Arresting TAPS Throughput Decline & Oil Tax Reform

Senate Finance

February 28, 2013

Juneau, Alaska

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Alaska Department of Natural Resources

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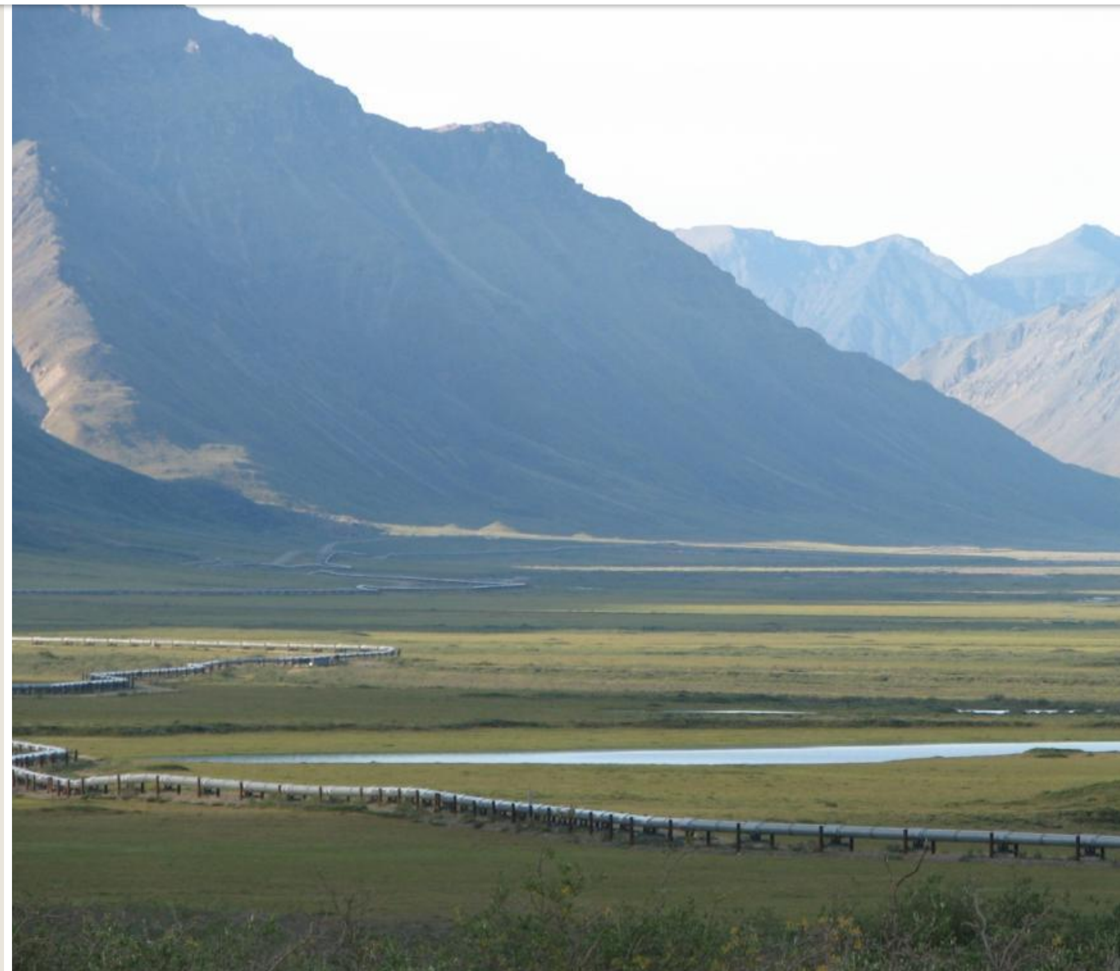
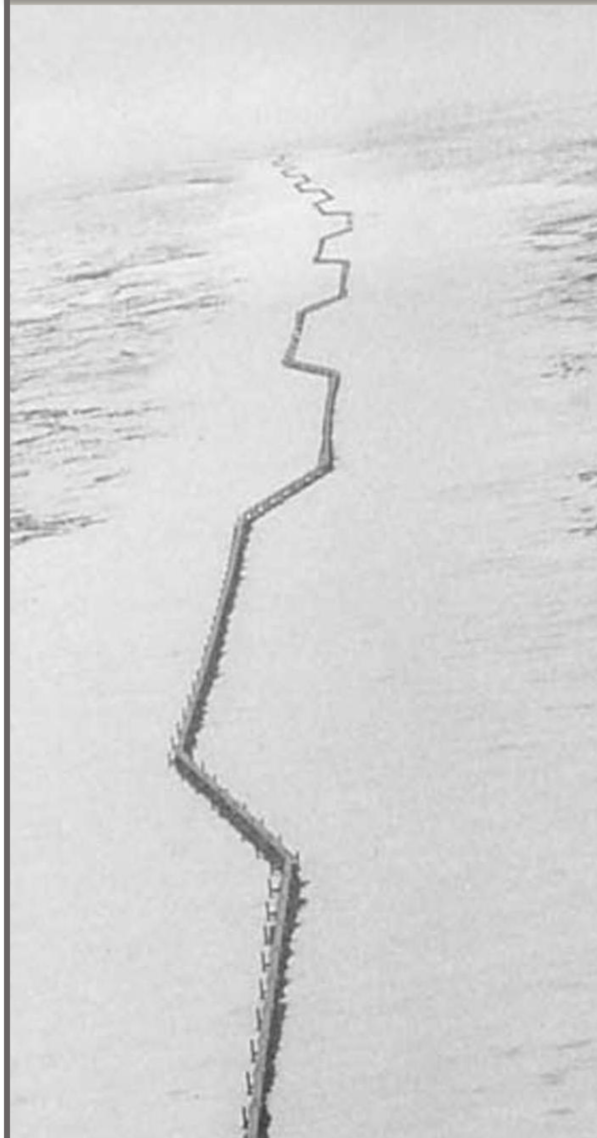


