

**ALASKA STATE LEGISLATURE**  
**SENATE RESOURCES STANDING COMMITTEE**

April 18, 2017

2:00 p.m.

**MEMBERS PRESENT**

Senator Cathy Giessel, Chair  
Senator John Coghill, Vice Chair  
Senator Natasha von Imhof  
Senator Bert Stedman  
Senator Shelley Hughes  
Senator Kevin Meyer  
Senator Bill Wielechowski

**MEMBERS ABSENT**

All members present

**COMMITTEE CALENDAR**

COMMITTEE SUBSTITUTE FOR HOUSE BILL NO. 111(FIN)(EFD FLD)

"An Act relating to the oil and gas production tax, tax payments, and credits; relating to interest applicable to delinquent oil and gas production tax; relating to carried-forward lease expenditures based on losses and limiting those lease expenditures to an amount equal to the gross value at the point of production of oil and gas produced from the lease or property where the lease expenditure was incurred; relating to information concerning tax credits, lease expenditures, and oil and gas taxes; relating to the disclosure of that information to the public; relating to an adjustment in the gross value at the point of production; and relating to a legislative working group."

- HEARD & HELD

**PREVIOUS COMMITTEE ACTION**

BILL: HB 111

SHORT TITLE: OIL & GAS PRODUCTION TAX; PAYMENTS; CREDITS

SPONSOR(s): RESOURCES

02/08/17	(H)	READ THE FIRST TIME - REFERRALS
02/08/17	(H)	RES, FIN

02/08/17 (H) TALERICO OBJECTED TO INTRODUCTION  
 02/08/17 (H) INTRODUCTION RULED IN ORDER  
 02/08/17 (H) SUSTAINED RULING OF CHAIR Y23 N15 E2  
 02/08/17 (H) RES AT 1:00 PM BARNES 124  
 02/08/17 (H) Heard & Held  
 02/08/17 (H) MINUTE(RES)  
 02/13/17 (H) RES AT 1:00 PM BARNES 124  
 02/13/17 (H) Heard & Held  
 02/13/17 (H) MINUTE(RES)  
 02/17/17 (H) RES AT 1:00 PM BARNES 124  
 02/17/17 (H) Heard & Held  
 02/17/17 (H) MINUTE(RES)  
 02/20/17 (H) RES AT 1:00 PM BARNES 124  
 02/20/17 (H) Heard & Held  
 02/20/17 (H) MINUTE(RES)  
 02/22/17 (H) RES AT 1:00 PM BARNES 124  
 02/22/17 (H) Heard & Held  
 02/22/17 (H) MINUTE(RES)  
 02/22/17 (H) RES AT 6:30 PM BARNES 124  
 02/22/17 (H) Heard & Held  
 02/22/17 (H) MINUTE(RES)  
 02/24/17 (H) RES AT 1:00 PM BARNES 124  
 02/24/17 (H) Heard & Held  
 02/24/17 (H) MINUTE(RES)  
 02/27/17 (H) RES AT 1:00 PM BARNES 124  
 02/27/17 (H) Heard & Held  
 02/27/17 (H) MINUTE(RES)  
 02/27/17 (H) RES AT 7:00 PM CAPITOL 106  
 02/27/17 (H) Heard & Held  
 02/27/17 (H) MINUTE(RES)  
 03/01/17 (H) RES AT 1:00 PM BARNES 124  
 03/01/17 (H) Heard & Held  
 03/01/17 (H) MINUTE(RES)  
 03/01/17 (H) RES AT 6:00 PM BARNES 124  
 03/01/17 (H) Heard & Held  
 03/01/17 (H) MINUTE(RES)  
 03/06/17 (H) RES AT 1:00 PM BARNES 124  
 03/06/17 (H) Scheduled but Not Heard  
 03/06/17 (H) RES AT 6:30 PM BARNES 124  
 03/06/17 (H) Heard & Held  
 03/06/17 (H) MINUTE(RES)  
 03/08/17 (H) RES AT 1:00 PM BARNES 124  
 03/08/17 (H) Heard & Held  
 03/08/17 (H) MINUTE(RES)  
 03/08/17 (H) RES AT 6:00 PM BARNES 124  
 03/08/17 (H) Heard & Held  
 03/08/17 (H) MINUTE(RES)

03/09/17 (H) RES AT 5:00 PM BARNES 124  
 03/09/17 (H) -- MEETING CANCELED --  
 03/10/17 (H) RES AT 1:00 PM BARNES 124  
 03/10/17 (H) Heard & Held  
 03/10/17 (H) MINUTE(RES)  
 03/11/17 (H) RES AT 12:00 AM BARNES 124  
 03/11/17 (H) -- MEETING CANCELED --  
 03/13/17 (H) RES AT 1:00 PM BARNES 124  
 03/13/17 (H) <Bill Held Over from 3/11/17>  
 03/14/17 (H) RES AT 3:00 PM BARNES 124  
 03/14/17 (H) -- Continued from 3/13/17 Meeting at  
 1:00 PM --  
 03/15/17 (H) RES RPT CS(RES) NT 4DP 4DNP 1AM  
 03/15/17 (H) DP: PARISH, DRUMMOND, JOSEPHSON, TARR  
 03/15/17 (H) DNP: TALERICO, BIRCH, RAUSCHER, JOHNSON  
 03/15/17 (H) AM: WESTLAKE  
 03/20/17 (H) FIN AT 1:30 PM HOUSE FINANCE 519  
 03/20/17 (H) Heard & Held  
 03/20/17 (H) MINUTE(FIN)  
 03/21/17 (H) FIN AT 9:00 AM HOUSE FINANCE 519  
 03/21/17 (H) Heard & Held  
 03/21/17 (H) MINUTE(FIN)  
 03/21/17 (H) FIN AT 1:30 PM HOUSE FINANCE 519  
 03/21/17 (H) Heard & Held  
 03/21/17 (H) MINUTE(FIN)  
 03/22/17 (H) FIN AT 9:00 AM HOUSE FINANCE 519  
 03/22/17 (H) -- Continued from 3/21/17 at 1:30 PM --  
 03/22/17 (H) FIN AT 1:30 PM HOUSE FINANCE 519  
 03/22/17 (H) Heard & Held  
 03/22/17 (H) MINUTE(FIN)  
 03/23/17 (H) FIN AT 1:30 PM HOUSE FINANCE 519  
 03/23/17 (H) Heard & Held  
 03/23/17 (H) MINUTE(FIN)  
 03/24/17 (H) FIN AT 1:30 PM HOUSE FINANCE 519  
 03/24/17 (H) Heard & Held  
 03/24/17 (H) MINUTE(FIN)  
 03/25/17 (H) FIN AT 10:00 AM HOUSE FINANCE 519  
 03/25/17 (H) Heard & Held  
 03/25/17 (H) MINUTE(FIN)  
 03/27/17 (H) FIN AT 1:30 PM HOUSE FINANCE 519  
 03/27/17 (H) Heard & Held  
 03/27/17 (H) MINUTE(FIN)  
 04/07/17 (H) FIN AT 1:30 PM HOUSE FINANCE 519  
 04/07/17 (H) Heard & Held  
 04/07/17 (H) MINUTE(FIN)  
 04/08/17 (H) FIN AT 1:00 PM HOUSE FINANCE 519  
 04/08/17 (H) Moved CSHB 111(FIN) Out of Committee

04/08/17 (H) MINUTE(FIN)  
 04/09/17 (H) FIN RPT CS(FIN) NT 4DP 4DNP 2NR 1AM  
 04/09/17 (H) DP: GARA, GUTTENBERG, SEATON, FOSTER  
 04/09/17 (H) DNP: WILSON, THOMPSON, PRUITT, TILTON  
 04/09/17 (H) NR: ORTIZ, GRENN  
 04/09/17 (H) AM: KAWASAKI  
 04/10/17 (H) MOVED TO BOTTOM OF CALENDAR  
 04/11/17 (H) TRANSMITTED TO (S)  
 04/11/17 (H) VERSION: CSHB 111(FIN)(EFD FLD)  
 04/12/17 (S) READ THE FIRST TIME - REFERRALS  
 04/12/17 (S) RES, FIN  
 04/13/17 (S) RES WAIVED PUBLIC HEARING NOTICE, RULE  
 23  
 04/13/17 (S) FIN WAIVED PUBLIC HEARING NOTICE, RULE  
 23  
 04/14/17 (S) RES AT 3:00 PM BUTROVICH 205  
 04/14/17 (S) Heard & Held  
 04/14/17 (S) MINUTE(RES)  
 04/15/17 (S) RES AT 9:00 AM SENATE FINANCE 532  
 04/15/17 (S) Heard & Held  
 04/15/17 (S) MINUTE(RES)  
 04/15/17 (S) FIN AT 9:01 AM SENATE FINANCE 532  
 04/15/17 (S) <Pending Referral> Uniform Rule 23  
 Waived  
 04/15/17 (S) FIN AT 2:00 PM SENATE FINANCE 532  
 04/15/17 (S) <Pending Referral> Uniform Rule 23  
 Waived  
 04/15/17 (S) RES AT 2:00 PM SENATE FINANCE 532  
 04/15/17 (S) Heard & Held  
 04/15/17 (S) MINUTE(RES)  
 04/17/17 (S) RES AT 1:00 PM BUTROVICH 205  
 04/17/17 (S) Heard & Held  
 04/17/17 (S) MINUTE(RES)  
 04/17/17 (S) RES AT 5:00 PM BUTROVICH 205  
 04/17/17 (S) Heard & Held  
 04/17/17 (S) MINUTE(RES)  
 04/18/17 (S) RES AT 2:00 PM BUTROVICH 205

**WITNESS REGISTER**

KEN ALPER, Director  
 Tax Division  
 Alaska Department of Revenue  
 Juneau, Alaska

**POSITION STATEMENT:** Addressed HB 111 with his presentation titled "New Sustainable Alaska Plan."

RANDALL HOFFBECK, Commissioner  
Alaska Department of Revenue  
Juneau, Alaska

**POSITION STATEMENT:** Addressed HB 111.

RICH RUGGIERO, Managing Partner  
Castle Gap Advisors, LLC  
Houston, Texas

**POSITION STATEMENT:** Addressed HB 111 with his presentation titled "Petroleum Fiscal Design CSHB 111."

CHRISTINA RUGGIERO, Advisor  
Castle Gap Advisors, LLC  
Houston, Texas

**POSITION STATEMENT:** Introduced herself but did not provide testimony on HB 111.

#### **ACTION NARRATIVE**

[2:00:12 PM](#)

**CHAIR CATHY GIESSEL** called the Senate Resources Standing Committee meeting to order at 2:00 p.m. Present at the call to order were Senators Stedman, Coghill, Wielechowski, Hughes, Meyer, von Imhof, and Chair Giessel.

#### **HB 111-OIL & GAS PRODUCTION TAX; PAYMENTS; CREDITS**

[2:00:36 PM](#)

**CHAIR GIESSEL** announced the consideration of HB 111 [CSHB 111 (FIN)(EFD FLD)]. She said the Alaska Department of Revenue (DOR) will conclude their presentation that addresses HB 111, titled "New Sustainable Alaska Plan."

[2:01:05 PM](#)

**KEN ALPER**, Director, Tax Division, Alaska Department of Revenue, Juneau, Alaska, continued the department's presentation on HB 111, "New Sustainable Alaska Plan," commencing with slide 24, "Fiscal Analysis: Impact of North Slope Tax Rate Change, per one barrel of taxable non-Gross Value Reduction (GVR) oil; FY18 costs per Fall 16 Revenue Sources Book (RSB)." He noted that the previous meeting ended with the section in the department's report that looked at how the bill's specific provisions worked, and the report's next section shows how the bill's provisions fit together. He addressed slide 24 and referenced a table that

compared "Status Quo Versus HB 111" at \$60 and \$120 per barrel as follows:

**Status Quo:**

<b>• Price</b>	<b><u>\$60/BBL</u></b>	<b><u>\$120/BBL</u></b>
o Transport:	\$9.77	\$9.77
o GVPP:	\$50.23	\$110.23
o Lease Expenditures	\$33.64	\$33.64
o PTV(net):	\$16.59	\$76.59
o Tax at 35 pct.:	\$5.81	\$26.81
o Per-BBL Credit:	\$8.00	\$4.00
o Tax per Net:	-\$2.19	<b>\$22.81</b>
o Minimum Tax:	<b>\$2.01</b>	\$4.41
o <b>Higher Of:</b>	<b>\$2.01</b>	<b>\$22.81</b>
o Tax as Pct. of Price:	3 pct.	19 pct.
o Tax as Pct. of GVPP:	4 pct.	21 pct.
o Tax at Pct. of PTV:	12 pct.	30 pct.

