 in North America for tax system

Source: Frasier Institute 2010 Global Petroleum Survey, as compiled by DOR
Wood Mackenzie: Alaska’s fiscal terms rank #129 of 141

Areas of North Slope are Underdeveloped

North Slope Borough
Planning to drill exploration and development wells in their East Barrow, South Barrow, and Kalskag gas fields during 2011-2012.

State
Granted permits to conduct a seismic survey in the Chukchi Sea.

ConocoPhillips
Focusing 2010-2011 drilling on CD 1 & CD 2 opportunities because of U.S. Corps of Engineers CD 5 permit denial. Olvia has reevaluated lease issues for reconsideration.

Pioneer Natural Resources
Development drilling continues at Ooooguruk Unit. Producing oil from Oooguruk and Kuparuk PAs; applied for Tokok PA.

ENI
Nikitshug Unit first oil from Schweder Bluff GA sands January 2011.

BP
Plan to put 3 Ugnu Pm wells on production in 1st quarter 2011 at Mine Point Unit, using CHOPS technology (cold heavy oil production with sand).

Shell
Granted permits to conduct shallow marine hazard and ice-sonar surveys and biological studies in the Chukchi and Beaufort Sea. Applied for drilling permit for single well at Suvlkiq prospect in 2010.

Exxon

BLM
May designate wild lands within NFR-A as part of its Integrated Activity Plan for the area. Currently the area surrounding Lake 3 is excluded from potential lease sales due to habitat concerns for migratory birds and caribou.

Great Bear Petroleum, LLC
High bidder on 15 mostly contiguous leases south of the Prudhoe Bay and Kuparuk River fields in the State's October 2010 North Slope area-wide lease sale, acquiring the maximum allowable onshore state land position (600,000 non-unified acres). The company targets oil production from Alaskan source-rock resource plays using advanced horizontal drilling and producing technology.

Anadarko/Suncor
Chandler 1 well suspended for further testing.

Roads to Resources Program
Dept. of Transportation evaluating routes for a road connecting the Dalton Highway with Unistat DNIN to study surface and subsurface geology to identify exploration and potential geologic hazards.

Arctic National Wildlife Refuge

National Petroleum Reserve - Alaska
There’s lots of oil left in Alaska...

• Cumulative production through 2010 has been over 16 billion barrels
• Remaining North Slope reserves exceed 5 billion barrels
• Geology-based estimates of total oil volumes are much higher. For instance, we do not include any of the approximately 20 billion barrels in the giant Ugnu deposit, or offshore volumes from the Chukchi or Beaufort Seas, in our forecast
How do Alaska’s oil taxes work?
ACES Overview

• ACES Overview
  – Tax Structure
  – Incentivizing New Investment
ACES Overview

• **Production Tax Value (PTV)** is the market price less transportation costs and allowable lease expenditures

  • **Base tax rate** of 25% on PTV
  • **Progressive Surcharge Rate**
  • **Credits**
ACES Overview

How the Tax is Calculated

Production Tax Value (PTV) \times \text{Base Tax Rate} = \text{Base Tax}

\text{PTV} \times \text{Progressive Surcharge Rate} = \text{Progressive Surcharge}

\text{Pre-Credit Tax Bill} = \text{Total Taxes Before Credits}

\text{Credits} = \text{Credits Applied Against Taxes}

\text{Final Tax Bill} = \text{Total Production Taxes Owed}
### FY 12 Production Tax Projected

<table>
<thead>
<tr>
<th><strong>Avg ANS Oil Price ($/bbl) &amp; Daily Production (bbls)</strong></th>
<th><strong>Per Barrel</strong></th>
<th><strong>Barrels</strong></th>
<th><strong>Value ($ million)</strong></th>
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<tbody>
<tr>
<td></td>
<td>$82.67</td>
<td>622,182</td>
<td>$51.4 / day</td>
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<table>
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<tr>
<th><strong>Annual Production (bbl)</strong></th>
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<tr>
<td><strong>Total Annual Production/Value</strong></td>
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<tr>
<td>Royalty and Federal barrels</td>
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<tr>
<td><strong>Taxable barrels</strong></td>
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<tr>
<th><strong>Downstream (Transportation) Costs ($/bbl)</strong></th>
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<tr>
<td>ANS Marine Transportation</td>
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<tr>
<td>TAPS Tariff</td>
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<tr>
<td>Other</td>
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<tr>
<td><strong>Total Transportation Costs</strong></td>
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<tr>
<th><strong>Lease Expenditures</strong></th>
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<tr>
<td>Deductible Operating Expenditures</td>
</tr>
<tr>
<td>Deductible Capital Expenditures</td>
</tr>
<tr>
<td><strong>Total Lease Expenditures</strong></td>
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| **Production Tax Value (PTV)** | $50.28 | 192,426,540 | $9,675.9 |

<table>
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<th><strong>Production Tax</strong></th>
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<tr>
<td>Base Tax (25%*PTV)</td>
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<tr>
<td>Progressive Tax Rate = ($50.28-$30) * 0.4% = 8.1%</td>
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<tr>
<td>Progressive Tax</td>
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| **Total Tax Due before credits** | $3,204.0 |

| **Credits Applied Against Taxes** | ($450.0) |

| **Total Tax after credits**       | $2,754.0 |

Source: Department of Revenue Fall 2010 Revenue Sources Book, Appendix D

This simple model assumes constant production, price, and expenditures for the entire year; results will differ from our larger model and forecast. The per-barrel expenditures shown are per taxable barrel and do not reflect expenditures per all barrels produced.
ACES Overview (cont)