TAPS
- A Critical State & National Energy Asset -

- The Trans Alaska Pipeline, 11 pump stations, several hundred miles of feeder pipelines, and the Valdez Marine Terminal constitute the Trans-Alaska Pipeline System (TAPS).
- At 800 miles long, the Trans Alaska Pipeline is one of the longest pipelines in the world; it crosses more than 500 rivers and streams and three mountain ranges as it carries Alaska's oil from Prudhoe Bay to Valdez.
- The U.S. Congress was instrumental in the approval and rapid development of TAPS. Congress approved construction of the pipeline with the Trans Alaska Pipeline Authorization Act of 1973.
- The principle focus of this Act is as relevant today as it was in 1973: *"the early development and delivery of oil and gas from Alaska's North Slope to domestic markets is in the national interest because of growing domestic shortages and increasing dependence upon insecure foreign sources."*

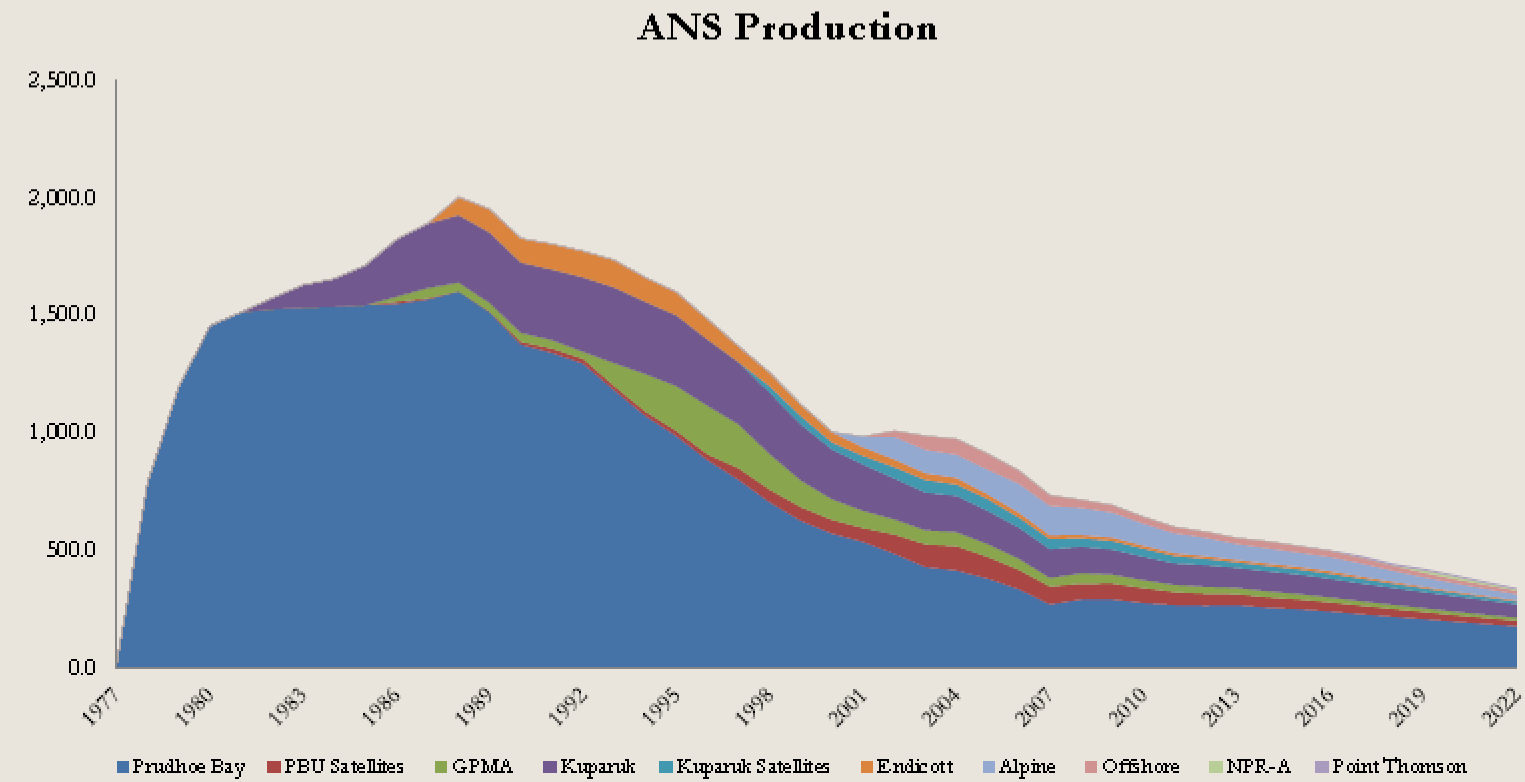
TAPS

- A Critical State & National Energy Asset -



- TAPS has transported over 16.3 billion barrels of oil and natural gas liquids since June of 1977. Production peaked at 2.2 million barrels per day in the late 1980s, representing 25% of U.S. domestic production
- Since its peak, however, throughput has steadily declined; today, TAPS is 2/3 empty and declining at an average of 6% per year
- TAPS throughput decline threatens economic disruption and the very existence of our pipeline
- We must encourage industry to invest in exploration and development of conventional and unconventional resources on state and federal land, onshore and offshore
- TAPS has plenty of capacity for increased throughput
- Most near-term critical economic issue facing the state
- Less oil in the pipeline year after year takes away revenue from future generations—the ultimate giveaway
- Reconfiguration, 1.2 million barrels/day

