

HOUSE FINANCE COMMITTEE
March 24, 2017
1:37 p.m.

1:37:47 PM

CALL TO ORDER

Co-Chair Foster called the House Finance Committee meeting to order at 1:37 p.m.

MEMBERS PRESENT

Representative Neal Foster, Co-Chair
Representative Paul Seaton, Co-Chair
Representative Les Gara, Vice-Chair
Representative Jason Grenn
Representative David Guttenberg
Representative Scott Kawasaki
Representative Dan Ortiz
Representative Lance Pruitt
Representative Cathy Tilton
Representative Tammie Wilson

MEMBERS ABSENT

Representative Steve Thompson

ALSO PRESENT

Rich Ruggiero, Consultant, Castle Gap Advisors, LLC;
Colleen Glover, Commercial Analyst, Tax Division,
Department of Revenue; Christina Ruggiero, Consultant,
Castle Gap Advisors, LLC.

PRESENT VIA TELECONFERENCE

SUMMARY

HB 111 OIL & GAS PRODUCTION TAX;PAYMENTS;CREDITS

HB 111 was HEARD and HELD in committee for further consideration.

Co-Chair Foster reviewed the agenda for the day.

#hb111

HOUSE BILL NO. 111

"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; and providing for an effective date."

1:38:46 PM

Representative Guttenberg pointed out he had provided a handout to members with maps of "Middle Earth."

1:40:26 PM

AT EASE

1:41:08 PM

RECONVENED

1:41:23 PM

COLLEEN GLOVER, COMMERCIAL ANALYST, TAX DIVISION. DEPARTMENT OF REVENUE, introduced herself.

RICH RUGGIERO, CONSULTANT, CASTLE GAP ADVISORS, LLC, presented two slides from a PowerPoint titled "Model Session" (copy on file). He relayed that he worked with the Department of Revenue (DOR) to ensure that the models provided by Castle Gap and DOR were compatible. He explained that his model contained a one year "snapshot at various price levels" that was totally interactive and offered comparisons to the current structure. The two models offered two different constructs: one was a lifecycle and the other was a snapshot. He noted that his snapshot was informative as to the relative amounts of revenue based on the inputs. He delineated that neither model provided "fiscal note type detail" and did not contain the data to determine impacts for specific geographic regions; e.g., Cook Inlet. The models provided relative data and DOR could provide specific detail upon request. He turned to slide 2:

Plan For Today's Meeting

■ Today's session will be a combination of two presentations

-Department of Revenue

- Presentation to cover comparison results of new (large and small) field or project under Status Quo and CSHB111

- Castle Gap Advisors

- Real-time model of CSHB111 components to see snapshot results of a variety of desired scenarios at given price points

- DOR and Castle Gap models are set up from two different constructs

- Both assume the same logic in application of legislation components

Mr. Ruggiero moved to slide 3:

Model Constructs

DOR

- New project life-cycle model

- Functionality: Can do what if scenarios on a project lifecycle on request
Castle Gap Advisors

- Delta price model

- i.e. shows the revenue and net effective tax rate changes for various parameters at different prices

- Functionality: Real-time what if scenarios on a one-year snapshot basis
Limitations of Models

- Neither model has the detail to run fiscal note level results or data specific to a particular field

- This further analysis can be requested through DOR

[1:44:31 PM](#)

Vice-Chair Gara mentioned industry testimony from ConocoPhillips' Annual Report. He referred to data indicating that ConocoPhillips [March 22, 2017 "HB 111 ConocoPhillips Supplemental Slide Testimony" (copy on file)] net profit in Alaska was approximately "a quarter of a billion dollars" at \$41 per barrel of oil. He noted that the average breakeven point for a North Slope field reported by DOR was \$40 in FY 2017 and \$42 in FY 2018. He inquired whether Mr. Ruggiero knew what ConocoPhillips breakeven point was. Mr.

Ruggiero responded in the negative. He remembered that the company's testimony contained two slides [PowerPoint titled "House Finance Committee CSHB 111" (copy on file) March 22, 2017] that addressed Alaska. He elaborated that the data on one slide reported that the company reduced its "all-in or all-inclusive 10 percent rate of return price level" from \$63 to \$40, indicating that at the \$40 price point the company achieved an all cost included (all-in) 10 percent rate of return for its Alaska operations.

[1:47:06 PM](#)

Ms. Glover presented the PowerPoint Presentation: "Alaska's Oil and Gas Taxation - CSHB 111(RES)\N: Lifecycle Scenario Analysis"

Ms. Glover turned to slide 2: "What Will Be Presented":

Summary of CSHB 111(RES)\N Impacts on Modeling

Modeling Assumptions

Scenario Analysis -economics of changes

- Status Quo (HB247) Lifecycle analysis of two potential new North Slope fields (small and large).
- Potential Impacts of HB111\N changes on new North Slope fields.

Ms. Glover related that the modeling analyzed hypothetical new fields; one small and one large. The model assumed the fields were GVR (gross value reduction) eligible and any other parameters were adjustable. The model calculated the total revenue for the state and producer and the federal and municipal revenue.

