Alaska Mortgage Bankers Association
Kara Moriarty, President/CEO
March 15, 2017
AOGA Members

- GLACIER
- Hilcorp
- Caelus Energy Alaska
- BlueCrest Energy
- Petro Star Inc.
- Chevron
- Tesoro
- ExxonMobil
- FURIE Operating Alaska LLC
- Shell
- Alyeska Pipeline Service Company

OIL & GAS: Fueling Alaska's Economy
Why is Oil & Gas Important?
Oil & Gas Drives Alaska’s Economy

• 1/3 all Alaska jobs (110,000 jobs) attributed to industry

• Every direct job = 20 more jobs

• Every dollar in wage = $8 more

• 85% of State’s Unrestricted General Fund since statehood

• No other industry even comes close
North Slope Production Increased for the first time since 2002

#MoreIsBetter4AK

OIL PRODUCTION UP BY 3%

Source: DOR FALL 2016 RSB
Improved North Slope Production - Even as prices declined

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall 2013 Forecast</th>
<th>Fall 2016 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>487.6</td>
<td>514.9</td>
</tr>
<tr>
<td>2017</td>
<td>482.7</td>
<td>490.3</td>
</tr>
<tr>
<td>2018</td>
<td>459.5</td>
<td>455.6</td>
</tr>
<tr>
<td>2019</td>
<td>429.1</td>
<td>442.1</td>
</tr>
<tr>
<td>2020</td>
<td>399.6</td>
<td>428.6</td>
</tr>
<tr>
<td>2021</td>
<td>368.8</td>
<td>413.5</td>
</tr>
<tr>
<td>2022</td>
<td>340.1</td>
<td>398.2</td>
</tr>
<tr>
<td>2023</td>
<td></td>
<td>380.4</td>
</tr>
<tr>
<td>2024</td>
<td></td>
<td>363.4</td>
</tr>
<tr>
<td>2025</td>
<td></td>
<td>345.9</td>
</tr>
</tbody>
</table>

Average ANS Price – FY 13: $107.33

Average ANS Price – FY 16: $43.34

Source: DOR Fall Sources Book – 2013 & 2016
SB 21 generates more revenue to the state at low prices

Jan. 26, 2015: DOR Commissioner Randy Hoffbeck:

SB 21 brings in “substantially more” revenue to the State at low prices than ACES

(Senate Finance testimony)
Policy Matters in Cook Inlet
Oil production up 84%

Source: DOR Fall Sources Book – 2013 & 2016
Case Study: The Monopod

2012 royalties paid: $90,000/month
2016 royalties paid: $500,000/month
Why? Incentives = more production
Policy Matters – Environmental Concerns
Current Environmental/Regulatory Issues

• Access & Regulations
• Hydraulic Fracturing
• OCS 5-year leasing plan
• Compensatory mitigation
• ESA listing petitions and regulations
• Bearded Seal Listing
• Chukchi Sea ITR Lawsuit
• Polar Bear Critical Habitat
## Large Project Major Authorizations

**Multiple Permitting/Approval Processes Run in Parallel**

<table>
<thead>
<tr>
<th>EIS</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice of Intent</td>
<td>USACE - Wetlands</td>
<td>DEC Integrated Waste Management</td>
<td>Borough Plan</td>
</tr>
<tr>
<td></td>
<td>BLM ROW</td>
<td>DNR Plan of Development</td>
<td>City Plan</td>
</tr>
<tr>
<td></td>
<td>E.O. 13175</td>
<td>DNR/DEC Financial Assurance</td>
<td>Building Permit</td>
</tr>
<tr>
<td></td>
<td>Tribal Consultation</td>
<td>ADEC Air Quality Permit</td>
<td>Tribal Village Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ADEC Alaska Pollution Discharge Elimination (APDES) Permit</td>
<td></td>
</tr>
<tr>
<td>Draft EIS</td>
<td>USFWS/NMFS Endangered Species Act</td>
<td>NMFS EFH Assessment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consultation</td>
<td></td>
<td></td>
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<tr>
<td>Final EIS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Record of Decision</td>
<td></td>
<td>Local</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Major Federal Authorizations &amp; Approvals</td>
<td>Consistency &amp; Approvals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Major State Authorizations &amp; Approvals</td>
<td></td>
</tr>
</tbody>
</table>
Alaska is a high cost environment

Average ANS Price – Jan 2016 – Dec 2016 $43.17

- Transportation Costs ($9.88)
- Total Operating Expenditures ($15.78)
- Total Capital Expenditures ($18.02)

Total Average Cost Per Barrel Before Tax & Royalty ($43.68)

Source: DOR Fall 2016 Forecast & DOR Historical ANS Prices
Costs per barrel in other regimes

Source: PFC Energy, Jan 2013, Presentation to Alaska Legislature
# Mega Resource Potential

