

ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE

February 23, 2006

3:38 p.m.

MEMBERS PRESENT

Senator Thomas Wagoner, Chair
Senator Ralph Seekins, Vice Chair
Senator Ben Stevens
Senator Bert Stedman
Senator Kim Elton
Senator Albert Kookesh

MEMBERS ABSENT

Senator Fred Dyson

OTHER MEMBERS PRESENT

Senator Gretchen Guess
Senator Gene Therriault
Senator Hollis French

COMMITTEE CALENDAR

SENATE BILL NO. 305

"An Act repealing the oil production tax and gas production tax and providing for a production tax on the net value of oil and gas; relating to the relationship of the production tax to other taxes; relating to the dates tax payments and surcharges are due under AS 43.55; relating to interest on overpayments under AS 43.55; relating to the treatment of oil and gas production tax in a producer's settlement with the royalty owner; relating to flared gas, and to oil and gas used in the operation of a lease or property, under AS 43.55; relating to the prevailing value of oil or gas under AS 43.55; providing for tax credits against the tax due under AS 43.55 for certain expenditures, losses, and surcharges; relating to statements or other information required to be filed with or furnished to the Department of Revenue, and relating to the penalty for failure to file certain reports, under AS 43.55; relating to the powers of the Department of Revenue, and to the disclosure of certain information required to be furnished to the Department of Revenue, under AS 43.55; relating to criminal penalties for violating conditions governing access to and use of confidential information relating to the oil and gas production tax; relating to the deposit of

money collected by the Department of Revenue under AS 43.55; relating to the calculation of the gross value at the point of production of oil or gas; relating to the determination of the net value of taxable oil and gas for purposes of a production tax on the net value of oil and gas; relating to the definitions of 'gas,' 'oil,' and certain other terms for purposes of AS 43.55; making conforming amendments; and providing for an effective date."

HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: SB 305

SHORT TITLE: OIL AND GAS PRODUCTION TAX

SPONSOR(S): RULES BY REQUEST OF THE GOVERNOR

02/21/06	(S)	READ THE FIRST TIME - REFERRALS
02/21/06	(S)	RES, FIN
02/22/06	(S)	RES AT 3:30 PM BUTROVICH 205
02/22/06	(S)	Heard & Held
02/22/06	(S)	MINUTE(RES)
02/23/06	(S)	RES AT 3:30 PM BUTROVICH 205

WITNESS REGISTER

DR. PEDRO VAN MEURS, Oil and Gas Consultant to the Governor
Van Meurs and Associates Ltd.

Calgary, Alberta, Canada

POSITION STATEMENT: Delivered PowerPoint slide show on the
Petroleum Profits Tax (PPT"

ROGER MARKS, Petroleum Economist

Department of Revenue

PO Box 110400

Juneau, AK 99811-0400

POSITION STATEMENT: Delivered the "PPT Revenue Studies"
PowerPoint presentation for the Department of Revenue

ROBYNN WILSON, Director

Anchorage Office

Tax Division

Department of Revenue

PO Box 110400

Juneau, AK 99811-0400

POSITION STATEMENT: Commented on SB 305

ACTION NARRATIVE

CHAIR THOMAS WAGONER called the Senate Resources Standing Committee meeting to order at [3:38:57 PM](#). Present were Senators Ben Stevens, Bert Stedman, Ralph Seekins, Al Kookesh, Kim Elton and Chair Thomas Wagoner. Senators Gretchen Guess, Hollis French and Gene Therriault also attended the meeting.

SB 305-OIL AND GAS PRODUCTION TAX

CHAIR Thomas WAGONER announced SB 305 to be up for consideration. He asked Dr. Van Meurs to proceed.

DR. PEDRO VAN MEURS, Oil and Gas Consultant to the Governor, introduced the February 23, 2006 PowerPoint presentation titled "Petroleum Production Tax".

Slide 2 demonstrates that the Alaska fiscal system applied to oil and gas consists of four primary components: royalties, production tax (severance tax, "ELF"), property tax, and state corporate income tax. In addition, there is a federal corporate income tax.

The presentation relates to the international competitive aspects of the proposed petroleum production tax. Obviously, he said, when international fiscal system comparisons are done, the entire state and federal package is compared together.

Slide 3 provides an explanation of the PPT. The proposal outlined in SB 305 calls for a 20 percent tax rate and a 20 percent tax credit rate, a \$73 million tax-free allowance, and a capital expenditure (capex) clawback over the last five years. Capex includes all expenditures related to wells, facilities and such.

Slide 4 outlines the history of the project, which was finalized on February 14, 2006. Until early January 2006 his recommendation was for a 20 percent tax and a 15 percent tax credit based on the international competitiveness analysis, but as the results became known, he decided to amend that to a 25 percent tax rate and a 20 percent tax credit rate (25/20). Due to that change, the report contains reference to both 20/15 and 25/20.

The 20/20 concept and the capex clawback were suggested after the report was finalized so reference to that system, as the main feature in the report won't be found. However, Dr. Van Meurs said, from the perspective of international

competitiveness, the options are similar so the general conclusions of the report remain valid for the 20/20 concept.

Slide 5 is the table of contents.

Executive Summary

1. Introduction
2. New international trends in government take
3. Economic analysis
4. Analysis of the 20/15 PPT
5. Analysis of alternative PPTs
6. International competitiveness of the 20/15 PPT
7. International rating of the 20/15 PPT
8. Competitiveness and PPT rate
9. International rating of the 25/20 PPT
10. Heavy Oil Incentives
11. Review of 25/20 PPT

The table in Slide 6 considers the range of cost scenarios for different field sizes. For this kind of fiscal analysis it's important to consider a wide range of cost and field sizes because you don't know what size the next find will be. If the Arctic National Wildlife Refuge (ANWR) is ever opened it's important to have an adequate fiscal analysis in place so the state can receive maximum benefit. That being said, Dr. Van Meurs explained that the main focus of the economic work was on high cost fields of 50 million and 150 million barrels, since those field types represent North Slope conditions.