Ms. Glover advanced to slide 3: "What are the Major Tax Changes in HB 111\N." She commented that the items highlighted in green on the chart were provisions from the CS (committee substitute) that impacted the modeling. She listed the changes to the CS. She reported that the Net Operating Loss Credit (NOL) was changed from 35 percent to a NOL carry forward loss at "50 percent with an uplift." Additionally, sliding scale per barrel credits that impacted the economics of the field and the minimum tax

rate were changed. Finally, the CS eliminated cash repurchases for North Slope fields and the minimum tax rate for a GVR field was based on its reduced gross value. She noted that the minimum tax rate change was referred to as hardening the floor.

Ms. Glover highlighted slide 4: "Modeling Assumptions":

Modeling Assumptions

- All Fields begin development 1/1/2018
- Does not include Exploration Costs
- Includes price and cost inflation (based on Callan 2.25% rate)
- For Status Quo modeling, after GVR ends the producer opts to use their sliding scale per-taxable barrel credits, which requires tax payments not go below the minimum tax.
- For Status Quo modeling, producer opts to only apply for \$35 million of repurchasable credits per year (and forgo the additional \$35 million with the 25% "haircut").
- Modeling assumes North Slope tax treatment.

[1:50:34 PM](#)

Ms. Glover scrolled to slide 6: "Lifecycle Modeling Assumptions":

Lifecycle Modeling Assumptions

Field Sizes Modeled:

- 50 million barrels of oil (mmbo) field
- 750 mmbo field

Four Oil Prices Modeled:

- \$40, \$60, and \$80 real (inflated)
- Fall 2016 Forecast prices in real prices extending through life of field

Tax Systems Modeled:

- Status Quo
 - o All Provisions
 - o 1 and 4 Partner Scenarios (impacts total cash repurchase per year)
- HB111\N

Ms. Glover highlighted slide 7: "Lifecycle Modeling Outputs":

Lifecycle Modeling Outputs

- Each Scenario has a Dashboard with Four Quadrants
 1. Production Tax by year
 2. State Revenue by year
 3. Producer Revenue by year
 4. Summary Economics
 - a. Total Cash Flows
 - b. NPV Analysis
 - c. Split of Profits
 - d. Split of Gross

Ms. Glover reviewed slide 8: "Dashboard -Net Production Tax."

- Credits Repurchased by State
- Production Tax Paid
- Minimum Tax Calculation

Ms. Glover indicated that the dashboard slides were depicting what type of information the model quadrant contained and was not focused on data. The graph represented a small field over 30 years and the red bars represented cash outflows by the state; the green bars represented cash inflows through production tax payments made to the state and the orange line represented the minimum tax level.

[1:52:43 PM](#)

Ms. Glover mentioned slide 9: "Dashboard -State Gains & Losses."

State Revenue

- Production Tax (negative numbers are credits repurchased)
- Royalties
- State Share of Property Tax
- State Corp Income Tax

Ms. Glover commented that the state received such a small portion of property tax on the North Slope that the line was not visible. She stated that the local government received 7.5 percent of the property tax.

[1:53:15 PM](#)

Ms. Glover moved to slide 10: "Dashboard -Producer(s) Cash Flows."

Producer(s) Cash Outflows

- Period when net cash is negative (typically when haven't started production and have huge cash outflows).

Producer(s) Cash Inflows

- Period when net cash is positive

Ms. Glover turned to slide 11: "Dashboard - Summary Economics."

Total Credits

Total State and Producer Cash Flows

Lifecycle Totals

- Net Present Value (NPV) of discounted cash flows for State and Producer(s).

Split of Profits

- By entity

Split of Gross (wellhead value)

- By entity

Ms. Glover reported that the bottom quadrant depicted the compiled total economic picture. The small pie charts represented the municipal and federal percent of profits and gross value.

Ms. Glover moved to slide 13: "Lifecycle Modeling Assumptions -Small Field":

Lifecycle Modeling Assumptions - Small Field

50 mmbo Field Assumptions

- Life of Field = 30 Years

- Peak Oil Production = ~15,000 bbls/day
- Transportation Cost = \$10 / bbl
- Royalty Rate = 12.5% (all State)
- Capital Expenditures (Capex) \$ = \$18 / bbl
- Operating Expenditures (Opex) \$ = \$15 / bbl
- Property Tax Rate = \$1.25 / bbl
- State Corp Income Tax Rate = 6.5% of remaining Production Tax Value (PTV) after Production Tax is paid
- Federal Corp Income Tax Rate = 35% of remaining PTV after State Corp Income Tax is paid

Ms. Glover continued to the chart on slide 14: "Profile Curves - Small Field." She noted that the chart contained the production and cost profiles. The blue lines depicted the capital expenditure investment. She noted that production did not begin for four years at the point where the green production line sharply rose.

