

SENATE FINANCE COMMITTEE  
February 24, 2010  
1:34 p.m.

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CALL TO ORDER

Co-Chair Stedman called the Senate Finance Committee meeting to order at 1:34 p.m.

MEMBERS PRESENT

Senator Lyman Hoffman, Co-Chair  
Senator Bert Stedman, Co-Chair  
Senator Charlie Huggins, Vice-Chair  
Senator Johnny Ellis  
Senator Dennis Egan  
Senator Donny Olson  
Senator Joe Thomas

MEMBERS ABSENT

None

ALSO PRESENT

Pat Galvin, Commissioner, Department of Revenue; Dan Dickinson, Legislative Budget & Audit Consultant; David Wood, Legislative Budget and Audit Consultant; Senator Joe Paskvan; Senator Gary Stevens; Senator John Coghill

PRESENT VIA TELECONFERENCE

None

SUMMARY

2010 Oil and Gas Production Tax Review

Progressivity Profitability Parity Gas

Oil and Gas in Alaska's Production Tax

Gas Issues and Alaska's Fiscal Design

^Progressivity Profitability Parity Gas

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PAT GALVIN, COMMISSIONER, DEPARTMENT OF REVENUE, referred to a handout entitled, "Progressivity, Profitability, Parity Gas" (copy on file). He turned to slide 31 which showed a graph that deals with production tax attributed to gas under the proposed 15 AAC 90.220, or the AGIA tax inducement. He explained that the regulations merely put into place the way that the tax is figured. He emphasized that the numbers on the slide are being used for illustration only and do not represent reality.

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Co-Chair Stedman asked how the production tax value (PTV) on a barrel of oil (BOE) basis was calculated to arrive at \$47. Commissioner Galvin explained that the PTV on oil and gas was calculated using the combined taxable volume. Take ANS price on annual production and subtract the royalty value and you get a taxable volume. Do the same for the gas having to convert the volume into the BOE. He offered to provide the formula.

Commissioner Galvin referred to slide 32 and reminded the committee that the \$300 million figure is meaningless in actual value. He stressed that the value of the slide is to demonstrate a model. He explained the AGIA tax exemption formula on slide 32.

Co-Chair Hoffman pointed out that the model locks in the tax. He wondered if it takes away the state's ability to raise the tax. He wondered why the state should raise production taxes. He suggested setting the rate for the gas tax exemption.

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Commissioner Galvin addressed two issues raised by Co-Chair Hoffman. All of the gas represented in slide 31 is being transported on capacity acquired during the initial open season. It is likely that there will be some capacity acquired during this open season and in subsequent seasons. At that point if there is a change in production tax on gas the exemption would only be available to those who acquired capacity during the initial open season.

Commissioner Galvin said Co-Chair Hoffman was correct in that all of the gas is shipped on capacity acquired during the initial open season. The effect of the exemption is that the legislature could not raise the gas production tax effectively above the figure that is calculated in this method. He stated that he was presenting information in order for the legislature to decide if it was acceptable. The legislature will have to make a determination as to whether this calculation method results in a gas production tax that is locked in being and low.

Co-Chair Hoffman opined that the legislature might want to look at options where it is not locked into a gas production tax. He asked what options the legislature has if it decides not to lock in a gas production tax. Commissioner Galvin was not prepared to answer that question because of a legal issue regarding upstream inducement.

Co-Chair Stedman commented on the amount of flexibility the legislature has after May 1. Commissioner Galvin thought the legislature had the authority to make decisions regarding the production tax. The question raised was whether the legislature can change the nature of the inducement or eliminate the inducement between now and May 1. Commissioner Galvin did not have a legal opinion as to the answer to that question.

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Senator Thomas returned to the gas ratio scenarios previously discussed. He wondered if the inducement, in the form of a reduction in production taxes, is money that stays with the industry. Commissioner Galvin said yes. Senator Thomas suggested offering credits in the form of in-field drilling or some shaving of progressivity. He suggested these ideas as a way of saving money. Commissioner Galvin reminded the committee that the slide is just an example of a scenario. He suggested looking at the state's take under various scenarios. At different ratios the state would fare less well.