**HB 111:**

<b>• Price</b>	<b><u>\$60/BBL</u></b>	<b><u>\$120/BBL</u></b>
o Transport:	\$9.77	\$9.77
o GVPP:	\$50.23	\$110.23
o Lease Expenditures	\$33.64	\$33.64
o PTV(net):	\$16.59	\$76.59
o Tax at 25 pct.:	\$4.15	\$19.15
o Surtax at 15 pct.	\$0.00	\$2.49
o Tax per Net:	<b>\$4.15</b>	<b>\$21.64</b>
o Minimum Tax:	\$2.01	\$4.41
o <b>Higher Of:</b>	<b>\$4.15</b>	<b>\$21.64</b>
o Tax as Pct. of Price:	7 pct.	18 pct.
o Tax as Pct. of GVPP:	8 pct.	20 pct.
o Tax at Pct. of PTV:	25 pct.	28 pct.

MR. ALPER detailed the table's first four lines for the "status quo" and HB 111 tax calculations as follows:

- Cost of Transport (Transport):
  - o Pipeline-tariff plus "marine."
- Gross Value at the Point of Production (GVPP):
  - o Also known at the "wellhead value" upon which the state's royalty is charged and any gross base; i.e., the minimum taxes charged.
- Lease Expenditures:
  - o Sum-total of operating and capital expenditures.
- Production Tax Value (PTV).

MR. ALPER addressed the "status quo" tax rate and pointed out that when oil prices are cut in half the taxable net drops by more than three quarters, just by the nature of the net-profits tax. He pointed out that Alaska's highly elastic tax system is the reason why the state's revenue went down by more than 90 percent when the price drop occurred, specifically the production-tax revenue. He explained that the "status quo" tax rate is 35 percent and the table's rates ranged between \$5.81 and \$26.81. He said at the lower oil price the per-barrel credit is the "full" \$8 and \$4 at the higher price. He detailed the "actual tax," (Tax per Net), at the lower oil price would be negative or zero because the calculation cannot be below zero. He added that the "actual tax" at the higher price of \$22.81. He summarized that the "minimum tax" of \$2.01 is the tax that governs at the lower oil price.

He addressed HB 111 and explained that by getting rid of the per barrel credit and replacing it with the lower tax, everything in the table is the same until the tax calculation at 25 percent instead of 35 percent. He detailed that the tax calculation at the lower oil price is \$4.15 versus \$2.01 in the "status quo" calculation. He said, as Senator Stedman alluded in prior testimony, that HB 111 moves the crossover point between gross and net substantially to the left with the net system exhibiting a wider range of prices. He pointed out that the tax calculation table shows a substantial tax increase in the lower oil per barrel price ranges. He emphasized that the tax is on a single barrel of non-GVR taxable oil, also known as "royalty oil." He disclosed that there are approximately 150 million barrels of non-GVR taxable oil in a typical year.

He summarized that HB 111 would double the tax at the lower oil prices; however, the tax rate is similar at higher oil prices, within 5 percent of each other. He pointed out that a small tax cut occurs at higher prices, something that could easily get lost in the noise of the individual variation in per barrel spending from one company to another.

[2:06:53 PM](#)

He addressed slide 25, a graph showing the "Fiscal Analysis: Effective Tax Rates (Legacy/non-GVR oil)." He noted that in a presentation at a prior meeting he had a similar slide that compared effective tax rates and net operating loss (NOL) rates for tax laws that encompassed "Alaska's Clear and Equitable Share" (ACES), and SB 21. He specified that the same modeling

set is used in slide 25, but without the ACES comparison. He detailed that the graph displayed the following:

- Status quo: (SB 21), blue curve on the chart.
- CSHB 111(RES): red curve on the chart.
- CSHB 111(FIN): green line on the chart.

MR. ALPER said as he noted in the similar slide that there is a substantial difference between the effective tax rate, which varies between 35 percent and then ramping down as the price gets lower, currently the rate is 15 percent, and the rate at which the state is giving benefit for a carried-forward loss, it's also the rate of tax benefit the state gives for what companies earn for their incremental spending; for example, if a company, even a profitable company, spends another \$1 million, the company would get a \$350000 tax reduction based on the current tax code of 35 percent, even though the effective rate is somewhat lower because of the impact from the per barrel credit.

He said the red curve represented CSHB 111(RES) on the graph and detailed as follows:

What the House Resource Committee did was interesting in that it was a tax increase across the board between that red curve that is the minimum tax to the left and that jagged step to the right which is the reduction in the per-barrel credit. But the other thing they did was cut the carry-forward to 50 percent; what that meant in practical terms was if you are carrying half of your losses forward to use against the 35 percent tax, that's the equivalent of a 17.5 percent NOL, basically you are offsetting the 35 percent tax with half of your spending.

He explained that the purpose of CSHB 111(RES), with equivalent NOL, was to put the line in the middle of the tax range which it does as shown on the graph where the dotted red line crosses through the middle of the red curve rather than sitting above which the blue curve does. However, the change created a serious distortion between the money being spent on new projects by incumbents versus companies that are investing for the first time. He explained that an example of an "incumbent" is a company that is profitable but is investing in a new project and continues to get the 35 percent benefit whereas a company investing in its future with their first project could only get the 17.5 percent benefit.

MR. ALPER said the distortion from CSHB 111(RES) that was unfair to newcomers was resolved in the House Finance Committee, represented by the "green line" on the chart. He explained that the green line is the effective tax curve of HB 111 with a 25 percent net tax in addition to a bracket-of-progressivity to the right of \$100 per barrel that closely tracks the effective tax curve of SB 21 after \$100 per barrel. He pointed out that there is no dotted green line on the chart because there is no NOL rate per se, because the carry-forwards are at the statutory tax rate and the effective tax rate are the exact same thing because there is no per barrel credit anymore. The value of those carry-forwards is at the statutory tax rate where the companies will get the value of whatever their tax rate is. He explained that if the companies' tax is at lower prices with a 25 percent tax with some expenditures carried forward from the past, then those offset their taxes. He said if companies are further up the chain and are paying a 30 percent rate, then they would get the value of those carry-forwards at the 30 percent rate. He asserted that the "useful alignment of math" noted in his examples where the value given to loses and the value paid in taxes are at the same rate, a distortion previously addressed in testimony by Mr. Ruggiero.

SENATOR HUGHES referenced the chart on slide 25 regarding prices between \$50 and \$80 per barrel. She remarked that there was "quite an increase" between the green and blue lines. She referenced an earlier slide from a previous meeting where the governor's "four priority concerns" were addressed, specifically that "The oil companies should participate as part of the overall fiscal plan for Alaska." She asked, based on the "four priority concerns," if the governor supports the current form of the bill where taxes are increased at low prices.

[2:11:20 PM](#)

RANDALL HOFFBECK, Commissioner, Department of Revenue, Juneau, AK, concurred that the governor for the last two years has felt that everyone should participate at some level in balancing the fiscal situation that the state is facing. He said the governor has supported some level of increased revenue from the oil industry as part of the plan. However, he does not endorse HB 111(FIN) or any other. He agreed with Director Alper that HB 111(FIN) contains a substantial tax increase at low oil prices. He noted that the governor had proposed a one percent increase in the gross tax rate which more closely aligns the difference between the chart's "red" and "blue" lines. He opined that HB 111(FIN) tries to get the tax and credit rates in alignment and

then the decision point as to what the net effect is with the 25 percent rate. He pointed out that Director Alper said alignment can be achieved without the level of tax increase proposed in HB 111(FIN). He emphasized that the governor addressed the idea that there should be tax increases at some level with everybody participating in the solution.

SENATOR HUGHES asked if any economic analysis was done on the impact to the North Slope from the tax increase proposed in HB 111(FIN).

COMMISSIONER HOFFBECK replied that the industry has testified on what they believed the impact would be. He noted that the department has the capacity to do various full-life modeling on the North Slope fields, but conceded that ascertaining the industry's threshold point from a tax increase for a go/no-go decision is not the kind of insight the department has.

SENATOR HUGHES commented that she has troubling "stomaching" the tax increase from HB 111(FIN). She asserted that the state's energy should be behind putting as much oil in the pipeline as possible, especially when the state is in recession. She remarked that HB 111(FIN) seems to be focused on the lower price range that causes her grave concerns.

MR. ALPER addressed slide 25 and asked the committee to draw its attention on the concept of reducing the state's liability related to large, future investments. He opined that the larger structural concept is the state's participation via the value of the offsets of the carry-forwards where someone makes a large investment that comes into future production at the 25-percent rate; that is a more substantial and material savings for the state than the specific issue of the tax increase in the short term. He remarked that the structural changes that align the tax and gets rid of the system's distortions are in some ways more important than the tax increase and should be looked at separately. He summarized as follows:

I think that there are structural fixes to the tax system that could be done without raising taxes if the will of the Senate and the committee is not to raise taxes; but, because this version happens to raise taxes shouldn't mean that you shouldn't look at some of those other more technical fixes that are embedded within this bill.

[2:15:47 PM](#)

CHAIR GIESSEL explained that the four goals when SB 21 was written were that the tax be: fair, simple, durable, and resulted in more production. She pointed out that during the previous meeting the committee heard that the current oil tax is working and is workable for companies. She added that the thought was that the tax was durable as well. She pointed out that the governor has said, "We've got some exposure here, we need to protect the state from the tax credit exposures." She added, "We certainly agree with that." She opined that HB 111(FIN), "goes far off the rails from that." She asserted that the bill is an increase in tax rates under a current regime that has resulted in more production, something that the committee has concerns with. She pointed out that life-cycle modeling has been mentioned by the department, but it has not been presented to this committee or previous committees.

COMMISSIONER HOFFBECK responded that the department did a life-cycle analysis in other committees, but the department received criticism for not properly accounting for the timeframes between initial exploration work and bringing things into production, so the department decided not to include life-cycle analysis in its presentation. He said the department would be happy to work with the committee in presenting a life-cycle analysis, but conceded that the department would be required to spend time with industry participants that are developing the fields to make sure the analysis is properly calibrated to accurately reflect what is going on.

CHAIR GIESSEL replied that she appreciated the commissioner's statement. She noted that Senator Wielechowski had commented in an earlier meeting that the Legislature has never seen an oil policy bill come from a legislator, that the bills have come from the administration and that the administration has had a consultant of its own who could do credible modeling.

SENATOR WIELECHOWSKI added that he too would like to see life-cycle modeling on a variety of Prudhoe Bay's fields, both legacy and new fields. He noted that Commissioner Hoffbeck had earlier mentioned that he did not have an idea of what the "hurdle rates" would be. He pointed out that department has established hurdle rates, at least the Alaska Department of Natural Resources (DNR) has established rates. He recollected that the DNR has established hurdle rates that the industry uses at 15 percent and noted that he believed the "royalty relief" for [Caelus Energy] to be 17.5 percent. He asked if the hurdle rate he previously noted is a fair rate to be considered for the

life-cycle models, net present value, and the internal rates of returns on the oil fields.

[2:19:36 PM](#)

COMMISSIONER HOFFBECK agreed that historically the 15 percent hurdle rate is not unreasonable and is consistent with what has been presented to the state in the past. He noted that the department does not have information on lower hurdle-rates in a low-return environment where there is concern by companies on what their investments can earn versus past earnings. He added that the department will never have information on what the competing projects are in a company's portfolio and what hurdle rates might trip a project.