**TAX CREDITS**

- **Qualified Capital Expenditure Credit** – 20% credit for qualified capital expenditures (40% for well lease expenditures outside North Slope).
- **Carried-Forward Annual Loss Credit** – 25% credit for carried-forward annual loss.
- **Small Producer / New Area Development Credit** – Up to $12 million / year for small producers and up to $6 million / year for production outside North Slope and Cook Inlet.
- **Alternative Credit for Exploration** – 30% or 40% of eligible exploration expenditures if certain criteria are met.
- **Cook Inlet Jack-Up Rig Credit** – 80% to 100% credit for first three exploration wells drilled using jack-up rig in Cook Inlet.

Source: Alaska Department of Revenue. Chapter 3 of the Fall 2010 Revenue Sources Book provides detailed information on credits.
Example 1: New Entrant

- A new entrant with no current production pursues an exploration project requiring $200 million in investment
- Company receives a 20% - 40% investment credit (depending on location), worth $40 - $80 million
- Company also receives an additional 25% credit for its “tax loss”, worth up to $50 million
Example 1: New Entrant (cont.)

• The total credits of $90 - $130 million, can be:
  – Directly recouped (cash) from the state
  – Transferred to a person that does pays tax, so that the Transferee pays $90 - $130 million less in tax

• Either way, State pays $90 - $130 million for the exploration; company pays $70 - $110 million.

• If the exploration effort fails, the state never recoups this money.

The state bears the risk for failure as does the new entrant
Example 2: Incumbent Producer

- Incumbent with current production pursues a development requiring $200 million investment
- Company receives a 20% capital investment credit, worth $40 million
- By reducing their PTV, the company reduces their taxes due by the total capital expense multiplied by the tax rate:
  - $200 million x 25%, worth $50 million; plus
  - $200 million x progressivity surcharge rate (which is reduced due to the drop in PTV)
Example 2: Incumbent Producer (cont.)

• Deductions and credits total more than 45% of the $200 million, greater than $90 million

• State pays more than $90 million of the new development’s capital cost; true investment cost for the incumbent is less than $110 million

• If the development fails, the state never recoups this money

*The state bears the risk for failure as does the incumbent investor*
Key Points

• For credits, the state can cut a check (new entrant) or reduce tax revenue (incumbent)

• In both cases the state is an investor: real money leaves the treasury, **sharing the risk borne by the active investor**

• ACES aims to incentivize investment **because state bears risk and reduces explorers/producers costs**

• **Tax credits, along with the net-based structure, make the state a large investor in exploration and new development activities**
Components of HB 110

- Progressivity Rates
- Tax Cap
- Tax Calculation
- Tax Credits
- Base Tax Rate
### Main proposed changes

<table>
<thead>
<tr>
<th>Progressivity Rates</th>
<th>Progressivity defined as discrete brackets, rather than as a continuous function, and applied only to incremental revenue.</th>
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<tbody>
<tr>
<td>Tax Cap</td>
<td>Production tax highest bracket limited to 50% for legacy fields and 40% for new fields.</td>
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<tr>
<td>Tax Calculation</td>
<td>Yearly tax calculation based on average prices and costs, instead of monthly tax calculation impacted by short term price and cost peaks.</td>
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<tr>
<td>Tax Credits</td>
<td>Tax credits can be claimed in a single year instead of two years. Extension of 40% well lease expenditure tax credits to the North Slope.</td>
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<tr>
<td>Base Tax Rate</td>
<td>Base tax rate reduction from 25% to 15% for oil and gas coming from leases or properties neither unitized nor producing as of 12/31/2010.</td>
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- **2012** Effective 1/1/2012 for expenditures made before 12/31/2011.
- **2013** Effective 1/1/2013, applies to production after 13/31/2012.
Tax Rates, Current and Proposed

• Effective Tax Rate
• Nominal Tax Rate
• Marginal Tax Rate
Nominal Tax Rates
Current law and HB 110

Nominal Tax Rates

Production Tax Value ($/bbl)

ACES - Nominal tax rate
Governor's Bill: Current Fields - Nominal tax rate
Governor's Bill: New Fields - Nominal tax rate
Marginal Tax Rates
Current law and HB 110

Marginal Tax Rate

- ACES - Marginal rate for an incr. $1 of PTV
- Governor's Bill: Current Fields - Marginal tax rate
- Governor's Bill: New Fields - Marginal tax rate

Production Tax Value ($/bbl)
Effective Tax Rates on Gross Current law and HB 110

Effective Tax Rate based on Gross Value (After Credits)

- ACES - Effective tax rate
- Governor's Bill: Current Fields - Effective tax rate
- Governor's Bill: New Fields - Effective tax rate

Transport Costs: $6/bbl
Upstream Cost: $20/bbl

ANS West Coast $ per barrel

$40 $60 $80 $100 $120 $140 $160 $180

0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50%

-5%
Proposed Credits under HB 110

• Well Lease Expenditure Credit
  o Credit of 40% for capital expenditures directly related to an exploration well, a stratigraphic test well, a producing well, or an injection well
  o Intangible drilling and development costs
  o Expands existing credit from areas other than North Slope to include North Slope