OIL TAX REFORM
- PRODUCTION HISTORY-



Source: Alaska Department of Revenue Fall 2012 Revenue Sources Book: http://www.tax.alaska.gov/programs/documentviewer/viewer.aspx?2682f

TAPS

- Throughput Decline is an Urgent Problem -

- TAPS throughput decline is the MOST URGENT issue facing the State's economic future
- January 2011 TAPS shutdown

Petroleum News, February 27, 2011:
"Jan. shutdown puts TAPS close to brink:

Alyeska executives describe efforts to prevent freezing in pipeline after pump station oil leak in era of low oil throughput"

WSJ, May 11, 2011:

"Shrinking Oil Supplies Put Alaskan Pipeline at Risk"

"Now, dwindling oil production along Alaska's northern edge means the pipeline carries less than one-third the volume it once did—and the crude takes five times as long to get to its destination.

That leisurely flow means the oil is above ground longer and more exposed to Alaska's frigid weather; the crude sometimes arrives chilled to 40 degrees. As the flow and temperature continue to drop, experts say the risks of a clog or corrosion increase, as do the odds of ruptures and spills."

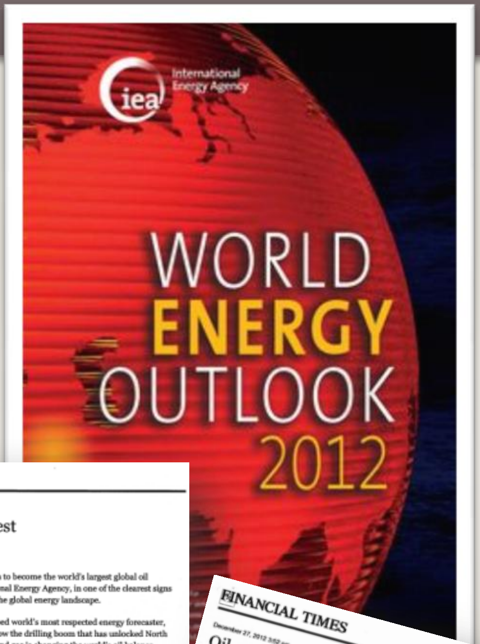
Alaska's North Slope Oil & Gas Potential

- USGS estimates that Alaska's North Slope has more oil than any other Arctic nation
  - **OIL:** Est. 40 billion barrels of conventional oil *(USGS & BOEMRE)*
  - **GAS:** Est. over 200 trillion cubic feet of conventional natural gas *(USGS)*
- Alaska has world-class unconventional resources, including tens of billions of barrels of heavy oil, shale oil, and viscous oil, and hundreds of trillions of cubic feet of shale gas, tight gas, and gas hydrates
  - Positive methane hydrate test production

Compared to most hydrocarbon basins, Alaska is relatively underexplored, with 500 exploration wells on the North Slope, compared to Wyoming's 19,000.