MR. ALPER specified that the department's life-cycle model was built on a similar life-cycle model from enalytica, the previous consultants to the legislature. He disclosed that the department discovered that the status quo appeared too weak for the rates of return of a large field under current conditions. He revealed that even \$80 oil was not as economic as what the department believed it to be and what the project sponsors have presented them to be. He said the department thinks the primary reason for the weak rates of return has to do with the timing of the capital-spending curve. He surmised that a large project probably is not as front-loaded in the assumptions of capital spending as what the department shows, that the buildout is slower. He emphasized that "when" the capital spending occurs makes a big difference in a large project's rate of return. He disclosed that the department was reluctant to change its assumptions in the middle of the session because a track record was established in hearings that was based on certain status quo results. He conceded that the department's "starting point" may be a little bit off in its impact analysis on the oil tax bills, but stands behind its accuracy in how its modeling goes from "A to B." He emphasized that the committee should not get hung up on the specific rates of return in the result and suggested that the focus be on the change in rates of returns between the starting point and whatever a bill being introduced specifies.

SENATOR STEDMAN remarked that the current oil tax system has a gross tax at some dollar amount and below, roughly high \$60s or \$70 where below there is a gross tax and above is a net tax at 35 percent with credit mechanisms and other things going on. He pointed out that the committee started the week with \$1 billion noted in production-tax value, also known as "profit oil," and now the committee is told there is \$2.2 billion or \$2.3 billion due to industry cost containment, increased production, oil

prices moving a little bit, and a few other changes; however, the state has ended up with \$1.2 billion or so in more profit oil. He asked if there was any thought about what size the profit oil should be before the state starts looking at changing the mechanism from out of a gross tax into something else.

[2:24:38 PM](#)

MR. ALPER concurred with Senator Stedman that the state has ended up with approximately \$1.3 billion in divisible profits in FY2017 due to the reasons he had given.

He addressed the graph on slide 25 and pointed out that the minimum tax kicks in for the green line/CSHB 111(FIN) at \$50 or \$52 a barrel and stays in the net tax for a wider range versus the blue line/SB 21. He acknowledged Senator Hughes' question, and said looking at structural change that reduces the state's exposure without a tax increase was worth looking at. For example, if the green line/CSHB 111(FIN) was lowered to 15 percent, what he described as a non-material tax increase, and then the line would follow the blue line/SB 21 to the right. The result is a revenue-neutral change that would still do the important policy direction of reducing the state's exposure and keeping the state in a net tax, albeit a 15 percent net tax, all the way down to \$55 a barrel or so. He emphasized that there are several different ways to do this.

He noted that Mr. Ruggiero previously spent time talking about how to ensure the entirety of the carry-forwards get monetizable and the importance that the companies can use 100 percent of their losses. He said the question is what tax rate should be used for the carry-forwards.

SENATOR COGHILL asked if Mr. Alper has modeled the impact from CSHB 111(FIN) on the effective tax rate where oil fields must be separated for a loss, carry-forward credits change, and the tax rate plus the investment strategy are affected.

MR. ALPER explained that a life-cycle model fundamentally isolates a single oil field as a resource where "X" barrels are in the ground, total capital spend is going to be, how the capital is going to be spent, what the operations will look like, and what the production will be. He specified that the inherent default of the life-cycle model is that the costs are contained in an oil field or ring-fenced. He detailed as follows:

If there were not a ring-fence it would only get more economical in the company's favor because it would mean some of those carry-forwards would be able to be monetizable in some way sooner than the model would otherwise show, the model shows they can't get that value until they come into production.

MR. ALPER noted that ring-fencing was addressed at a previous meeting and he wanted to make sure the committee fully understands what ring-fencing does and does not do. He detailed as follows:

If a company has multiple projects in parallel, it doesn't necessarily mean that they are all taxed separately, especially if that is an encumberment company who is otherwise profitable. If the company does not have a negative cashflow for the year there is no separation in between their different projects, it is a single, unitary tax across the North Slope. It's only when that company is in a loss circumstance for the year which would be expected if a new company was having a single, large project, for example. Then those losses would get tied to that field so that they can't be used until that field comes into production. But the way the bill is written now, it does not impact say if you have a company who has profit and they are reinvesting a portion or even almost all of that profit in a new field. There would be no attachment of that spending with the new field.

SENATOR COGHILL said what the committee heard was that was a "value call" and there is going to be less oil if there is the inability to make a value call, something Alaska cannot afford. He said the committee will have to look at the "value thing" when going through the very complex oil structure.

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COMMISSIONER HOFFBECK disclosed that he had discussions with producers regarding ring-fencing and they concurred with Senator Coghill that the ability to monetize credits on a field earlier makes their field development more economic in the long term. He specified that the ring-fence idea was to make sure credits stayed with an oil field and the credits would drive the field into production. He noted that a softer ring-fence could be considered that allowed investment transfer with a claw-back if a field is not brought back into production. He opined that

ring-fencing is the simplest option, but conceded that "simple" has collateral issues around it.

SENATOR STEDMAN pointed out that he did not receive an answer regarding the size of the profit oil before a switch is considered. He said at some point having a discussion on profit oil would be nice because if there's virtually no profit oil then there is nothing to cut up, no production tax value. He explained that if the production tax value was sitting in aggregate between \$2 billion to \$5 billion, at some point the Legislature needs to consider when to trigger in and out of the minimum-tax range.

He addressed ring-fencing and said the inability for a producer to take a loss on a field, but pay taxes on gains seemed odd to him. He said he is struggling with the concept of screening out the ability to immediately deduct your losses where there is production, asserting that the committee will have to work on that concept. He remarked that he did not know if the department supports the concern he pointed out, because the bill was introduced from a colleague in the legislature.

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COMMISSIONER HOFFBECK addressed a statement made earlier in the meeting regarding SB 21's "four pillars" and opined, "I think we maybe didn't quite hit the simplicity pillar in SB 21." He said one of the things that the state has in the current tax structure is a blended gross tax/net tax that is the best of both worlds as far as the state is concerned. He explained that the state has a gross tax at the low oil prices, but setting a gross tax across the entire spectrum of prices tends not to capture the upside because the gross tax is set so high to capture the upside that the tax would be onerous on the low side. He said having the blended-tax structure for a minimum tax at the low side and allowed to capture revenues at the high side by switching to a net tax is an oil tax structure that is well designed for the state's position. He concurred with Senator Stedman that the question becomes where is the trigger point, a question that the department is trying to answer.

MR. ALPER recounted a statement made by Mr. Ruggiero in an earlier meeting where he expressed a fundamental issue with anything tied to gross in the tax and viewed that as a distortion in the system. He detailed that the history of the gross was originally passed as part of the Petroleum Profits Tax (PPT). He noted that Mr. Ruggiero questioned where the \$25 figure comes from, why the tax is 4 percent only at prices above

\$25 and why does it go to zero at \$15 oil. He asserted that no one is realistically contemplating \$15 oil and specified that minimum-tax triggers are tied to the annual average price, not to a low point occurring in a fixed month. He believed that Mr. Ruggiero would advocate for no minimum tax at all, but a stronger net tax so that when there was a profit the state received a more reasonable share while companies who were losing money were not being penalized. He emphasized that nor he or the governor were advocating what he surmised Mr. Ruggiero's position is regarding a minimum tax. However, he stressed that Mr. Ruggiero's argument has previously been made before the committee this week.

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MR. ALPER addressed the graph on slide 26, "Fiscal Analysis: Effective Tax Rates (New/Gross Value Reduction (GVR) Oil)." He said slide 26 shows how the effective rate works on the GVR eligible oil, the so called "new oil." He explained that the way the per-barrel credit works with GVR-eligible oil is the tax can go to zero, roughly below \$70 oil, and then the impact is shown on the graph from the reduced 35 percent of the adjusted production tax value after the GVR with the \$5 credit that shows the curve going up. He expounded that the House Resource Committee placed a hard floor at 4 percent, but was modified by the House Finance Committee at 3.2 percent, the result is a tax increase at low prices and a tax cut at high prices, something noted earlier in the committee as "irrational." He opined that that tax increase at low prices and a tax cut at high prices was inadvertent, a mathematical byproduct of other decisions that were made in formulating the bill.

He continued to analyze slide 26 as follows:

- On the right side is the lower tax rate, the 25 percent, while maintaining the \$5 per barrel credit, whereas the sliding-scale-per-barrel credit was eliminated.
- There's a second jog at around \$90 where the minimum tax gives way to the net tax, then another jog at around \$105, that's where the progressive bracket would come in.

He surmised that if the \$5-per-barrel credit were eliminated, the result would be much like non-GVR oil that is relatively revenue neutral at higher prices, bringing the conversation back to low prices, a realistic discussion to have should the floor be hardened for GVR oil.

MR. ALPER acknowledged that GVR is inherently time limited, something the committee knows because setting a time limit on GVR was part of HB 247 that the Senate helped pass the previous year. He remarked that having GVR may be helpful to a project's bottom line for a zero tax for those three or seven years. He conceded that having a bill raise prices at one price point and lower at another price point is unusual.

He addressed a graph on slide 27, "Fiscal Analysis: Total Production Tax Revenue (FY2019)." He pointed out that the graph shows a triangular shaped wedge between the green line (CSHB 111(FIN)) and the blue line (SB 21), occurring between \$50 and \$100 area that shows the straighter 25 percent net tax leads to a tax increase and then at higher prices a bit of a tax cut. He noted that the lines in the graph can be adjusted and viewed separately to show any structurally positive results that might be made from simplification by avoiding the tax changes. He pointed out that the graph shows the tax change of a few hundred-million dollars when the state is only receiving \$0.5 billion to \$1.0 billion, but is more dramatic when oil is well over \$100-per barrel where the production tax might be \$3 billion or \$4 billion.

He addressed slides 28 and 29 regarding the Tax Division's four-page fiscal note on the bill. He referenced slide 28, "Fiscal Analysis: Fiscal Note Summary-Tax" as follows:

- The tax impact is concentrated in the \$50 to \$100 oil price range:
  - Difference between the current effective tax rates, based on 35 percent of net less the per barrel credit, and a flat 25 percent of net;
  - "Crossover" between gross and net taxes moves substantially lower, from about \$75 to about \$50.
- Comparably minor revenue impact at higher prices, actually a small tax cut.

He summarized slide 28 as follows:

The tax impact is concentrated in that mid-price range and that has to do with the elimination; it's counterintuitive to some, we are reducing taxes and therefore raising revenue. We are lowering the rate from 35 percent to 25 percent, but getting rid of that per-barrel credit; that means that flat 25 percent of net and again, the crossover moving from roughly

\$70/\$75 to around \$50, and then the smaller impact at higher prices, and this was the choice made in the other body as how to structure this tax.

MR. ALPER referenced slide 29: "Fiscal Analysis: Fiscal Note Summary-Budget" as follows:

- Additional impact due to near-total elimination of cash payments for tax credits (reduced spending):
  - Long-term forecast for cash credits is \$150 million/year; reduced to less than \$20 million.
  - Does not include what "would be" the liability for possible future large projects.
  - The associated projects don't come into production during the fiscal note period.

He opined that the analysis on the budget is getting less focus. He pointed out that one of the fundamental purposes of the bill is to move the state away from the business of cash for tax credits and the bill nearly eliminates that world. He detailed that in the department's long-term forecast the credit obligation as it accrues is estimated at \$150 million per year. He noted that before the passage of HB 247, the annual cash credits of \$150 million per year would have been \$250 million per year. He detailed that approximately \$100 million in Cook Inlet credits have fallen out of the mix; however, he emphasized that the \$150 million or the "old \$250" are understated. He explained that the only dollars in the forecast are the dollars that are connected to barrels that are in the oil production forecast. He added that a lot of things are not in the oil-production forecast yet and if any fall into the forecast the dollars associated with them will enter the forecast as well.

