

ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE

February 13, 2013

3:29 p.m.

MEMBERS PRESENT

Senator Cathy Giessel, Chair
Senator Fred Dyson, Vice Chair
Senator Peter Micciche
Senator Click Bishop
Senator Lesil McGuire
Senator Anna Fairclough
Senator Hollis French

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

SENATE JOINT RESOLUTION NO. 8

Supporting the continued and increased exploration, extraction, processing, and production of rare earth elements in the state; and urging the United States Congress to support efforts of the state to develop rare earth elements in the state for the benefit of the economic and national security of the United States.

- MOVED CSSJR 8(RES) OUT OF COMMITTEE

SENATE BILL NO. 21

"An Act relating to appropriations from taxes paid under the Alaska Net Income Tax Act; relating to the oil and gas production tax rate; relating to gas used in the state; relating to monthly installment payments of the oil and gas production tax; relating to oil and gas production tax credits for certain losses and expenditures; relating to oil and gas production tax credit certificates; relating to nontransferable tax credits based on production; relating to the oil and gas tax credit fund; relating to annual statements by producers and explorers; relating to the determination of annual oil and gas production tax values including adjustments based on a percentage of gross value at the point of production from certain leases or properties; making conforming amendments; and providing for an effective date."

- HEARD & HELD

PREVIOUS COMMITTEE ACTION

BILL: SJR 8

SHORT TITLE: MINING/PROCESSING OF RARE EARTH ELEMENTS

SPONSOR(S): SENATOR(S) MCGUIRE

01/30/13 (S) READ THE FIRST TIME - REFERRALS
01/30/13 (S) RES
02/13/13 (S) RES AT 3:30 PM BUTROVICH 205

BILL: SB 21

SHORT TITLE: OIL AND GAS PRODUCTION TAX

SPONSOR(S): RULES BY REQUEST OF THE GOVERNOR

01/16/13 (S) READ THE FIRST TIME - REFERRALS
01/16/13 (S) TTP, RES, FIN
01/22/13 (S) TTP AT 3:30 PM BELTZ 105 (TSBldg)
01/22/13 (S) Heard & Held
01/22/13 (S) MINUTE(TTP)
01/24/13 (S) TTP AT 3:30 PM BUTROVICH 205
01/24/13 (S) Heard & Held
01/24/13 (S) MINUTE(TTP)
01/29/13 (S) TTP AT 3:30 PM BELTZ 105 (TSBldg)
01/29/13 (S) Heard & Held
01/29/13 (S) MINUTE(TTP)
01/31/13 (S) TTP AT 1:00 PM BUTROVICH 205
01/31/13 (S) Heard & Held
01/31/13 (S) MINUTE(TTP)
02/05/13 (S) TTP AT 3:30 PM BUTROVICH 205
02/05/13 (S) Heard & Held
02/05/13 (S) MINUTE(TTP)
02/07/13 (S) TTP AT 3:30 PM BUTROVICH 205
02/07/13 (S) Moved SB 21 Out of Committee
02/07/13 (S) MINUTE(TTP)
02/08/13 (S) TTP RPT 1NR 4AM
02/08/13 (S) NR: DUNLEAVY
02/08/13 (S) AM: MICCICHE, GARDNER, FAIRCLOUGH,
MCGUIRE
02/08/13 (S) LETTER OF INTENT WITH TTP REPORT
02/09/13 (S) TTP AT 10:00 AM BUTROVICH 205
02/09/13 (S) -- MEETING CANCELED --
02/11/13 (S) RES AT 3:30 PM BUTROVICH 205
02/11/13 (S) Heard & Held
02/11/13 (S) MINUTE(RES)
02/13/13 (S) RES AT 3:30 PM BUTROVICH 205

WITNESS REGISTER

KEN COLLISON, COO
UCOR Rare Metals, Inc.
Bedford, Nova Scotia

POSITION STATEMENT: Provided presentation on SJR 8.

BARRY PULLIAM, Managing Director
Econ One Research, Inc.
Consultant for the sponsor of SB 21
Juneau, AK

POSITION STATEMENT: Presented an analysis of Alaska's tax system, North Slope investment and the administration's proposal of SB 21.

ACTION NARRATIVE

[3:29:29 PM](#)

CHAIR CATHY GIESSEL called the Senate Resources Standing Committee meeting to order at 3:30 p.m. Present at the call to order were Senators Dyson, Bishop, McGuire, Fairclough, French, Micciche and Chair Giessel.

SJR 8-MINING/PROCESSING OF RARE EARTH ELEMENTS

[3:30:59 PM](#)

CHAIR GIESSEL announced SJR 8 to be up for consideration.