Slide 7 analyzes the 20/20 PPT when oil is \$40. The chart shows the royalties, PPT, property taxes, and state and federal corporate income taxes for "DRY HOLE," 50 MM, 150 MM and 500 MM barrel fields.

When you examine a DRY HOLE you see the numbers are negative meaning the amounts are deductible for PPT purposes because the PPT is now on a corporate basis. Looking at how much is returned from the government as a result of lower PPT or lower corporate income tax, you can see that, for \$40 oil, 64.7 percent of the well cost is returned to the investor. The DRY HOLE data clearly shows that the PPT is an enormously strong instrument for exploring or drilling other wells.

The next three columns show 50 MM, 150 MM and 500 MM. For the 50 MM field the PPT is -110.1. That means that for new investors the \$73 million tax-free allowance applies so for all practical purposes the investor won't pay the tax, but will receive the tax credits. For the larger fields the tax rapidly overcomes the

tax credits and a lot of PPT is payable. If you look at the overall "Alaska government take," you see that for a small 50 MM field it is 22.6 percent and that goes up to 35.4 percent for a 500 MM field. The "Federal government take ranges from 27.2 percent for the 50 MM field to 22.7 percent for the 500 MM field.

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Slide 8 illustrates that tax credits are important for small fields and that they have considerable impact on the break-even point. The chart is a sensitivity analysis for PPTs of 20 percent with no tax credit, a 15 percent tax credit, and a 25 percent tax credit. The break-even point is about \$22 per barrel, but with a 25 percent tax credit it rises to as much \$34 per barrel. The higher the tax credit, the higher the break-even price, he said.

He made the point that the tax credits make for a riskier system for the state. The more tax credits, the greater the chance there are negative values for fields. That emphasizes the importance of striking the right balance between tax rates and tax credits. He reminded members that he had previously recommended the 20/15 combination and then the 25/20 combination. He favors combinations in which the tax rates are combined with a somewhat lower tax credit rate.

Overall, the 20/20 combination is a riskier system than either 20/15 or 25/20. The graph clearly demonstrates that tax credits have an enormous impact on the crossover point.

Slide 9 shows the internal rate of return (IRR) for 150 million barrel fields under low well productivity and high costs. The higher the tax credits the higher the rate of return. The chart shows that with a 25 percent tax credit rate the IRR can be increased by as much as 5 percentage points for this size field. Clearly, the tax credits are the main instrument for improving the IRR, which is an important factor in making these tax payments so attractive for new investors.

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Slide 10 makes the following statement: The competitive position of the Alaska system was analyzed using the same field sizes. Eight fiscal systems were analyzed and they all reflect areas in the world where considerable investment is currently taking place. Those systems include: Norway, UK, US Gulf Coast, Alberta Oil Sands, Nigeria, Angola, Russia-Sakhalin, and Azerbaijan.

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Slide 11 establishes the principle that relative to other jurisdictions, Alaska has the disadvantage of a relatively low wellhead value due to high transportation costs and a lower quality than other crude in the world. As a result of those two factors, there is a \$7 differential between a barrel of oil produced in the Gulf of Mexico and a barrel of oil produced on the North Slope. The study takes that \$7 differential into consideration so if the rate of return for Alaska and other jurisdictions is the same, it means that it's already taken into account that the Alaska wellhead price is \$7 less than the Gulf of Mexico or \$5 less than Alberta.

The slide indicates that many nations have a lower wellhead price than the Gulf of Mexico. For instance, Azerbaijan has a \$6 differential. Dr. Van Meurs advised that he included Azerbaijan to make a comparative analysis between jurisdictions with low net back values or low wellhead prices.

DR. VAN MEURS explained that the next few slides show the actual international comparison of different fiscal systems that were studied.

The graph in slide 12 shows the rate of return for a 500 million barrel field in Norway and the United Kingdom. The British terms are very profitable and the Norwegian terms are somewhat less profitable. All the PPTs fall between the British and Norwegian terms.

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Slide 13 illustrates the IRR for a 50 MM barrel field for a first investment. The new investor would benefit from the \$73 million tax-free allowance. They wouldn't pay any PPT tax on the first discovery, but they would still receive the tax credit. The graph clearly demonstrates that by international standards, the first field would be very profitable. Once the price rises to \$30 or \$40 per barrel it doesn't matter much whether a PPT of 20/20 or 25/20 or 20/15 is selected, all have a high rate of return. That's because the tax isn't paid, but the tax credit is received so there's actually a negative PPT.

Slide 14 shows the average government take for a first investment in a large 500 MM barrel field. The worldwide spectrum of government take is represented here with the United Kingdom government take at 50 percent and the Norway government take at 78 percent. The government take for Alaska is about 60

percent for each of the various fiscal options. The government take includes the federal corporate income tax in addition to royalties, property tax, and the state corporate income tax so the PPT is just a small component. The options all have about the same take, but when you move from 20/20 to 25/20 there is a one or two percentage point increase in government take depending on price and cost levels.

Slide 15 illustrates the average government take for a first investment in a 50 MM barrel field. In this scenario the government take averages about 50 percent, but at very low prices it feathers off to the point of being uneconomic. That is in contrast to the last slide showing that a large field has a 60 percent government take.

Slide 16 deals with the competitive index covered in chapters 7, 8, and 9 of the report, which shows how competitive a system is. Dr. Van Meurs explained that the methodology is relatively simple. Collect a number of economic variables including rate of return, net present value, and government take for a number of different field sizes and cost conditions. In the study, 48 elements were evaluated for 10 different fiscal systems. If a fiscal system was the best in all 48 elements, then a rating of 48 was given. The fiscal system that was the worst of 10 was given a rating of 480.