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Co-Chair Stedman wished for more information about the impact of the royalty inducement. Commissioner Galvin

explained that the royalty inducement provides a methodology for establishing the market value of gas for royalty calculations purposes using a methodology that would be more easily calculated by the producer than the current method. Under the inducement for value, there would be a calculation based upon published prices in the market. The change in the royalty value is a product of how closely the published prices are to the actual sales contracts. In an efficient market there would be little deviation in that value under either methodology. The benefit to the taxpayer is more predictability. The second royalty inducement has to do with the state's ability to switch between in-kind and in-value.

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Commissioner Galvin discussed the value issue. If it were to be taken in-kind, the state is obligated to meet the in-value price. The numbers should be similar at the end of the day. The benefit of the inducement is based on the certainty on the part of the producer as to whether or not the state is going to take their gas in-kind or in-value. Under the current leases, the state is able to switch with only a few months notice.

Co-Chair Stedman asked about the example and how the royalties apply if taken in-kind. Commissioner Galvin explained that royalty in-kind means taking the state's contractual right to a royalty in the form of gas. The only way that an in-kind take on the part of the state is going to effect the bottom line on the chart, is if the state chose to take its tax in-kind. He suggested several ways of making that calculation. Co-Chair Stedman requested that the commissioner provide more information. Commissioner Galvin continued to explain taking tax value in-kind.

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Commissioner Galvin turned to price expectations and forecasting challenges. He turned to slide 34, which shows a graph on oil/gas price parity. He questioned what would happen in the future.

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Commissioner Galvin explained slide 35 - U.S. DOE Energy Information Administration (EIA) forecasting, which is

widely quoted, but usually not accurate. He related the history of EIA's forecasting since 1980. He showed how EIA's forecasting is not even close - slides 36 and 37.

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Commissioner Galvin reviewed slides 38 and 39. In the past five years, the state has gone from an expected major gas shortfall to awash in gas. The question of what happens from 2020 to 2030 depends on what the relationship of oil to gas might be at that time. He concluded that the state needs an approach that adapts to any number of possible future states.

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Commissioner Galvin concluded by discussing policy issues associated with the gas tax. Slide 41 shows the gas tax policy options by 2014: the state's appropriate cash flow from a pipeline, the risks the state is willing to bear, and the level of certainty the state will provide. The fiscal system is a policy consideration and entails risks. The current system could be left as is, accepting that gas price risk is an incentive for producers. The state could eliminate the risk that combined oil and gas tax revenue would be less than the current oil tax. It could reduce the oil tax thus reducing the effect of price parity. Or, the state could separate or ringfence gas production for state production tax purposes.

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Co-Chair Hoffman asked if the options are available regardless of what happens in the open season. Commissioner Galvin said they were, to the extent that the gas production tax for the gas shipped on capacity is capped based upon the earlier methodology. Co-Chair Hoffman wondered how the lock-in coincides with the Alaska State Constitution, which says legislation cannot bind future legislatures from setting tax policy. Commissioner Galvin thought the legislative record was clear that the AGIA tax inducement was crafted with that in mind, in good faith.

Co-Chair Hoffman restated a statement that Commissioner Galvin made, "Except for the provisions of the formula that were set in AGIA, we can manipulate the gas tax structure." Co-Chair Hoffman asked which statement was accurate.

Commissioner Galvin explained that the statement was made assuming that the legislature would want to honor the exemption in the AGIA statute. Each legislature, moving forward, has the authority to decide to remove that exemption.

Co-Chair Stedman asked if there was any recourse the industry could bring against the legislature. Commissioner Galvin did not think so. He said that the legislature could decide whether or not to keep the exemption in place.

Co-Chair Stedman pointed out the May 1 deadline has no validity next January 20, 2011, when the legislature is back in session. Hypothetically, the legislature could scrap the whole thing and rewrite the gas tax. Commissioner Galvin stated that it has as much validity as the legislature chooses to give it.