SENATOR MCGUIRE, sponsor of SJR 8, said that this measure supports rare earth elements (REE) which possess unique chemical, electrical and physical properties that are indispensable for national defense in producing military equipment, clean energy technologies including hybrid electric vehicles, wind turbines and consumer goods like I-phones and laptops. Currently, China controls 95 percent of the world's rare earths and they decided two years ago to reduce their export quotas down to 50 percent.

She said that Alaska is very fortunate to have at least one - Bokan Mountain near Prince of Wales Island - and probably several world class deposits of rare earth elements positioning it to become the U.S.'s leading supplier of rare earths. This resolution supports the continued and increased exploration, extraction, processing and production of rare earths and urges state and federal agencies and Congress to expedite consideration of the permits.

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KEN COLLISON, COO, UCOR Rare Metals, Inc., Bedford, Nova Scotia, testified that he is a mining engineer. He had worked in the industry for 40 years and this was his fourth mine to build. He noted that light rare earth elements are not rare or worth a lot of money, but that the heavy earths are and those are needed for green technology defense. What separates Bokan Mountain from some of the other areas is that it has 40 percent rare earth oxide (as opposed to 1 percent that Mountain Pass in California has, for instance). He said the Bokan project uses ore sorting technology, so when it closes there will be no tailings. The technology that allows production of a rare earth oxide was developed by three Stanford PhD chemists; no one else has it. This process creating value-added products could become a new industry for the state.

SENATOR DYSON moved to report SJR 8, as amended, from committee to the next committee of referral with individual recommendations.

CHAIR GIESSEL noted that Senator Fairclough objected.

SENATOR MCGUIRE moved conceptual Amendment 1 to strike the provision on page 2, lines 20-22. This is to reflect Senator Murkowski and Senator Begich's introduction of S. 181, which would authorize construction of a road to Niblack and the Bokan Mountain Mine.

SENATOR FAIRCLOUGH removed her objection and there were no further objections, therefore the motion to adopt conceptual Amendment 1 passed.

CHAIR GIESSEL found no further objection and announced that CSSJR 8(RES) was reported from the Senate Resources Standing Committee.

[3:39:36 PM](#)

At ease from 3:39 to 3:41 p.m.

SB 21-OIL AND GAS PRODUCTION TAX

[3:41:18 PM](#)

CHAIR GIESSEL announced SB 21 to be up for consideration and said the Department of Revenue (DOR) had answered questions from Senators French and Gardner and those were available to the

committee. She invited Mr. Pulliam from Econ One, consultant to the sponsor, to testify.

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BARRY PULLIAM, Managing Director, Econ One Research, Inc., consultant for the sponsor of SB 21, Juneau, AK, presented an analysis of Alaska's tax system, North Slope investment and the administration's proposal, SB 21. He started with some background saying that the North Slope to date had produced 16.2 billion barrels of oil, a lot more than people thought it was going to produce when it was first discovered; about 5.5 billion barrels of economically recoverable oil are left in those fields today. About 90 percent of the discovered resources to date were discovered prior to 1970 and largely in Prudhoe Bay and Kuparuk. The following discoveries are smaller and more typical of what can be expected going forward.

SENATOR FRENCH asked if they should look at incumbent producers in analyzing ACES, since that is who is producing oil now and will likely be producing oil in the future.

MR. PULLIAM answered that the incumbent producers are important, but a lot of the oil that is left to be produced is sitting outside of the Legacy Fields and waiting to be produced by anybody and that Alaska would benefit from a much broader participation by companies that are here and those that aren't here yet. Less than half of the North Slope potential has been produced to date and an estimated 40 billion barrels of economically oil is available to be produced at today's prices, a majority of it being conventional oil much of which is on federal property.

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According to the United State Geological Survey (USGS) estimate, about 3 billion barrels of recoverable oil at \$90/barrel remains in the central North Slope in smaller fields of 32-64 million barrels and significant resource still remains in the Beaufort and Chukchi Seas; efforts are just starting to tap that resource. In NPRA the estimates are about .5 billion barrels are economic to recover and ANWR has close to 10 billion barrels with some bigger field sizes on average (not approaching Prudhoe Bay).

USGS knows there is some shale in Alaska, but they don't have a number for what is economic, because they are just scratching the surface. The heavy oil resource in place estimates are in the 25 billion barrel range and about 15 percent are recoverable

according to current estimates, but those figures are expected to go up with anticipated technology developments.

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Briefly, the history of Alaska's production tax system started at 12.25 percent, similar to the rate in the Lower 48, in 1977 when oil first flowed off the North Slope. It was increased to 15 percent in 1981 with an exemption for new fields for the first five years.