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SENATOR STEDMAN readdressed his question regarding how big the production-tax value or profit oil is before the gross/net switch-out. He suggested that a sensitivity analysis be done to see where the new volume, price structure, and production-tax value would be at the tipping point. He noted that the last time a sensitivity analysis was done the price tripped-out at \$70. He recommended that FY2017 be used because a large portion of the year has already elapsed. He estimated that the state has approximately \$2.2 billion to \$2.3 billion in profit oil and expected the number to be larger than \$4 billion. He said he was not saying the profit oil's change in size is good or bad, but emphasized that the total focus should not be just on per barrel, but to also look at the components, GVR, non-GVR, and

then to look at, "The whole can of soup as we put all of the ingredients together and stir it up."

MR. ALPER noted that his presentation was put together prior to the spring forecast and the department did not have the benefit of being able to come out publicly with those numbers. He admitted that a couple of things are going to move based on the spring forecast. He suggested that a bit more of higher production be "baked in" for the near term due to the inherent staleness of the FY2018 and FY2019 production numbers.

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He readdressed slide 29 and pointed out that the bill does not "completely" eliminate cash credits because cash credits exist in the "Middle Earth," the region not in the Cook Inlet or the North Slope. He disclosed that cash credits for middle-earth include:

- NOL credit: 15 percent,
- Capital expenditure: 10 percent,
- Well drilling credit: 20 percent.

He explained that the credits amount to \$20 million to \$30 million in the near term and a little lower beyond that. He reiterated that the credits do not include projects that might get sanctioned in the future that could include hundreds of millions of dollars in credit liability.

He disclosed that the other remaining cashable credit in the system other than middle-earth is the refinery credit, which has another three years left to a refinery capital improvement credit against the corporate-income tax as well as the interior gas utility has access to a gas storage credit should that project come to fruition. He detailed that the credit for the gas storage facility was modeled after the Cook Inlet Natural Gas Storage Alaska (CINGSA) given to the underground storage facility in Kenai that remains as a cashable credit. He summarized that the passage of CSHB 111(FIN) would be the limit of what remains for cashable credits.

SENATOR STEDMAN asked that the following be included in a report:

Maybe if I could do the current FY2017 and then if I could have it rerun at \$5 on the per-barrel, like the Senate had it initially on SB 21, and then \$0 so we could see the full gamut of how that number moves

around, and I'm not saying any of them is good or bad or otherwise, I'd just like to know what it is.

MR. ALPER replied that the department will comply. He remarked that the \$8 credit will keep Alaska in the gross tax range, a wider range of prices than anyone really contemplated. He opined that the fact the state is still in a gross tax at \$70 oil is not what the Legislature expected when SB 21 passed. He pointed out that if the Senate's version was used with the \$5 credit, the crossover point would be, "Somewhat to the left of the graph."

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He referenced slide 30, "Fiscal Analysis: Fiscal Note Table-Impact at Range of Prices." He addressed two subtotal lines in the table: "Total Revenue Impact" and "Total Budget Impact." He detailed that the subtotal lines have about 10 lines above them that corresponds to an individual component of the bill that shows individual impact at different price points at different years with a price-point presumption of the fiscal forecast. He disclosed that the official forecast price range for next year is \$54 and \$60 the year beyond. He detailed that "Total Revenue Impact" is how much more in taxes the state is expected to receive and noted that the revenue amount will show up in the department's online payment system as money in the bank to the state. He explained that "Total Budget Impact" is the reduction in the state's obligation for buying cash-tax credits and reiterated that the long-term forecast is \$150 million with a 90-percent reduction in the out-years with \$15 million of middle-earth credits and refinery credits. He pointed out that "Total Fiscal Impact" is the total of both new money in the treasury-the revenue side, and less to the appropriated budget side.

He explained that the last three lines in the table show the cumulative value of carried-forward-lease expenditures. He noted that there is a small amount of carried-forward losses because of major producers who might have had an operating loss in a low-price year that are unable to getting cash credits; under current law those get carried forward and are gradually getting used up by the producers: \$14 million for FY2018 and \$0 beyond. He detailed that the next line is the same concept with the passage of the bill where producers are not get cash credits, but everyone is accumulating carried-forward-lease expenditures that grows to \$225 million in FY2020 and \$640 million in FY2027. He specified that the carried-forward lease expenditure is a 25 percent tax; e.g., \$900 million worth of carried-forward losses

would be \$225 million (FY2020) and \$2.5 billion worth of carried forward losses would be \$640 million (FY2027).

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SENATOR WIELECHOWSKI asked what the cost is to run a net-tax system in terms of state employees and total dollars versus a gross-tax system. He noted that Alaska has been told that it operates one of the most complex tax structures in the world.

MR. ALPER recounted that the state's oil and gas production tax division has been around since the 1970s and experienced a ramping up of staff with the switch to a net tax in the late 2000s. He noted that industry-experienced "audit masters" were added and paid higher than the traditional state-pay scale to provide technical advice to help orchestrate the more complex net-profits tax process. He summarized that the division is comprised of five to seven employees and accounts for less than \$1 million to the state.

SENATOR WIELECHOWSKI asked if the division has enough people to do the audits and what needs to be done.

MR. ALPER replied that the oil and gas group is proud of staying ahead of the statute of limitations. He noted that the division will ultimately be reviewing fewer credits, primarily due to Cook Inlet cashable credits falling out of the work pool where the staff will be freed up to assist with tax audits. He disclosed that added staff will occur with corporate-income-tax auditors, but additional staff has not been sought in the oil-and-gas production group.

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He addressed slide 31, "Fiscal Analysis: Fiscal Note Table-Impact at Range of Prices." He explained that the graphic slide shows what happens from FY2018 to FY2027 if the price of oil varies from the Fall 2016 Revenue Forecast, (FC). He pointed out that at the \$60/\$80/\$100 oil-price ranges show the impact from a relatively dramatic 25 percent net tax overlaying the previous tax which nets out to an annual \$200 million to \$400 million increase in revenue. He said at the lower oil price range, \$20/\$40, the graph shows more credit obligation for cash where nearly everyone on the North Slope starts operating at a loss and many of the companies are eligible for cash credits and the state would have a large cash obligation as companies start running up multi-hundred-million-dollar losses with eligibility for a 35 percent NOL credit under status quo law. He noted that lower oil prices equate to a budget impact and higher prices a

tax impact. He pointed out that at the \$120 oil price the "curves" crossover each other that results in a more revenue-neutral bill at \$120 and higher prices.

SENATOR WIELECHOWSKI recalled that the committee heard testimony the previous day from a producer that claimed the bill was a 100-percent increase in taxes at \$60-barrel oil. He calculated that the tax increase was approximately \$150 million. He asked what the total government take was when royalties, corporate income taxes and property taxes were considered.

MR. ALPER replied that he appreciated Senator Wielechowski's inquiry to compare apples-to-apples. He pointed out that the state does receive revenue when oil prices are low from royalties, property taxes and corporate incomes taxes. He added that doubling the state's production tax is just an increment on top of one component in addition to the previously noted revenue sources. He summarized that the state's approximate production take in the near-term years is \$1.5 billion; at \$60 oil, the state is looking at \$150 million to \$200 million increase, or a 10 to 15 percent increase in total oil and gas from the change.

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RICH RUGGIERO, Managing Partner, Castle Gap Advisors, LLC, Houston, Texas, addressed his overview titled "Petroleum Fiscal Design CSHB 111."

CHRISTINA RUGGIERO, Advisor, Castle Gap Advisors, LLC, Houston, Texas, introduced herself but did not provide testimony.

MR. RUGGIERO commended the committee members for keeping up with the bill's iterations and noted that he had one major flaw in his analysis due to inadvertently using an interim version of the bill.

He noted that the committee had asked him for some final observations and analogized that the Legislature's committees responsible for oil and gas acts as the board of directors for the state's oil interest. He opined that the committee members should not be expected to know the intricacies of the day-to-day operations, but to be advised on a routine basis of the key aspects that represent the bulk of the revenues and profits. He said he was saddened to see at the end of the session that legislators acting as the "board of directors" were having to

ask basic questions about what is going on with the business that is the "engine of the state." He asserted that information should be made available early and regularly so that when committee members are talking about making decisions on what represents 70 to 80 percent of what drives the state that the best information is available ahead of time for members to better formulate their questions, to better understand how things are going, and to better know how to make the decisions that must be made.

CHAIR GIESSEL asked if Mr. Ruggiero could specify exactly what information he was referring to.

MR. RUGGIERO addressed slide 4, "Alaska's Priorities - The Current Challenge." He noted that his observations and suggestions will come from a "30000-foot view" and not necessarily down to the fiscal-type numbers that Commissioner Hoffbeck and Mr. Alper previously provided.

He asserted that the state has drivers that it is currently dealing with: money into the state and the looming cashable credit issue, and making sure whatever the state does that it does not in any way significantly damage the long-term ability to fill the Trans Alaska Pipeline System (TAPS) with more oil.

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SENATOR WIELECHOWSKI remarked that Mr. Ruggiero said two different things: revenue to the state, and filling TAPS. He said the state can give the oil away and probably fill TAPS, but that does not fulfill the state's need to get revenue. He asked Mr. Ruggiero if he agreed that a balance is required between revenue and giving huge tax breaks to get more oil into the pipeline.

MR. RUGGIERO replied that when he made his statement the state has a short-term driver due to the cashable credits and the long term to fill TAPS. He asserted that in no way did he want to imply that the state should fill TAPS just for the sake of filling TAPS. He specified that the state has an asset that it has licensed out to others to develop and the state needs to receive some value for that. He said the constant challenge the Legislature has is determining the state's fair share over time as opposed to how much the state leaves the producers for their development effort and risk taken. He set forth that TAPS is going to be filled where it makes sense for all parties involved.

MR. RUGGIERO referenced slide 5, "Observations from Prior Testimony" as follows:

- We see a common understanding of the overarching strategic drivers:
  - More oil to fill TAPS.
  - State cannot afford to pay cashable credits.
  - Some go further to see the need for increased state revenues today.
- Cashable credits:
  - Our experience in other regimes is that the producers have mechanisms that allow full recovery of their costs.
  - Industry in their testimony all agree that they need the right to fully recover their costs.
  - All mentioned that the current system, which includes per-barrel credits and a gross-minimum tax, results in carry-forward NOLs not producing the same tax saving benefit as the cashable credits; i.e., the "Lost NOLs."

He explained that there comes a time and level in TAPS where the producers cannot operate the pipeline any further, and what the state does not want to do is push the producers too close to that level and find out that the operational level was higher than what was previously thought. He said the state should want to take steps now and always to make sure it is doing the things to put more oil into TAPS and with that whatever is the state's fair share in doing so.

He addressed cashable credits, disclosing that he has worked with over two-dozen oil regimes and noted that everyone has a mechanism that allows the producer to fully recover their costs and to do so in a way that allows them to achieve the expected tax benefit. He analogized that if he is allowed deductions on his personal income tax that he gets the value of the deductions without an alternative minimum tax (AMT) sneaking in. He noted that the AMT on one's personal taxes takes away the value of the deductions; in a way, the state's per-barrel credits and minimum gross tax acts like an AMT to the producers where the producers do not end up getting what they thought because their deductions and credits are taken away. He said his AMT analogy puts a picture to what might happen when producers do their economics on getting full value for deducting loses as they move forward, likening the change to the cashable credits to the "loss or wasted NOL" in that producers are not getting what they might

expect to be the same value or tax savings from having spent the money and then being able to deduct the cost of that money.

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MR. RUGGIERO referenced slide 7, "Observations and Suggestions: Overall" as follows:

- Alaska has an overall complex system for administering energy taxation:
  - This has likely led to the frequency of change.
  - Functional interdependencies make even a small fix difficult at best.
- Too many items tied to price versus profitability or unit profitability:
  - The ever-changing world of energy and the resultant price and cost structures will ensure the original intent can't be maintained for very long.
  - Need to try and make things as self-correcting as possible.
- Over the last decade the hundreds of billions spent in countries and states with higher non-producer take than Alaska should cause a greater focus on aspects other than the rate to make Alaska as competitive as possible for investment capital.
- Coming up with a simple system to generate the expected state revenues is not that difficult, but dealing with all the nuances will take time to make sure all constituencies are heard, and all issues addressed.