[2:14:41 PM](#) AT-EASE  
[2:18:44 PM](#) RECONVENED

#### Oil and Gas in Alaska's Production Tax

DAN DICKINSON, LEGISLATIVE BUDGET & AUDIT CONSULTANT, referred to a handout out entitled, "Oil and Gas in Alaska's Production Tax"(copy on file). He began with slide 2 - "Why are we going through all these numbers?" He listed the following questions:

Is this system stable or robust and likely to be viable over a wide range of conditions (including a good environment for a gas project)?

Are the cross subsidies clear and rational?

How will the state react if there are large drops in tax revenue? To whom will it look for revenue?

He noted that there were two ways of measuring the issue:

How much does gas "drag down" or "compensate" oil progressivity?

How much will tax revenues fall because a gas project is added?

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Mr. Dickinson posed a scenario where the fall in revenues is so great that it eats up all the royalties due to the state. Co-Chair Stedman asked what numbers Mr. Dickinson was referring to.

Mr. Dickinson emphasized that he was talking about oil and gas values that have been seen in the market place in the Lower 48 and the kinds of costs it will take to achieve those values and who will bear the risks to do so. Mr. Dickinson restated that the main points remain how much oil sells at the market, which has fluctuated greatly.

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Mr. Dickinson explained slide 3 to explain how the combined oil and gas tax works. He detailed an oil-only scenario when oil is at \$80 per barrel. He explained the formula to get to \$4.2 billion, which is the total tax rate.

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Mr. Dickinson detailed how the scenario would change if gas were added. He explained the formula to get to \$821.6 billion total tax rate for stand alone gas.

Co-Chair Stedman commented that additional information would be added with the ratio of gas to oil in various scenarios.

Mr. Dickinson related that he chose this scenario because it depicts a 50/50 ratio of oil to gas.

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Mr. Dickinson pointed out that gas is not worth what oil is worth on an energy equivalent basis. He pointed out that in the examples he uses he has listed all upstream costs on the oil side. The cost of moving gas is borne by oil.

Mr. Dickinson continued to explain the tax formula using a combined scenario. He explained that the law considers the taxable value of everything. The total tax for the combined gas and oil scenario is \$4.1 billion, which is less tax than is generated by oil alone. He noted that credits would change the total dollar amount, but the relationships would be the same.

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Mr. Dickinson explained that there are different ways to measure the tax. The first total is the sum of stand alone oil and gas; the second number is the gain or loss in production tax from using current gas versus the stand alone analysis; and the third figure is the gain or loss in production tax from adding gas stream under current law.

Co-Chair Stedman asked Mr. Dickinson to point out the differences in the administration's plan.

Mr. Dickinson moved on to slide 4 which shows the previous scenario using numbers from January 2010. The tax is again lower by combining oil and gas.

Co-Chair Stedman asked if the figures were actual market values. Mr. Dickinson said they were. He stated that he took the most favorable of the numbers provided by TransCanada.

Mr. Dickinson moved on to slide 5: "Looking Forward: Combined Progressivity Tax (CPT)". The graph is based on real numbers from June of 2008. Gas and oil exported from the state are taxed at the same rate. Both are part of a combined progressivity calculation. Price swings in one can affect the tax on the other. Gas is shown converted to oil on a Btu basis, roughly six to one. Progressivity is triggered by \$30 BOE PTV. He explained the calculations shown on the graph.

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Mr. Dickinson noted that he was using several Gaffney Cline slides in his presentation.

Co-Chair Stedman asked if the presentation was given to the Joint Resources Committee. Mr. Dickinson recalled presentations to LB&A, Joint Resources, Senate Finance, and Resources.

Mr. Dickinson turned to slide 7 to explain the response to Mr. Dickinson from Gaffney Cline. The basic elements were introduced in the 2006 tax changes; the focus was on oil; and gas was "on hold" waiting for the release of the "Stranded Gas Development Act" contract (May 2006).