U.S. Energy Renaissance

- Global and U.S. hydrocarbon boom
- IEA World Energy Outlook 2012 – U.S. to overtake Saudi Arabia and Russia to become the world's largest global oil producer by the second half of this decade.
- **Financial Times, November 12, 2012 –**
  "U.S. set to become biggest oil producer"
- **Financial Times, December 27, 2012 –**
  "Oil and gas – hey big spenders"
  - 2012 - $600 billion on exploration and production in oil and gas industry
  - 2013 projected - $650 billion on exploration and production in oil and gas industry



FINANCIAL TIMES

November 12, 2012 10:02 am

US set to become biggest oil producer

By Guy Chazan and Ed Crooks

The US will overtake Saudi Arabia and Russia to become the world's largest global oil producer by 2017, according to the International Energy Agency, in one of the clearest signs yet of how the shale revolution is redrawing the global energy landscape.

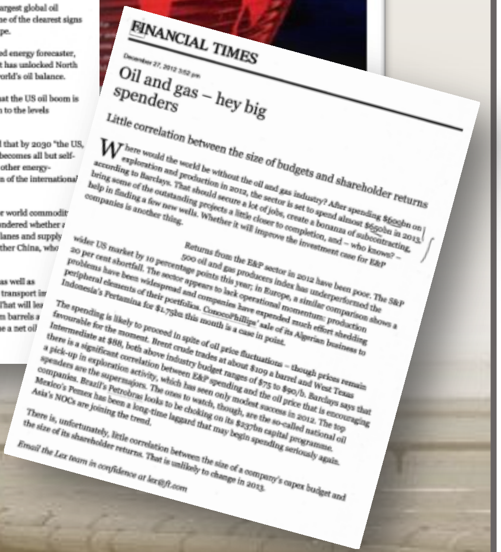
This marks the first time the IEA, the developed world's most respected energy forecaster, has made such a prediction. It underscores how the drilling boom that has unlocked North America's vast reserves of hard-to-get-at oil and gas is changing the world's oil balance.

However, other analysts have warned that the US oil boom is still in its infancy, and continued growth to the levels predicted by the IEA cannot be guaranteed.

In its yearly world energy outlook, published on Monday, the IEA said that by 2030 "the US, which currently imports around 20 per cent of its total energy needs, becomes all but self-sufficient in net terms – a dramatic reversal of the trend seen in most other energy-importing countries". It said that partly as a result of this, the direction of the international oil trade would pivot towards Asia.

If realised, the IEA's prediction would have significant implications for world commodit markets and the broader geopolitics of energy. Some analysts have wondered whether a that was energy independent would still guard the world's critical sea lanes and supply routes in two decades' time – and if it withdrew from such a role, whether China, who reliance on Middle East crude imports was growing, would replace it.

The increase in US domestic production – of biofuels such as ethanol as well as unconventional "tight" oil – comes as new fuel-efficiency measures in transport im the first Obama administration are set to reduce oil demand sharply. That will lea fall in oil imports into the US, which the IEA says will plunge from 10m barrels a b/d in ten years' time. The agency says that North America will become a net oil about 2035.



FINANCIAL TIMES

Oil and gas – hey big spenders

Little correlation between the size of budgets and shareholder returns

Other Basins have Turned Decline Around

THE INDEPENDENT

North Sea set to create 50,000 new jobs as investment soars

Tom Bawden

Monday, 14 January 2013

North Sea employment is set to boom this year. Up to 50,000 new jobs are expected in Britain's oil and gas ind

The jobs bonanza will support-services staff North Sea to nearly ha

"There's been a lot of at the moment," said behind the research. " their life. At the same have made it economi he added.

Further down the line, 35,000 jobs in the nex Institute of Directors.

The expansion has bee set to be ploughed int be the biggest creator the North Sea for a de Shetland Isles, that wi

The surge in investme Sea development, pro Energy and Climate Ch

Although North Sea p output was 4.5m barr 2m barrels. On the do to compete for employ more than twice the na

"The expansion has been spurred by record-breaking levels of investment, with about £40bn set to be ploughed into North Sea production in the next three years…"

"The surge in investment comes after the government relaxed the tax regime around North Sea development, prompting a record-breaking licensing round when the Department of Energy and Climate Change awarded 167 new licenses on 330 blocks last October."

"Budget 2012: North Sea oil tax reforms 'to lead to £50bn investment':
An extra £50bn could be pumped into the North Sea oil and gas industry thanks to a new package of tax reforms."

Budget 2012: North Sea oil tax reforms 'to lead to £50bn investment'

An extra £50bn could be pumped into the North Sea oil and gas industry thanks to a new package of tax reforms.

The Budget was a "turning point" for industry relations with the Treasury. Photo: Rex Features

By Emily Gosden

10:11PM GMT 21 Mar 2012

Industry body Oil & Gas UK said the Chancellor's promise of certainty on decommissioning tax relief and new tax breaks on small and deepwater fields would stimulate tens of billions of pounds of additional investment.