[1:55:48 PM](#)

Ms. Glover presented the information on slide 15: "Lifecycle Modeling -Small Field (GVR @ 20%): 50 mmo, Status Quo, Fall 2016 Forecast Prices, 1 Partner." She highlighted that the slide contained the four quadrant charts' data under current tax law. She turned to slide 16: "Lifecycle Modeling -Small Field (GVR @ 20%): 50 mmo, HB 111\N, Fall 2016 Forecast Prices, 1 Partner." She explained that the tax was based on the producer or "partner" and not on the field. The model assumed that only one producer was involved in small fields, and that multiple producers were involved in large fields. She pointed to the top left quadrant on slide 15 that represented the status quo cash credits for the producer that could recover up to \$35 million per year in cashable credits. The state did not receive income until year 7 from production tax credits. She advanced to the same quadrant on slide 16 under CS HB 111 that depicted the elimination of cash credits. She noted that the state did not receive revenue until the field began production and received revenue at the minimum tax level. She observed that when the green bars on the graph rose above the orange minimum tax line the state would receive more in production tax. She displayed the summary table for a small field on slide 17: "Summary Table -Small Field."

[1:58:14 PM](#)

Representative Grenn asked whether the forecasted prices for the out years on the charts were steady. Ms. Glover responded in the negative. She reiterated that slide 16 depicted that the producer did not pay any production tax (upper left quadrant chart) until oil was produced in year 5, which was paid at the minimum tax level while the producer was utilizing the NOL's, and once exhausted the full production tax was paid. The chart in the upper right quadrant showed that the state did not receive a payment of any kind, including royalties until oil was produced. She pointed to the lower left chart that portrayed the producer's capital expenditure investment depicted as red lines. Losses occurred until oil was produced. She moved to the lower right-hand quadrant that contained the data for the aggregate sums (net production tax total, net state gain or loss, net producer cash flows) for all the colored bars.

Ms. Glover continued to slide 18: "Summary Results -Small Field." The table contained the modeling data from four scenarios: oil price points at \$40/bbl., \$60/bbl., \$80/bbl., the fall 2016 forecast under the status quo, and CSHB 111 that was included in the dashboard data. She indicated that the green lines represented the state cash flow and the blue lines represented the producer's cash flow.

[2:02:21 PM](#)

Ms. Glover scrolled to slide 20: "Lifecycle Modeling Assumptions -Large Field":

750 mubo Field Assumptions

Life of Field = 40 Years
Peak Oil Production = ~120,000 bbls/day
Transportation Cost = \$10 / bbl
Royalty Rate = 12.5% (all State)
Capex \$ = \$13 / bbl
Opex \$ = \$12 / bbl
Property Tax Rate = \$1.25 / bbl
State Corp Income Tax Rate = 6.5% of remaining
Production Tax Value (PTV) after Production Tax
is paid
Federal Corp Income Tax Rate = 35% of remaining
PTV after State Corp Income Tax is paid

Ms. Glover highlighted slide 21 "Profile Curves -Large Field." She reported that the profile was similar to the small field production profile, with the exception that it took five years of investing before oil production began. She reviewed the modeling on slide 22: "Lifecycle Modeling -Large Field (GVR @ 20%): 750 mmbo, Status Quo, Fall 2016 Forecast Prices, 1 Partner." She pointed to the upper left chart that depicted repurchased production tax credits and tax payments. She reported that the producer received the \$35 million in cash credits through year 12 when oil production began. The minimum tax was paid to the state until all the producer's NOL credits were exhausted and production tax was paid. The upper left chart indicated the same as noted on the previous chart with the addition of royalties paid. The lower left chart depicted the producer's investment cost and income over the life of the field. She reviewed slide 23: "Lifecycle Modeling -Large Field (GVR @ 20%): 750 mmbo, Status Quo, Fall 2016 Forecast Prices, 4 Partners." She remarked that the upper left chart reflecting the field with four partners looked much different. The partners could recoup \$140 million per year in total, which impacted the economics quite significantly by the ability to recover their investment sooner.

[2:05:16 PM](#)

Ms. Glover discussed slide 24: "Lifecycle Modeling -Large Field (GVR @ 20%): 750 mmbo, HB111\N, Fall 2016 Forecast Prices, 1 or 4 Partners." She pointed to the upper left-hand corner chart that showed the elimination of the cash credits and oil production beginning in year five, when the minimum tax was paid through year 12. The result of the ability to carry forward losses. She turned to slide 25: "Lifecycle Modeling -Large Field (GVR @ 30%):750 mmbo, Status Quo, Fall 2016 Forecast Prices, 4 Partners." She indicated that the scenario included a higher GVR of 30 percent that activated a higher royalty rate. The slide was added at the request of Co-Chair Seaton. The state "might be entitled to" a higher royalty rate of sixteen and two-thirds percent at a GVR of 30 percent. The net state revenue increased by \$2 billion for the life of the project compared to the figures on slide 22. She elucidated that the state was gaining more in royalty then it lost with lower production tax. She reviewed that at a GVR of 20 percent production taxes paid over the life of the field was \$10.95 billion [slide 22] and at the higher royalty with the higher GVR (30 percent) the production tax paid

was \$9.9 billion but more was paid in royalty than the loss in production tax.

[2:08:14 PM](#)

Co-Chair Seaton asked what rate of royalty increase she had used. Ms. Glover responded that she used the sixteen and two-thirds royalty rate.

Ms. Glover moved to slide 26: "Lifecycle Modeling -Large Field (GVR @ 30%): 750 mmbo, HB111\N, Fall 2016 Forecast Prices, 1 or 4 Partners." She mentioned that the slide depicted the impacts under the CS version. She continued to slide 27: "Summary Table -Large Field." She noted that the dashboard information was included on the table for ease of comparison. She scrolled to slide 28: "Summary Results - Large Field." She mentioned that the graph represented the summary of the different scenarios for large fields when comparing the state revenues to the producer's revenues.