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Mr. Dickinson showed slide 8, a Gaffney Cline slide, which depicts cross subsidies and less tax. The cross subsidy issue caused by progressivity was also discussed at great length and it was shown how, under certain circumstances, the "effective" rate of tax on a higher cost/lower profitability development (such as gas or heavy oil) could be lower than the base rate. It was also noted that any evaluation involved many commercial and economic parameters that would need to be evaluated across a range of expected values.

Mr. Dickinson showed another Gaffney Cline slide. Slide 9 shows that pricing parity is key. One way to predict the future is to look at the past. The graph shows that the past was not a good predictor of the future.

Mr. Dickinson showed slides 10 - 12, updated Gaffney Cline slides under different scenarios.

Mr. Dickinson explained that slide 13 portrays a scenario where less combined tax is collected. It shows that modifying the oil/gas price parity is revealing. Around 13 is the point to declare the gas tax unnecessary.

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Mr. Dickinson described slide 14, another scenario where less combined tax is collected. Tax revenues fall with a parity ratio of 25. The amount collected equals less tax and overwhelms the royalty that would be paid. The higher parities result in less tax, not more.

Co-Chair Stedman asked if payments are made monthly. Mr. Dickinson responded that there is still a net cash flow to the state. The amount of tax has fallen so much that the state would still receive a royalty check, but it would be very small. Production tax and royalties are paid monthly, but would result in a net loss in revenue to the treasury.

Mr. Dickinson addressed slide 15, the impact of varying both oil and gas production and price ratios. When the oil and gas volumes are equal, there is maximum dilution at a given price.

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Mr. Dickinson noted the effects of volume. The numbers used in the graph that reflect future projections will not be so dramatic.

Mr. Dickinson summarized Gaffney Cline's findings and added his own comments on slide 17. A range of possible outcomes caused by ACES' structure was identified, reviewed and built into the final design of ACES to provide incentives to both existing SOA producers, as well as to new entrants. He questioned if these were well-targeted incentives.

Mr. Dickinson continued. When evaluating ACES and a possible gas line, reasonable results are obtained when real world input values are used. Reasonable results include material potential tax revenue losses from a gas line. He stated that nobody has brought forth expected, sustainable scenarios to show that ACES needs to be modified.

Mr. Dickinson turned to slide 18 - solutions. He suggested changing AS 43.55 before the open season. When revenues are actually impacted, add a recoupment factor outside of AS 43.55 - for example, in Income Tax or in a new section. He maintained that locking down current production taxes under AS 43.55 is not prohibiting any additional revenue enhancements in relation to a gas project.

He requested that AS 43.55 be left alone; instead, a revenue raising statute could be written.

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Co-Chair Stedman stated that the interest is not so much to increase state revenue, but rather to prevent a leakage or erosion of the entire gas revenue stream.

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RECONVENED

^Gas Issues and Alaska's Fiscal Design

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Co-Chair Stedman introduced David Wood whom the legislature hired a year and a half ago to help with an oil and gas tax structure.

DAVID WOOD, LEGISLATIVE BUDGET AND AUDIT CONSULTANT, referred to a handout entitled, "Gas Issues and Alaska's Fiscal Design" (copy on file). Mr. Wood reported that he brings an independent, detached perspective to the issues.

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Mr. Wood began with slide 2 - a presentation structure which focuses on the key issues pertaining to natural gas in Alaska in the context of establishing a long-term and enduring fiscal design:

What are the issues for Alaska's fiscal regime when applied to gas?

What are the fiscal designs applied by other countries?

What are the risks and opportunities for international gas suppliers?

Alaska's Prevailing Fiscal design Complications of combined oil and gas progressivity tax (CPT).

Multi-year and multi-scenario fiscal performance cash flow models.

Conclusions and recommendations.

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Mr. Wood turned to the issues for Alaska's fiscal regime when applied to gas. He explained that Alaska is one of several potential long-term suppliers of natural gas to the Lower 48 - slide 4. He noted that fiscal terms are one of several factor that influence the delivered price of gas into a market and it is important to understand differences among competing sources. He pointed out that the long-term competition to deliver natural gas to the Lower 48 is intense. He noted that the major companies that are invested in Alaskan oil are also involved with large gas investments in competing countries. He questioned why the Alaskan project was not yet sanctioned.