He opined that Alaska has one of the most complex systems that he has ever dealt which he believes leads to the frequency of change due to many functional interdependencies that make small changes difficult. He explained that either there are so many interconnected levers that trying to change one leads to changing others, or an unintended consequence impacts something that is thought to not need change.

He added that part of the frequency of change is also due to having a lot of mechanisms tied to price instead of profitability. He noted that in a previous meeting he questioned how and why the state had a zero-gross tax at \$15 and 4 percent at \$25; at the time, the costs were at \$15 total-all-in and the state likely was putting in a gross-minimum tax at zero when the producers did not have any profit in moving forward. He added that there were probably fewer players and fewer units in different divisible property interests; however, he asked if the

oil tax is doing what the Legislature intended it to do at the time SB 21 passed and is the state getting the intended value.

MR. RUGGIERO noted that the state also has barrel credits if it so chooses to keep them that are tied to prices; however, the intent in doing barrel credits was an expected profitability level at each of those prices at the time the Legislature did SB 21. He said the one thing that we know is cost will change and will change often at the price of oil changes, which means whatever was the philosophy or the intent behind the Legislature putting in the per-barrel credit tied to oil prices is not the situation today or in the future. He added that much like the minimum-gross tax when initially set, the state now has negative progressivity in its system and is not realizing exactly what it intended when the tax was passed.

He emphasized that tying a lot of things to fixed things like price does not in any way inform as to what that means to the company, how profitable they are, or what they need to do with their business in time. He said there are a lot of things going on that are going to bring the state's oil prices and issues associated with it back to the Legislature to again make another fix.

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He remarked that he is not surprised, but a little disappointed that in the ten years of showing the Legislature that the marginal-tax rate is not informative as to where people invest their money and the discussion continues today. He said people continue to come before the Legislature saying either the state is or is not competitive based on the marginal-tax rate, something that is not true because an investment call cannot be made based solely off marginal-tax rate. He pointed out that hundreds of billions have been spent in countries with marginal-tax rates that are worse than Alaska, something that should inform the Legislature that tax rate did not make the decision for the companies where to invest, that there must be something else, a point that gets into the totality of the state's fiscal system. He emphasized that, "It's not just the rate."

He said when asked if increasing the tax rate is better or worse, he is going to say it depends, not because he is a consultant, but that changing the tax rate really does depend. He addressed what other regimes are doing and referenced North Dakota (ND). He disclosed that ND took away tax credits on new wells in addition to 18-month and 24-month exemptions; however, their tax rate did not change. He said people will insinuate

that ND did not increase or reduce their taxes, but ND did increase their taxes. He detailed as follows:

They actually did increase their taxes in the last two years, quite considerably; but, you won't see it because it doesn't show up in the headline rate and it won't move their position on that relative curve because they still have severance, and they have ad valorem property tax when added to the royalty. When added to the royalty it's going to plot out the same as government take.

MR. RUGGIERO said the Legislature must dig deep. He emphasized that his intent is to provide information and bring an education so that committee members can ask tougher questions as to why hundreds of billion get spent in the other countries. He pointed out that committee members can look at the annual reports for the state's three biggest producers and see the countries where they will be spending their money in the next three to five years. He pointed out that a lot of the countries listed in the producers' annual reports have worse marginal-tax rates than the purported rate in Alaska. He summarized as follows:

That's one message you can tell that I'm passionate about and that we really make sure you get all of the information you need to make your decision.

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He asserted that the state can come up with a simpler system. He opined that the Legislature cannot handle all the nuances and things that come up in a short period of time; however, coming up with a system that at the macro level delivers the same revenue at the same oil prices can easily be done.

SENATOR COGHILL remarked that he tends to agree with Mr. Ruggiero on the marginal-tax rate; however, he noted that producers have said there are variables that they have to deal with that includes the tax rate, effects of the tax rate, and the credits. He said the producers make their point on investment strategy because of Alaska's place in geography, the state's service industry that can help them, permitting challenges, and time to production. He opined that producers see their win on the effective tax rate as the key element for their decision point. He asked Mr. Ruggiero to expound on his emphasis that there is more than the tax rate.

MR. RUGGIERO agreed that there is more to it than the tax rate. He pointed out that people have come before the committee and said the tax rate is the issue, but suggested that where the producers are spending their capital should be examined. He remarked that if tax rate was the issue then the producers should not be investing in those countries that have marginal-tax rates worse than Alaska's. He explained that companies consider a "locational premium" due geopolitical issues, cost probabilities based on prior project difficulties, and all sorts of variables in deciding; however, he conceded that if nothing else changes and the state raises its tax rate, the economics run by the companies will get worse for Alaska. He pointed out that the constant in the oil industry is change and very rarely does one walk into a situation where all things stay equal.

SENATOR COGHILL explained that the state has a range of economic realities for producers to work in and the intent in the gross-to-net tax regime was to diversify the investment field. He conceded that the Legislature went a little too far in cash because the state now is in a place where it cannot afford to invest as previously advertised, which means the Legislature is going to have to "shift gears." He pointed out that the current tax regime did have an impact on having a diversified field; however, it also brought its own problem with it and a whole different set of economics that hit the state's very complex system. He concurred that previous testimony has emphasized that the state's economics "will go south fast" if the tax rate is increased.

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SENATOR WIELECHOWSKI noted that at a previous committee meeting he asked producers to suggest the economics that the state should look at; for example, net present value or internal rate of return. He said he did not get an answer, but noted that one producer suggested to, "Look at the results and you've got more oil." He asked if more oil is a metric that should be looked at or if not, what are the metrics that the state should look at in determining whether a system is going to put more oil in the pipeline and provide a fair amount of revenue to the state.

MR. RUGGIERO explained that companies will restate their strategy during down-price times that includes the type of projects they are looking for to, "Put into the hopper of consideration." He said, "Once you get projects in that hopper, it's just standard economics." He pointed out that each company has their "little twist" on how they look at a project's upside, downside and sensitivities. He said companies have their

corporate price-deck and inflation-deck, which is not necessarily the prices and inflation that is going to be used even if DOR comes back with a full-life-cycle model for the committee. He emphasized that during his 40 years in the industry that what companies look at are going to be different, but what has not changed is they all look at a project's economics. He said what he has seen grow more important in making projects more likely is identifying where are the risks and what tools are within a regime to mitigate those risks.

SENATOR WIELECHOWSKI asked if Mr. Ruggiero has models that can compute the internal rates of return and net present value for hypothetical projects in Prudhoe Bay or Kuparuk.

MR. RUGGIERO replied yes, that standard-project-economic models are easy and have been done for many regimes. He said all the different nuances within the Alaska system can be modeled.

SENATOR WIELECHOWSKI asked if Mr. Ruggiero can share his models with the committee.

MR. RUGGIERO disclosed that he had shared some models with the other body; however, they complained that his results were wrong, but he found out that changes were made to his model. He said he would work with the Senate in providing models for the Legislative Budget and Audit Committee.

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SENATOR MEYER agreed that tax rate alone is not a determining factor on whether a producer invests in Alaska versus projects elsewhere. He expressed that Alaska has a lot of factors that work against the state that must be factored in as well; for example, transportation costs, supplier costs, climate costs, permitting costs, potential lawsuit delays, lack of roads on the North Slope, etc. He asked to confirm that the state's tax rate has to be less when its regional factors are considered.

MR. RUGGIERO reiterated to look at the countries that have a worse marginal-tax rate than Alaska; many have extreme logistical issues as far as distance for market, tough geopolitical regimes, and higher cost associated with offshore development that are upfront as opposed to ND where costs can be spread out over ten years with gradual drilling. He pointed out that a lot of things that Senator Meyer brought up are present in much the same level of costs in other regimes that have worse rates than Alaska that big companies invest in. He explained that project analysis uses costs for a specific location,

expected costs, economics based off expectations, the inflation, and a company's price-deck; after that is when risk factors are considered. He added that how good a company's group is at estimating cost is considered, what has been their estimation track record that results in either a plus/minus of 10 percent or 50 percent possibility. He remarked that if he has been somewhere and operated for 40 years that he would have a pretty good handle on what the costs are going to be. He pointed out that the locations with worse tax rates are new entries for some companies whereas Alaska has companies that have been in the state for a long time and ought to have a good handle on permitting and their economics versus investment somewhere else.

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SENATOR MEYER addressed testimony during a previous meeting that changing the state's production-tax code 7 times in the last 12 years makes it hard to be accurate. He opined that whatever the Legislature does that the production-tax code be done right and left alone.

MR. RUGGIERO replied that changing the tax code multiple times does not change the amount of time to get a permit or what a company's cost structure is. He surmised that Senator Meyer was intimating that the items he brought up made it more difficult to decide on Alaska; however, those items are not impacted by the changes in the tax. He guessed that Senator Meyer wanted to bring up Alaska's tax change impact on the overall economics presented to a company's management regarding what they thought they were going to get and then what they were actually being delivered, something that he agreed changes and is something that the state has to deal with as in any other regime that makes multiple changes to their tax; however, in no way should that change a company's confidence level in the time it takes to get something done and the cost that it takes to get something done.

CHAIR GIESSEL noted that the state's appropriation for its cashable-credit program has been vetoed for the last two years, something that she remarked as kind of unpredictable or unstable that would change a company's perception in terms of risks. She disclosed that many companies with discoveries have said they lost potential partners due to Alaska's 35 percent tax and complex tax structure. She asked to verify that Mr. Ruggiero is saying that the level of tax does not matter, and that Alaska is more attractive than regimes with higher taxes. She remarked that she is not quite sure what Mr. Ruggiero is saying.

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MR. RUGGIERO specified that his point was a matter of education where a lot of people draw a bright line with "competitive" on one side and "noncompetitive" on the other, a pronouncement that he believes cannot be made by someone in the industry who understands the intricacies on how the different regimes work. He asserted that if analysis was that easy then all the money would go to where it says "competitive" and no money would have gone to the "noncompetitive;" that's not how it works. He said his point was not to rely on the one metric of "competitive" or "noncompetitive." He expressed that what Chair Giessel addressed are the things that Senator Meyer was trying to bring up regarding the unpredictable nature of what Alaska's economics are going to be. He noted that he responded to Senator Wielechowski that investment decisions are based on economics plus the risk profile. He explained that if a regime is unpredictable as to what a company is going to pay then that adds a level of risk that will likely find some form within their economics to put that risk in. He noted that some companies will put a locational risk premium that compares net present value at higher levels as well. He concurred that the things Chair Giessel brought up will negatively impact a project's risk; however, it is a matter of how individual companies put that risk into their decision making in deciding how much that risk really impacts projects going forward or not.

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He referenced slide 8, "Observations and Suggestions: Overall" as follows:

- As a Legislature, if you want to be able to make changes that are most responsive to achieving goals and to be durable over time you need real and timely data.
- The "Flaw of Averages" would suggest that working with estimates or averages will likely continue to result in a less than effective structure for all parties.
- Complexity in Alaska is further exasperated by the common ownerships of wells, fields, plants, pipers, ships, etc.; given some of those are regulated entities and subject of numerous past litigations, it will be difficult for parts of industry to come forward.
- Need to find a mechanism to get good data and information.

He addressed the first bullet point on slide 8 that to make responsive changes the Legislature has got to have the real data and the best data with the best prediction of not only what is

happening now, but what has happened over the few years and what is anticipated to happen over the next few that follow.

MR. RUGGIERO explained that what the committee gets from DOR, people like himself and others is noted in the second bullet point regarding "The Flaw of Averages" where everything is done "average;" however, when running averages, as Mr. Alper mentioned earlier, it is very easy to get highly different economic results from multiple profiles. He noted that his models encompass: three, five or seven-year lead-ins; if applicable, big expiration spikes; an appraisal in the early years and then study; and accelerated/non-accelerated recovery.