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Slide 17 shows new investor ratings for a 20/15 and a 25/20 system. The US Gulf of Mexico with a score of 52 is best under the 20/15 rating while the Russia-Sakhalin score of 444 is the worst. The score for the Alaska Current system is 364 and the Alaska PPT score is 272. That means that a new investor would perceive the PPT as significantly more competitive than the Alaska Current system. He noted that even though he hadn't evaluated the 20/20 system the same would hold for that combination and certainly it would be more attractive to the new investor than the Alaska Current system.

Slide 18 relates to PPT and heavy oil. Heavy oil represents a new generation of oil in Alaska and it's important because there's an estimated 3 to 5 billion barrels of it on the North Slope. At this point not much is in production, but the idea is that PPT would also stimulate production of heavy oil.

The slide illustrates the importance of the tax credits for heavy oil because it is a very capital-intensive operation. The 25/20 system and the higher tax credit rates show little

difference, which is an important element in the conclusion that a 20 percent tax credit seems to be adequate to boost the rate of return for heavy oil by approximately 5 percentage points. That means a 25 percent tax credit isn't necessary.

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Slide 19 concludes that the 20/20 proposal results in very competitive terms for new investors and existing petroleum companies when analyzed from an international perspective.

It continues with the following statement: "The system will therefore result in more investment in Alaska, while at the same time creating much higher revenues, primarily from existing production and under average and high prices also from new production."

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SENATOR STEDMAN asked how old the data is on slide 17 that compares various international regimes. He related his impression that what is currently taking place in Alaska today has been taking place in other countries for the last two or three years.

DR. VAN MEURS replied the fiscal terms on slide 17 are based on the situation today and take into consideration the fact that some nations have already increased the fiscal terms. For example, the United Kingdom is rated based on the change made in December 2005 when it raised the overall tax rate from 40 percent to 50 percent. Similarly, the information for Norway is based on the latest version of the Norwegian fiscal system, which was revised last year.

DR. VAN MEURS related that Chapter 2 of his report questions whether or not the world is under upward pressure for government take. The answer, he said, is absolutely. That trend is very strong in this "new world." Until a few years ago the government take was sliding down, now the process has reversed.

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SENATOR ELTON referenced the 25/20 rating on slide 17 and asked if the scoring system reflects just the government take.

DR. VAN MEURS said no, scoring is based on four economic indicators: rate of return, net present value, expected monetary value, and government take. Those variables are applied to 12 different field/cost/revenue configurations to create the 48 element system. Investors like a high rate of return with a low

government take so if a system scores 1 it means it has the lowest government take with the highest rate of return on the present value.

SENATOR ELTON offered the view that investors would also look for stability. Given current events and what's happening in regimes around the world he surmised that Nigeria might be rated artificially high.

DR. VAN MEURS agreed then reiterated the point that this is just a fiscal rating for giving a general impression of improved competitiveness. He observed that, in general, the quality of a resource base is inversely proportional to the rating. The countries with the best ratings are places that have no oil and gas at all while the worst ratings are in the Middle East where large low-cost oil reserves are found. He acknowledged that apart from the fiscal elements on the chart, many other factors figure into an investor's decision.

SENATOR ELTON suggested that because political stability and fiscal stability are such major issues, a tax premium for factors that aren't reflected in the chart on slide 17 might be in order.

DR. VAN MEURS responded there are firms whose core business is doing different kinds of risk evaluations. His rating relates to the fiscal terms and doesn't address overall attractiveness.

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SENATOR BERT STEDMAN noted that on page 126 the report discusses the 25/20 system and in the overall rating section it talks about 25/20 being more attractive to new and small investors than the 20/15 system.

DR. VAN MEURS explained that the reason is that within a certain range the tax credit rate is actually more important than the tax rate itself. He added he's confident the 20/20 system will rate very well.

SENATOR STEDMAN noted that the chapter conclusion says "If it can be concluded that the 20 percent tax rate and the 20 percent credit would be competitive from the international point of view, and the overall government take would be similar to other countries that have equal or lesser resource quality, therefore it is a fair and reasonable system." He asked why one tax rate would be better than the other.

DR. VAN MEURS replied his recommendation for the 25/20 system as well as the work done by Mr. Marks and the Department of Revenue clearly indicated that the 25/20 system results in more revenues. The Governor has to take other factors into consideration and he settled on the 20/20 system. However, when you look at all the various systems, the government take isn't that different because the tax component is just one of a number of other components. He reminded members that he told the joint body that a 20 percent or higher tax and 15 or 20 percent tax credit are all competitive systems. Basically, all the systems in the range could be recommended, but when the tax rises to 30 percent then you start to lose competitiveness. His report also indicated that a tax rate of 10 or 15 percent is too low and not in the best interest of the state.

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CHAIR WAGONER asked by what percentage the government take differs between the 20/20 system and the 20/25 system.

DR. VAN MEURS replied the overall difference is about 2 percentage points, but in terms of money the difference is relatively large. According to Mr. Mark's graph for \$40 oil, there's about \$300 million difference per year between 25/20 and 20/20.

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SENATOR HOLLIS FRENCH asked Dr. Van Meurs to articulate and quantify the increased risk in the 20/20 system compared to the 25/20 system.

DR. VAN MEURS responded it's always a good idea to look at the risk in addition to the revenues. He clarified that he defines risk from a fiscal standpoint so the evaluation relates to what happens at low oil prices. The PPT is a profit-based system so if prices are low, you're worse off than with the current tax system. The higher the tax credits relative to the tax rate, the greater the risk because with down-side prices you have large tax credits that could be transferred to other companies. That would result in a significant reduction of the PPT. If prices are up and the tax rate is lower, you wouldn't collect much more than if the tax rate were higher. That's why, from a risk point of view, 20/15 and 25/20 are the two best combinations; the tax rates are higher than the tax credit rate. When prices are high the gains are greater than the credits that may be lost on the down side.

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CHAIR WAGONER asked Dr. Van Meurs to provide figures for government take for the proposed system as well as 5 and 10 percent peer group discounts.