Ms. Glover highlighted slide 29: "Further Analysis -Large Field":

What's Driving the Changes from Status Quo by Tax Component Change

Compared Two Scenarios

- o 2016 Fall Forecast Prices
- o 1 Partner Scenario vs HB111\N

Five Components to Tax Change

- o Net Operating Losses (NOLs) changed from 35% credit to 50% carry forward loss
- o Sliding Scale Credits shifted from maximum of \$8/bbl @ <\$80 Wellhead value to \$6/bbl @ <\$60 Wellhead value
- o Hardened the Floor
- o Minimum Tax increased from 4% to 5% @ \$50 ANS \$
- o Cash Repurchases Eliminated for North Slope

Ms. Glover relayed that the following slides contained further analysis for a large field development based on the tax change components and their relative impact on revenue and net present value for the state and the producers. She reviewed the chart on slide 30: "Status Quo vs HB111 -State

Net Cash Flows." She indicated that the chart portrayed a hypothetical project that brought \$22.4 billion in revenue under the status quo. The NOL tax change component gained \$1.8 billion in revenue for the state. The sliding scale credit change added \$1.3 billion and the hardening of the floor, minimum tax, and elimination of cash credits resulted in negligible changes. The yellow bar represented the total cash flow for the state under the CS amounting to \$25.4 billion.

[2:11:44 PM](#)

Ms. Glover highlighted slide 31: "Status Quo vs HB 111 - State Net Present Value." She elucidated that the chart depicted the state's NPV from the scenario. She noted that some of the tax change items had an impact due to the time value of money. She discussed slide 32: "Status Quo vs HB 111 -Producer Net Cash Flows." She stated that the chart portrayed the net cash flows for the producer. She pointed to the gains and losses and noted the CS reduced a producer's total cash flow compared to the status quo. She turned to slide 33: Status Quo vs HB 111 -Producer Net Present Value." She specified that the elimination of the cash credits had a larger impact on the producer's NPV calculations.

[2:13:33 PM](#)

Co-Chair Seaton asked about the higher royalty in relation to the GVR and wondered how she modeled the scenario. He deduced that she only modeled the higher royalty rate of 16.67 (two-thirds) percent rather than the usual 12 percent royalty along with the 10 percent higher GVR [30 percent] rate. He noted that some fields maintained the higher royalty rate regardless of the GVR. He requested that the model include the lifecycle of the field at the higher royalty rate and the lifecycle of the field with the 16.67 percent royalty rate and the additional 10 percent GVR. Ms. Glover affirmed his statement and stated she would model both scenarios and provide the data to the committee. Co-Chair Seaton wanted her to do so because some fields received a higher royalty prior to the implementation of the GVR.

[2:15:34 PM](#)

Vice-Chair Gara asked her to revert to slide 14. He asked whether the green bar [depicting daily oil production] was typical for a field that ramped up to production and then declined. Ms. Glover affirmed that the curve was characteristic of the "ramp up and ramp down of production." Vice-Chair Gara raised concerns with the lower tax GVR fields that were exempt from production tax for the first seven years of production at oil prices under \$70/bbl. He ascertained that on slide 14 the first seven oil producing years were years 4 to year 11, well after the peak of production {year 7} and taxation began after the peak production fell by half. He asked for clarification. Ms. Glover explained that under the fall forecast a producer only qualified for three years of the GVR and not seven because they achieved the three-year maximum of over \$70/bbl. under the model. Vice-Chair Gara deemed that if the price remained below \$70/bbl. the taxes were exempted for 7 years. Ms. Glover answered in the affirmative.

[2:18:04 PM](#)

Vice-Chair Gara referred to the summary table on slide 17. He cited line 2 at \$50/bbl. under the status quo. He referred to the negative \$41 million figure under the Net Production Tax Paid column and the negative \$89 million listed under the Production Tax NPV 6.95 percent column. He inquired whether the NPV amounted to production tax minus deductions and credits. Ms. Glover answered affirmatively. He pointed to the last column titled Producer IRR (%) and noted the producers rate of return of 11 percent. He asked whether the percentage represented a profit. Ms. Glover replied that the internal rate of return (IRR) was different for different companies, but typically the IRR was calculated on a NPV of zero. Vice-Chair Gara asked whether there was a translation for an IRR that represented a net value or rate of return. Ms. Glover replied that producers were profitable at 11 percent, which incorporated the time value of money. She reported that the producer's NPV was positive indicating a positive investment value. Vice-Chair Gara referred to the GVR rate of 20 percent and asked whether the rate translated to an equivalent 20 percent discount on the tax rate or represented a larger tax discount. Ms. Glover responded that the 20 percent GVR was a reduction off the gross value before taxes were calculated and could have a larger impact on taxes.