The Budget was a "turning point" for industry relations with the Treasury after outrage at the surprise tax rise in last year's Budget, Oil & Gas UK said. The measure means more than 2bn barrels of the UK's oil and gas reserves that would otherwise have been left in the ground will now eventually be recovered at no net cost to the Exchequer.

The Treasury estimates that the reforms could actually boost its coffers by £1bn over the next five years, due to tax on projects that would not otherwise have gone ahead.

The Chancellor confirmed that he would draw up a contract with the industry to permanently guarantee levels of tax relief on the £30bn bill for decommissioning old infrastructure, a move that Oil & Gas UK said could stimulate up to £40bn investment during the lifetime of the North Sea basin. Anxiety over whether rates might be cut has blocked some deals.

The Chancellor unveiled new 'field allowances', doubling tax breaks for developing smaller fields and introducing a £3bn allowance for some deepwater fields with significant reserves in the new exploration frontier West of Shetland. The allowances should see £10bn extra investment, the industry body said.

Malcolm Webb, Oil & Gas UK's chief executive, said the Budget was a "turning point for the UK's oil and gas industry" toward "a more stable future fostered by constructive collaboration between government and industry".

Other Basins have Turned Decline Around

Tax Breaks Spur Record U.K. Oil, Gas Investment

By SELINA WILLIAMS

LONDON—Tax incentives have helped spur record levels of investment in the U.K.'s offshore oil and gas sector, which is set to recover from more than a decade of declining production and boost flagging government coffers in 2014.

Investment in offshore oil and gas projects is forecast to rise to a record level of at least £13 billion ($19.6 billion) this year, up from £11.4 billion last year which at the time was the highest in more than 30 years, according to an annual report published Monday by industry body Oil & Gas U.K.

"This year and next we expect record levels of investment and that's a relief when you look at how much production has fallen. It will be a catch-up from a long period of underinvestment," said Mike Tholen, Oil & Gas U.K. economics and commercial director and one of the authors of the report.

North Sea oil and gas production is vital for the U.K. economy. Shutdowns at several key fields were a major reason for the 0.3% contraction of economic output in the last quarter of the year, according to the Office for National Statistics. Extractive industries, the bulk of which is oil and gas, contribute 2.4% of total U.K. gross domestic product, the ONS said.

Increasing output would also be significant for tax receipts and jobs in a sector that last year employed 440,000 people.

The 45 projects that were approved in 2011 and 2012 will over time produce more than 2 billion barrels of oil and gas and generate £100 billion for the economy and an additional £25 billion in production taxes, the report said.

The investment will also help U.K. energy security by reducing hydrocarbon imports at a time of higher international oil and gas prices.

"Too often we've been seen as part of the problem, rather than part of the solution because production output had fallen. But we're stopping the decline and increasing output and that will have a more positive impact on the U.K. economy," Mr. Tholen told The Wall Street Journal.

The higher investment in new projects and redevelopment of older fields would help bring another 500,000 barrels of oil equivalent a day onstream by 2017, taking output to as much as 2 million barrels of oil and gas a day by 2017 or earlier.

This compares to 1.55 million barrels of oil equivalent a day in 2012 and 1.45 million to 1.5 million barrels a day expected for this year, Mr. Tholen said.

THE WALL STREET JOURNAL.

U.S. EDITION ▾ Monday, February 25, 2013 As of 11:30 AM EST

"Tax Breaks Spur Record U.K. Oil, Gas Investment" – WSJ, 2/25/13

The upturn expected in 2014 is significant, as oil and gas production from the U.K. continental shelf has been declining since a peak of 4 million barrels of oil equivalent a day in 1999 to 2000 due to natural decline rates at mature fields, high development costs and a wave of punitive taxes over the past decade, most notably a surprise tax increase in 2011.

BP BP.LN +1.60%PLC's April 2010 Deepwater Horizon disaster in the Gulf of Mexico also prompted a wave of shutdowns as companies reassessed safety procedures.

Over the past year, the U.K. has introduced a raft of tax breaks in an attempt to mend bridges with the oil and gas industry after the 2011 tax increase hurt investment and raised concerns about the future of the sector.

In total, companies are planning capital investments of almost £100 billion in new projects and redevelopment of old fields. Of this, £44 billion are already approved and under development and another £30 billion have a better than 50% chance of approval over the next few years, the report said.

Investments include Statoil ASA's STL.OS +1.55%£4.3 billion Mariner field, Talisman's £1.6 billion plan to boost production at Montrose/Arbroath, GDF Suez's GSZ.FR +1.60%£1.4 billion for gas development at Cygnus gas and Dana Petroleum's £1 billion to develop its Harris/Barra fields.