DR. VAN MEURS agreed to do so and continued to explain that the competitiveness position changes depending on discount rates. With discount rates the Alaska Current system tends to drop in competitiveness, the PPT stays the same relative to others, and back-end loaded systems improve.

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SENATOR GENE THERRIAULT referenced data from Alberta Canada relating to government take. The information indicates that on the down side government take is up to 80 percent due to a royalty system that is somewhat regressive at low prices. For mid range the government take is about 70 percent and on the up side the government take is 65 percent. He noted that page 15 of the report says that on a \$50 MM barrel field as price goes up the government take rises to about 50 percent and for larger fields overall government take rises to about 60 percent. He asked why it's still lower than what Alberta receives and what a fair overall government take might be

MR. VAN MEURS replied Alberta doesn't have a low wellhead value like Alaska does so, on average, it is \$5 better off than Alaska. In other words, depending on cost conditions, if the government take were the same, the rate of return or net present value in Alberta would still be higher than in Alaska. The difference is due to transportation costs.

SENATOR STEDMAN referenced table 9.19 of the report showing percentage of government take and asked if he should be concerned that government take drops as price rises.

DR. VAN MEURS replied not necessarily. The purpose of the tidewater analysis was to illustrate what Alaska resources would look like if they were in Texas. The \$5 transportation fee was changed to a 12.5 percent royalty, which is a regressive system.

Other consultants were comfortable using the figures for comparative purposes. They show that overall government take for 20/15 or 25/20 is within the range of reason.

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SENATOR THERRIAULT asked how many international jurisdictions are modifying their tax systems.

DR. VAN MEURS explained that progressive nations are changing to a system in which the government take goes up automatically. His perception is that there is clear upward pressure on government take for oil so Alaska is well within the international framework. He added that isn't necessarily the case for gas because there is still a lot of stranded gas available.

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SENATOR THERRIAULT asked if the 20/20 system would be destabilizing if the price of oil were to rise to \$200 per barrel in the next five years because the state's share would drop at very high prices.

DR. VAN MEURS replied the typical government take with the lower netback has slight progressivity, but there isn't strong progressivity in the overall system as proposed. The reason is that the highly regressive royalty and the highly regressive property tax are canceled by the progressive PPT thereby creating a neutral system.

He noted that there are more progressive systems, but investors look at the entire range of prices and perceive more upside if there isn't as much progressivity. If you have progressive systems you typically pay the price on the downside. The focus of the Alaska proposal is to make sure that Alaska significantly improves its income on average.

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SENATOR THERRIAULT asked if any country has a system that's the same as the current proposal.

DR. VAN MEURS said no, but the Norwegian system is most similar to the PPT. The primary difference between the two is that Alaska has tax credits and the Norwegian system uses uplifts, which are extra cost allowances. Tax credits are more attractive to small investors because they can be sold the following year.

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SENATOR BEN STEVENS read the last sentence from slide 10 and asked Dr. Van Meurs if he considers Alaska to be a place in which "considerable investment is taking place."

DR. VAN MEURS replied he wouldn't say it's considerable, but he wouldn't qualify it as small either. The large oil companies are certainly doing interesting things on the North Slope, but not on the level that Alaska needs to avoid the decline of oil

production. Alaska would like a higher level of investment, which is why the PPT is designed the way it is.

SENATOR BEN STEVENS asked if the comparison relates to the fiscal terms on oil alone or oil and gas.

DR. VAN MEURS clarified the comparison is only for oil. The stranded gas contract is based on the concept that the state would take royalty and tax gas in kind, which involves a completely different set of circumstances. However, if the stranded gas contract does not come through, then the PPT would apply to gas, which would raise the question of whether or not the PPT is a competitive framework for gas as well.

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SENATOR BEN STEVENS referred to the comparisons between the Alaska production mechanisms and those in other countries and asked how many of those countries re-inject their gas, how many flare their gas and how many take their gas to market.

DR. VAN MEURS replied it's different from country to country. Norway has large gas fields that are already developed and it has very large export lines. The United Kingdom actively develops and uses its gas. In Nigeria significant flaring of gas is occurring so few projects are being done. The government recognizes that the flaring must stop for obvious environmental reasons and companies are in the process of putting in re-injection schemes. Angola already has significant re-injection of gas, but the market is small. Russia-Sakhalin has always been a joint oil and gas development scheme. Azerbaijan is not gas prone, but it is in the process of twinning its oil line with a gas line to supply gas to Georgia and Turkey. That export scheme is modest.

SENATOR BEN STEVENS said his point is that each country that Alaska is analyzed with has different economics in its petroleum industry, which is why he is suspect of blanket comparisons between Alaska and other international jurisdictions.

DR. VAN MEURS agreed and reiterated the fiscal comparison is just one of the components. Just because a system compares favorably from a fiscal point doesn't mean that investors should invest. Investors must also factor the resource base and the economic and political risks. Under no circumstance would he say that the fiscal comparison would stand alone in determining whether or not a company should invest.

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SENATOR STEDMAN asked how the \$73 million tax-free allowance was determined.

DR. VAN MEURS explained that he ran cases for \$50 million and \$100 million and the fiscal terms wouldn't change much. The \$73 million figure comes from allocating \$200,000 per day for 365 days. That calculation is convenient if tax is figured on a monthly basis.

SENATOR STEDMAN remarked it could amount to a substantial amount of revenue if a large number of small companies became investors. He said he'd think about that over the next several days.

DR. VAN MEURS responded it's true smaller companies will come to Alaska, but that isn't cause for concern. He suggested it would be a good idea if more small companies invested in the Fairbanks region or Cook Inlet. Those fields are marginal so the state shouldn't be concerned about the tax because economic activity and employment is created. In contrast, the North Slope will attract more large companies. Furthermore, the bill has specific anti-splitting provisions to discourage companies from splitting up solely for the purpose of paying less tax.