He summarized that to be able to give the committee an informed opinion the state should base its knowledge that it only has three or four major things that can come on in the next five years and to build around those with the knowledge of what they are and not to some generalities.

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SENATOR WIELECHOWSKI asked how Alaska would compare on the risk profile to countries with higher government-tax rates, nationalized assets, and civil strife like Libya, Venezuela, Russia, Iraq, and Iran.

MR. RUGGIERO replied that he cannot say whether Alaska is better or worse. He explained that regimes are ranked based on various items that change over time such as the government in place, the need of national oil company, or the size of a regime's petroleum fund. He said a company looks at a series of parameters, what to mitigate, and portfolio mix regarding living with higher risk in a region relative to long-term-strategic goals. He admitted that he cannot rank all countries and say, "Alaska sits here," because then he would be just as guilty as someone picking a marginal-tax rate and telling Alaska where it ranks.

SENATOR HUGHES asked if Alaska's risk has increased due to the state making 7 changes in 12 years and the governor vetoing cashable credits the last 2 years.

MR. RUGGIERO answered that if one of the goals is to attract new players and new oil to the pipeline, then the state's perceived risk has probably increased.

He addressed the third and fourth bullet points in slide 8. He explained that there are a small number of overall players that

are involved throughout the "value chain" in the gathering, processing plants, pipelines, and in the ships; some of those are regulated entities and care must be taken in dealing with regulated entities for litigious reasons. He remarked that the "intertwining" in Alaska and the state's complex tax code creates one of the most complex workings along the value-chain where the limited players worry about how certain information can be used against them. He said the Legislature must think as the "board of directors" how to get the needed information while understanding the complexities that exist in the system.

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MR. RUGGIERO referenced slide 9, "HB 111 Review and Comments" as follows:

- HB 111 perceptions, understandings, and dialogue have all changed immensely since we began advising the Legislature.
- Effective Tax Rate graphs:
  - CSHB 111(RES),
  - CSHB 111(FIN).

He addressed the graph on CSHB 111(RES) versus the "status quo" and noted that small changes occur around \$70/\$80 when per-barrel credits start at a different, lower rate and the major change occurs at \$120 when the per-barrel credits disappear; however, the graph shows no difference between the two curves at \$150/\$160.

He pointed out that the graph depicting CSHB 111(FIN) shows a substantial tax and revenue increase in the \$70/\$80 a barrel price range with the plus/minus around the "zero line" and the curves do equate as the oil prices increase further out. He disclosed that the numbers he used in the graphs were rounded with the assumption that all oil was at one cost structure, one royalty structure, etc.

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SENATOR MEYER concurred that CSHB 111(FIN) is a substantial tax increase with the tax flattening out with the current code as prices get higher. He opined that CSHB 111(FIN) seems backwards where taxes are raised on oil companies where they are making less money, but not raised when the oil companies are making a lot of money.

MR. RUGGIERO pointed out that governments are entities that are highly dependent on their oil revenue to run their state or their

government and there will always be discussion on how to get more when prices are down. He said he has seen a lot of entities that are oil revenue dependent do things that would appear to be counter intuitive at low prices because regimes that do not have a large reserve to call upon have to get revenue in the low-price environment. He remarked that whether CSHB 111(FIN) makes sense is up to the Legislature to decide. He agreed that the tax increase in CSHB 111(FIN) is substantial and the committee must decide whether the increase is the right or wrong thing to do.

SENATOR MEYER remarked that the oil industry is often referred to as "our partner" and "sticking it to your partner" does not seem right when times are tough. He said the state is highly dependent on the one industry and raising the tax rate when the industry is making less money would discourage investment in the state and new investors or new producers will consider investing elsewhere like Texas, a state with a more diversified economy. He asked Mr. Ruggiero if his statement is correct to say.

MR. RUGGIERO replied that the increased tax rate would factor into a company's risk assessment. He surmised that a company would consider whether to work somewhere where oil represents 75 to 80 percent of a government's income or 5 percent, a scenario that would indicate what to expect in the coming years with taxes when oil prices go way up or down.

SENATOR MEYER remarked that Alaska's dependence on the oil industry adds another higher-risk factor to the state.

MR. RUGGIERO concurred.

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He referenced slide 10, "Ring-Fencing" as follows:

- State Concern:
  - Paying, through tax savings or credits, without actual new hydrocarbons flowing to market.
- Operator Concern:
  - The need to separate costs:
    1. Between various projects using common facilities.
    2. Possibility between oil and gas.
- Suggested Solution:
  - For an existing unit or field on production business as usual with any NOL created being used to offset future segment taxable income.
  - For a new field or unit, direct cost associated with a potential new development will be calculated and held

until commercial production is established; one that occurs then all NOLs for that new entity will be available to be used in the taxpayer's segment return.

MR. RUGGIERO said two concerns have been brought up regarding ring-fencing and both are equally valid. He specified that the credits offered by the state, the cashable aspect and the rest, accomplished its goal by attracting new players. He pointed out that this year there are names of possibly new fields of the size that were never talked about 6 to 10 years ago. He noted that the state's concern regarding the idea of ring-fencing is that the state would be paying either through the credits or in an oil mechanism for no barrels associated with the money, a valid concern. He explained that from the operator's perspective the belief is ring-fencing immediately creates an accounting nightmare that triples the complexity for the audit process five or six years down-the-road due to oil field and possible common-facility separation.

He opined that ring-fencing is one of those things that the concerns from both sides be addressed and then ask, "Do I have a mechanism that can solve that?" He suggested for an existing unit or field that when prices fall, or costs are high that in a year they, "Have it in the well, it is getting used right now on costs, it spreads across whatever that segment tax return that they are doing." He recommended that if the state is really concerned about not getting new hydrocarbons for a new field or unit to only deal with the direct cost before there is a barrel of production so there is no worry about joint facilities and separation, and to allow all those to be deducted against the current operations wherever they are at because if they are joint, that means they are already being used and are already being deducted somewhere. He asserted that he dismisses all the ring-fencing noise about having to separating all the different costs into different categories and just say costs are allocated until commercial production is established and the [NOLs] can be used by whichever taxpayer has them for their consolidated-segment return. He noted that new players will obviously have to wait until they have revenues for carried-forward NOLS, etc. He added that an existing player that farmed into the unit or bought into the unit get to use the credits in their returns, but not until there is commercial production. He summarized that there are some simple things that can be done that he believes satisfies the concerns on both sides and does not create an administrative or cost accounting burden.

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SENATOR VON IMHOF asked to confirm that HB 111(FIN) puts ring-fencing on a new field where any cost associated with the field must remain with that field. She noted that Director Alper said earlier that one of the fears is to have a company come in and purchase the new field's well and apply the new field's credits somewhere else, a fear that was behind the ring-fencing provision.

MR. RUGGIERO replied that Senator von Imhof's characterization is right in stating the state's concern. He concurred that the state does not want to pay for cost that does not result in placing more hydrocarbons into the pipeline. He reiterated that there are simple ways to address all the concerns and then constructing something that matches all those concerns.

SENATOR VON IMHOF expressed her worry that the ring-fencing provision may have unintended consequences; for example, a company that spends several years trying to develop a particular well, cannot sell to another company who could possibly utilize the wells loses and fund further development from their other producing wells. She continued as follows:

What I worry is that it is a business concept, your basic economic business concept. I think that we are looking at one hat, we are looking at the revenue to the state-hat and we are not looking at the greater economic impact-hat; that's what I worry. So, I guess I wonder if we can have a conversation about if there's other mechanisms that could address the fears that have been presented by Director Alper.

MR. RUGGIERO commented that what Senator von Imhof brought up is why CSHB 111(RES) had what was called the dry-hole credit. He pointed out that Senator von Imhof presented two scenarios, the first one was people legitimately trying to explore with the intent of finding something and developing it, spend money, but do not find anything that could be commercially developed; in that case, CSHB 111(RES) said if the company paid all its service companies and has given back its lease to the state, then the company's credits will be paid back. He explained that the second scenario is where someone else can buy a new field under development, get the NOLs and use the NOLs when the first barrel of commercial oil starts coming up.

CHAIR GIESSEL asked if the dry-hole credit has worked elsewhere.

MR. RUGGIERO explained that a company usually suffers the cost of a dry hole and moves on, it's the cost of exploration; however, Alaska created a credit program to attract new players and additional exploration.

CHAIR GIESSEL said one of the things that she wrestles with is how much should the state be supporting companies that come to Alaska where "wildcatters" drill a dry hole and the state pays them. She affirmed that the state wrestles with paying for drilling dry holes, especially in the fiscal time that Alaska is in.

MR. RUGGIERO speculated that a lot of exploration and drilling activity that took place would not have happened without the credits. He said there was a lot of discussion on what Alaska can do to overcome the exact things that Senator Meyer brought up as the "givens" for Alaska. He conceded that the Legislature can talk about making decisions on a one-of-item basis, but he asserted that the state must look at its tax code, "as a whole."

CHAIR GIESSEL pointed out that there is also a question of picking winners and losers, and inviting companies up that do not have the competencies to develop in the state's complex environment. She added that the state also has seismic credits and noted that seismic data is foundational for choosing whether to buy a lease or not. She admitted that there are a lot of factors that come into play.

SENATOR VON IMHOF remarked that she has a big issue with ring-fencing. She expressed that she understood Mr. Ruggiero's explanation, but explained that she looked at ring-fencing in the economic sense that businesses or companies need to recoup the dry holes utilizing their whole business model to stick with it and keep drilling until they find the glory-hole. She asserted that not allowing the costs to be recouped will result in the dry holes sitting abandoned. She set forth that ring-fencing will not allow the state to get the intended consequence which is more development. She summarized that for an economic-hat, ring-fencing is not the answer because it is too narrow of a parameter.

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MR. RUGGIERO disclosed that one of the first things many regimes do in a license round is to put in a prequalification process for bidding. He noted that during his time in the oil industry that more effort was put into the qualification process versus the bid process; however, he noted that there are great

explorers that are not operators and placing a qualifying condition might discourage true explorers who are great at finding oil, but are not interested in oil development. He suggested that legislators not act too quickly in excluding a subset of companies from the state that can work on various things.

MR. RUGGIERO referenced slide 11, "Transparency" as follows:

- Oil and Gas Industry:
  - Royalty and taxes paid towards Alaska's economic engine.
  - Issues related to oil and gas should be top priority for the Legislature.
- Key data and information not readily supplied to each legislator.
- Suggested Actions:
  - Alaska Oil and Gas Statistics Book:
    - Physical and online "book."
    - Gas statistics should be published and reviewed by DNR and Alaska Oil and Gas Conservation Commission (AOGCC) no later than the first week of the legislative session.
    - Contains historical and projected curves or charts of production, spending, projects, jobs, wells, seismic, license rounds, etc.
    - Information should be broken down to the lowest level of granularity as possible.
  - Pre-session Workshop:
    - Go over the current state of the global energy picture with multiple views on:
      - Supply,
      - Demand,
      - Pricing,
      - Emerging Technology,
      - Industry Disrupters,
      - LNG Market,
      - Impact all might have on activity in Alaska's energy sector.

He addressed "transparency" and suggested that the Legislature needs to have both a physical and online book that every legislator gets at the beginning of the legislative session. He pointed out that oil represents the bulk of Alaska's economic engine and legislators need to be up to date with the "latest

and the greatest" of whatever is going on, what has happened and what is planned in the near-future. He emphasized that legislators need to see the book before the session starts. He suggested early in the session that the DNR and AOGCC the provide informative data to the Legislature rather than the Department of Revenue due to confidentiality issues. He added that those new to the Legislature or individuals that want a deep-dive into oil should have a pre-session workshop on non-Alaska topics that address competitive curves, what other regimes are doing, current and future oil prices, the supply and demand picture, and technologies emerging that might disrupt crude oil. He asserted that the book and a briefing from DNR and AOGCC will bring the entire legislative body, Alaska's "board of directors for oil," up to speed and current with everything that is going on so that legislators are not asking for basic data on the state's business during the session's last weeks.