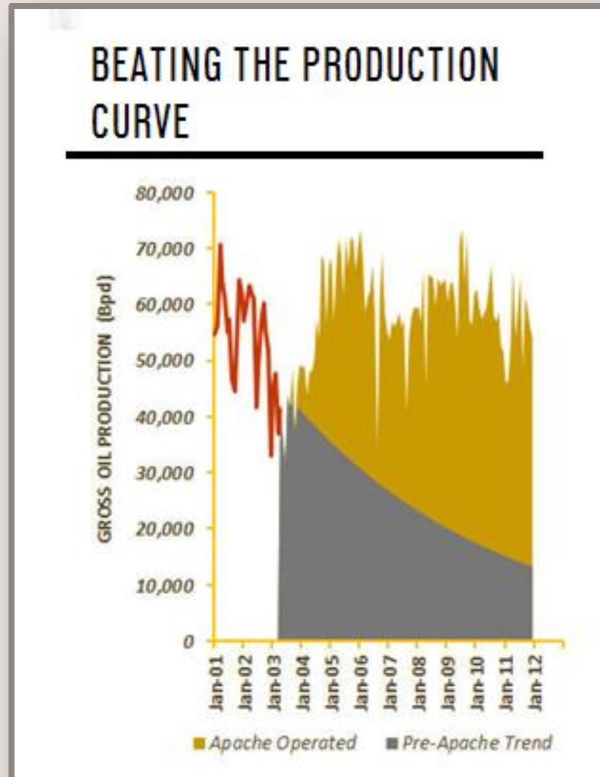
Exploration for new oil and gas reserves is also expected to reverse a trend of decline with more than 130 wells forecast to be drilled over the next three years, up from about 21 wells a year from 2009-2012.

Easier access to finance and pressure to meet commitment dates set in licenses is helping to drive the higher exploration rates, Mr. Tholen said.

Other Basins have Turned Decline Around

Apache Corporation: Forties Field Acquisition

- Field discovered in early 1970s by BP; purchased by Apache in 2003
- Contains estimated 4.2 to 5.0 billion barrels of oil in place
- Production peaked at over 500,000 Bpd, but by 2003, had declined to 40,000-45,000 Bpd
- Apache has "beaten the curve" by adding reserves, production, and value
- Have returned over 400% of their original 2003 investment