SENATOR DYSON asked him to explain the impact of the economic limit factor (ELF) in 1977.

MR. PULLIAM explained that the ELF modified the production tax based on a well's production. Royalties at that time were 12.5 percent and the gross production tax was 12.25 percent. The impact wasn't great initially, but by 2005 the ELF greatly reduced the tax rate for fields like Kuparuk down to the 2-4 percent range.

SENATOR DYSON asked if it was a gross tax at the time.

MR. PULLIAM replied yes.

SENATOR FRENCH said according to DNR numbers in 1996 Kuparuk was paying about 12 percent tax and went down continuously until in 2005 it was under 1 percent and asked if the state saw an uptick in investment in that time. Did dropping the tax at Kuparuk produce enormous new investments and with that more oil?

MR. PULLIAM said he would get to that later in the presentation, but that Senator French was right about the tax rate dropping over that period due to how the ELF worked. Yes, putting more wells in the ground reduced the nominal tax rate at Kuparuk, which was 15 percent at the time. By 2006, PPT was introduced and that fundamentally changed a gross-based tax system to a net-based system. So, instead of taxing the value of the oil and determining the taxable value at the wellhead, it allowed the producer to take deductions for operating and capital costs. Therefore, the taxable value under our net system is lower than it was under the gross system. The tax rate under PPT was 22.5 percent and then a progressivity piece was added to it, so that when the net value of the oil exceeded \$40/barrel, the tax rate went up by .25 percent per dollar a barrel (or 2.5 percent for every \$10 increase in value of the oil).

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SENATOR MCGUIRE said they had heard that at high oil prices the progressivity factor itself changes behavior because companies have more money to invest. They want to put their capital somewhere, but if a jurisdiction takes more, they're not necessarily going to continue to invest there. And she wanted him to factor oil prices into his comments about behavior of oil companies.

MR. PULLIAM agreed that price of oil is a key determinant in what the producer gets to keep.

SENATOR DYSON asked if field wide aggregating of the calculation is what happened when the ELF was eliminated.

MR. PULLIAM answered that when the Prudhoe Bay satellites first started producing the ELF was very low, so the tax rate was very low. But in 2005, the Murkowski administration decided that those satellites would be aggregated with the main field for purposes of calculated the ELF making the new rate much closer to 15 percent than zero.

SENATOR DYSON asked when we got rid of ELF.

MR. PULLIAM said that technically we still have it, but we don't use it. The PPT eliminated it from the tax calculation for the first time in 2006.

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After one year, PPT was amended to ACES increasing the base rate by 2.5 percent and the progressivity from .25 percent to .4 percent, and the base rate at which it applied was lowered. Progressivity was flattened out at \$92.50. The overall tax rate increased more quickly with the progressivity under ACES and was capped at a higher level than under PPT.

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He said comparing activity on the North Slope relative to other locations was challenging because overall prices and general economic conditions impact activity there. So, in order to get the most meaningful comparison the other places have to have similar characteristics, for instance, in political and legal structure, prospectivity and have readily available data like in the major Organization for Economic Co-operation and Development (OECD) producing areas (the North Sea, Canada, Australia and the rest of the U.S.). These provinces are not running out of oil, but producing it is high cost and technology will have to help out. The resources are also being developed in large part by

the private sector so the incentive structure to invest and produce is similar among them.

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He related the North Slope Profile as follows:

- crude oil production has been declining over time
- growth in capital spending between 2005 and 2006 then a flattening out from 2009 forward
- increase in employment 2006 to 2007 and then a leveling off
- focus on maintenance and a downtick in drilling/development activity

SENATOR DYSON remarked that production was going down faster before ACES and spending and drilling in the legacy fields was less.

MR. PULLIAM responded that there are rational reasons for that. A decline in production occurred across all fiscal regimes and some decline was inevitable regardless of the fiscal regime. Capital spending increased as fiscal regimes changed, but it hadn't increased as quickly on the North Slope as in other places in response to the same price level changes. And as far as employment goes, there was probably a need prior to 2006 to do some maintenance work.

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He pointed out that capital spending grew in the new units of Oooguruk and Nikiatchuq that weren't producing oil prior to 2003 and that those were largely developed during ACES.

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SENATOR FRENCH said they were given a fascinating presentation recently by ConocoPhillips about their exploding use of coil tubing units to do multiple completions from a single well and asked if that had changed the state's method of counting wells. For instance, he wondered whether 20 years ago eight different completions off of one well bore would count as eight wells and now be counted as one.

MR. PULLIAM answered that he thought that number referred to down-hole completion.

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SENATOR FRENCH asked if he was using consistent capital spend units of measurement between graphs.