Alberta has worked with a similar system for decades and found it to be quite successful. Small companies receive fiscal incentives and create niches for themselves going after the marginal conventional oil wells while the large companies develop the oil sands and heavy oils. He suggested that something similar would probably evolve in Alaska.

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CHAIR WAGONER asked if a company operating under the 20/20 system could sell its credit.

DR. VAN MEURS replied definitely; that's what makes this fiscal system so attractive. For example if a new company came to Alaska to drill near Fairbanks, it would have little or no income. Because it has the \$73 million tax-free allowance it wouldn't pay the PPT. However, the investment would create the tax credits so the company's position has improved significantly. It has the tax credits, but it doesn't pay the tax. That, he said, is about the strongest stimulus you could give to encourage new investors to come to Alaska. The incentive is the same for small and large investors, but once a company

makes a significant discovery, the next investment wouldn't benefit. The goal is to attract new companies.

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SENATOR ELTON questioned the "shotgun" approach and asked why the state wouldn't target companies coming in and investing in frontier areas or in heavy oil. He questioned why the state should give a \$73 million credit to Exxon.

DR. VAN MEURS agreed that the \$73 million credit is applicable to all companies regardless of size, but targeting makes for a more complicated system, which is a disincentive from an investment standpoint. The goal is to balance simplicity with effectiveness.

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CHAIR WAGONER acknowledged the explanation, but if every oil company in Alaska receives a \$73 million discount every year for 20 years that would amount to \$4,380,000,000 for just the three major companies.

DR. VAN MEURS clarified the \$73 million is only the tax-free income.

CHAIR WAGONER said he didn't see the correlation between trying to attract new exploration and granting this to existing companies. Furthermore he didn't believe the three major companies are the only ones that top out over the \$73 million per year.

DR. VAN MEURS responded he'd defer to Mr. Marks, but that's why the assumption is for more.

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SENATOR THERRIAULT asked if there are many jurisdictions that offer the certainty that modifications are out of the government's reach.

DR. VAN MEURS replied about eight nations provide absolute fiscal stability and about ten nations provide a high degree of fiscal stability. Still others have modest fiscal stability provisions related to certain taxes. Few nations provide fiscal stability of the quality that is being contemplated in the stranded gas act. A number of nations have progressive fiscal systems without having fiscal stability.

It's possible to pre-design a strongly progressive fiscal system but you don't necessarily have to attach fiscal stability to progressivity.

SENATOR STEDMAN noted that the bill has a look-back provision for recapturing historical costs by means of a credit. He asked Dr. Van Meurs to comment on how that relates to the report.

DR. VAN MEURS explained that the capital expenditure clawback or look-back provision is a recent innovation that was added to the package after he delivered his report. Mr. Dickenson did most of the work on that provision and he would explain it in detail.

His understanding is that the idea is to allow major oil companies to pay less tax and deduct some costs from the previous five-year period. Apparently that applies only when oil is above \$40 per barrel. He further understands that in the entire scheme of things this feature is relatively modest, but that doesn't mean that it's unimportant.

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SENATOR SEEKINS asked if he still believes that the 25/20 system is fair.

DR. VAN MEURS replied from a fiscal point of view yes, but he's aware that the Governor must make decisions on a broader basis.

SENATOR SEEKINS commented he hadn't seen Dr. Van Meurs back down from his original report.

CHAIR WAGONER thanked Dr. Van Meurs and asked Mr. Marks to proceed.

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ROGER MARKS, Petroleum Economist, Department of Revenue, said he would compare the PPT revenues with the status quo. He informed the committee that he would describe: the department's model, long-term cumulative revenues, annual revenues, and corporate take. Tomorrow he would present how SB 305 affects small and new investors so the issue of the \$73 million tax free allowance, the marketability of credits and the conversion of losses to credits would be covered at that time.

To model how much money the state will get from the tax an important element is how much oil will be produced. That's difficult to forecast, but two scenarios were examined. The first relates to enhanced exploration and success in production.

That could be NPR-A, ANWAR, the Foothills, or the development of heavy oil. He also looked at whether or not there's a gas line because it affects oil production in three ways. First it suppresses oil production in Prudhoe Bay, but that would extend its life because many expenses could be shared with the gas. In terms of net, the estimate is that production would drop about 150 million barrels over about 30 years.

The second way a gas line affects production is the Point Thompson field. Those unit owners have represented that it's not economic to produce oil and reinject the gas to pressurize the reservoir because it's under such high pressure it's too expensive. The state has assumed that with a gas line Point Thompson is possible and without a gas line it isn't.

Finally, between Prudhoe and Point Thompson there's about 35 trillion cubic feet (tcf) of gas. A gas line would carry at least 50 tcf and the belief is that the additional 15 tcf of gas can be found and if the gas is found additional oil will be with the gas. The model shows about 600 million barrels of oil with yet to find gas.

MR. MARKS advised that the department looked at the high and low volume scenarios. The low volume scenario with no enhanced volumes and no gas line would have 5.5 billion barrels through 2030 including 0.8 billion barrels of heavy oil. No additional investment for heavy oil is modeled at prices below \$30. The volumes indicated come from the DOR Fall Revenue Sources Book, which include resources in development, resources under development and resources under evaluation. It assumes no new discoveries.

The high volume scenario with a gas line and enhanced volumes shows 10.5 billion barrels through 2050. That includes an additional 3.2 billion barrels of conventional oil with 700 million barrels net stemming from the gas line. Also included is an additional 1.8 billion barrels of heavy oil and no additional heavy oil at prices under \$30. Reports from state geologists and the USGS indicate that between ANWR, NPR-A and state lands an estimated 23 billion barrels for the mean case of commercial reserves could be discovered. Therefore, the volume scenarios range from 5.5 billion barrels to 10.5 billion barrels.