CHAIR GIESSEL pointed out that the Legislature has the Oil and Gas Competitiveness Review Board (O&G CRB) that was established as part of SB 21. She disclosed that the Legislature did not fund O&G CRB, which creates a challenge. She revealed that the Cook Inlet's tax regime was changed, and their annual report was due at the beginning of the session, but the task was not accomplished on time. She asserted that the Legislature needs to fund O&G CRB, but noted that Mr. Ruggiero's recommendation was appreciated.

MR. RUGGIERO disclosed that he had reviewed the 2015 report which provided extensive background information about prospectivity, but suggested that receiving two or three different views as to what is going on in the world of oil and gas is always useful. He reiterated that the diverse dialog will provide legislators with a good sense of what the state is up against rather than talking about billions of dollars at the last minute.

He referenced slide 12, "Gross Value Reduction (GVR)" as follows:

- The GVR can be viewed as an uplift to current costs as it serves to reduce the Production Tax Value just as current cost do.
- Uplift graph.
- This is a progressive-tax-reduction tool that grows with price.

- Do not see why the extra 10 percent is needed to bring a project on stream. The availability of the 20-percent. GVR with royalty-relief should be sufficient.

MR. RUGGIERO explained that CSHB 111(FIN) talks about the elimination of the extra 10 percent of the GVR, one of two things that he will provide a different perspective on. He detailed that he explained GVR in terms of operating-expense uplift because the GVR reduction comes in as a subtraction in the same place as the operating and capital expense, so the state's per-barrel-expense deduction. He said his GVR perspective was done because the discussion with committee members has addressed NOLs and uplifts in the eight-percent range.

He addressed the "GVR Uplift of Operating Expense (OPEX) and Capital Expenditure (CAPEX)" graph on slide 12. He pointed out that at \$60 Alaska North Slope West Coast (ANSWC) Oil Price per barrel with the 20 percent GVR would be the equivalent of a 30 percent uplift on the OPEX, which means without the GVR the same tax would be paid with a 30 percent higher OPEX. He noted that the 30 percent line showed at \$60 per barrel the uplift would be nearly 50 percent.

He remarked that his perspective is interesting because "gross" is usually thought of as a regressive tax where it gets worse as the price goes down; however, from the state's perspective it gets worse as the price goes up because as the price goes up the gross value of the point of production goes up and the value continues to grow. He pointed out that the graph on slide 12 shows that around \$110 and \$120 per barrel that the impact of the 30-percent GVR is the same as if the producers could deduct their expenses twice over. He said given the deduction that is allowed from just the 20 percent that he does not see the need for the extra 10 percent to be successful and economic. He remarked that the extra 10 percent is an expensive aspect of the tax code.

SENATOR STEDMAN asked Mr. Ruggiero's if his use of the word "expensive" was from the viewpoint of the state.

MR. RUGGIERO answered yes.

SENATOR STEDMAN remarked that GVR has been looked at and noted that some members have voiced their concerns while others have like it a lot. He said Mr. Ruggiero's GVR perspective is an interesting way of presenting GVR in a different context and is

easier to understand its impact versus running a math model. He opined as follows:

Conceptually when you take a gross value and throw it against a net, you have a big impact. Just by definition it is scary.

MR. RUGGIERO replied as follows:

You will also see I've put the per-barrel credits in a different aspect. When you keep talking about \$5 and \$8-per-barrel it seems like a really small and innocuous number, but we'll see later on what the impact of that is as well.

[4:01:42 PM](#)

He referenced slide 13, "Tax Rate and Per Barrel Credits" as follows:

- To create a durable structure, a simplified system needs to be put in place when time allows.
- As previously recommended, Castle Gap would go with a stepped or bracketed-net system that would have the various steps based on unit profitability:
  - Low initial rate to mimic low taxes for Cook Inlet and other projects like heavy oil.
  - Can progressively go higher as unit profitability grows.
  - Self corrects for changing price and cost environments.

He noted that CSHB 111(FIN) lowers the tax rate and eliminates the per barrel credits. He reiterated that Castle Gap Advisors recommends that the state can create a simplified system that gets rid of a lot of the different moving parts and lessens the chance of unintended consequences. He pointed out that the tax can be based on many things including profitability or unit profitability, which means the tax self corrects and the Legislature would not have to come back and fix it as often. He conceded that nuances must be considered to make sure an operator or operation is not singled out unnecessarily for a tax that is onerous from an economic standpoint.

[4:02:40 PM](#)

He referenced slide 14, "Put the Barrel Credits in Perspective" as follows:

- Table assumption: 500000 Barrels a Day (BOPD), \$10 Transportation and Shipping (T&S), \$30 Costs:
  - o \$55, \$65, \$75 per-barrel-market price.
  - o All values rounded and in \$Billion:

	<u>\$55</u>	<u>\$65</u>	<u>\$75</u>
Market Value	10.0	11.9	13.7
T&S	1.8	1.8	1.8
Royalty	1.0	1.3	1.5
Costs	5.5	5.5	5.5
Tax Value	1.7	3.3	4.9
Tax @ 35 pct.	0.6	1.2	1.7
Per Barrel Credits	1.4	1.4	1.4
Gross Minimum Tax	0.3	0.4	0.5

- Alaska is in a gross-minimum tax world until somewhere around \$75-per-barrel and even this may move higher as costs rise with the rise in the price of oil.

MR. RUGGIERO said slide 14 puts per barrel credits in perspective as he had previously done with GVR. He noted that at \$55-per-barrel, the taxable value to producers is \$1.7 billion at the current 35 percent tax rate the tax would be \$600 million; however, rather than seeing the per-barrel credit on a per-barrel basis at \$8, the table shows the per-barrel credit at \$1.4 billion. He explained that his intent was to show committee members the comparison between taxable value and the tax owed. He pointed out that at \$55, \$65 and \$75 per barrel, with costs being held constant, that the per barrel credits and the use of the gross-minimum tax are greater than the tax that would be owed. He noted that his last bullet point says that even if oil prices start to come up the cost structure is going to come up as well and at the current barrel-credits structure the state is likely going to stay in a minimum-tax-controlled world for quite some time. He summarized that the table on slide 14 shows that the state being in a minimum-tax world for a long time is significant and remarked that he was not sure that everybody knows how large the numbers are.

[4:05:16 PM](#)

SENATOR STEDMAN commented as follows:

I think in the current fiscal year the per barrel credit total is somewhere around \$1.2 billion, so these numbers aren't quite that wacky as far as a general reference as far as where we are at in this fiscal year, so it's a sizable amount of money.

These credits don't roll forward if they are not used, they drop away, but they have a huge impact of holding us in this minimum tax range which goes to the earlier questions that I've asked as far as at what production tax value or how big is the size of the profit oil before we are out of the minimum tax structure that these per barrels hold in them, I'm expecting that to be north of \$4 billion.

SENATOR VON IMHOF thanked Mr. Ruggiero for the information provided on slide 14. She pointed out that "royalty" was noted on the table, something that she had not seen before. She asked if "royalty" was included when determining the taxable value.

MR. RUGGIERO explained his calculation as follows:

I've had this discussion 15 times since I've been here, in the end you pay your tax on taxable barrels. I happen to use "royalty" in a way that says, "If I am looking at the market, the market is the market value of all the barrels if you actually do the subtraction the way I've got."

He said everyone tells him that he has it wrong, but when he does the math the actual dollars come out the same, but the taxable value he gets is the taxable value everybody else gets, a mathematical perspective that is a little different.

[4:07:50 PM](#)

He referenced slide 15, "Review: Timing of Cost Recovery is Critical" as follows:

- Presented on Saturday, four different recovery scenarios that yielded significantly different economic results, [Internal Rate of Return (IRR), Net Present Value (NPV), Net Operating Loss (NOL)]:
  - o Accelerated: 20-pct. IRR \$27-NPV(10)
  - o Depreciated: 14 pct. \$14
  - o Cashable: 27 pct. \$46
  - o 50 pct. reduction: 6 pct. -\$12
- In this simple example there is considerable difference in economics between the "accelerated" and the "cashable" versions.

- Our modeling for a new North Slope field shows a gap of three percent to four-percent IRR difference between "cashable" credits, (assuming being paid when earned), versus any form of CF NOL recovery.

MR. RUGGIERO summarized that there was a substantial difference in economics between even the "accelerated" and the "cashable." He said a thought was to apply some uplift to the "cashables" and allow them to be recovered on an accelerated basis to bridge the gap; however, Castle Gap's modeling shows that there is about a three or four-percent IRR gap at various prices. He said a tighter modeling field was run at flat, nominal pricing that exhibited the gap. He said slide 16 continues the modeling explanation.

He referenced slide 16, "Created a Full Lifecycle Model" as follows:

- Model ran on a possible North Slope new field:
  - \$10 billion total CAPEX, roughly \$6 billion before first production.
  - \$9 billion in total OPEX.
  - 40-year project life.
  - 1-billion barrels produced.
  - Average 12.5 percent royalty.
- Run with 35-percent tax and credits as well as 25-percent tax and no credits.

[4:09:07 PM](#)

He referenced slide 17, "Cashable Credits" as follows:

- New and existing producers were encouraged by the possibility of receiving early cash return for their investments toward bringing new hydrocarbons into production.
- [Current practice is to pay a maximum of \$70 million per taxpayer per year, CSHB 111(FIN) to pay a maximum of \$35 million per taxpayer per year.]
- For a new, large North Slope field that has a maximum CF NOL of \$5 billion:
  - If converted to credits at 35 percent would take 50 years to get paid back.
  - If converted to credits at 25 percent would take 35 years to get paid back.
  - Both options would suffer from significant lost time value of money.

MR. RUGGIERO explained that slide 17 erroneously showed in the second bullet point that "current practice" is to pay a maximum of \$35 million, but the correct amount is \$70 million per year. He noted that he used \$35 million in his calculation where 35 to 50 years was required to get it back, at \$70 million it was 17 to 25 years just to recover if the producers are force convert to credits that the state is not going to buy any more, and the state waits for the producers to recover them each year going forward. He summarized that the modeling shows in both options that there would be a significant loss of value due to the time value of money to the people subject to it.

[4:10:38 PM](#)

He referenced slide 18, "Bridging the Gap - Project Internal Rate of Return (IRR)" as follows:

- Type project run to compare immediately cashable credits "cashable" against current structure with CF NOL "wasted," current structure with NOLs 100 percent effective "useful," and cashable credits recovered at a maximum of \$35 million per year (35 per year).
- Even with considerable uplift, the rate of return gap does not close much at all; you can however, use uplift to equate cash flows.
- ["Project IRR" graph shows: wasted, useful, cashable, 35 per year projections; the range on the left is 0 to 40 percent; oil prices on the bottom go from \$50 to \$160 per barrel.]

He detailed that the top line in the graph is the rate of return if there were cashable credits where once a producer incurs the cost they would file and get paid the cashable credit the next year.

He said the next two lines in the graph identify: "wasted" blue-line, and "useful" red-line. He explained that that Castle Gap too a look at what they called the "wasted" NOL version as follows:

I used my NOLs to take my production tax value down to zero, notwithstanding that I may have barrel credits or a minimum tax to be paid.

He explained that "wasted" NOL goes to what Castle Gap presented at their presentation on the previous Saturday. He disclosed that Castle Group created a model to address wasted-NOL

recovery. He noted that the red line on the graph is designated as "useful" and explained that the line gets marginally better on rate of return, but the reason why "useful" does not get a lot better and bridge the gap to the "cashable" line is due to a span from year 7 to year 27 for NOL recover to make them used and useful. He noted that changes will occur at various price levels, but his focus was on the \$70 to \$90 a barrel range, a range forecasted for the foreseeable future that pushes the NOLs far out that even though the producers ultimately do get to recover them and gain a big benefit on the cashflow into the project, the producers get very little benefit to the rate of return or the net present value discounted to today because the recovery and getting the full-tax benefit is so far out into the future that it does not impact present numbers.