MR. PULLIAM replied that he used nominal dollars of the day.

He explained that the production pattern in the North Sea looks very similar to Alaska's: capital investment for the first few years plateaued around 2010 with a significant uptick in capital expenditure in the last few years (but with a flattening off in drilling particularly for the U.K.).

SENATOR FRENCH asked him to comment on what seemed to be an interesting set of comparisons: \$50 billion being spent in the North Sea for 3 million barrels of production and in Alaska \$2.5 billion being spent for .5 million barrels of production.

MR. PULLIAM answered that the comparison was attempting to look at spending for the future, which doesn't have a direct relationship to current production. Both places have significant resources yet to be exploited and it would be nice to see the same kind of spending in Alaska as seen in the North Sea.

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The next profile was of the U.S. excluding the North Slope that showed an uptick in production - as a result of shale oil and conventional oil production. California has a much lower decline rate than Alaska as a result of increased investment in conventional production. That is seen in Texas as well. Much of the increase in Canada has been from heavy oil. And he said that prices are a key aspect of what has made that production possible.

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SENATOR MICCICHE remarked that it's interesting that Texas' production increased in 2007-2010 largely before any shale production, yet drilling declined significantly between 2008 and 2010.

MR. PULLIAM said he knew drilling activity went down, because of the price drop in 2009 and that Texas and the Lower 48, in general, are very responsive to price.

SENATOR MICCICHE asked if Texas' fields are better at curtailing production while waiting for price than Alaska is.

MR. PULLIAM replied that probably some of that goes on especially around the margin, because a well can be shut in more quickly in a place like Texas or the Lower 48 without impacting overall operations. There are also have a lot more smaller producing wells down there. Australia has a little bit of a different story where declining oil production was replaced by

LNG. So, a lot of their capital spend has been to develop their LNG gas resources.

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He displayed another graph of aggregated production relative to price in these areas starting in 2003 that indicated 950,000 barrels a day were produced initially on the North Slope, but that had gone down by 50 percent to 515,000 barrels a day. In that same time period the price of oil went from \$35 up to over \$100 a barrel in 2012. The OECD declined through 2008 and then had an uptick that corresponded with the increase in prices. The U.S. had the same pattern as the OECD countries.

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SENATOR BISHOP asked what a million barrels a day production would do to the ANS market price.

MR. PULLIAM replied that it wouldn't have a material impact. The West Coast is supplied by foreign oil at about 1 million barrels a day. So increasing ANS would simply cut back on the imports.

SENATOR MICCICHE said it looks like it takes some time for conventional oil production to respond to oil price but while the rest of the market responded to the higher oil price in 2009, Alaska continued to decline.

MR. PULLIAM said looking back, 2008/09 was a very volatile period; within six months oil prices dropped by \$100 a barrel. But industry realized the low price was not sustainable, because the cost of finding and producing oil had risen. Therefore, the drop in price was from a combination of an overinflated market, a financial crisis and the following recession. He explained that investors look at the long term and that while the drop in 2008/09 impacted their margin, the longer term view was that the price of oil would not go back to \$40 or \$60 a barrel.

SENATOR MICCICHE said everyone was in decline prior to 2008, but Alaska didn't respond to the higher price while other markets did and asked if other factors contributed to that difference.

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MR. PULLIAM replied that a number of factors like the take, technology and the ability to get at some of these resources all add up very quickly. He added that a lot of production in the U.S. is readily accessible.

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He continued that capital spending in Alaska and other places doubled between 2003 and 2006; then Alaska's spending flattened out for a couple of years and rises a little after 2008 and flattened again. Spending in the rest of the world continued to respond to the higher price level and came down again in 2009 and matched where Alaska was, but has continued to increase since then as the price of oil has gone up. We know that spending was taking place in the legacy fields during that period; much of the Alpine oil was developed in the 2003/05 period.

He said that it takes a while for industry to adjust their expectations to changing prices, especially when it was at \$40 a barrel, and that accounts for the period between 2003-2006/8.

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MR. PULLIAM explained how ACES works: the tax is calculated on the net value of the taxable production (all of the production minus the royalties). The per barrel net value is the gross wellhead value (West Coast minus transportation) minus the cost of production. That cost of production consists of capital expenses, operating expenses and property tax payments, and the cost associated with actually finding and pulling it out of the ground to the wellhead. A 25 percent base tax is applied to the net value and the progressivity increases by 4 percent per \$10 over \$30/barrel and then 1 percent for every \$10 over \$92.50; the progressive piece is capped at 50 percent. So, the total tax rate if prices are that high (around \$300/barrel) would be capped at 75 percent.