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Slide 6 shows a graph of the low and high scenarios. The fluctuation in the high volume line indicates that a series of fields are coming into production every five years. Interactive

effects were not modeled, but the department knows the following: with more investment there is more production; with incentives there is more investment; the PPT credits provide incentives. It also knows that when taxes are higher there is less investment and when prices are higher there is more investment. Furthermore, investment is driven by competitive international opportunities. What isn't known is how to quantify such future events, which is why the model took the volumes as "a given" and attributed all revenue effects to the tax mechanics.

Mr. Marks explained that slide 7 shows costs and prices. The department assumed the following costs: \$100 million per year in exploration costs through 2040; \$1 per barrel in on-going capital costs on all barrels; \$3.50 per barrel in development capital on two-thirds of the existing conventional oil; \$8 per barrel for development capital on two-thirds of the existing heavy oil; \$3.50 per barrel in developmental capital on new conventional oil; \$8.00 per barrel in developmental capital on new heavy oil; \$3.00 per barrel in operating costs on conventional oil; and \$5.00 per barrel in operating costs on heavy oil.

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Mr. Marks explained that the state has already been exposed to price and volume volatility in the taxes and it will also be subject to cost volatility. A sensitivity analysis indicates that if the per barrel estimates for on-going capital, development capital on conventional oil, and the operating costs are all off by \$1 that results in a \$200 million increase or decrease for the year. It could go either way depending on whether the costs are higher or lower, but the point is that there is exposure to volatility in the PPT.

In the model presented to the House and Senate Finance Committees, the department inflated costs at 2 percent annually to show nominal dollars. Subsequently the department realized that many of the results it was seeing are attributable to inflation alone. To correct for that, all costs and prices are now shown real 2005 dollars. To show sensitivities for different prices, heavy oil is discounted 8 percent for quality and viscous oil is discounted 4 percent.

Slide 8 relates to cumulative revenues for low and high volume scenarios. The low volume is through 2030 and the high volume is through 2050. Showing the revenue over such a long term

accentuates the difference in the volume scenarios as well as long-term trends. That's particularly so in the current system.

He explained that in the high volume scenario, which includes the gas line, the numbers shown include the upstream costs of developing the gas because that would be subject to the PPT. It doesn't include the severance tax revenues from gas because they will be included in the gas contract. Showing the gas line severance taxes with the PPT and with the status quo fiscal system would be a wash so they are not included.

He reiterated the PPT would include as deductions the upstream costs for developing gas at Point Thompson as well as the capital costs for new fields that are discovered. He explained that the borderline where the PPT stops is upstream of the point of production or the lease boundary. There would not be credits for the gas treatment plants or the main gas line.

Under the status quo severance tax at a \$5 Chicago price, the gas line revenue would amount to about \$1 billion per year. He cautioned that "if you want to include those in your mind you have to add them for both the status quo and the PPT as well so the thing we're seeing here is just the real difference between them."

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SENATOR THERRIAULT questioned why he included costs, but not the revenues and asked for a graph showing both.

MR. MARKS said he hadn't done that because he wanted to focus on the impact of the PPT. He agreed to provide that graph and advised that the difference between PPT and the status quo is exactly what would be shown.

SENATOR THERRIAULT responded it would ultimately be status quo and the gas contract.

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MR. MARKS said if PPT doesn't pass and there is a gas contract there would be the severance taxes from the gas line and the current severance tax for oil. If the PPT does pass and there's the same gas contract there would be the PPT oil revenues and the severance tax from the gas contract. Either way, he said, the severance tax from the gas contract is the same.

SENATOR THERRIAULT asked whether the flat 10 percent severance tax for gas would ratchet up.

MR. MARKS clarified there's the status quo severance tax for gas, which is 10 percent subject to ELF.

SENATOR THERRIAULT interjected saying Point Thompson is amazingly productive and more than likely the ELF on that would not change.

MR. MARKS responded it would have a very high ELF.

SENATOR THERRIAULT added the ELF isn't the same problem as for the gas that's anticipated.

MR. MARKS agreed.

SENATOR THERRIAULT continued to say that the dynamic for PPT is interesting. Dr. Van Meurs has indicated that there is more competition and more stranded gas on natural gas and under PPT the proposal is to move from 10 percent up to 20 percent. It's a strange dynamic if there's more competition but the tax isn't increased to potentially make it less competitive. Ultimately, he said, the comparison must be made with what's in the gas contract. Having that information now would be illustrative, he said.

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MR. MARKS reminded members that the numbers show the cost for the gas reducing the taxes, but not the revenues. He turned to Figure 2A on slide 9, which compares status quo and the 20/20 PPT under the low volume scenario. Remember though, he said, the current status quo [ELF] is a modest standard of comparison. The graph shows the crossover point is \$26.50 ANS West Coast price.

Figure 2B illustrates that slope is as important as crossover point. The graph compares hypothetical Plans A and B against the status quo. Plan A would be a low tax rate and low credit scenario. That crossover point is \$15. Plan B would be a higher credit and higher tax rate scenario. The slope is steeper and the \$20 crossover point is higher. When the ANS price is above \$25, Plan B with the higher crossover point starts making more money than Plan A. Clearly, he said, focusing on the crossover isn't enough; the slope is of equal importance.

SENATOR BEN STEVENS asked what the crossover point is a function of.

MR. MARKS said it's mainly the tax rate.

SENATOR BEN STEVENS asked if it's correct that the slope has higher sensitivity to the tax rate and less to the credit rate.

MR. MARKS responded the credit controls "how up down it is" and the tax rate how steep the slope is.

Slide 11, Figure 3A shows the status quo and 20/20 cumulative oil severance taxes between the years 2007 and 2050 for the high volume scenario. The scale is larger than Figure 2A because there's more oil over more years. The graph indicates a higher, \$33.80, crossover point. It includes the more expensive heavy oil and the gas line effects of costs, but not revenues. Depending on price the total revenues would range from \$3 billion less at low prices, to \$42 billion more at high prices.

Figure 3B shows status quo and 20/20 for the same high volume scenario as Figure 3A, but with 2.5 percent annual inflation. The severance tax values on the vertical axis are much larger and the crossover point drops because a large quantity of oil is sold at inflated prices at the tail end.

