ARRESTING TAPS THROUGHPUT DECLINE & OIL TAX REFORM

Senate Finance
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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 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

ANS Production

Source: Alaska Department of Revenue Fall 2012 Revenue Sources Book: http://www.tax.alaska.gov/programs/documentviewer/viewer.aspx?2682f
• 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.”
Compared to most hydrocarbon basins, Alaska is relatively underexplored, with 500 exploration wells on the North Slope, compared to Wyoming’s 19,000.

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
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”
  
  o 2012 - $600 billion on exploration and production in oil and gas industry

• Financial Times, December 27, 2012 – “Oil and gas – hey big spenders”
  
  o 2013 projected - $650 billion on exploration and production in oil and gas industry
Other Basins have Turned Decline Around

“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.”
OTHER BASINS HAVE TURNED DECLINE AROUND

"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 1996 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 £10 billion in new projects and redevelopment of old fields. Of this, £4.4 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/Pitroa, GDF Suez’s G5S FR+1.60%£1.4 billion for gas development at Cyboras field and Dana Petroleum’s £1 billion to develop its Hans/Barna 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.

The Wall Street Journal
U.S. EDITION
Monday, February 25, 2013 As of 11:30 AM EST
• 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?

Historical Oil Production Curves with Nominal WTI Price

- Texas
- Alaska
- North Dakota
- Alberta
- Price - WTI nominal

Fiscal Year

Millions of Barrels per Day

WTI Price


0.000 0.500 1.000 1.500 2.000 2.500 3.000

$0 $20 $40 $60 $80 $100 $120

11
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 -

North Slope Oil and Gas Activity 2012
State of Alaska, Department of Natural Resources, Division of Oil and Gas, December 2012

- Shell
  - Drilled top hole for Burger A, first new well in Chukchi Sea Ocean Drilling Program (OCS) during fall 2012. Noble Discoverer drillship will return for additional drilling on prospect in 2013.
  - Preparing exploration plan for 2013 drilling season, with initial activity anticipated at Amundsen prospect.

- ConocoPhillips
  - CD-5-45x West project sanctioned to expand Colville River Unit production to west. First oil expected by 2016. Plans to drill 5-9 more wells on Gazmian prospect in late 2012.

- Repsol
  - Three-ring exploration program planned this winter in between Colville River Unit and Kuparuk River Unit. Discovery in 2013.

- BP
  - Midway Point 5-01d heavy oil pilot cold heavy oil production with sand control techniques in 4 winter conditions test wells.

- ConocoPhillips/NETL
  - Ignek 1x-01 methane hydrate test well successfully produced via hydrate CO2/Methane exchange and depressurization mechanisms.

- Arco/Atlantic Petroleum
  - Concluded high-impact test of Chandler 1 well in early 2012.

- Linz Energy
  - Preparing for 2013 winter drilling at Umialik field, mobilizing Kuparuk 5 rig via snow road from Pump Station 2 to drill up to 4 wells.

- ConocoPhillips/NETL
  - Midway Point 3-01d heavy oil pilot cold heavy oil production with sand control techniques in 4 winter conditions test wells.

- BP
  - Discontinued plans for ultra-deepwater development of 100 MMBtu/yr Liberty accumulation.

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  - Drilled top hole for Chukchi Sea Ocean Drilling Program (OCS) during fall 2012. Noble Discoverer drillship will return for additional drilling on prospect in 2013.

- ENSCO
  - Point Thomson pipeline route and the Shell permit issued fall 2012 to allow development; first condensate production by winter of 2013-16.

- Exxon
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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.”