SENATOR DYSON asked at the range Alaska prices have been in (\$90-120) what has been the highest tax rate.

MR. PULLIAM replied close to 50 percent at current prices.

SENATOR DYSON asked what the highest effective tax rate has been.

MR. PULLIAM said he couldn't quote that figure exactly - maybe 40-45 percent varying across producer (in the current price range). For example, assuming \$100/barrel production tax value, that would correspond to \$130/barrel (West Coast), the base rate of 25 percent and progressivity at \$25 at .75 percent for a total tax rate of 50.75 percent. Once that tax rate has been applied to the taxable value of the oil, the production tax credit allows 20 percent over a two-year period, a smaller producer credit of \$12 million/year that is phased out when

production exceeds 50,000 barrels a day, and a provision that the state will purchase credits and operating losses from companies that do not have a tax obligation against which it can be applied. Most of this involves capital expenses in the earlier phases of exploration and development. So, in combining the 20 percent credit with the 25 percent tax rate, the state is purchasing a total of about 45 percent of those expenditures.

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SENATOR DYSON asked which capital expenditures within a unit could not be deducted as an operating expense.

MR. PULLIAM answered generally if a capital expenditure is charged to all of the working interest owners as part of the joint billing it could be deducted. There are some exceptions, but he didn't know what they are because he wasn't an expert. There is also a 30-cent exception overall; so, for instance if your Capex were \$10/barrel, you are only allowed to deduct \$9.70. Sometime between the corrosion event in 2006 and a few years ago a limitation was put on deductible capital expenses based on where they had been in 2006, but that provision has expired.

SENATOR DYSON replied you can't get any better watchdog than a partner in a unit.

MR. PULLIAM agreed. He said the next several slides revealed some examples of how the tax is calculated at various prices: \$80, \$100 and \$120 using 50 million barrels after royalty.

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CHAIR GIESSEL asked where the royalty was calculated.

MR. PULLIAM answered that the royalty volumes are not taxable and had already been deducted.

SENATOR MICCICHE said it would be interesting to incorporate corporate income tax, property tax, royalty and federal tax for an overall government take in his example.

MR. PULLIAM said total government take would be more like 75 percent (41 percent of it production tax).

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Another slide held the price at \$100/barrel but varied the cost of the fields from a relatively low cost to a relatively high cost. With only \$20 in expenses, there is a pretty high

progressive rate (16 percent), but if the expenses go up to \$50 that progressive piece drops to 4 percent. The effective tax rate could be as high as 38 percent or as low as 19 percent.

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CHAIR GIESSEL asked if this illustrated the potential impact of gold-plating where companies would spend more to reduce their taxes as well as the benefit to the small new producers in that they would have more capital expenses initially.

MR. PULLIAM responded that the ability to reduce the progressive rate is a benefit to the incumbent that the new small producer doesn't have, because they don't get to buy down their rate - although they do get to sell their losses to the state - but just at the base rate of 25 percent.

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The next slide (22) varied the costs, but at \$80/barrel as the starting price. At this level the progressive piece was lower at all the cost scenarios and actually went away in a high cost scenario. So, the effective tax rates varied from 29 to 50 percent. He explained in a low-price/high-cost environment you'll have very low effective tax rates. The taxable value before expenditures was \$40/barrel. The expenditure itself when amortized over production equated to about \$5/barrel. So, that expenditure reduced the taxable per barrel value the tax could be applied to; it also has the effect of reducing the tax rate. So, before the expenditure his tax rate would have been 29 percent (25 plus 4 percent progressive) and after taking the credits there was a \$280 million tax obligation.

MR. PULLIAM explained that after making his expenditure his taxable value was reduced from \$40 to \$35, which reduced his progressive rate. So, his total tax rate was 27 percent - as opposed to 29 percent - but 27 percent times a lower price. He gets additional credits as well and after factoring those in, his tax obligation was \$122.5 million.

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The effect of all of that is that his tax rate was reduced by \$107 million before any application of credits, which added \$50 million. So, his total tax was reduced by \$157.5 million, a 63 percent reduction. Twenty percent of that was the credit, but 43 percent was simply the effect of progressivity of the buy-down.

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SENATOR FRENCH commented that this essentially illustrates how someone who is investing more in Alaska buys down their tax obligation under the current system.

MR. PULLIAM said that was correct; it shows how someone can buy their tax obligation in Alaska by having more capital expenditures. You can see going across his chart that the higher prices go the more that is worth. So, at \$80/barrel his tax was reduced by \$157 million (63 percent); if prices are \$120/barrel that would reduce his taxes by almost the full amount of the expenditure (95 percent) making it effectively an amount that is funded by the state.