[2:21:26 PM](#)

Representative Guttenberg had questions about the small and large field assumptions. He observed that the Capital Expenditure (Capex) and the Operating Expenditures (Opex) were significantly lower for the larger field. He wondered why the difference was so large when the scale of the costs was so high on large fields. Ms. Glover responded that the assumptions were based on previously developed assumptions by past consultants for the Department of Revenue (DOR) and was unaware of the basis of the assumptions. Representative Guttenberg asked whether other transportation costs outside of TAPS (Trans Alaska Pipeline System) were included in the model. Ms. Glover responded that the transportation costs were all inclusive.

Representative Wilson referred to the chart of slide 17. She asked whether the \$60 price range was projected over the life of the field. Ms. Glover responded in the affirmative and added that 2.25 percent per year inflation was factored in. Representative Wilson commented that she observed much larger price swings over the lifecycle years. Ms. Glover explained that the model was done around price points, which was the way fiscal notes were written. The model was designed to show "some representative price point analysis." Representative Wilson asked what the \$437 million [on line 2] under the Net State Gain column represented. Ms. Glover answered that the figure represented total state revenue that included production tax, royalties, property tax and corporate income tax. Representative Wilson asked about the revenue columns totals for the state and producer. She wanted to understand the total revenue for both under the scenario. Ms. Glover explained that the \$113 million under the state's NPV column included the total revenue for the state over the life of the field (30 years) and "converted it into like dollars to represent today's time value of money. The revenue columns were not additive. The \$437 million net state gain was the amount the state received over 30 years. The value of \$1 today was not the same in 30 years.

[2:25:45 PM](#)

Representative Wilson asked whether the state's \$437 million net state gain was equivalent to the Producer's Cash Flow column showing \$550 million. Ms. Glover indicated that she was correct. The state's gain and the producer cash flow were the total revenue over the lifecycle of the project. Representative Wilson wondered whether it was fair to say

that the state made almost as much as the producer without the risk. Ms. Glover responded in the affirmative. Representative Wilson asked that at the \$80 price point the state made more revenue at \$1.108 billion than the company made at \$973 million. Ms. Glover replied in the affirmative and added that the figures were under the status quo. Representative Wilson wanted to make sure there was an apples-to-apples comparison. She thought that the state was benefitting without risk under the status quo modeling.

Co-Chair Foster asked about the discount factor used for the state and the producer. He wondered why she chose to use 6.95 percent for the state and 10 percent for the producer and why they differed. Ms. Glover answered that 6.95 percent was the figure the Permanent Fund used as a rate of return and was the state's expectation for investment. She indicated that since the producer took risks and depended on cost recovery, 10 percent was allotted to the producer. Co-Chair Foster deduced that if a lower discount factor was used for the producer than the NPV would rise. Ms. Glover responded in the affirmative.

[2:28:54 PM](#)

Vice-Chair Gara did not understand the question about the state not assuming risk. He remarked that the state still offered tax credits under the status quo. Ms. Glover agreed. Vice-Chair Gara disagreed that the state took no risk because even under HB 111 the state would still reimburse producers but as a deduction from taxes owed. Ms. Glover answered that under HB 111 the losses were carried forward and treated like any other costs.

[2:30:06 PM](#)

AT EASE

[2:34:49 PM](#)

RECONVENED

Co-Chair Foster stated that the forthcoming modeling was interactive. [Secretary's Note: The interactive modeling was a live model and static copies were not available at the time of the meeting. The excel model titled "20170327 Castle Gap Advisors Dashboard" and the document titled "Petroleum Fiscal Design Model Instructions" were provided to the committee on March 28, 2017 (copy on file)]

Mr. Ruggiero provided a PowerPoint presentation titled "Model Session" dated March 24, 2017 (copy on file). He explained that he had been working on a full lifecycle model to present to the committee along with DOR's. However, issues arose with the data when modeling the NOL's at half the amount. He expected that the cut would produce a "significant hit" to the companies' "economics" but it did not. He relayed that he checked the data and the result had to do with utilizing the NOL's down to a zero-tax value even with a minimum tax. He furthered that building the model utilizing the NOL's down to the production tax value, which yielded the same tax as the minimum was a huge difference in how the NOL's were used. He related that when he modeled a \$10 billion project and the NOL's were cut 50 percent, the deductions were cut by \$5 billion. In a 35 percent tax bracket for the deductions totaling \$1.8 billion, a credit of \$1.4 billion was owed to the state, yet the numbers were one quarter of that amount. He thought that the reason was nuanced, and he did not fully understand it yet, therefore he did not present his model. He concluded that lots of moving parts raised many questions. He offered a "snap shot" one-year model.

Mr. Ruggiero continued that any of the parameters highlighted in yellow in the model were changeable. The model assumed 450 barrels per day of non-GVR production and 50 barrels per day of GVR. In addition, the cost structure, tax rates, GVR rates, federal rates, royalty percentages, and the gross minimum tax were all changeable. He pointed to two plots [graphs] on the right-hand side that portrayed the net effective tax on the left line [y axis - percentages zero at bottom and 50 percent at the top. The x axis represents price from \$20 to \$200] The orange line, which was flat, portrayed the revenue to the state in the current status quo. He noted that a change to the net tax curve changed the revenue to the state. He changed the GVR per barrel credit to \$5. The graph showed the orange net tax curve moved to a blue curve that represented changes in the model. The right axis opposite the y axis was read from the bottom to the top and began at minus \$600 million to \$1.4 billion. A green curve representing the change in state take rose up and over to \$404 million at the price on the x axis of \$80/bbl. Alaska North Slope (ANS) West Coast. The change to \$5 from \$8 increased the state's take from the status quo to \$404 million at \$80 per barrel. He noted that the figures were not exact, and the \$404 million

figure was in the range of \$375 million to \$425 million but offered "an order of magnitude" of results.