Slide 13 lists annual revenues for high and low volumes at \$20, \$40, and \$60 barrel oil.

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Mr. Marks suggested that Figure 4 demonstrates that at low prices there are larger problems than having chosen the wrong tax system. Under the low volume scenario and \$20 barrel oil, the average annual revenue is \$100 less than the status quo.

CHAIR WAGONER asked Mr. Marks to clarify that this is only 25 percent of the overall income from oil because corporate income tax, property tax and royalty wouldn't be affected.

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MR. MARKS responded the property tax wouldn't be affected but at \$20 oil the royalties and corporate income taxes would "be in the tank." He reiterated the point that at low prices, it's hard to make money regardless of the tax system.

Figure 5 shows \$40 oil under the low volume scenario. Under these conditions the average annual revenues are \$330 million more than the status quo.

He explained that the transition rules [Capex clawback] say that companies may take a 20 percent deduction for capital costs from

the last five years and moving forward over the next six years if oil prices are over \$40 per barrel. The graphs were made for \$40 barrel oil so if the price moves up just one cent the clawback deduction would apply and the PPT graph would be about \$170 million less per year for six years.

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SENATOR BEN STEVENS asked about \$39 barrel oil.

MR. MARKS responded the clawback doesn't kick in until oil rises above \$40 so the deduction isn't reflected in the graph.

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Mr. Marks pointed to Figure 6, which illustrates a low volume scenario at \$60 barrel oil. Under these conditions the average annual revenue for the 20/20 PPT is about \$900 million more than under the status quo and is equivalent to what the total state gas line revenues would be at \$4.70/mmbtu in Chicago.

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SENATOR THERRIAULT asked if the clawback had been added to the graphs showing costs.

MR. MARKS said yes; the department estimates that about \$1 billion has been spent in capital investment each year for the past five years. A 20 percent deduction on \$5 billion spread over six years is \$166 million per year. That represents the tax reduction to the state.

The rationale for the clawback provision is that if companies had known that PPT was coming they could have deferred some of the capital expenditures that were made over the past five years. He likened it to buying an item from a store one day and finding that it went on sale the next.

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CHAIR WAGONER disagreed with the statement.

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SENATOR BEN STEVENS added the business decision was made on the fact that it was possible to amortize the life of the investment, but with the change of system the amortization of the life of the investment isn't there any longer.

ROBYNN WILSON, Director, Tax Division, Department of Revenue, clarified that for state and federal income tax purposes there is still a depreciation deduction. What is currently

contemplated is moving to a production tax based on profit. Normally you'd expect depreciation deductions to be in there but the current plan proposes a write off in year one of all assets purchased. From an accounting standpoint it's important to match income and expenses; what you have is recently purchased assets that produce income that will be taxed as income with no representation for the write off of those recently purchased assets. She reiterated depreciation isn't allowed as a deduction for here on out, but what's contemplated is a transition provision to transition taxpayers and assets for a specific period of time.

Anytime a new tax system is put in place there is consideration of transition rules. This is an important rule here because the proposal is to move from a tax on gross to a tax on net.

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SENATOR BEN STEVENS clarified his previous statement saying that when the investment decision was made, there was a provision for depreciation on the schedule and this takes it away meaning the depreciation schedule is collapsed.

SENATOR STEDMAN said it's the impact of the severance tax today versus the PPT tomorrow.

MS. WILSON agreed with Senator Stedman and added there would still be federal and state deductions for depreciation and there would continue to be a deduction on the company's financial statements. The production tax is a move to a system of tax on net profit so this is effectively a depreciation. New assets will be written off in year one so there will be no depreciation deduction for them under PPT. Those assets will continue to have state and federal depreciation for income tax purposes.

SENATOR BEN STEVENS asked how an investor could take the deduction plus the credit on an investment in year one and then use the same investment and invest it over the normal amortization life on the state and federal side. He then asked whether the state tax isn't deducted from the federal and corporate obligation.

MS. WILSON acknowledged there are several ways to look at this, but in this instance there are two taxing authorities that will decide how much of the pie to take after having made separate calculations to determine how large the pie is in the first place.

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SENATOR BEN STEVENS said he's not concerned about the federal side he's concerned because it sounds as though there are two pies in the state system.

MS. WILSON responded the state currently has a corporate income tax based on profit and a severance tax that's currently based on gross. What is contemplated is leaving the corporate income tax as is and calculating the severance tax differently.

There are two taxing "buckets" and each "pie" is reviewed differently. To calculate the corporate income taxes, start with the federal taxable income and work from there. For the severance tax the same numbers are looked at a little differently and for a different purpose.

SENATOR BEN STEVENS interpreted that as a dual accounting system on the credit side.

MS. WILSON said she was speaking of deductions for depreciation instead of credits, but it's not unexpected for a company to make three or four different depreciation runs.

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SENATOR THERRIAULT stated that there is no change in depreciation in the state or federal system, but the companies are frustrated because they couldn't take advantage of a deduction to a system that didn't exist five years ago. The investments were made, but what wasn't known is what the price would be going forward five years. Now we know what the price was over those five years and I would portray, he said, that those companies have been well rewarded for the investments they made. It's certainly understandable why the companies would ask for the clawback, but he couldn't understand why it would be granted.

[6:02:20 PM](#)

SENATOR ELTON posed a hypothetical scenario. Company X made a \$100,000 capital investment in 2001 and on July 1, 2006 the depreciated value is \$50,000. He asked if the clawback provision would provide 20 percent of \$100,000 rather than 20 percent of \$50,000. If that's the case he questioned why the state would agree to that.

MS. WILSON replied the interpretation is correct. It could have been done on depreciated value and although that was considered the bill isn't written that way.

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SENATOR STEDMAN said if the bill is enacted and a company buys a piece of equipment and depreciates it over five years there would be a depreciation schedule on the state corporate income tax and there would also be a credit in the purchase year.