SENATOR FRENCH said in extending that further, the state could be seen as participating too strongly in that buy down effect. That number could be tweaked and still preserve the basic mechanism of rewarding people who invest in Alaska and (the flip side) penalizing people who ship their profits overseas.

MR. PULLIAM responded that he understood what he was saying. It could be changed to not have that strong of an effect, but penalizing a company for sending its profits elsewhere was a strong assumption and one of the best incentives the state can provide, in his view, was to allow investors to do with their profits as they see fit.

He said the quality of the profit generated here is very different than the quality that is generated elsewhere, because elsewhere that money has no strings attached. Requiring reinvesting here is kind of like giving someone a gift certificate as opposed to giving him cash. That is why Alaska hasn't had the kind of response it had hoped to get with this system. It's set up to greatly subsidize the investment, but the expense of doing that is that the state will take a large portion of it back. It's just not as appealing to the companies as other places are.

SENATOR MICCICHE remarked that what is painful to watch is that the credits are not tied to production, so that "gift certificate" brings no value to the people of Alaska.

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MR. PULLIAM said that is a problem, particularly in a high price environment when the state One of the reasons PPT was changed to ACES was because we didn't see the results we wanted to.

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SENATOR MCGUIRE said it's nice to have an economist in the room, because there is a tendency to inject a lot of emotion and ascribe feelings to companies that aren't there when often it's just a matter of numbers. She agreed with eliminating qualified capital expenditures (QCE) because they are not working, but as they move forward she wanted to know what, if any, credits should be in a long-term tax system.

MR. PULLIAM said he felt the less done with credits, the better off you are. For instance, the U.K. has instituted the "brown field allowance" when they recognized they weren't getting the production they wanted. Instead of giving credits they incented additional production in areas that had already been developed by exempting the first number of barrels coming out of the new investment from a portion of the tax. While that can be done more easily there, because they tax by field and Alaska taxes by company, it's a credit in the form of taking less when it's produced. If a company wants the allowance, they have to apply for it and the U.K. has a review process. Here we give credits to anybody who does something that qualifies under the law. So, it could be a good investment or one that is poorly thought out.

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It would be better for Alaska if it wants to get involved to do something like AIDEA has done with the Mustang development. There they have a company that wants to develop and is having a tough time accessing capital probably because of their size and newness. But they went to AIDEA and laid it out and their economics are compelling, so they were able to get funding. That kind of vehicle is better ultimately for the state than pledging to buy the 45 percent.

SENATOR DYSON said they keep hearing that the sovereign should have some skin in the game and using AIDEA gets closer to the idea of the state sharing the risk.

MR. PULLIAM agreed with him and said that sharing also allows a level of review for the state. He explained that sometimes small companies will get funding from the private sector and then AIDEA will buy a significant portion of that debt and be able to reduce the capital cost. He thought exploring ways to make that kind of funding more accessible would be a great thing to look at. And while people thought PPT was competitive when it was changed, the message Alaska needs to send is that we will always be competitive even though situations change.

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SENATOR MICCICHE said he hears concerns from folks that they believe in being competitive, but how do they keep from starting a tax reduction war with Exxon's competitors across the board in OECD countries.

MR. PULLIAM said that was a good question. He didn't think matching them or being in the same ballpark that they are would constitute a price reduction. What happened is that our government take jumped up above theirs' and we've stayed there.

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SENATOR DYSON asked if those figures include royalty and property taxes.

MR. PULLIAM replied everything.

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SENATOR FRENCH asked what his assumption was for federal income taxes.

MR. PULLIAM answered 35 percent.

SENATOR FRENCH said he believes BP, ConocoPhillips and ExxonMobil pay significantly less than 35 percent and that his slide overstated the tax rate of the majority of the taxpayers on the North Slope.

MR. PULLIAM replied if it does for the North Slope it does for every place in the world.

SENATOR FRENCH said they don't pay federal income tax in the U.K. or Norway.

MR. PULLIAM responded that they do if they are a U.S. based company. He didn't know of anybody who does investment analysis who doesn't use the marginal rate of 35 percent for the federal take. They could get their effective rate lower with certain deductions, but it couldn't be applied to the marginal income and that is why it's appropriate to use the marginal rate for this analysis.

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SENATOR BISHOP said they are all trying to find a tax that is fair for everybody at the end of the day and asked if his calculation factored in the credits.

MR. PULLIAM replied yes.

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SENATOR MICCICHE asked Mr. Pulliam to answer his question.