[2:41:58 PM](#)

Representative Wilson emphasized that the model determined what the state would lose or gain after changing inputs but did not predict production. Mr. Ruggiero answered in the affirmative. He offered that only a company knew it's "tipping point." There was a point at which companies could slow or stop investments, but he was unaware of the changes that would drive that result. He added that the decision was specific to each company based on its economics. Small changes could play a negligible or large role depending on the company's future forecast. Representative Wilson cautioned that members should be careful of "pulling too many levers" at once unless the full impact was understood. She suggested that dealing with the cash credits alone brought consequences; whether positive or negative, would be known next year. Mr. Ruggiero thought that Representative Wilson's approach was easier but required adjustments each year. He maintained that the model enabled the legislature to look at collective changes or individual changes and measure impacts and compare them to achieve a desired result. Representative Wilson maintained that the model did not predict production. Mr. Ruggiero responded that the model employed average costs, which was imperfect. He pointed out that different fields had cost structures that were lower or higher. He exemplified that ConocoPhillips reported a 10 percent rate of return at \$40/bbl. and the model used \$40 as the cost; real numbers were different. He stressed that the benefit of the model was that all the inputs were changeable and the shifts on the plot's curve were instructive. He pointed to the plot on the right side of the slide and reiterated that the model assumed that 90 percent of production was non-GVR and the plot on the bottom right portrayed net tax plotted on the left scale and state take plotted on the right scale where the model assumed the 10 percent GVR production.

[2:46:47 PM](#)

Vice-Chair Gara wanted the GVR readjusted to \$5. He asked at what price the adjustment "kicked in."

CHRISTINA RUGGIERO, CONSULTANT, CASTLE GAP ADVISORS, LLC, answered that the price was \$75 at the crossover point of zero.

Vice-Chair Gara wondered what dollar amount initiated an impact. Ms. Ruggiero responded that the amount was \$65.

Vice-Chair Gara referenced prior industry testimony on royalty relief. He believed that royalty relief was not factored into the model. He suggested that a change from \$0 to \$5 "could be far more offset by the amount of reduction in the royalty from 12.5 percent or 16.5 percent to 7 percent to 11 percent in gross tax. He inquired whether royalty relief was a greater benefit than a zero to five change. Mr. Ruggiero suggested that he run the numbers from the CS into the model. He input \$56 and \$62 for the gross minimum that initiated a change to 6 to 8 percent, and additionally inserted the \$60 per barrel credit, cut off at 3 percent GVR per barrel and going to zero at \$120. He returned to looking at the state take (green line) that depicted a \$200 million benefit to the state at a price of \$70 to \$80 per barrel. He changed the field production to 450 thousand barrels and applied the changes to determine how much royalty relief a company needed to bring them back to zero. He ascertained that deducting 2.5 points from the royalty zeroed out the revenue. He recapped that most non-GVR fields were at the 12.5 percent royalty rate and royalty relief could reduce up to 9 percent. The changes from the 2.5 percent reduction negated the changes made to the gross minimum tax and the per barrel sliding scale credits.

[2:51:46 PM](#)

Co-Chair Seaton referenced the DOR presentation. He hypothesized that if the state allowed "100 percent carry forward of the expenditures and they were written off over the first life of the field" how that impacted the minimum tax. Mr. Ruggiero explained that in the early years of a field, once production began a company deducted investment capital to bring the tax to zero, however, a minimum tax or hard floor could still apply, the minimum was paid even though the company had large amounts of carry forward losses to deduct.

Vice-Chair Gara returned to his royalty relief question and asked what the extra revenue to the state was at \$60, \$70,

and \$80 per barrel employing a zero to 5 percent credit. Ms. Ruggiero reported that at a \$60 price point the state generated \$135 million, at a \$70 price point the state gained \$240 million, and at an \$80 price point the state made \$270 million.

[2:54:17 PM](#)

Vice-Chair Gara asked whether the \$5, \$6, and \$7 credit and the zero to \$5 credit "kicked-in" at \$65/bbl. were stacked or alternative. Mr. Ruggiero responded that the results in the graph were additive to all the changes made. He indicated that the way to isolate a specific impact was to only change one item.

Ms. Ruggiero interjected that the figures she provided included a per barrel credit range from \$8 to \$3 and offered to change the number from \$5 to zero. She reported that at a \$60 price point the state generated \$135 million, at a \$70 price point the state gained \$240 million, and at an \$80 price point the state made \$670 million.

Co-Chair Seaton asked for clarification regarding the bottom right graph. Mr. Ruggiero answered that the bottom right graph represented GVR. He exemplified employing a hard floor. He reset the model back to normal and input a hard floor that resulted in a minimum tax. The minimum tax was initiated at roughly \$90/bbl. ANS West Coast price, but the amount of revenue was relatively small at approximately \$10 million. Mr. Ruggiero suggested changing the gross minimum tax back to the previous change along with a hard floor; a company would still only pay the minimum up to \$115/bbl.