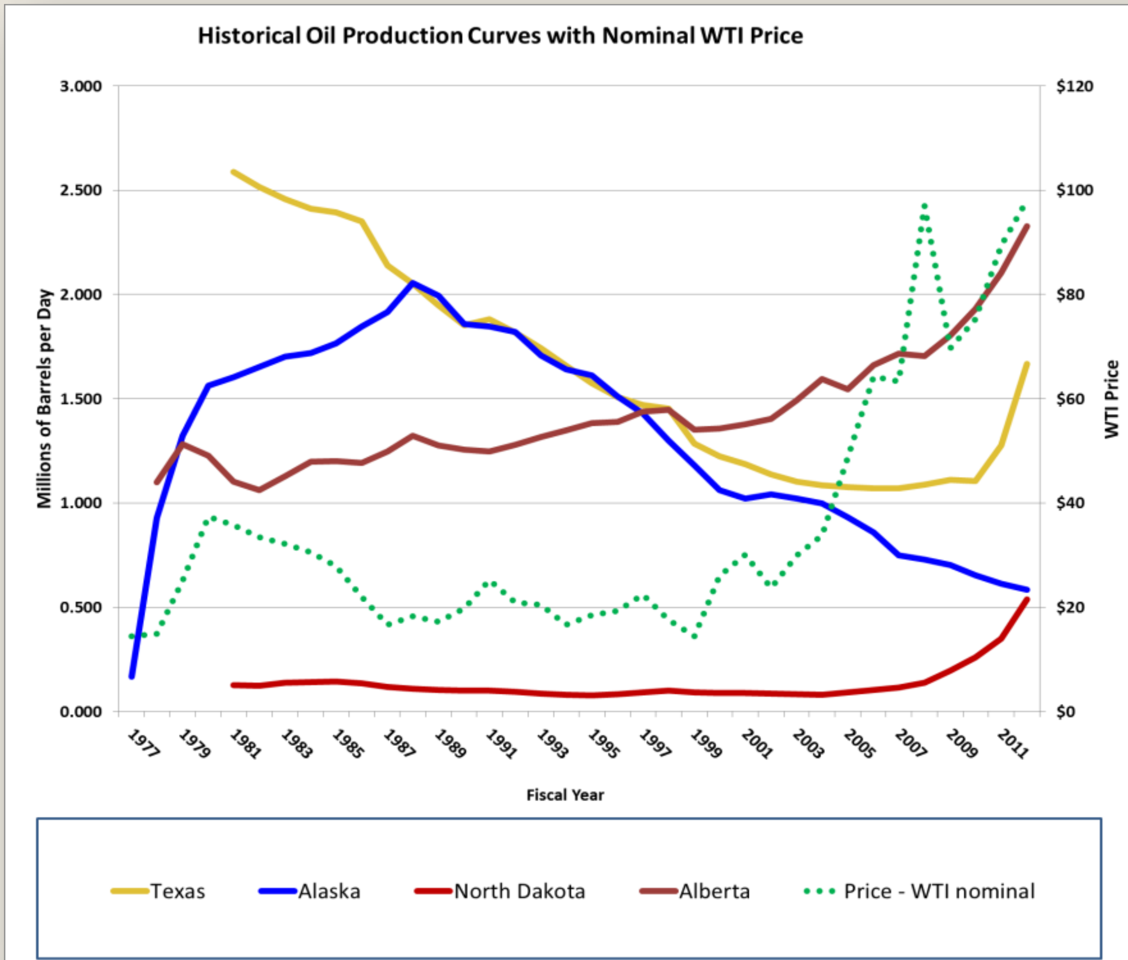


Data from www.apachecorp.com

Other Basins have Turned Decline Around

- Historical Oil Production -

How Did Our Competition Fare When Prices Spiked?



Secure Alaska's Future—*Oil*

Secure Alaska's Future—Oil is the State's comprehensive strategy to increase TAPS throughput to one million barrels a day.

I. Enhance Alaska's global competitiveness and investment climate

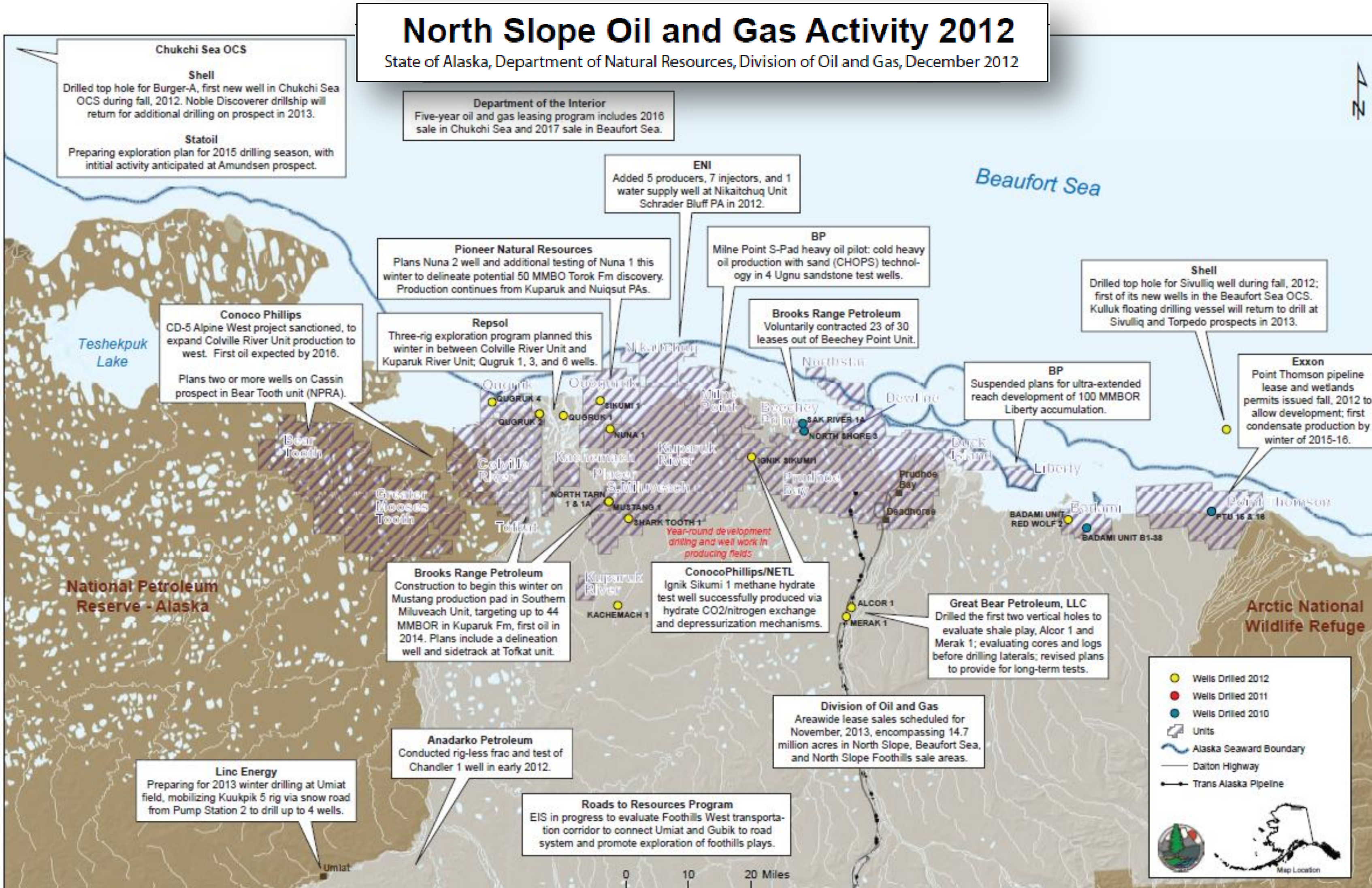
II. Ensure the permitting process is structured and efficient