MR. PULLIAM said PFC was kind enough to send their calculation of government take across different regimes so he could put it into his graph. All government take averages 65 percent; and it's fairly constant among progressive, regressive and flat systems, he said. The OECD areas - Australia, Canada, Norway, U.K., and the U.S. - all come in a little bit lower than 60 percent, but slightly higher than SB 21 in the \$100 and above range. Anything calculated on the gross will create a regressive component, which reflects the royalties that get paid in the U.S., but that is minor. But the proposal would put us within spitting distance of the average for other areas and he didn't think it would start any tax war if prices stay where they are.

If prices drop considerably, jurisdictions may be forced to lower their tax rates, but what would make prices drop? A significant change in technology or a discovery someplace. Right now we know that the marginal barrel coming out of the Lower 48 is in the \$80/barrel range and the same for Canada. With prices below that you start to shut in production and that isn't sustainable. High prices might increase takes as in the mid-2000s, but that isn't likely either. It will incent a shift to other technologies.

CHAIR GIESSEL asked him to define regressive, progressive and progressivity.

[5:17:12 PM](#)

MR. PULLIAM said that progressive refers to an increase in take as prices rise (tax rate is 25 percent at \$100 but 35 percent at \$120). Regressive refers to decreasing take as prices rise, because take is always calculated on the net (after costs). Progressivity increases the tax rate as prices rise; we did that by going to the net, which tends to flatten out the take, and then adding the progressive component to the tax, which made the overall system progressive as prices go up.

[5:19:05 PM](#)

Next he said the high cost scenario (slide 30) looks at the economics of producing both light and heavy oil and ACES provides an incentive in the form of the net present value and the internal rate of return (IRR). Producing heavy oil under the ACES system for an incumbent at above \$90/barrel looks like a positive net present value (attractive), but if you look at what

happens if there is no production tax at all, that same project doesn't look very attractive. What makes the difference? The ACES provisions that allows buying down the rate and the tax credit. ACES turns revenues associated with that production into a negative return for the state.

MR. PULLIAM said that producing heavy oil is a "challenged activity." If we had no production tax, things still wouldn't be quite right; the technology isn't quite there yet. Yet, under ACES we might make those look attractive, but at an expense to the state and "We might be jump starting something here that even if we had no tax wouldn't make sense to do."

[5:23:04 PM](#)

An excerpt from a CERA report (consulting firm) for the U.S. Department of Interior on government take in areas they thought were competitive with the U.S. federal properties characterized Alaska's system as a profits tax in the range of 25-75 percent, and when people look at Alaska's terms without digging too deep that is what they see. Another page in the report showed the attractiveness of fiscal systems and Alaska was the number two least attractive - sandwiched between Venezuela and Russia. If companies look at these things without digging too deeply, this paints an impression that is not real good for Alaska.

SENATOR DYSON asked him to go down the list of categories.

MR. PULLIAM listed them as total government take, profitability index (measure of the efficiency of capital investment (PI)), internal rate of return (IRR), and a component for progressivity and regressivity. He noted that you get a more favorable score the flatter your system is and a less favorable score if you are highly progressive or highly regressive. Revenue risk refers to the time in which the state receives the payments; to the extent you are sharing equally in the risk you get a higher score. For instance, a gross system would have a bad score and a net system would have a better score. The type of change refers to the type of fiscal change that has occurred over a number of years and the applicability of the change.

SENATOR DYSON asked what types of change.

MR. PULLIAM replied that they are looking here at fiscal systems in each jurisdiction.

SENATOR DYSON asked if that meant the sovereign's wisdom, strength and reliability.

MR. PULLIAM answered yes; he added that they also looked at the applicability, degree and frequency of the change. Alaska needs to be concerned with frequency, especially between 2005/06/07.

[5:27:26 PM](#)

SENATOR FAIRCLOUGH asked if Alaska takes the lion's share of the hit in terms of revenue risk during the monthly progressivity payments.

MR. PULLIAM answered that he didn't know if the monthly payments factor in or the gross royalty.

SENATOR DYSON said that nothing in this rating system talks about geo-political stability.

MR. PULLIAM replied nothing directly, but there would be an indirect relation through changes to the system itself.

[5:29:44 PM](#)

SENATOR DYSON asked if any others marked as "changed" were more likely to show geopolitical risk in the evaluation.

MR. PULLIAM replied that he didn't directly measure geo-political risk, but it comes in indirectly with the manner in which a fiscal system changes in frequency. For instance, Norway, a relatively good place to invest from an investor's perspective, is towards the bottom of the list and they have a high take.

SENATOR BISHOP said he was confused.