[2:58:18 PM](#)

Mr. Ruggiero increased a new field's cost structure and related that as the costs increased the top plot's curve moved up and to the right since the 35 percent was fixed at \$150/bbl. The right-hand side of the curve remained fixed and the left side of the curve moved towards the right with a fixed price instead of the entire curve changing. The non-GVR field was at \$105/bbl. and below was subject to the minimum tax with the same parameters. The overall revenue to the state was negative because the higher cost structure meant less profit to share.

Mr. Ruggiero referred to the bottom graph that showed the GVR field with a hard floor and the previous points increased for the minimum tax percentages, then a GVR field would be subject to a minimum tax at \$145/bbl. or below. He clarified that the chart only reflected 1 year which was the reason the GVR remained in place above the \$70 cut-off; the model hypothesized that the price jumped to \$140/bbl. within one year. The GVR would be eliminated if the high price remained over several years and the top graph would indicate the results of the changes.

[3:00:49 PM](#)

Mr. Ruggiero pointed out that the net effective tax (the tax that was paid relative to profit), increased considerably as the parameters changed.

Co-Chair Seaton requested that Mr. Ruggiero return the model to the status quo and insert the per barrel credit provision in the CS. Mr. Ruggiero noted that the change went into effect at \$60/bbl. at \$8 per barrel and at every \$10 increment the amount was reduced by \$1 until the credit was at \$3 and subsequently jumped to zero. The results were shown in the upper right-hand plot.

Ms. Ruggiero reported that the change impacts began at \$80/bbl. where the state revenue increased by \$270 million and that remained relatively flat until the price reached \$120/bbl. and increased the state's revenue by \$540 million.

Co-Chair Seaton wondered why the per barrel credit had such an effect. Mr. Ruggiero replied that the change initiated the point where the 35 percent tax was payable decreased from \$150/bbl. to \$120/bbl. portrayed by the flat blue line. He added that for prices at \$80 or higher a \$2/bbl. increment was added. He stated that the flat plateau on the chart depicted the standard \$2/bbl. difference but after it made the jump from \$3 to zero a larger gap was created, and the line began to rise. He indicated that "with each \$10 increment it was coming back down until the two tax rates were equal and the revenue to the state was equal."

[3:03:40 PM](#)

Representative Guttenberg asked Mr. Ruggiero to repeat the scenario again.

Co-Chair Seaton asked Mr. Ruggiero to identify at what points and price the per barrel credit changed from the status quo. Mr. Ruggiero stated that relative to the status quo one change was made, which was to the sliding scale per barrel credit. He changed the starting price from \$80/bbl. where the decrement began to \$60/bbl. He explained that from \$0/bbl. to \$60/bbl. the highest credit of \$8 applied and every time there was a price step increase of \$10, a credit was decremented by \$1 through \$3 as the minimum credit; after \$3 the credit fell to zero. He pointed to the table located on the lower left that set and calculated all the parameters fed into the model. He detailed that there was a difference between the credits available under the status quo versus the CS at the point where the revenue line initially jumped up. The difference became \$2/bbl. because he started at \$60 and a \$6 credit applied versus an \$8 credit at \$80/bbl. The \$2 difference remained in place for roughly 150 million barrels per year totaling roughly \$300 million to \$270 million. The \$2/bbl. remained in place through the price points of \$90, \$100, and \$110 per barrel. He furthered that once the price reached \$120/bbl. the new oil dropped off to zero and the rest was subject to a \$4/bbl. credit. He added that at every subsequent \$10 increment, the credit dropped until the two tax rates equated to the point the per barrel credit was zero on both cases.

[3:07:15 PM](#)

Co-Chair Seaton asked Mr. Ruggiero to return to the model of \$5 per barrel credit flat across the board. Mr. Ruggiero replied that the result made the \$5 per barrel credit remain flat up to \$200/bbl. Co-Chair Seaton was not understanding the steps in relationship to the \$5 per barrel credit. Mr. Ruggiero responded that the status quo changed the per barrel credit every \$10. He noted that the \$5 flat credit input reacted to the status quo. He summarized that the stair step that Co-Chair Seaton observed was the "delta impact of the current \$8 down to zero in \$1 increments for every \$10 in price." Co-Chair Seaton asked whether the flat line indicated the status quo and the model portrayed changes from the status quo. He asked for clarification. Mr. Ruggiero responded that the revenue that rose and stepped down represented the point when the flat \$5 credit was less, equated, or more than the credit under the status quo. Co-Chair Seaton offered that the status quo was portrayed as a straight line across from

zero and the graphs depicted the changes in relation to the status quo shown as the flat line. Mr. Ruggiero responded in the affirmative and added that the parameters set at the status quo resulted in a flat green line from zero representing state take. Mr. Ruggiero clarified that the zero take was merely a starting baseline and did not indicate that the state had zero take. He recommended that the members utilized the model to gain the sense "of the relative importance or magnitude" of changing one parameter versus another. Co-Chair Seaton emphasized that the model was set at the status quo and any changes affected the current system. Mr. Ruggiero reminded the committee of what changes could be made by the model.