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Mr. Wood offered a slide which shows that international gas markets are growing, and competition for gas is increasing

- slide 5. North America is a relatively small market relative to other markets. He labeled the 2020 and 2030 forecasts as optimistic.

Mr. Wood pointed out that the major IOC's are signing long-term binding international gas agreements - slide 6. He showed a list of some of the large LNG sale and purchase agreements struck in 2009. He concluded that there is enthusiasm by the gas buyers and the international oil companies to enter into long-term gas agreements.

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Mr. Wood turned to slide 7 - worldwide new gas liquefaction developments to 2013 and beyond. He detailed several projects. The arrows show newly sanctioned operations. He noted that the volume of new gas increased worldwide by 12 percent between November and December 2009.

Mr. Wood noted that gas imports to the U.S. declined in 2008 for the first time in more than a decade - slide 8. The reason is primarily from the impact of shale gas in the Lower 48. Slide 9 shows that LNG imports to the U.S. are down. The U.S. market is out of synch with the rest of the world. Shale gas is the key factor.

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Mr. Wood reported that Canadian gas imports to the U.S. are down - slide 10. Slide 11 depicts the global LNG supply/demand forecast to 2020. The expectation is a period of low gas prices and a natural gas surplus. Sanctioning of the Alaska gas line will take place during this trend. Looking forward from 2014 to 2020, there will be an international gas deficit. He suggested considering the long-term value of LNG.

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Mr. Wood discussed the U.S. oil-to-gas price ratio and what range fiscal designs should consider - slide 12. The price parity numbers have risen to the 20 level in recent months.

Mr. Wood looked at the EIA forecast - slide 13. The latest U.S. government forecast shows high oil-to-gas ratios through 2035. He maintained that a price spike in a couple

of years would have a significant impact on gas value. He concluded that it would lead to cross subsidy dilution.

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Mr. Wood examined what fiscal designs are applied by other countries and what the risks and opportunities were. Slide 15 is a summary of international upstream oil and gas fiscal designs. Slide 16 looks at Norway, which has a mineral interest system, in fiscal terms. He made the point that they are progressive systems and do not have fiscal elements such as bonuses or royalties. There are also incentives such as credits in the system. He said the state take is 80 percent, higher than Alaska's take, and it still attracts foreign business for investment.

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Mr. Wood related the fiscal terms of Papua New Guinea - slide 17. The fiscal system is also a mineral interest system and a progressive fiscal system. Upsurge in interest in large LNG projects led to legislative changes offering progressivity and stability. Slide 18 examines Australia's fiscal terms. It also has a progressive system. He said Australia's fiscal take is similar to Alaska's. He suggested Alaska consider these designs.

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Mr. Wood turned to slide 19 - Alaska gas compared on an international scale of risk versus opportunity. The diameters of the bubbles are proportional to proved natural gas reserves.

Mr. Wood turned attention to Alaska's prevailing fiscal design. Slide 21 highlights elements of Alaska's prevailing oil and gas fiscal design. He explained the graph. The three points on the left stand out as regressive elements. Alaska is unique because its regressive elements are more significant than other countries' elements. No other country gives inducements at "this end of the scale". Mr. Wood said it is more logical the way Alaska applies aggressive elements compared to other countries.

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Mr. Wood explained the regressive and progressive elements of Alaska's design - slide 22. It is not common to see inducements rolled into a fiscal structure like Alaska does.

Mr. Wood highlighted key regressive elements in Alaska's design - slide 23. He suggested consideration of de-linking oil and gas in progressivity. The inducements at the progressivity end won't help investments being made in heavy oil, marginal fields, and when prices are low.

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Mr. Wood talked about how progressive and flexible fiscal designs help to promote investment - slide 24. He referred to slide 25 and maintained that progressivity should work well for Alaska. He compared fiscal take in Alaska with international companies. It's the regressive elements that need relief. The producer take is substantially less than the Alaska take under the current system. Combined progressivity is acting as an inducement. He suggested an area where inducements could help. He concluded that international companies are willing to be involved in projects that offer a far lower return than Alaska's current fiscal design. Putting a subsidy at high oil/gas prices does not make sense.