MR. PULLIAM said one must be careful in using just the take statistic. Norway's take is high but it's flat (not progressive). Norway has been fairly stable and has some aspects that provide for accelerated cost recovery. But Norway is still struggling with some of the same things that the U.K. is, and the U.K. has responded aggressively. A lot of activity in Norway is state funded by Statoil, a majority owned state company.

SENATOR FRENCH asked what Norway's capital spending record has been recently.

MR. PULLIAM replied that it has trended up.

SENATOR FRENCH remarked, "and with a higher government take than we have."

MR. PULLIAM added that other aspects come into play: the cash generation in Norway has been a little bit higher than what Alaska has had and it has the presence of a state-owned company with significant activity - and maybe a little bit different requirements. Yet they have also seen a decline in production and might have to make a change. Norway's recent discoveries are large and that encourages prospectivity, which is important when investors make decisions; they also look at reserves remaining.

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SENATOR DYSON said he was surprised to see Texas between Angola and Kazakhstan as an attractive place and that he was reacting to all the criticism Alaska gets for being amongst the worst in the world. He has often thought Alaska's critics don't take into account that it has a net tax and credits.

MR. PULLIAM said he suspected that Texas is there because theirs is a purely gross system and at lower prices takes in Texas don't look that great. His point is that the companies Alaska would like to have here look at things like this and have to be dissuaded that it isn't as bad as is being reported.

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Mr. Pulliam said the advantage to moving to SB 21, specifically, is that it:

- provides balance between the state and producer incentives
- reduces tax rates at high prices and that is balanced with the elimination of credits
- continues largest percentage of oil production revenues at any price to the state
- simplifies tax system and provides clarify for planning
- eliminates question of marginal tax rate/take for investment planning

[5:40:28 PM](#)

CHAIR GIESSEL said that large companies say they model in the \$70-90 price range, but that is not evidenced on this chart.

MR. PULLIAM explained the variety of investment statistics for ACES, SB 21 with the GRE and SB 21 without the GRE on slide 44. As the price of the oil goes up SB 21 significantly improves the present value of the investment for a new producer. He also explained that the U.K. has two systems (the difference between columns 10 and 11), one for pre-'93 discoveries and one for post-'93 discovered fields; the rate on the post-'93 discovered fields is lower. So column 10 (post-'93) has a net present value

of \$6.04/barrel and they wanted to get more oil out of those fields, so they instituted the "brown field allowance" that had the effect of increasing the present value by \$2.25, which puts it much higher than ACES.

CHAIR GIESSEL asked if the brown field allowance is for their legacy fields.

MR. PULLIAM answered yes. Their new field allowance operates in a similar fashion, but it would be legacy and non-legacy, anything in production really. When we think about legacy we think about Prudhoe and Kuparuk, but theirs would be applied more broadly.

[5:45:56 PM](#)

SB 21 with the GRE is a significant boost to a new participant's economics. There is a big benefit in cash generation, but not in the IRR. And at \$100/barrel a new development by a new participant moves the government take from 75 percent to 61 percent.

The next slide showed the same set of metrics for the incumbent whose MPV numbers, because of the buy down, were at \$6.14 (as opposed to \$3). This change really elevates the new participant to the level where the incumbent is already with the benefit of the tax buy down. It does it without progressivity and without providing credits, which makes it more efficient than providing that incentive. The producers' incentive at the \$100 level is not all that different in looking at the NPV. Margins are significantly increased under SB 21 and that will be viewed as attractive. The net present value of the state's take is actually a little better under SB 21 at \$100 oil and that's because it doesn't provide all of that upfront money. So, at the net present value basis the state is actually better off.

SENATOR MICCICHE asked if the crossover happened at around \$82 and if it had been reconciled with company modeling on slide 38.

MR. PULLIAM replied that was a good point and he noted that all of their analysis was done in constant 2012 dollars assuming 2.5 percent inflation. If one were instead to do this analysis using inflated prices that would correspond to \$80 today in 2015 that might be at \$83 or \$84. The crossover point would be different and that accounts for some of the differences in the ConocoPhillips analysis. But if you use real prices, they would both have the same slide.

[5:50:31 PM](#)

MR. PULLIAM added that there was a lot of useful detail in the appendix of his presentation.

CHAIR GIESSEL asked for closing remarks.

MR. PULLIAM said a lot of significant analysis had gone on this problem and SB 21 strikes the right balance that will be well received and does a good job of presenting a fair take for the state. Taking less is a much more attractive and additional monies will come into the state if it gives industry the freedom to do what they see fit.

SENATOR GIESSEL thanked Mr. Pulliam for his presentation and held SB 21 in committee.

[5:55:36 PM](#)

There being no further business to come before the committee, Chair Giessel adjourned the Senate Resources Standing Committee meeting at 5:55 p.m.