<table>
<thead>
<tr>
<th>State Land</th>
<th>Federal Land</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cook Inlet</strong></td>
<td><strong>Offshore Arctic</strong></td>
</tr>
<tr>
<td>599 mbo and 19 tcf gas</td>
<td>27 bbo and 132 tcf gas</td>
</tr>
<tr>
<td><strong>Onshore North Slope</strong></td>
<td></td>
</tr>
<tr>
<td>Conventional:</td>
<td>NPR-A</td>
</tr>
<tr>
<td>5 bbo and 35 tcf gas</td>
<td>896 mbo and 53 tcf gas</td>
</tr>
<tr>
<td>Heavy/Viscous:</td>
<td></td>
</tr>
<tr>
<td>24-33 bbo</td>
<td>ANWR</td>
</tr>
<tr>
<td>Unconventional:</td>
<td>10 bbo and 3.5 tcf gas</td>
</tr>
<tr>
<td>2 bbo and 12 tcf gas</td>
<td></td>
</tr>
</tbody>
</table>

mbo - million barrels of oil  bbo - billion barrels of oil  tcf - trillion cubic feet

Source: USGS
New Projects, Major New Discoveries

“Hilcorp delivers new rig to North Slope Moose Pad expansion”
Alaska Dispatch News, October 13, 2016

“Greater Prudhoe Bay area production had less than a 1% decline in 2016”
Platts, December 2016

“Caelus aims to unlock vast Torok oil resource”

“ ‘Surprising’ Alaska oil-lease sale draws big bids”

“ConocoPhillips orders monster rig to set new drilling standard and tap new field in Alaska”
Alaska Dispatch News, October 6, 2016

“Ahtna completes exploration well near Glennallen, plans tests for potential gas”

“Caelus claims Arctic oil discovery that could rank among Alaska’s biggest ever”
Alaska Dispatch News, October 4, 2016

“Hilcorp files new development plan for Liberty prospect”

“Development Of Huge North Slope Alaska Oil Discovery Moving Forward (Armstrong’s Pika Unit)”
Fairfield Times, March 1, 2016

“ConocoPhillips announces Alaska discovery with daily production potential of 100,000 barrels”
Alaska Dispatch News, January 13, 2017
Major Alaska Discovery Recently Made

ALASKA’S NORTH SLOPE OIL FIELDS - ESTIMATED ULTIMATE RECOVERY

Data based on the “Historical Resource and Recovery Growth in Developed Fields on the Arctic Slope of Alaska” – Alaska DNR Division of Oil & Gas, 2004

- Prudhoe Bay: 13.875 Billion
- Smith Bay: 2.4 Billion
- Kuparuk River: 2.881 Billion
- Endicott: 572 Million
- Nuna: 100 Million
- Ooguruk: 115 Million
- Alpine: 465 Million
- Lisburne: 192 Million

CAELUS Energy Alaska
Caelus Projects: Lasting Economic Impacts for Alaska

Caelus projects could help produce a new age of renewed North Slope activity and production for the benefit of all Alaskans

MORE oil into TAPS

+2 Billion Barrels

MORE Jobs for Alaskans

+2100 Jobs

MORE $s for all Alaska

+$34 Billion

Source: Caelus Energy Presentation to Legislature, 2/1/17
Alaska Needs Investment for Future

Without new investment the main source of Alaska’s revenue will continue to decline and risk complete shutdown of the Trans-Alaskan Pipeline in less than 15 years.

Source: EIA Estimates from Annual Energy Outlook 2016

Source: Caelus Energy Presentation to Legislature, 2/1/17
Alaska has potential for very bright future

With new capital investment the oil industry will find new oil and increase production which will ensure Alaskans maintain a very bright future.

Alaska Oil Production 2000 - 2040

Sources: EIA Estimates from Annual Energy Outlook 2016
Estimates for Other New Projects from publicly available data and press releases

Source: Caelus Energy Presentation to Legislature, 2/1/17
Would you invest in Alaska if tax policy changed 7 times in 12 years?

<table>
<thead>
<tr>
<th>Dates</th>
<th>Tax Policy Change</th>
<th>Increase / Decrease?</th>
<th>AOGA Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 2005- March 2006</td>
<td>Aggregated ELF – Administrative decision altering gross production tax</td>
<td>Tax Increase</td>
<td>Opposed</td>
</tr>
<tr>
<td>April 2006- July 2007</td>
<td>Petroleum Production Tax (PPT)</td>
<td>Tax Increase</td>
<td>Opposed Final Version</td>
</tr>
<tr>
<td>July 2007- 2013</td>
<td>Alaska’s Clear and Equitable Share (ACES) *</td>
<td>Tax Increase</td>
<td>Opposed</td>
</tr>
<tr>
<td>2010</td>
<td>Cook Inlet Recovery Act</td>
<td>Incentives for Industry</td>
<td>Supported</td>
</tr>
<tr>
<td>2014</td>
<td>SB 21</td>
<td>Both</td>
<td>Supported, with concerns</td>
</tr>
<tr>
<td>2016</td>
<td>HB 247 – Gov. Walker’s oil tax reform</td>
<td>Tax Increase</td>
<td>Opposed</td>
</tr>
<tr>
<td>2017</td>
<td>Proposed HB 111 – House Resources</td>
<td>Tax Increase</td>
<td>Opposed</td>
</tr>
</tbody>
</table>

* Some provisions of ACES made retroactive to enactment of PPT, others to 1/1/2007

**Few other regions consider oil/gas changes more than Alaska.**
HELP!
I'VE
FALLEN
AND I
CAN'T
GET UP

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AOGA