III. Facilitate and incentivize the next phases of North Slope development

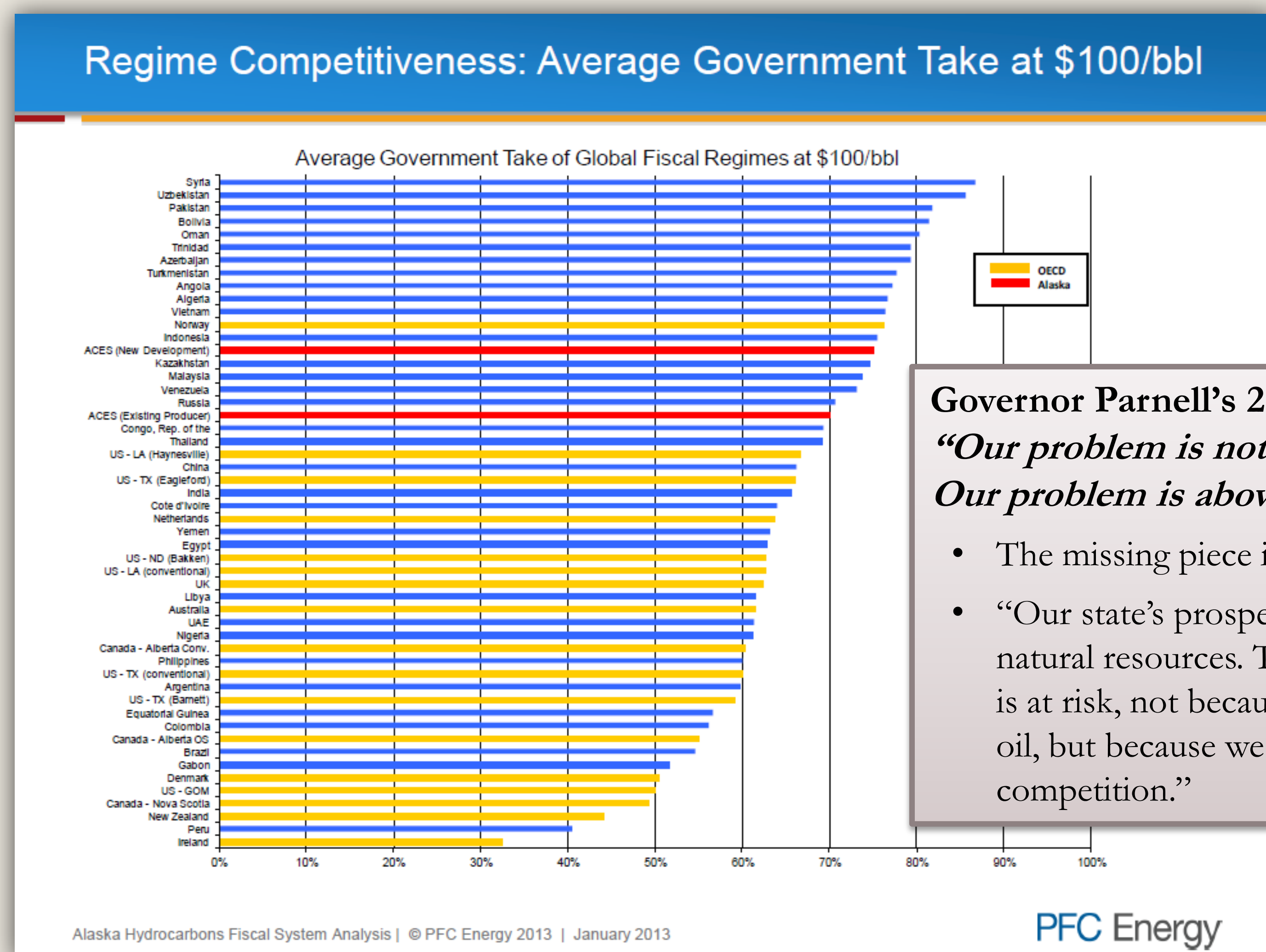
IV. Promote Alaska's resources and positive investment climate to world markets

SECURE ALASKA'S FUTURE: *OIL*

- NORTH SLOPE RECENT & PROPOSED ACTIVITY FOR OIL & GAS -



RELATIVE COMPETITIVENESS



Governor Parnell's 2013 State of the State:

"Our problem is not below the ground. Our problem is above the ground."

- The missing piece is meaningful tax reform
- "Our state's prosperity has always rested on natural resources. Tonight, that foundation is at risk, not because we are running out of oil, but because we are running behind the competition."