MS. WILSON answered yes.

SENATOR STEDMAN continued to say that in year two there would be no credit, but there would still be a depreciation schedule of four years.

MS. WILSON said for federal purposes yes, but as far as production tax is concerned they got a deduction for 100 percent of the equipment in year one and assuming that the credit wasn't carried over, they took the credit in year one as well. In year two they have nothing.

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SENATOR THERRIAULT asked if there was any data available on the investments made over the five year period with regard to the fields the investments were made in or the wells that were drilled.

MR. MARKS responded if SB 305 passes, the department would audit those costs. There's already general knowledge that money was spent in Prudhoe Bay, Kuparuk, Alpine, and North Star, but it's confidential taxpayer data so he wasn't sure about the provisions for providing that.

SENATOR THERRIAULT expressed frustration that those who delayed investment would now be rewarded for going forward.

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SENATOR ELTON said this creates a distortion to the system because the credits don't need to be taken in the year the investment was made. They could be used in an out year for a larger tax advantage or the credits could be sold to another party.

MR. MARKS clarified it isn't a credit; it's a deduction against net income subject to the 20 percent tax rate for the next six years unless prices are very low. As long as oil is above \$40 there isn't an option for when the benefit is realized.

MS. WILSON suggested the committee hold the question for Assistant Attorney General Mintz and Dan Dickenson.

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MR. MARKS turned Figures 7, 8 and 9, which show the high volume scenarios for \$20-\$60 oil prices. For \$20 oil the average annual revenues for 20/20 PPT are \$110 less than the status quo. When the price is \$40, the average annual revenues are \$190 more than the status quo and for \$60 oil the average annual revenues are \$800 million more than the status quo.

Figures 10 and 11 show graphs of the effective tax rate for low and high volume scenarios based on the wellhead value. He reminded members that the tax rate is currently based on the wellhead value, which is the market price less transportation costs with no consideration of the lease costs. With the PPT the tax rate is a flat 20 percent of net income.

Under the current system the effective tax rate is ELF multiplied by the nominal 15 percent rate. Figure 10 shows the effective tax rate on the same low volume basis with the PPT. The effective tax is defined as severance tax over the 25-year period divided by the wellhead value less the royalties. With the ELF and unaffected by price it's about a 5 percent tax rate under the status quo regardless of price. With the 20/20 PPT the system is progressive with regard to wellhead value. When the ELF was passed in 1977 it was intended to give a number of barrels tax-free to cover operating costs. As prices go up, fewer barrels would be needed so the tax rate would go up with price.

SENATOR ELTON questioned whether it's taken into account that the wellhead price would be different for company Y that isn't an owner of the transportation system than it would be for company X that is a partial owner of the transportation system.

MR. MARKS replied the statutes accept public tariffs as a suitable transportation deduction.

SENATOR ELTON observed that company Y, as a part owner, would receive a profit from the transportation system.

MR. MARKS agreed then turned to the high volume scenario in Figure 11 and noted that it is much the same.

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MR. MARKS concluded his comments with a review of corporate take. Figure 12 compares corporate take at the Department of Energy (EIA) forecast price of \$58 barrel gas under the status quo and the 20/20 PPT for a high volume scenario. The graph shows the breakdown of the projected \$600 billion in gross revenue over the next 45 years [2007-2050]. The breakdown includes: Capex, Opex [operating expenses], transportation costs, property tax, royalty, state CIT, severance tax, federal tax and finally the corporate take.

Focusing on severance tax, federal tax and corporate take illustrates that the severance tax increases under PPT and the federal income tax is noticeably less under PPT. Because the severance tax is deductible for federal corporate income taxes, the feds are picking up 35 percent of the tab from the companies for the PPT. The corporate take difference under the status quo is about 33 percent and under PPT it's about 30 percent. That means the corporation is left with about 30 percent of the \$600 billion, which is \$180 billion.

MR. MARKS informed members that he would be happy to run additional models if the committee so desired.

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SENATOR BEN STEVENS asked him to reiterate the modeling assumptions.

MR. MARKS recapped the following: The high volume scenario is for the years between 2007 and 2050. Multiplying 10.5 billion barrels of oil by the Los Angeles price of \$58 yields an estimated \$600 billion in gross revenues in real 2005 dollars.

CHAIR WAGONER asked Ms. Wilson to review the fiscal note.

[6:16:09 PM](#)

MS. WILSON pointed out that in terms of expenses the division assumes expanded auditing duties and because the bill contemplates expanding the credit program so credit auditing would increase. The division proposes to handle the added responsibility with three additional auditor positions. She advised that she also provided for a tax technician to handle the additional filings. Producers currently file monthly and a yearly filing will be added to "true up" the payments. The tax technician would handle the increased filings and the additional auditors would handle the increased audits.

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She drew attention to contractual positions and stated that is need for immediate temporary audit help. As Mr. Dickenson indicated yesterday about \$5 billion in assets need to be audited right away, because the transition deduction, which affects the depreciation, will be taken immediately.

The second critical issue relates to writing regulations and the overhead allocations because they need to be written immediately. She stated that she envisions using contractual money to hire outside auditors and help with the regulations. The last piece relates to increased costs for the additional programming that will be required.

On the revenue side the assumptions that have been made are listed and should mirror Mr. Marks' presentation. It also gives the revenue projections under three price scenarios. The first is the Department of Revenue (DOR) forecast prices from the fall Revenue Sources Book. She reminded members that those numbers were on a chart she presented on 2/23/06. The second price scenario is for \$40 barrel oil and the third is for \$60 barrel oil.

CHAIR WAGONER questioned how easy it would be to find three auditors.

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MS. WILSON acknowledged that is a challenge.

There were no further questions or comments and Chair Wagoner held SB 305 in committee.

There being no further business to come before the committee, Chair Wagoner adjourned the meeting at [6:21:47 PM](#).