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Mr. Wood said that high discount rates suggest higher government take of revenues - slide 26. It is appropriate for governments to use lower discount rates than producers. High discount rates impact long-term divisible profits and operating costs more than upfront capital costs diminish producer take.

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Mr. Wood turned to complications of combined oil and gas progressivity tax (CPT). Slide 28 deals with problems with Alaska's current progressivity tax from the natural gas perspective.

Mr. Wood explained that slide 29 discusses the impact of natural gas on combined oil and gas production tax.

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Mr. Wood turned to a graph on slide 30 - natural gas dilution effects on combined oil and gas production tax. He showed the dilution affect at under various scenarios. The lower the gas production tax value, the greater the loss, in terms of the cross subsidy.

Mr. Wood referred to a presentation by Gaffney Cline & Associates (GCA) on February 22, 2010. He said he worked with their model and transformed it to calculate oil and gas combined BOE - slide 30. He stressed the importance of wide ranges. Gas price parity should be taken into consideration. He spoke of calculating the production tax values. He demonstrated calculations, described what they were doing, and showed a graphical version of the data.

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Mr. Wood described the modifications made to the GCA model to calculate BOE - slides 32, and 33. He discussed slide 34. He emphasized the importance of looking at stability at wide ranges when developing a fiscal design.

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Mr. Wood explained the production tax rate analysis for 1728 macro scenarios for combining oil and gas - slide 35. The state can end up with a huge range of production tax rates. The gas dilution effect is much less important at low prices.

Mr. Wood described his conclusions from the combined oil and gas production tax model - slide 36. He said he knew of no other country where a government would give a producer billions of dollars of subsidy through this type of mechanism. He stressed that individual snapshots are important, but represent only one particular possibility. He suggested considering a whole spectrum of possibilities.

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Co-Chair Stedman corrected that the model was from the Department of Revenue, not Gaffney Cline.

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Mr. Wood explained slide 37 - natural gas production tax dilution effects impacted by reinvestment. If some of the PTV is reinvested, the reduction in production tax paid is significantly greater. The graph shows the impact of a 10 percent reinvestment.

Mr. Wood pointed out in slide 38 that the natural gas production tax dilution is different depending on the reinvestment scenario. He spoke of the difficulty of predicting progressivity. There are many unknowns. Over a multi-year period, the oil-to-gas ratio of the North Slope will change as gas progressively replaces oil. Each company will have a different oil-to-gas ratio per field.

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Mr. Wood skipped to slide 41 - the implications of combined oil and gas production tax analysis. The analysis suggests that the prevailing production tax system has the following complications to address:

1. It is difficult to predict (from tax authority & producer perspectives) and relationships between oil and gas tax liabilities are non-linear;
2. The magnitude of combined production tax impact caused by adding a gas production stream varies with relative oil and gas PTVs, oil and gas volumes and percentage of PTV re-invested;
3. Without detailed analysis (and speculative forecasting of oil and gas prices and BOE contributions) Alaska's production tax outcomes can be counterintuitive (e.g. higher prices can lead to lower tax revenues collected by the State in some scenarios).

Mr. Wood did not think this type of structure was stable in the longer term.

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Mr. Wood turned to slide 42 - a diagram of Alaska oil and gas fiscal take and funds flow. It looks at what could potentially be done to address the issue of combined progressivity. The simplest solution is to de-link oil and gas components.

Mr. Wood explained slide 43 - alternative drivers of gas progressivity tax evaluated by fiscal model. The easiest first step is to separate gas and oil. If incentives are deemed to be needed to attract investment, the inducements should be directed at the regressive end of the spectrum, not into the progressivity area.

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Senator Egan asked what the deadline should be to make changes to the production tax. Mr. Wood believed that before May 1 would be ideal.

#

ADJOURNMENT

The meeting was adjourned at 4:09 PM.