Co-Chair Seaton requested that the GVR models were run at 20 percent versus 30 percent and wondered what price the GVR intersected the state revenue line. Ms. Ruggiero reported that the impact was negative and at the \$80/bbl. the state take was minus \$16 million, which stepped down at the \$110/bbl. to minus \$52 million. Ms. Ruggiero added that at below \$80/bb. no change was affected.

[3:14:36 PM](#)

Vice-Chair Gara struggled with the GVR. He emphasized that he did not support the original provision. He asked for Mr. Ruggiero's opinion regarding the GVR provision. Mr. Ruggiero responded that statutes were implemented to instigate desired results. He related that a long-term goal of the legislature was to increase production. He recommended that the state decide what the proper incentives were to spur the development of new fields on the North Slope and increase production. Vice-Chair Gara stated that his goal was to increase production and state revenue and not fill the pipeline while losing state revenue. He referenced analysis that demonstrated a negative net present value to the state for GVR oil. He asked if Mr. Ruggiero was familiar with the analysis. He declared that his "benchmark was that he did not want to spend money on oil that was not making money for the state." Mr. Ruggiero referred to his previous testimony and deduced that the CS eliminated the practice of the state paying "up front" but the state contributed through foregoing tax via deductions. He personally did not endorse cashable credits but felt that the same incentive was accomplished through deductions and cost recovery tied to actual production. He surmised that the flat \$5/bbl. GVR

was an example of providing credit when production occurred.

[3:19:21 PM](#)

Vice-Chair Gara expressed reservation about using the term "uplift" for an interest rate that benefitted a company. He would have a difficult time explaining to his constituency why the state offered 8 percent interest on top of cash credits and loss carry forwards. He wondered whether there was an "uplift" percentage that was more reasonable. Mr. Ruggiero responded that 8 percent was the average return on a 50-year long-term curve. He explained that the use of the term "uplift" was very common in the industry. He reminded the committee that the reason large companies invested in countries with higher tax rates because costs were not deducted they were recovered with interest or uplift, which was the "norm." He elaborated that in Alaska a company deducted against its investment and then paid taxes compared to another regime where the company received total cost recovery and then began to pay taxes. The fact that the company could attain cost recovery much earlier than possible in Alaska added a "considerable upside" to a company's economics. He remarked that when measuring how the state compared to other regimes the comparison amounted to "more than headline tax rates." The other "moving pieces" in the tax system mattered. He maintained that "if Alaska allowed full deductions with uplift," the state would still not compare to other regimes that offered a "much more lucrative recovery." In response to a question by, Vice-Chair Gara, Mr. Ruggiero relayed that some regimes with a lower effective tax rate than Alaska offered full recovery of costs and uplift. He knew of many regimes with higher government take that offered full cost recovery and some form of uplift.

[3:23:30 PM](#)

Representative Wilson asked how many countries took royalties in kind. Mr. Ruggiero responded that he was aware of very few countries that took royalty in kind. He voiced that explaining every regimes royalty system was a very complex answer but indicated that very few countries took royalty in kind. Representative Wilson referred to Mr. Ruggiero's previous comments regarding cost recovery and uplift in other regimes. She asked for clarification regarding the producer's ability to recover costs earlier

then in Alaska. Mr. Ruggiero replied that the DOR model employed a 5-year investment period. He elaborated that in most other regimes the companies were investing during that time as well but the ability for cost recovery depended on whether production occurred. In addition, in most regimes projects were ring fenced; companies had to wait until production began before receiving cost recovery. He restated that the regime did not pay anything upfront, the producer had to produce oil to recover costs. Representative Wilson queried whether uplift began once production began. Mr. Ruggiero answered in the affirmative. He added that regimes either allowed every barrel that was not royalty oil or limited the number of barrels that were counted for cost recovery to ensure some government revenue. Representative Wilson stressed that the discussion should include the "complete number" including all the components of government take for Alaska or else it was difficult to compare "apples-to-apples." Mr. Ruggiero stated that a full project model was necessary to obtain the goal of increased production. Representative Wilson reiterated that she did not believe the current discussion considered the negative consequences of decreased production to the point of placing the pipeline in jeopardy.

[3:29:04 PM](#)

Representative Guttenberg appreciated the model. He wondered whether the majors were "sticking around" in case more production came online or new areas in the state opened for development. Mr. Ruggiero speculated that the major oil companies believed that "there was huge upside potential" in the state and that production would increase in its own time when each company was ready. He observed from personal experience that most major producers anywhere in the world divested in big projects after 30-35 years.

[3:32:16 PM](#)

Representative Guttenberg wondered what would happen if the major producers just walked away from the massive North Slope infrastructure and TAPS and let throughput decrease enough that the pipeline was forced to shut down. He asked what the risks were for the producers. Mr. Ruggiero believed that the companies were profit driven which would drive its decisions and hoped that the companies kept bringing new development online.

Co-Chair Seaton saw no further questions.

HB 111 was HEARD and HELD in committee for further consideration.

Co-Chair Seaton reviewed the agenda for the following day.

#

ADJOURNMENT

3:34:52 PM

The meeting was adjourned at 3:35 p.m.