MR. RUGGIERO said the line on the bottom of the graph is the current IRR situation for only deducting \$35 million a year. He said the line gets a little better with an annual \$70-million deduction, but the noticeable gap exists. He summarized that there is not much difference between "used" and "useful," 100 percent or some of the loss. He noted that there is a huge step up to the "cashable" and a huge step down to, "I defer payment and I only pay so much a year." He added that if there are multiple partners involved that receive multiple payments, then changes will occur and there will be some variations.

He said the other aspect of the Project IRR model is the top line could be used as a surrogate for an incumbent that has significant income for writing off without ring-fencing, a noted issue by Senator von Imhof. He detailed that if two players get involved and one is a new player with no other income, they at best do the red-line or blue-line in the middle. He said an existing incumbent player would roughly realize the top line because as soon as they incur it, they would be able to write it off against current income. He explained that the two-player scenario would create in the tight field that he is running a three to four-percent IRR advantage to people who are current producers with enough taxable income to write it off.

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SENATOR VON IMHOF commented that Mr. Ruggiero's statement was fair. She conceded that the Legislature was making the tax more difficult and asked if there could be a mechanism that gets the lines closer together as in if a legacy producer purchased a credit where they could use 80 percent as a write off versus going into the actual field.

MR. RUGGIERO replied that Castle Gap ran their model and detailed as follows:

My intuition before I actually ran it was that there's probably some amount of uplift that I could bridge the gap on the return. I put up to 100 percent uplift and I can't bridge the gap on the return and that's because I just keep moving whatever NOLs there are further and further into the future. When you use 10 or 15-percent discounting it's not worth anything today, it makes a huge impact on cashflow and they make a whole lot of money, but they don't make it for 20 or 30 years and the state then would be giving that up.

He said he did not try any other mechanism to see how to bridge the gap, but asserted that it comes down to a philosophy of what the state is trying to keep people whole on. He said his comment goes back to the fundamental question Senator Wielechowski asked earlier on which metric to use in the decision making. He continued as follows.

I would almost say that both IRRs and net-present-value discounting to using it, what carries more weight or how would they look at the fact that I may get 20 percent more cashflow but I'm going to get 3 points less on the IRR than my partner.

He summarized that there are many different things that could be looked at, but conceded that he had just finished the model and did not run all the cases without knowing what some of the issues are to tell committee members what a recommended solution would be.

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He referenced slide 19, "Project Rerun at 25 Percent Tax and No Credits" as follows:

- Note that the curves for NOLs and Optimized NOLs are almost identical.
- The only difference is the impact of the gross-minimum tax in about four years.
- The gap between cash now and deduction later is still significant.
- [Project IRR graph with the lines noted as on slide 18.]

MR. RUGGIERO detailed that the plot on slide 19 was based on CSHB 111(FIN) and run at the 25-percent tax and no credits. He noted that there is no influence of the per-barrel credits, causing lost NOLs. The result is the "wasted" and "useful" curves almost lie on top of each other, the gap to the slow-pay credits gets smaller, but the gap to the "cashable" remains quite large. He summarized as follows:

Again, this is back to my simple four-square example of different ways of cost recovery, this is just because they get it while they are actually spending; they are actually getting value for that spending and it's in years one, two, three and four that that is so important in the economics that is overwhelms everything.

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He referenced slide 20, "Lost NOLs" as follows:

- The large North Slope type field was run, across a range of flat nominal pricing, under the current structure (assuming CF of NOLs) and under the structure proposed by CSHB 111(FIN), (25-percent tax rate with no credits).
- The removal of the per-barrel credits greatly reduces the amount of "Lost NOLs."
- ["Lost NOLs under Current and CSHB 111(FIN)" graph illustrated on slide 20 with lines plotted for "Hard Floor Plus Per Barrel Credits" and "Hard Floor."]

He reiterated that his intent is to keep putting things in a different perspective and noted that slide 20 provides analysis that is based off runs from the two-previous slides which shows how much NOL is lost. He explained that "lost NOL" means no tax-savings benefit for the producer was generated.

He detailed that the graph has two curves, the top curve is the "current" run off that has the sliding scale per barrel, the hard floor, and a 35 percent rate. The bottom curve is CSHB 111(FIN) that has the 25 percent rate and no per barrel credits. He noted that all were run on a non-GVR basis. He provided an overview of the existing structure as follows:

Literally what it is saying is under the existing at \$50 a barrel "flat" for the life of the project, I spent \$6 billion before first production and I got zero value for my NOLs because there's so much in the per-barrel credits and the minimum tax that my write-

off of my cost changes my tax to zero. Then as you see, as the price goes up you get a compounding effect, you are getting more revenue which creates more taxable value. Then as the price goes incrementally beyond \$80 the per barrel credits start coming down, so that's why you see an acceleration of the slope of the curve as it goes up in price.

MR. RUGGIERO provided analysis under CSHB 111(FIN), adding that a producer would not do a project in a \$50 world, but ran the plot across the price range and detailed as follows:

The amount of lost NOLs falls by two thirds, falls from \$6 billion to \$2 billion, and that curve, it's fairly shallow as you go out, and what you get is it's just this gross minimum that you keep hitting as you go forward with this to how much NOL is lost as you move on.

He summarized as follows:

Again, just trying to put into perspective when you are looking at some of the issues with respect to the various mechanisms that are being suggested to be changed in [CSHB 111(FIN)] is how this is impacting other aspects of the operation and the value both to the producer and cost or value to the state.

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SENATOR VON IMHOF noted that different colors were used for the lines in slides 18, 19 and 20. She asked that Mr. Ruggiero clarify the line-color comparison between the three graphs.

MR. RUGGIERO specified as follows:

The best way to say this is these two curves on slide 20 represent the "blue" or the "wasted" scenario because what I wanted to do is I want to see how much of the NOL is wasted with the per-barrel credits and without the per-barrel credits, both with the hard floor.

He added that the tax rate changes at higher prices and the tax amount becomes equal around \$120 to \$130, the point where DOR just showed the committee where CSHB 111(FIN) tends to have the same marginal tax rate at the state's current structure once oil gets to higher prices.

SENATOR VON IMHOF remarked that one would look at slide 20 and say, "Well, with the lower tax rate and no credits, NOLs are more useful, with the gray line."

MR. RUGGIERO answered exactly.

SENATOR VON IMHOF replied that the problem the committee has heard is making the NOLs useful. She commented as follows:

Is there a way to change the NOL structure and make it to some degree net-neutral within a range to both the state and to the oil producers?

MR. RUGGIERO replied that he understood Senator von Imhof's concern. He said to keep the "whole" in mind and detailed as follows:

What I was trying to do was to point out you've got all these pieces and if you look at them in isolation is just understand how much impact they can have. We then talked about the the interdependencies and this whole concept of the lost NOLs, the interdependencies of different aspects that you may try and change something; for example, this committee may suggest something that lowers the peak in that bottom curve, but then what does it do to other aspects? What does it do to current production for the legacy-players? What does it do to new projects coming on? Does it help one and impede the other? I'm just trying to make sure you stay aware that as you change these different pieces we keep the whole in mind and always look at the whole and then test the little different things that we can do in each of these different aspects of the code.

But you are exactly right, you can't concentrate on just one area and ignore what it does in the other; in fact, you just made my point that I've been trying to make is changing the NOLs and fixing that, "Well, that just exasperated the tax or if I change the tax, it may not keep new players whole." You may never get those new projects and now you have just violated your first goals which is get more oil into the pipeline.

So, it all has to be looked at as a whole and that's why it makes it more important that what we use as

examples are more closely related to the type of projects and things that you could have coming on then the averages that even I'm using, because I'm just using rounded, average, typical type projects and numbers because I don't have anything that looks like the profiles of what you have as a possibility right now.

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CHAIR GIESSEL addressed slide 20 and inquired if there were more lost NOLs because the per-barrel credits must be taken first.

MR. RUGGIERO explained that his understanding is the credits are taken after the NOLs and the obligation is to use the NOLs until a zero-tax value is created, which then the per-barrel credits would themselves have taken it.

He referenced slide 14 to exemplify the issue as follows:

I would have to subtract it if the tax section, to come down to the tax, and that would reduce the taxable value and you see the tax as it is right now comes to 0.6, so I would reduce that to zero and yet, I had the per-barrel credits which could have covered anything that I was owed. So, that meant any NOLs that I would use in this example, the \$0.6 billion that I would use would be lost because the per-barrel credits were big enough to have wiped out my tax. Again, I go to the next year, my tax would have been \$1.2 billion, so if I use my NOLs to drop that down to zero, I would have covered it with my per barrel credits. So, it is a bit of the sequencing because I have to use the NOLs first to go down to a zero-production-tax value.

[4:29:04 PM](#)

He referenced slide 21, "Optimizing Model Results" as follows:

- Indicative profiles of timing of investment and production are necessary to understand the impact of your fiscal system (and proposed changes) on state revenue and producer economics.

He detailed that slide 21 timely emphasizes what he just said. He noted that Chair Giessel asked the question about what is really the impact and how does it work. He explained as follows:

This goes back to my whole thing of you really need to understand how what you are looking to do will impact the key things which are those major projects you have on the horizon which could bring, as I've heard, "A couple hundred thousand extra barrels a day" into the pipeline and would keep it going for another couple of decades beyond where it might not go if it doesn't get this extra production.

Again, if you're going to start looking at exactly what happens to NOLs, exactly how some of these people are impacted, and when I say exactly I mean close enough in the ballpark then us sitting here guessing as to what the size of something is or how much time it is going to take, or what is the oil production curve really going to look like, is actually having enough information to get it close enough not because I'm going to say, "I can get you screwed down to here to exactly a 15 IRR or a NPV 10 of a billion ought to be enough value coming in," it's not to do that, it's to make sure that the shape of things that the mechanism that you choose to put into place or change or not change are responsive to what's actually going to come. You're not a state that's got a hundred different things that can happen over the next five years, you're a state that's only got a handful of things that can happen over the next five years.

CHAIR GIESSEL stated that she appreciated Mr. Ruggiero's emphasis on new projects and pointed out that "new projects" was the focus of SB 21. She noted that new projects take many years and emphasized that there must be a balance with the legacy players who are currently keeping the pipeline functioning.

MR. RUGGIERO explained that there are two sides, the mathematics and the practical. He said in a practical sense you do not do things for "new" that hurt the "legacy," the intent is to find something that helps everybody in the business; however, if there is some suffering that "legacy" has to do, they have to realize that when the "new" comes on, as he noted in the previous Saturday's meeting, there is anywhere between \$5 billion to \$50 billion more for the state and a like number for producers to keep the fields going.

SENATOR WIELECHOWSKI opined that there is a need for two separate tax structures or something that recognizes the very high cost for the new fields because the new producers are so

much more economically challenged than the legacy fields. He said moving forward he would urge committee members to keeping the legacy fields profitable with incentives focused on the new producers and the new fields.

SENATOR VON IMHOF asked if there is a way to just stop short of production-value tax by taking an NOL and allowing the per-barrel credit to "take that last bit" to make it zero so a little bit of the NOL is left on the table and allow the per-barrel credit to that "last bite" to help salvage some of the NOL.

MR. RUGGIERO replied that slides 18 and 19 is exactly what Senator von Imhof's query addresses regarding the difference between the "wasted" and the "useful" curves. He explained that he had written within his routine that says, "Only use enough of the NOL that when I then apply the per-barrel credits it equals out the minimum tax." He noted that when he originally built his model that he questioned from a practical standpoint why NOLs should be used that do not have to be used. He disclosed that the model had to be modified to take all the NOLS to get the PTV to zero.

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There being no further business to come before the committee, Chair Giessel adjourned the Senate Resources Committee meeting at 4:35 pm.